A CATALOG OF THE DIPTERA OF AMERICA NORTH OF MEXICO

Agriculture Handbook No. 276

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A CATALOG OF THE DIPTERA OF AMERICA NORTH OF MEXICO

Prepared cooperatively by
specialists on the various groups of Diptera
under the direction of

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Introduction

The first catalog of the Diptera of North America was published slightly over a century ago by Osten Sacken in 1858, and a second edition by the same author in 1878. Carl Robert Osten Sacken (1828–1906), a Russian diplomat and dipterist, interested himself greatly in the American fauna and arranged for the first major, comprehensive study of that fauna by the German master dipterist Hermann Loew (1807–1878). Loew's ten Centuriae, "Diptera Americae septentrionalis indigena" (1861b–1872a), presented descriptions of 1,000 new species and many new genera. This series, Loew's "Monographs of North American Diptera" (1862c–1873b) and that authored by Osten Sacken (1869b), and the catalogs by the latter, laid a strong foundation for the taxonomy of Diptera on the North American continent. The tradition of comprehensive treatment was continued by two other outstanding dipterists, Samuel Wendell Williston (1852–1918), whose three editions of a "Manual of North American Diptera" (1888a, 1896a, 1908) stimulated and authoritatively influenced several generations of dipterists, and John Merton Aldrich (1866–1934), whose "Catalogue of the Diptera of North America" (1905) is the most recent predecessor of the present work.

Thus the most recent catalog of Nearctic Diptera is now nearly 60 years old. During this period many taxa within the order have been revised extensively and many new names proposed. The need for an up-to-date guide to the literature has long been apparent. In accordance with the interest expressed by many entomologists, the dipterists of the Entomology Research Division, U.S. Department of Agriculture, have prepared, in cooperation with other specialists, this synoptic catalog of the Diptera of America north of Mexico.

In scope, this catalog is a compromise between a checklist on one extreme and a complete work, listing all occurrences of every name in the literature, on the other. The former would be of limited value because of its brevity and the latter too costly, cumbersome, and perhaps noncritical. The most important functions of a catalog are to list all published names with a reference to the original publication of each, to distinguish between valid and synonymous names, to present as sound a classification as possible, and to give an indication of the distribution of the species. A catalog should also serve as a guide to important revisionary works, keys, and significant accessory information. Beyond this limit much could be added, but details can

better be left for revisions and monographs of families or other subordinate groups.

The scope of this catalog is as follows: 1. The zoological group treated is the Order Diptera, or two-winged flies, which includes the midges, gnats, and mosquitoes, as well as the insects more commonly regarded as flies. Species known only as fossils are not included. 2. The geographical area treated is North America north of Mexico, including Greenland, Bermuda, and the California Channel Islands, but excluding the Bahama Islands and Commander Islands. 3. It is believed that all pertinent names proposed from 1758 through 1962 are included as well as some 1963 names.

This catalog recognizes 1,971 valid genera and 16,130 valid species, distributed among 105 families. In addition, 374 nontypical subgenera, 236 non-typical subspecies, and 146 varieties are recognized. There are nearly 1,100 generic synonyms and over 3200 specific synonyms, not counting nearly a thousand emendations, errors, and misidentifications. In all, the catalog contains over 25,000 entries.

In the number of recognized taxa, this catalog represents a doubling of genera and a tripling of species since the last previous catalog (Aldrich, 1905). The latter covered a larger area, comprising North America in the widest sense, south to and including Panama, the West Indies, and Trinidad, but a count limited to the area of our present catalog, for direct comparison, showed 952 genera and 5,432 species recognized as of January 1, 1904.

General References

The student of Diptera requires more than a knowledge of species descriptions for an introduction to his subject. To provide a guide to the comprehensive publications that will be of assistance, we have presented for most of the families and some of the lower categories important references to keys, revisions, and works on biology and anatomy. These references are all annotated and unless otherwise stated the annotations pertain to the Nearctic Region only. At the beginning of the catalog proper we have listed the important sources of information pertaining to the Order Diptera as a whole. Most of these sources have bibliographies that will lead the reader to further works.

Certain works that do treat the order wholly or in large part are nevertheless excluded as general references for various reasons. For example the major works of Fabricius, Meigen, Macquart, Say, Osten Sacken, Loew, and Bigot are primarily descriptive in nature and are cited repeatedly under the new species described. Parts of composite series such as Wytsman's "Genera Insectorum," Lindner's "Die

Fliegen der Palaearktischen Region," the "Handbooks of British Insects," the Diptera of Connecticut series, and the California Insect Survey series have been cited at the family level only when relevant or of sufficient value for our region. The present catalog supplants, for the Nearctic Region, the catalogs of Osten Sacken (1858, 1878c), Kertész (1902–1910), Becker et al. (1903–1907), and the many volumes of the "Genera Insectorum," although these are often of historical interest. The information found in Coquillett (1910b) on the type-species of genera is either incorporated or corrected in this catalog. Also excluded are numerous faunal lists, some leading examples being those of Leonard (1928) for New York State, Johnson (1925b) for New England, Brimley (1938) for North Carolina, and Petch and Maltais (1932) for Quebec, but some of these are of doubtful value because the determinations are often questionable or the nomenclature out of date.

Classification

Time has not permitted a thorough study of the suprageneric classification, and this catalog is not a formal contribution to that field. Nevertheless, it was necessary to adopt some arrangement and to make decisions regarding the position of some families and other taxa about which dipterists have differed greatly. After weighing the evidence and opinions of modern authorities, we have adopted the present system. The arrangement of the families within superfamilies follows, with few exceptions, that of Hennig (1954, 1958a).

In the past, two suborders have usually been recognized, either the Nematocera and Brachycera, or the Orthorrhapha and Cyclorrhapha. Neither of these divisions is entirely satisfactory and as a compromise we have recognized three, the Nematocera, Brachycera, and Cyclorrhapha. Since the Suborder Pupipara has long been considered to have no phylogenetic validity, it has been eliminated.

The following list presents the arrangement of the families we have adopted, each with the number of valid genera and valid species in North America north of Mexico.

	Genera	Species
Suborder Nematocera	(417)	(5, 014)
Superfamily Tipuloidea	(62)	(1, 485)
Family Trichoceridae	3	27
Family Tipulidae	59	1, 458
Superfamily Psychodoidea	(17)	(107)
Family Tanyderidae	2	4
Family Psychodidae	12	87
Family Ptychopteridae	3	16
Family Nymphomyiidae	(1 unnamed)	(1 unnamed)

	Genera	Species
Superfamily Culicoidea	(121)	(1, 300)
Family Blephariceridae	5	22
Family Deuterophlebiidae	1	4
Family Dixidae	1	41
Family Chaoboridae	4	15
Family Culicidae	12	148
Family Thaumaleidae	2	5
Family Ceratopogonidae	27	348
Family Chironomidae	63	601
Family Simuliidae	6	116
Superfamily Anisopodoidea	(3)	(8)
Family Anisopodidae	3	8
Superfamily Bibionoidea	(8)	(80)
Family Bibionidae	6	78
Family Pachyneuridae	2	2
Superfamily Mycetophiloidea	(206)	(2, 034)
Family Mycetophilidae	53	612
Family Sciaridae	16	155
Family Hyperoscelididae	1	1
Family Scatopsidae	11	61
Family Cecidomyiidae	125	1, 205
Suborder Brachycera	(356)	(4, 408)
Superfamily Tabanoidea	(81)	(672)
Family Xylophagidae	7	26
Family Xylomyidae	2	9
Family Stratiomyidae	36	234
Family Pelecorhynchidae	1	1
Family Tabanidae	25	295
Family Rhagionidae	9	104
Family Hilarimorphidae	1	3
Superfamily Asiloidea	(170)	(1, 885)
Family Therevidae	13	130
Family Scenopinidae	6	21
Family Apioceridae	2	29
Family Mydidae	6	39
Family Asilidae	82	856
Family Nemestrinidae	3	6
Family Acroceridae	7	59
Family Bombyliidae	51	745
Superfamily Empidoidea	(105)	(1, 851)
Family Empididae	61	710
Family Dolichopodidae	44	1, 141
Suborder Cyclorrhapha	(1, 197)	(6, 702)
Division Aschiza	(153)	(1, 408)
Superfamily Lonchopteroidea	(1)	(4)
Family Lonchopteridae	1	4
Superfamily Phoroidea	(47)	(293)
Family Phoridae	38	226
Family Platypezidae	9	67
Superfamily Syrphoidea	(105)	(1, 111)
Family Pipunculidae	8	105
Family Syrphidae	88	939

	Genera	Species
Family Conopidae	9	67
Division Schizophora	(1, 044)	(5, 294)
Section Acalyptratae	(423)	(2, 351)
Superfamily Micropezoidea	(10)	(33)
Family Micropezidae	8	31
Family Neriidae	2	2
Superfamily Nothyboidea	(6)	(35)
Family Diopsidae	1	1
Family Psilidae	4	32
Family Tanypezidae	1	2
Superfamily Tephritoidea	(102)	(413)
Family Richardiidae	4	7
Family Otitidae	38	127
Family Platystomatidae	4	41
Family Pyrgotidae	3	5
Family Tephritidae	53	233
Superfamily Sciomyzoidea	(35)	(191)
Family Helcomyzidae	2	3
Family Ropalomeridae	1	1
Family Coelopidae	2	5
Family Dryomyzidae	2	8
Family Sepsidae	8	34
Family Sciomyzidae	20	140
Superfamily Lauxanioidea	(31)	(174)
Family Lauxaniidae	23	135
Family Chamaemyiidae	7	36
Family Periscelididae	1	3
Superfamily Pallopteroidea	(9)	(81)
Family Piophilidae	1	31
Family Thyreophoridae	1	2
Family Neottiophilidae	1	1
Family Pallopteridae	1	9
Family Lonchaeidae	5	38
Superfamily Milichioidea	(27)	(197)
Family Sphaeroceridae	3	117
Family Braulidae	1	1
Family Tethinidae	5	22
Family Milichiidae	15	52
Family Canaceidae	3	5
Superfamily Drosophiloidea	(86)	(534)
Family Ephydridae	65	347
Family Curtonotidae	1	1
Family Drosophilidae	17	179
Family Diastatidae	2	6
Family Camillidae	1	1
Superfamily Chloropoidea	(42)	(264)
Family Chloropidae	42	264
Unplaced Families of Acalyptratae	(73)	(426)
Family Odiniidae	3	11
Family Agromyzidae	16	189
Family Clusiidae	5	27
Family Acartophthalmidae	1	2

	Genera	Species
Family Heleomyzidae	23	113
Family Trixoscelididae	5	30
Family Rhinotoridae	1	1
Family Anthomyzidae	5	14
Family Opomyzidae	3	13
Family Chyromyidae	3	9
Family Aulacigastridae	1	1
Family Asteiidae	6	18
Family Cryptochetidae	1	1
Acalyptrate Genera of Uncertain Family Position	2	3
Section Calyptratae	(621)	(2, 943)
Superfamily Muscoidea	(131)	(1, 220)
Family Anthomyiidae	56	556
Family Muscidae	58	622
Family Gasterophilidae	1	4
Family Hippoboscidae	12	28
Family Streblidae	3	5
Family Nycteribiidae	1	5
Superfamily Oestroidea	(490)	(1, 723)
Family Calliphoridae	23	78
Family Sarcophagidae	48	327
Family Tachinidae	414	1, 281
Family Cuterebridae	1	26
Family Oestridae	4	11
Unplaced Genus and Species of Diptera	1	6
Totals	1, 971	16, 130

Explanatory Information

Some remarks on the format, arrangement, and treatment of certain other subjects are presented here. Valid names in the catalog proper (left hand margin) are printed in bold face type; cataloged synonymous names are italicized for both the genus- and species-groups. A separate catalog of names of the family-group is being prepared for publication by Sabrosky; hence, no authorship or references are given for these herein. Throughout the work the references are given by author, date, and page (rarely plate or figure) which will lead the experienced specialist quickly to the original paper. The full reference needed for library use can be found in the bibliography. A complete explanation concerning the format and use of the bibliography is found in its introduction.

Names of the genus-group are usually arranged phylogenetically, although for a few families the authors have preferred an alphabetical arrangement. Citations for the typical subgenus follow the generic rather than the subgeneric centerhead. Synonyms are listed chronologically. Except for errors or emendations, each name, whether valid or synonymous, is followed by the author, date, page, name of type-

species, nature of type fixation, and the present valid name of the type-species if there has been a change. For type-species, the original combination is cited. The generic name is omitted if the same as that of the genus for which it is the type. If the type-species is now a junior synonym, the present valid name is given as mentioned above, but its generic name is omitted, it being understood to be the genus under which the species now stands.

Examples (omitted generic names noted in brackets):

Genus VILLA Lioy

Villa Lioy, 1864a: 732. Type-species, *Anthrax concinnus* Meigen (Coquillett, 1910b: 619)=[*Villa*] *abbadon* (Fabricius).

Anthrax, group *Hyalanthrax* Osten Sacken, 1887a: 134. Type-species [*Anthrax*] *faustinus* Osten Sacken (Coquillett, 1910b: 553).

Subgenus HEMIPENTHES Loew

Hemipenthes Loew, 1869b: 28 (Cent. 8, no. 44) (as genus). Type-species, *Musca morio* Linnaeus (Coquillett, 1910b: 550).

Isopenthes Osten Sacken, 1886a: 96. Type-species [*Isopenthes*] *jaennickeana* Osten Sacken (Coquillett, 1910b: 556)=[*Villa*] *sinuosa* (Wiedemann) ssp.

Valid names of the species-group are arranged alphabetically following the generic or subgeneric centerhead, and the synonyms are indented and listed chronologically. Errors and emendations are listed immediately after the name misspelled or emended. Misidentifications are listed last, in alphabetical order. Parentheses, indicating a shift from the original generic combination, are placed around the author's name only for the valid names, not the synonyms. If there has been a generic name change or a change in status, the original generic name and/or status is given in parentheses following the reference. In some instances double references have been used, as explained in the introduction to the bibliography, for certain works that have been published twice, usually with different pagination.

Names below the species level are cited as subspecies or varieties and are arranged alphabetically, each followed by any appropriate synonymy. We recognize that there is great diversity of opinion as to the zoological concepts below the species level but we have accepted each contributor's decision as to which categorical term should be used.

The distributional information is usually presented only to the level of State, Province, or Country. The first item is the type locality (or localities in instances of allopatric syntypes) followed by a semicolon. If the species is confined to a few States or Provinces, these are listed separately. If more widespread, an overall distribution is

given by stating the corners of a rectangle or triangle. Distribution is stated almost always in a northwest to northeast and southwest to southeast pattern. Sometimes there may be a combination of these two methods, with an area of general distribution and outlying collection points. Alaska is treated as a separate unit, apart from northern or western United States, and the latter does not include Hawaii. "N.W.T." designates the Canadian province, but "Northwest Territory (U.S.)" means the historical territory of the north-central United States. If questionable records are included, these are preceded by a question mark and are placed after the accepted records. Exotic distribution follows Nearctic distribution.

In the synonymic lists, generic names based on exotic species are not included unless the names have come into significant usage in the Nearctic literature. Generic synonyms based on species described from North America are included, however, even though the names have not since been used in North America. Some spelling errors and emendations are included, but these are confined to those occurring frequently in the literature or those found in standard, frequently consulted works. Citations to these are not given if they can be found in Neave's "Nomenclator Zoologicus," (1939–1950).

Misidentifications are treated in two different ways. If the name of an exotic species has been erroneously applied to only one North American species, it is listed in the synonymy of that species; for example, "*punctatus*, authors, not Fabricius." A reference to the misuse may be given if it has been used only once but in a widely used publication. If the name has been misapplied to several valid North American species, or if the identity of the North American species apparently misnamed is unknown, then the name is cited in the proper alphabetical order in italics without citation, followed by the notation "not Nearctic."

Numerous names of dubious identity occur in the literature. Rather than place these in dubious synonymy preceded by a question mark, we have listed those for which the generic position is reasonably certain in the regular alphabetical order under the genus with the notation "Unrecognized."

Names of uncertain generic position are placed separately at the end of the applicable tribe, subfamily, or family, or if of uncertain subgeneric position, at the end of the genus. *Nomina nuda* are placed in synonymy if the application is known; at the end of the catalog proper if not known.

Certain general matters of nomenclature are briefly noted below:

1. Meigen, 1800. The long controversy over the numerous generic names of Meigen (1800) and those of Meigen (1803) perpetuated conflicting usage of names for some common and widely-studied

genera and families such as *Tendipes* (Tendipedidae) vs. *Chironomus* (Chironomidae). In accordance with an Opinion (I.C.Z.N., 1963b), under Suspension of the Rules by the International Commission on Zoological Nomenclature, we have placed the generic names of Meigen (1800) in synonymy.

2. Type designation. This has been strictly construed, as required by the International Code. On one point, however, our collaborators may not have been consistent. If a new genus is "erected for" or "based upon" a certain species, without use of "type-species," "genotype," or similar term, we construed that technically the author did not designate the type-species in the meaning of the Code. Presumption of intent to do so is not necessarily correct, especially for authors who did not usually designate type-species and who were merely indicating the monobasic nature of the new genus. In most instances, the genera involved are monobasic, and the point is only academic. The term "Gen. et sp. nov." or its equivalent, before 1931, is recorded as original designation, as provided by the Code.

3. Misidentified type-species. A number of genera and subgenera were based on type-species later found to be misidentified. Usually, in the interest of stability and zoological continuity, it is desirable to have the genus based on the zoologically correct species rather than the misidentified one. Under the International Code of Zoological Nomenclature, such cases must be submitted to the International Commission. Our format for such instances shows the originally included nominal species that was named as type, the type-fixation, the abbreviation "misident.," and the actual species involved, here accepted as the type-species. Example: The genus *Corethra:* "Type-species, *Tipula culiciformis* De Geer (mon.; misident.) = *lateralis* Meigen." To conform to nomenclatural requirements, application should be made to the International Commission, but time did not permit securing the necessary decisions for this catalog.

4. Retention of nomenclaturally unacceptable names. For a few taxa, specialists have elected to maintain names that are invalid or unavailable under the International Code. In such instances, authors or the editors have pointed out the name that is correct under the Code. Use of the incorrect name, if judged desirable, would require suspension of the Rules by the International Commission under its plenary powers.

5. Gender. A special effort has been made to use the appropriate gender for each generic name (new Code, Article 30a; Stoll et al., 1961). Following this rule sometimes required a change in the terminations habitually applied to specific names. For example, generic names ending in *-odes* and *-oides* are treated as masculine, and those ending in *-stoma*, *-soma*, *-stigma*, and *-ceras* as neuter. Latinized

forms with changed terminations take the gender appropriate to their endings; hence, names ending in *-stomus*, *-somus* or *-cerus* are masculine, and those ending in *-cera* are feminine.

Names ending in *-ops*. There has been great divergence of opinion even within the same order, family, or genus, as to whether names of the genus-group ending in *-ops* are masculine or feminine. We have treated them as masculine throughout this catalog. In some instances this may be at variance with the decision of the International Commission in Declaration 36, but we consider our treatment fully justified as promoting uniformity and as a mnemonic aid, in addition to being classically correct. According to Prof. L. W. Grensted, Classical Adviser to the International Commission on Zoological Nomenclature, there is no classical use of the feminine gender for names ending in *-ops*.

The abbreviations used in the catalog and bibliography are as follows:

General

abt.—Abteilung
anat.—anatomy
art.—article
aut.—automatic
beih.—Beiheft
bibl.—bibliography
biol.—biology
cat.—catalog
cent.—central
classif.—classification
comb.—combination
concl.—conclusion
cont.—continued, continuation
des.—designation
descr.—description
div.—division
e.—east, eastern
ed.—edition, editor
emend.—emendation, emended
estab.—established
fasc.—fascicle
fig., figs.—figure, figures
h.—Heft
I., Is.—Island, Islands
I.C.Z.N.—International Commission on Zoological Nomenclature
ident.—identify, identified, identification
introd.—introduced
lfg.—Lieferung
livr.—livraison
misident.—misidentified
mon.—monotypy, monotype, monobasic
monog.—monograph
mt., mts.—mountain, mountains
n.—north, northern; new
ne.—northeast, northeastern
no.—number
nw.—northwest, northwestern
orig.—original
p., pp.—page(s)
pl., pls.—plate, plates
pt.—part
preocc.—preoccupied
rev.—revision
rpt.—report
s.—south, southern
se.—southeast, southeastern
sec.—secretary
sect.—section
ser.—series
sp., spp.—species
ssp., sspp.—subspecies
sub.—subsequent
subg.—subgenus
sw.—southwest, southwestern
syn.—synonym, synonymy
t.—Teil
tax.—taxonomy, taxonomic
var.—variety
vol.—volume
w.—west, western

Geographical Names

Ala.—Alabama
Alta.—Alberta
Amer. (N., S., Cent.)—America
Ariz.—Arizona
Ark.—Arkansas
Baja Calif.—Baja (Lower) California
B.C.—British Columbia
Calif.—California
Chih.—Chihuahua
Coah.—Coahuila
Colo.—Colorado
Conn.—Connecticut
D.C.—District of Columbia
Del.—Delaware
D.F.—Distrito Federal, Mexico
Fla.—Florida
Ga.—Georgia
Ill.—Illinois
Ind.—Indiana
Kans.—Kansas
Ky.—Kentucky
La.—Louisiana
Labr.—Labrador
Man.—Manitoba
Mass.—Massachusetts
Md.—Maryland
Mich.—Michigan
Minn.—Minnesota
Miss.—Mississippi
Mo.—Missouri
Mont.—Montana
N.B.—New Brunswick
N.C.—North Carolina
N. Dak.—North Dakota
Nebr.—Nebraska
Nev.—Nevada
Nfld.—Newfoundland
N.H.—New Hampshire
N.J.—New Jersey
N. Leon—Nuevo Leon
N. Mex.—New Mexico
N.S.—Nova Scotia
N.W.T.—Northwest Territories
N.Y.—New York
Okla.—Oklahoma
Ont.—Ontario
Oreg.—Oregon
Pa.—Pennsylvania
P.E.I.—Prince Edward Island
P.R.—Puerto Rico
Que.—Quebec
R.I.—Rhode Island
Sask.—Saskatchewan
S.C.—South Carolina
S. Dak.—South Dakota
Son.—Sonora
Tam.—Tamaulipas
Tenn.—Tennessee
Tex.—Texas
Va.—Virginia
V.C.—Vera Cruz
Vt.—Vermont
Wash.—Washington
Wis.—Wisconsin
W. Va.—West Virginia
Wyo.—Wyoming
Y.T.—Yukon Territory

New names proposed in this catalog

Anthomyiidae:	*Hylemya angustiventralis* Huckett
	H. flavidisquama Huckett
	Pegomya intersecta arcticola Huckett
	P. rubriceps Huckett
	Pleurochaetella Vockeroth
Asilidae:	*Asilus carolinae* Martin and Wilcox
	Laphria asackeni Wilcox
Bombyliidae:	*Bombylius lassenensis* Johnson and Johnson
	Phthiria loewi Painter
	Villa coquilletti Painter
Cecidomyiidae:	*Cecidomyia candidipes* Foote
	Rhopalomyia truncula Foote

Chironomidae:	*Anatopynia dena* Roback
	Diamesa garretti Sublette and Sublette
	Pentaneura gesta Roback
Dolichopodidae:	*Diaphorus vanduzeei* Robinson
	Medetera wheeleri Foote, Coulson, and Robinson
	Peloropeodes discolor Robinson
	Tachytrechus greenei Foote, Coulson, and Robinson
Empididae:	*Empis barbatoides* Melander
	E. cometes Steyskal
	E. delumbis Melander
	E. desiderata Melander
	E. longeoblita Steyskal
	E. nodipoplitea Steyskal
	Rhamphomyia currani Steyskal
	R. formosula Melander
	R. soleata Melander
Heleomyzidae:	*Suillia thomsoni* Gill
Muscidae:	*Phaonia fuscana* Huckett
	P. pallidosa Huckett
	Pseudophaonia orichalceoides Huckett
	Quadrularia Huckett
	Spilogona bifimbriata Huckett
	S. spinicostalis Huckett
Mycetophilidae:	*Exechia adamsi* Laffoon
	Leia joculator Laffoon
	Mycetophila alea Laffoon
	Platyura willistoni Laffoon
	Sciophila puta Laffoon
Sciomyzidae:	*Limnia loewi* Steyskal
Sphaeroceridae:	*Olinea* Richards (*Copromyza* subg.)
Syrphidae:	*Baccha loewi* Sedman
	Chrysosyrphus Sedman
	Helophilus colei Wirth
	Melangyna coquilletti Sedman
	Melanostoma willistoni Sedman
	Xylota cascadensis Weems
Tachinidae:	*Atactopsis reinhardi* Sabrosky and Arnaud
	Chaetogaedia townsendi Sabrosky and Arnaud
	CHAETOGAEDIINA (subtribe)
	Cylindromyia propusilla Sabrosky and Arnaud
Therevidae:	*Dialineura willistoni* Cole

Tipulidae:	*Tipula stonei* Alexander
Trixoscelididae:	*Trixoscelis melanderi* Vockeroth

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Alexander, Charles P.—Anisopodidae, Pachyneuridae, Ptychopteridae, Tanyderidae, Tipulidae, Trichoceridae
Arnaud, Paul H., Jr.—Tachinidae (with Sabrosky)
Bequaert, Joseph C.—Hippoboscidae, Nemestrinidae
Beyer, Erwin—Phoridae (with Schmitz)
Camras, Sidney—Conopidae
Cazier, Mont A.—Apioceridae
Chillcott, J. G.—Cuterebridae, Gasterophilidae, Oestridae
Cole, F. R.—Therevidae
Cook, E. F.—Chaoboridae, Hyperoscelididae, Scatopsidae
Coulson, Jack R.—Dolichopodidae (with Foote and Robinson), Bibliography (with Sabrosky and Muller)
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Downes, William L., Jr.—Calliphoridae (Melanomyini), Sarcophagidae
Foote, Richard H.—Cecidomyiidae, Cryptochetidae, Dolichopodidae (with Coulson and Robinson), Rhinotoridae, Ropalomeridae, Tephritidae
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Hubert, Alexander A.—Dixidae
Huckett, H. C.—Anthomyiidae (except Scatophaginae), Muscidae
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Kennedy, Harry D.—Deuterophlebiidae
Kessel, Edward L.—Platypezidae
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Martin, Charles H.—Asilidae (with Wilcox)
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Melander, A. L.—Empididae
Muller, Irmgard—Bibliography (with Coulson and Sabrosky)
Painter, Reginald H. and Elizabeth M.—Bombyliidae
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Richards, O. W.—Sphaeroceridae
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Sabrosky, Curtis W.—Anthomyzidae, Asteiidae, Chloropidae, Diopsidae, Milichiidae, Odiniidae, Periscelididae, Tachinidae (with Arnaud), Bibliography (with Coulson and Muller)
Schlinger, Evert I.—Acroceridae

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Schmitz, H.—Phoridae (with Beyer)
Sedman, Yale S.—Syrphidae (with Weems and Wirth)
Shewell, G. E.—Lauxaniidae, Pallopteridae, Psilidae
Steyskal, George C.—Acartophthalmidae, Clusiidae, Dryomyzidae, Helcomyzidae, Micropezidae, Neriidae, Otitidae, Piophilidae, Platystomatidae, Pyrgotidae, Richardiidae, Sciomyzidae, Sepsidae, Tanypezidae, Thyreophoridae
Stone, Alan—Blephariceridae, Braulidae, Culicidae, Sciaridae (with Laffoon), Simuliidae, Thaumaleidae
Sublette, James E. and Mary S.—Chironomidae
Vockeroth, J. R.—Anthomyiidae (Scatophaginae), Coelopidae, Neottiophilidae, Opomyzidae, Tethinidae, Trixoscelididae
Weems, Howard V., Jr.—Syrphidae (with Sedman and Wirth)
Wenzel, Rupert L.—Nycteribiidae, Streblidae
Wheeler, Marshall R.—Drosophilidae
Wilcox, J.—Asilidae (with Martin)
Wirth, Willis W.—Aulacigastridae, Canaceidae, Ceratopogonidae, Curtonotidae, Ephydridae, Lonchopteridae, Syrphidae (with Sedman and Weems)

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Order DIPTERA

References: General. Brues, Melander, and Carpenter, 1954; Comstock, 1940; Curran, 1934a, 1942b; Essig, 1958; Hendel, 1928b; Imms, 1957; James, 1948; Lindner, 1925–1929, 1931–1935, 1936a, 1940–1949; Oldroyd, 1949; Roback, 1951; Séguy, 1951; Williston, 1908; Wirth and Stone, 1956.

Biology and immature stages. Brauns, 1954a, 1954b (terrestrial); Chu, 1949; Clausen, 1940 (entomophagous); Hennig, 1948, 1950, 1952; Johannsen, 1934b, 1935 (aquatic); Johannsen and Thomsen, 1937 (aquatic); Malloch, 1917g; Peterson, 1951; Séguy, 1950.

Anatomy and morphology. Cole, 1927 (male terminalia); Comstock, 1918 (wings); Crampton, 1942; Friend, 1942 (wings); Hennig, 1954, 1958a; Peterson, 1916 (head and mouthparts); Snodgrass, 1935.

Suborder NEMATOCERA

Superfamily TIPULOIDEA

Family TRICHOCERIDAE

(Petauristidae, Melusinidae)

By Charles P. Alexander

This is a small family commonly known as the "winter crane-flies," comprising six known genera with fewer than 100 described species. The North American *Trichocera* species need further revisionary studies. The larvae are saprophytic and occur in decaying vegetable matter, such as rotted leaves, roots and tubers, fungi, cattle manure, and other comparable habitats.

REFERENCE: Alexander, 1942b (review).

Genus DIAZOSMA Bergroth

Diazoma Wallengren, 1881: 180 (preocc. Lamarck, 1816). Type-species, *Trichocera hirtipennis* Siebke (mon.).

Diazosma Bergroth, 1913: 583 (n. name for *Diazoma* Wallengren). Type-species, *Trichocera hirtipennis* Siebke (aut.).

subsinuatum (Alexander), 1916d: 124 (*Trichocera*).—Colo.; B.C. to N.B., s. to Calif. and N.Y.

Genus TRICHOCERA Meigen

Petaurista Meigen, 1800: 15 (preocc. Link, 1795). Type-species, *Tipula hiemalis* De Geer (Coquillett, 1910b: 587). Suppressed by I.C.Z.N., 1963b: 339.

Melusina Meigen, 1800: 19. Type-species, *Tipula regelationis* Linnaeus (Hendel, 1908b: 50). Suppressed by I.C.Z.N., 1936b: 339.

Trichocera Meigen, 1803: 262. Type-species, *Tipula hiemalis* De Geer (mon.).

annulata Meigen, 1818: 215—Europe; Alaska, B.C., Oreg., Calif., Nfld.

arctica Lundström, 1915: 28.—Siberia; Alaska.

bimacula Walker, 1848: 84.—N.S.; Wis. to N.S., s. to Kans. and N.C.
monochroma Harris, 1835: 595 (*Limnobia*). Nomen nudum.

bituberculata Alexander, 1924c: 81.—Alaska; Mass.

borealis Lackschewitz, 1934: 3.—Spitzbergen, U.S.S.R. (Novaya Zemlya, Siberia); N.W.T., Greenland.

brevicornis Alexander, 1952a: 89.—Ga.
brumalis Fitch, 1847: 283.—N.Y.; Man. to Maine and N.J.
gracilis Walker, 1848: 84.—Ont.
colei Alexander, 1919c: 162.—Oreg.; Alaska, B.C., Wash.
columbiana Alexander, 1927d: 70.—B.C.; Alaska, Wash., Oreg., Calif.
fattigiana Alexander, 1952a: 88.—Ga.; Ill., Tenn.
fernaldi Alexander, 1927d: 70.—Mass.; Mich., e. to Maine and Md.
garretti Alexander, 1927d: 71.—B.C.; B.C. to Maine, s. to Calif. and Md.
hiemalis (De Geer), 1776: 360 (*Tipula*).—Europe; B.C., Maine, Greenland.
hyaloptera Alexander, 1949a: 274.—Oreg.; Alaska, N.W.T., Wash.
longisetosa Alexander, 1927d: 69.—Wash.
lutea Becher, 1886: 64.—Jan Mayen I.; Greenland.
maculipennis Meigen, 1818: 214.—Europe; Alta., B.C., Que., Greenland.
pallens Alexander, 1954: 25.—Oreg.
regelationis (Linnaeus), 1758: 587 (*Tipula*).—Sweden; Canada, Maine, Mass.
salmani Alexander, 1927d: 72.—Mass.; Ont., W. Va., Md.
saltator (Harris).—Not Nearctic.
scutellata Say, 1824a: 360 (1859a: 244).—Minn. Unrecognized.
setosivena Alexander, 1927d: 68.—Alaska; Wash., Oreg., Calif.
tetonensis Alexander, 1945a: 398.—Wyo.; Idaho.
ursamajor Alexander, 1959b: 58.—N.W.T.; Alaska.
venosa Dietz, 1921a: 236.—Pa. ?=*maculipennis* var.

Genus PARACLADURA Brunetti

Paracladura Brunetti, 1911b: 286. Type-species, *gracilis* Brunetti (orig. des.).

trichoptera (Osten Sacken), 1877: 204 (*Trichocera*).—Calif.; B.C., Wash., Oreg.

Family TIPULIDAE

By Charles P. Alexander

The family Tipulidae is the largest in the Diptera, with about 12,000 described species, arranged in slightly more than 300 genera and subgenera. This is the only family to which the name "crane fly" is properly applied.

The adult flies commonly frequent wet or humid areas and are particularly numerous near lakes and streams in mountainous sections.

The immature stages are found in a great range of habitats within such wet or moist areas. Many occur in the wet soil at or near the margins of bodies of water; a few are strictly aquatic; many occur in wet mosses or liverworts; several live in the sporophore of fungi, or more commonly in the mycelial growth in wood that is in an advanced state of decay; many species live in and beneath decaying leaves and other organic matter, generally in wooded areas. More specific data are provided under the various genera. Taxonomic papers on the adult flies are limited, in most cases, to certain areas or to particular genera. *Tipula* and *Limonia*, each with far in excess of 1,000 species, are among the largest genera of insects.

REFERENCES: Alexander, 1919h, 1942b (ne. N. Amer.), 1920h (biol.); Rogers, 1933a, 1942 (biol.); Wirth and Stone, 1956 (biol.).

Subfamily TIPULINAE
Tribe TIPULINI

This, the only Nearctic tribe of the subfamily Tipulinae, is divided into three subtribes. These are the Longuriaria, the Ctenophoraria, and the Tipularia.

The immature stages of *Longurio* are aquatic or semi-aquatic. They live in sand or gravel, more rarely in saturated, submerged wood. *Megistocera* is aquatic, occurring in the surface film or neuston fauna in ponds and similar situations (Rogers, 1949). *Brachypremna* lives in saturated black organic soil beneath wet sod (Rogers, 1949). *Holorusia* is found in decaying leaf mold and similar materials in or at the margins of streams and pools. *Prionocera* larvae live in soil where they prey on the early stages of Tabanidae found in the same habitat. The immature stages of *Ctenophora* occur in wood in various stages of decay. The immature stages of *Nephrotoma* frequent wet to moderately damp soil; a few species live in leaf mold in wooded areas. *Dolichopeza* lives in beds or mats of wet to nearly dry mosses and liverworts (Rogers, 1949; Byers, 1961). The early stages of *Tipula* frequent a great range of habitats, as might be expected in a taxon of its magnitude and diversity. The common habitats include the following: Aquatic or semi-aquatic, along streams or marshy areas; semi-aquatic, in wet sand or silt, stream leaf drift, or wet mats or clumps of algae, liverworts, and mosses; bases of grass or sedge tussocks in bogs and marshes; wooded areas in loam beneath decaying leaves; meadows and grasslands (some species of economic importance included); decaying wood.

Genus LONGURIO Loew

Longurio Loew, 1869b: 3 (Cent. 8, no. 2). Type-species, *testaceus* Loew (mon.).

Aeshnasoma Johnson, 1909a: 115. Type-species, *rivertonensis* Johnson (mon.).

Aeschnasoma, error.

Subgenus LONGURIO Loew

minimus Alexander, 1914a: 605.—Ga.; Tenn., N.C., S.C.

pruinosus (Johnson), 1913a: 42 (*Pachyrhina*).—Fla. **N. comb.**

rivertonensis (Johnson), 1909a: 116 (*Aeschnasoma*).—N.J.; Va., N.C.

testaceus Loew, 1869b: 3 (Cent. 8, no. 2).—Mass.; N.Y. to Maine, s. to Tenn. and Fla.

Genus MEGISTOCERA Wiedemann

Megistocera Wiedemann, 1820a: 41 (1821c: 41) (as *Maekistocera*). Type-species, *Tipula filipes* Fabricius (Macquart, 1838a: 63; 1838: 59). [Author rejects the original valid spelling in favor of the later, commonly used spelling, which dates from Wiedemann, 1828: 55.—Eds.].

longipennis (Macquart), 1838a: 61 (1838: 57) (*Tipula*).—Cuba; Tex. to n. Fla., s. to P.R. and Cent. and S. Amer. to Paraguay.

Genus BRACHYPREMNA Osten Sacken

Brachypremna Osten Sacken, 1886b: 161. Type-species, *Tipula dispellens* Walker (Coquillett, 1910b: 545).

dispellens (Walker), 1861: 334 (*Tipula*).—Mexico; Ill. and N.J., s. to Tex. and Fla., Cent. and S. Amer.

Genus HOLORUSIA Loew

Holorusia Loew, 1863b: 277 (Cent. 4, no. 1). Type-species, *rubiginosa* Loew (mon.).

Subgenus HOLORUSIA Loew

rubiginosa Loew, 1863b: 276 (Cent. 4, no. 1).—Calif.; B.C. to Calif. and Ariz.

grandis Bergroth, 1888b: 140 (*Tipula*).—Calif.

Genus PRIONOCERA Loew

Prionocera Loew, 1844a: 170. Type-species, *pubescens* Loew (mon.).

Stygeropis Loew, 1863b: 298 (Cent. 4, no. 42) (unjustified n. name for

Prionocera Loew). Type-species, *Prionocera pubescens* Loew (aut.).

bergrothi (Williston), 1893c: 64 (*Stygeropis*).—Alaska.
broweriana Alexander, 1961b: 79.—Maine.
dimidiata (Loew), 1866a: 129 (Cent. 6, no. 2) (*Stygeropis*).—Hudson Bay Territory; Alaska to Man.
electa Alexander, 1927e: 188.—Labr.; Arctic Canada.
fulvicauda Alexander, 1948b: 121.—Colo.
gracilistyla Alexander, 1956c: 123.—Alaska.
hybrida (Dietz), 1918: 113 (*Pachyrhina*).—Colo.
ominosa (Alexander), 1920i: 199 (*Stygeropis*).—Alaska.
oregonica Alexander, 1943d: 13.—Oreg.; Calif.
oslari (Dietz), 1918: 112 (*Pachyrhina*).—Colo.
parrii (Kirby), 1824: ccxviii (*Ctenophora*).—N.W.T.; Arctic Canada.
primoveris Alexander, 1943b: 723.—Wyo.
rostellata (Doane), 1901: 100 (*Tipula*).—Colo.; Man.
var. **churchilliana** Alexander, 1942a: 206 (as ssp.).—Man.
var. **prominens** Alexander, 1942a: 206 (as ssp.).—Man.
sordida (Loew), 1863b: 298 (Cent. 4, no. 42) (*Stygeropis*).—Man.; Alta.
uinticola Alexander, 1948a: 15.—Utah.
unimicra (Alexander), 1915c: 128 (*Stygeropis*).—Colo.

Genus CTENOPHORA Meigen

Ctenophora Meigen, 1803: 263. Type-species, *Tipula pectinicornis* Linnaeus (Westwood, 1840: 128). [In the interest of stability the author rejects the prior type designation of *Tipula atrata* Linnaeus by Latreille, 1810: 442.—Eds.].

Subgenus CTENOPHORA Meigen

apicata Osten Sacken, 1864: 46.—Maine, N.H.; Ont. and Que., s. to N.Y. and R.I.
nubecula Osten Sacken, 1864: 45.—Ill.; Mo. and Tenn., ne. to Que. and N.J.

Subgenus TANYPTERA Latreille

Flabellifera Meigen, 1800: 13. Type-species, *Tipula atrata* Linnaeus (Coquillett, 1910b: 545). Suppressed by I.C.Z.N., 1963b: 339.
Tanyptera Latreille, 1805: 286 (as genus). Type-species, *Tipula ichneumonea* De Geer (mon.) = *atrata* (Linnaeus).
Xiphura Brullé, 1832: 206. Type-species, *villaretiana* Brullé (Guérin-Méneville, 1844: 534) = *atrata* (Linnaeus).

dorsalis Walker, 1848: 76.—Nfld.; Wis. to Nfld., s. to Ill. and N.C.
succedens Walker, 1856b: 448.—Canada.
fumipennis Osten Sacken, 1864: 47.—Va.
frontalis Osten Sacken, 1864: 48.—Mass.
var. **topazina** Osten Sacken, 1864: 47 (as sp.).—Va.; Wis. to Maine, s. to Ohio and Va. **N. syn.,** G. W. Byers *in litt.*

Subgenus PHOROCTENIA Coquillett

Phoroctenia Coquillett, 1910b: 589 (as genus). Type-species, *Ctenophora angustipennis* Loew (orig. des.)=*vittata* ssp.
Malpighia Enderlein, 1912b: 18. Type-species, *Ctenophora vittata* Meigen (orig. des.).
vittata vittata Meigen.—Not Nearctic.
ssp. **angustipennis** Loew, 1872a: 51 (Cent. 10, no. 3) (as sp.).—Calif.; B.C., Wash., Oreg.
similis Williston, 1893c: 63.—Wash.

Genus NEPHROTOMA Meigen

Pales Meigen, 1800: 14. Type-species, *Tipula dorsalis* Fabricius (Hendel, 1908b: 46). Suppressed by I.C.Z.N., 1963b: 339.
Nephrotoma Meigen, 1803: 262. Type-species, *Tipula dorsalis* Fabricius (mon.).
Pachyrhina Macquart, 1834a: 88. Type-species, *Tipula crocata* Linnaeus (Westwood, 1840: 128).
Pachyrrhina, Pachyrina, Pachyrhyna, emends. or errors.

The taxonomy of the genus in our faunal area is in an unsatisfactory state and requires revision following study of the types.

abbreviata (Loew), 1863b: 295 (Cent. 4, no. 36) (*Pachyrhina*).—Miss.
alterna alterna (Walker), 1848: 72 (*Tipula*).—N.S.; Mich. to N.S., s. to Fla.
incurva Loew, 1863b: 293 (Cent. 4, no. 32) (*Pachyrhina*).—D.C.
ssp. **nexilis** (Dietz), 1918: 125 (*Pachyrhina;* as sp.).—Colo.; Man., Minn., Wis.
perdita Dietz, 1918: 116 (*Pachyrhina*).—Man.
altissima (Osten Sacken), 1877: 210 (*Pachyrhina*).—Colo., N. Mex.; B.C. to w. Ont. and Mich., s. to Oreg. and N. Mex.
erythrophrys Williston, 1893c: 63 (*Pachyrhina*).—Colo.
breviorcornis (Doane), 1908b: 178 (*Pachyrhina*).—Mich.; Iowa to Que., s. to S.C.
approximata Dietz, 1918: 136 (*Pachyrhina*).—Pa.

stigmatica Dietz, 1918: 137 (*Pachyrhina*).—Pa.
calinota (Dietz), 1918: 121 (*Pachyrhina*).—Mich.; Mich. to N.H., s. to Tenn. and Md.
cingulata (Dietz), 1918: 131 (*Pachyrhina*).—Pa.
clandestina (Dietz), 1921a: 262 (*Pachyrhina*).—Pa.
cornifera (Dietz), 1918: 120 (*Pachyrhina*).—Va.; N.C., Fla.
eucera (Loew), 1863b: 296 (Cent. 4, no. 39) (*Pachyrhina*).—D.C., Ill., N.Y.; Wis. to Que. and Mass., s. to Kans., Tenn., and Va.
euceroides Alexander, 1919c: 172.—N.Y.; Mich. to N.B. and Conn.
evasa (Dietz), 1918: 124 (*Pachyrhina*).—Mich. ?=*calinota*.
excelsior (Bergroth), 1888a: 239 (*Pachyrhina*).—B.C.
ferruginea ferruginea (Fabricius), 1805: 28 (*Tipula*).—N. Amer.; N. Amer. e. from Alta., Colo., and Tex.
beutenmuelleri Dietz, 1918: 130 (*Pachyrhina*).—Pa. (as N.C., error).
ssp. **suturalis** (Loew), 1863b: 295 (Cent. 4, no. 37) (*Pachyrhina;* as sp.).—Ga.; coastal, S.C. to Ga.
costomarginata Dietz, 1918: 129 (*Pachyrhina*).—Fla.
gracilicornis gracilicornis (Loew), 1864a: 66 (Cent. 5, no. 32) (*Pachyrhina*).—N.Y.; Ont., Pa., Md.
festina Dietz, 1918: 126 (*Pachyrhina;* as *perfida*, p. 128).—Md.
ssp. **temeraria** (Dietz), 1918: 128 (*Pachyrhina;* as sp.).—Mich.; Wis.
latevittata (Dietz), 1918: 135 (*Pachyrhina*).—Colo.
lineata (Scopoli).—Not Nearctic.
lugens (Loew), 1864a: 63 (Cent. 5, no. 26) (*Pachyrhina*).—N.H.; Minn. to N.S., s. to Ill. and N.C.
lundbecki (Nielsen), 1907: 390 (*Pachyrhina*).—Greenland; N.W.T.
arcticola Alexander, 1919b: 10.—N.W.T.
macrocera macrocera (Say), 1823: 24 (1859b: 48) (*Tipula*).—Pa.; Wis. to Maine, s. to Kans., Tenn., and Fla.
gnata Dietz, 1918: 118 (*Pachyrhina;* as var.).—Wis.
hirsutula Dietz, 1918: 118 (*Pachyrhina;* as *pilosula*, p. 110).—Pa.
var. **atrocera** (Dietz), 1918: 118 (*Pachyrhina*).—Pa.; Conn.
ssp. **dietziella** Alexander, 1942b: 230 (as var.; n. name for *virgata* Dietz).—Pa.
virgata Dietz, 1921a: 260 (*Pachyrhina;* as var.; preocc. Coquillett, 1898).—Pa.
montana (Dietz), 1918: 123 (*Pachyrhina*).—N.C.
navajo Alexander, 1949b: 98.—Ariz.

occidentalis (Doane), 1908b: 177 (*Pachyrhina*).—Calif.; B.C. and Mont., s. to Calif. and Ariz., also Tex.
occipitalis (Loew), 1864a: 65 (Cent. 5, no. 30) (*Pachyrhina*).—N.W.T.; N.W.T. to N.B., s. to Colo. and Mich.
okefenoke (Alexander), 1915d: 97 (*Pachyrhina*).—Ga.; Fla.
opacivittata (Dietz), 1918: 123 (*Pachyrhina*).—Man.; Wis., Mass.
pedunculata (Loew), 1863b: 293 (Cent. 4, no. 33) (*Pachyrhina*).—Sask.; Sask. to N.S., s. to Minn. and Pa.
penumbra Alexander, 1915a: 467.—N.H.; N.B., Maine.
perincisa Alexander, 1949b: 99.—Ariz.
polymera (Loew), 1863b: 297 (Cent. 4, no. 40) (*Pachyrhina*).—Ill.; Wis. to N.H., s. to Kans., Tenn., and S.C.
punctum (Loew), 1863b: 294 (Cent. 4, no. 34) (*Pachyrhina*).—Ill.; Mich. to Maine, s. to Ill. and N.J.
snowii snowii (Doane), 1908b: 176 (*Pachyrhina*).—Wyo.
ssp. **alternata** (Dietz), 1918: 117 (*Pachyrhina;* as var.).—Colo.
sodalis sodalis (Loew), 1864a: 64 (Cent. 5, no. 29) (*Pachyrhina*).—Conn.; Wis. to Que. and N.H., s. to N.C.
obliterata Dietz, 1918: 133 (*Pachyrhina*).—Pa.
ssp. **nictans** (Dietz), 1918: 129 (*Pachyrhina;* as var.).—Colo.
sphagnicola Alexander, 1920d: 110.—Ill.; Mich.
tenuis tenuis (Loew), 1863b: 297 (Cent. 4, no. 41) (*Pachyrhina*).—N.Y.; Wis. to Maine, s. to Tenn. and N.C.
hamata Dietz, 1918: 121 (*Pachyrhina;* as ssp.).—N.Y.
nigroantennata Dietz, 1921a: 261 (*Pachyrhina;* as var.).—Pa.
ssp. **fuscostigmosa** Alexander, 1940a: 606.—Tenn.
urocera (Dietz), 1918: 119 (*Pachyrhina*).—N.C.
virescens (Loew), 1864a: 62 (Cent. 5, no. 25) (*Pachyrhina*).—D.C.; Mich. to N.H., s. to Ill. and Fla.
vittula (Loew), 1864a: 63 (Cent. 5, no. 27) (*Pachyrhina*).—N.W.T.; Alaska to Nfld., s. to Alta. and Mass.
wulpiana (Bergroth), 1888a: 200 (*Pachyrhina*).—Calif.
wyalusingensis (Dietz), 1918: 134 (*Pachyrhina*).—Pa. Unrecognized.
xanthostigma (Loew), 1864a: 65 (Cent. 5, no. 31) (*Pachyrhina*).—Ill.; Ont. to Maine, s. to Ill. and S.C.

Genus DOLICHOPEZA Curtis

Dolichopeza Curtis, 1825: pl. 62. Type-species, *sylvicola* Curtis (orig. des.) = *albipes* (Ström).

REFERENCE: Byers, 1961 (rev.).

Subgenus DOLICHOPEZA Curtis

americana Needham, 1908: 211.—N.Y.; Alaska, Alta., S. Dak., Mich. to Labr. and Nfld., s. to Ill. and Ga.

borealis Byers, 1961: 795.—Alaska.

Subgenus OROPEZA Needham

Oropeza Needham, 1908: 211 (as genus). Type-species, *Tipula annulata* Say (orig. des.)=*sayi* (Johnson).

australis Byers, 1961: 796.—Ga.; Ala., Fla.

carolus Alexander, 1942b: 211 (n. name for *albipes* Johnson).—Mass., Vt.; Wis. to Nfld., s. to Tenn. and Fla.

albipes Johnson, 1909a: 121 (*Oropeza*; preocc. Ström, 1768).—Mass., Vt.

dorsalis (Johnson), 1909a: 119 (*Oropeza*).—Maine; Y.T. to N.S., s. to B.C. and Fla.

rogersi Alexander, 1922b: 6 (*Oropeza*).—Ind.

sessilis Alexander, 1941a: 296.—N.C.

johnsonella (Alexander), 1930b: 279 (*Oropeza*).—N.J.; Ill. to Que. and Mass., s. to Ark. and Fla.

obscura (Johnson), 1909a: 122 (*Oropeza*).—Mass.; Alta. to N.S., s. to Ark. and Fla.

polita polita (Johnson), 1909a: 122 (*Oropeza;* as *obscura* var.).—Mass.; Wis. to Que. and Maine, s. to Ga.

ssp. **pratti** Alexander, 1941d: 192 (as sp.).—Minn.; Wis., Iowa, Kans., Ill., Ark.

ssp. **cornuta** Byers, 1961: 845.—Ind.; Ill. to Ont., s. to Tenn. and Va.

sayi (Johnson), 1909a: 118 (*Oropeza;* n. name for *annulata* Say).—Pa.; Minn. to N.B. and s. to Fla.

annulata Say, 1823: 25 (1859b: 49) (*Tipula;* preocc. Linnaeus, 1758).—Pa.

similis (Johnson), 1909a: 119 (*Oropeza*).—Pa., Mass.; Mich. to Que. and Maine, s. to Pa.

subalbipes (Johnson), 1909a: 121 (*Oropeza*).—N.J.; Minn. to N.B., s. to La. and Fla.

subvenosa Alexander, 1940a: 618.—N.C., Tenn.; W. Va. and Md., s. to Tenn. and Ga.

tridenticulata Alexander, 1931b: 177.—Mass.; Man. to Que. and Maine, s. to Mo. and Ga.

venosa (Johnson), 1909a: 120 (*Oropeza*).—Mass.; Y.T. to Nfld., s. to B.C. and S.C.

walleyi (Alexander), 1931c: 139 (*Oropeza*).—Que.; Alta. to N.S., s. to Mo. and Fla.

dakota Alexander, 1944d: 241.—S. Dak.

Genus TIPULA Linnaeus

Tipula Linnaeus, 1758: 585. Type-species, *oleracea* Linnaeus (Latreille, 1810: 442).

Tipula is divided into a number of subgenera, the largest and most important in the local fauna being *Yamatotipula*, *Oreomyza*, and *Lunatipula*. The two last-named subgenera divide into more or less natural groups of species, for the most part with definite distributional patterns.

REFERENCES: Dietz, 1913, 1914, 1917, 1919, 1921b (revs.); Alexander, 1915a (lectotypes).

Subgenus TRICHOTIPULA Alexander

Tipula, subg. **Trichotipula** Alexander, 1915a: 468. Type-species, *oropezoides* Johnson (orig. des.).

Tipula, subg. *Cinctotipula* Alexander, 1915a: 469. Type-species, *algonquin* Alexander (orig. des.).

Tipula, subg. *Odontotipula* Alexander, 1919h: 939, 943. Type-species, *Pachyrhina unifasciata* Loew (orig. des.) = *stonei* Alexander.

Tipula, subg. *Nitidotipula* Alexander, 1942b: 240. Type-species, *pachyrhinoides* Alexander (orig. des.).

REFERENCE: Alexander, 1946f (key, Calif.).

algonquin Alexander, 1915a: 469.—Ont.; Mich. to Maine, s. to Tenn. and N.C.
apache Alexander, 1916b: 45.—N. Mex.; Ariz.
beatula Osten Sacken, 1877: 209.—Calif.
bituberculata Doane, 1901: 101.—Calif.
cahuilla Alexander, 1920b: 43.—Calif.
capistrano Alexander, 1946f: 4.—Calif.
cazieri Alexander, 1942a: 207.—Nev.; Calif.
cimarronensis Rogers, 1931: 335.—Okla.
desertorum Alexander, 1946f: 6.—Calif.
dis Alexander, 1962: 1.—Nev.
dorsolineata Doane, 1901: 98.—Wash.; B.C., Oreg.
furialis Alexander, 1946f: 7.—Calif.
geronimo Alexander, 1946a: 490.—Ariz.
guasa Alexander, 1916b: 51.—Tex.
hedgesi Alexander, 1961a: 10.—Ariz.
macrophallus (Dietz), 1918: 114 (*Pachyrhina*).—Utah; B.C., Wash., Oreg., Calif.
malkini Alexander, 1955a: 125.—Ariz.
mayedai Alexander, 1946f: 8.—Calif.

megalodonta Alexander, 1946f: 10.—Calif.
mulaiki Alexander, 1948b: 123.—Colo.
oropezoides Johnson, 1909a: 131.—Mass.; Mich. to Nfld., s. to Tenn. and Fla., ?Wash.
pachyrhinoides Alexander, 1915a: 471.—N.H.; Alta., Sask., Nebr., Minn.
prolixa Alexander, 1947b: 68.—Ariz.
puncticollis (Dietz), 1918: 115 (*Pachyrhina*).—Colo.; Nebr.
repulsa Alexander, 1943d: 139.—B.C.; B.C. to Calif.
retinens Alexander, 1946a: 493.—Ariz.
rusticola Doane, 1912: 47.—Wash.; Oreg., Calif.
sayloriana Alexander, 1946f: 12.—Calif.
stonei Alexander (for *unifasciata* Loew).—D.C.; Mich. to Ont., s. to Kans. and Fla. **N. name.**
unifasciata Loew, 1863b: 294 (Cent. 4, no. 35) (*Pachyrhina*; preocc. Schrank, 1803).—D.C.
subapache Alexander, 1947e: 91.—Calif.
trichophora Alexander, 1920b: 41.—Calif.
unimaculata (Loew), 1864a: 64 (Cent. 5, no. 28) (*Pachyrhina*).—N.Y.; Mich. to Maine, s. to Ill. and N.C.

Subgenus SCHUMMELIA Edwards

Tipula, subg. **Schummelia** Edwards, 1931: 80. Type-species, *variicornis* Schummel (orig. des.).

annulicornis Say, 1829: 151 (1859b: 350).—Ind.; Mich. to Mass., s. to Tenn. and Md.
jejuna Johnson, 1909a: 132.—Mass.
friendi Alexander, 1941a: 293.—Mass.; Tenn., N.C.
hermannia Alexander, 1915a: 480 (n. name for *fasciata* Loew).—N.Y.; Wis. to Nfld., s. to Kans. and Fla.
fasciata Loew, 1863b: 279 (Cent. 4, no. 6) (preocc. Linnaeus, 1767).—N.Y.
magnifolia Alexander, 1948a: 18.—Utah; Calif.
stenorhabda Alexander, 1941a: 290.—N.C.
subtenuicornis Doane, 1901: 125.—Wash.; B.C. to Nfld., s. to Oreg., Utah, and Wyo.
idei Alexander, 1928a: 55.—Ont.
synchroa Alexander, 1927g: 183.—Fla.

Subgenus NOBILOTIPULA Alexander

Tipula, subg. **Nobilotipula** Alexander, 1942b: 239. Type-species, *Pachyrhina nobilis* Loew (orig. des.).

collaris Say, 1823: 25 (1859b: 49).—Pa.; Mich. to Que., s. to S.C.

nobilis (Loew), 1864a: 62 (Cent. 5, no. 24) (*Pachyrhina*).—N.H.; Mich. to N.B., s. to N.C.

Subgenus BELLARDINA Edwards

Tipula, subg. **Bellardina** Edwards, 1931: 82. Type-species, *craverii* Bellardi (orig. des.; as *cravieri*).

abluta Doane, 1901: 122.—Colo. ?=*commiscibilis*.
albimacula Doane, 1912: 51.—Ariz.
aspersa Doane, 1912: 51.—Calif.; Wash., Oreg.
calaveras Alexander, 1944a: 60.—Calif.
catalinensis Alexander, 1950a: 41.—Ariz.
commiscibilis Doane, 1912: 61 (n. name for *contaminata* Doane).—Colo.; Wyo., Utah, N. Mex.
contaminata Doane, 1901: 121 (preocc. Linnaeus, 1758).—Colo.
faustina Alexander, 1941c: 206.—Colo.
gothicana Alexander, 1943a: 149.—Colo.; B.C., Oreg., Calif., Mont., Utah.
jepsoni Alexander, 1945a: 400.—Wyo.
josephus Alexander, 1954: 26.—Oreg.
pacifica Doane, 1912: 48.—Calif.; B.C. to Calif.
praelauta Alexander, 1949b: 15.—Ariz.
pura Alexander, 1941c: 208.—Colo.; N. Mex.
rastristyla Alexander, 1945d: 129.—Wash.
rupicola Doane, 1912: 50.—Ariz.
sacajawea Alexander, 1945d: 126.—Idaho.
schizomera Alexander, 1940e: 142.—Mexico; Calif., Utah, Ariz., Tex.
shastensis Alexander, 1944a: 58.—Calif.
subcinerea Doane, 1901: 118.—Colo.; B.C. to Oreg., Utah, and Colo.
umbra Alexander, 1959c: 129.—Calif.
warneri Alexander, 1944a: 57.—Idaho.

Subgenus NIPPOTIPULA Matsumura

Nippotipula Matsumura, 1916: 457 (as genus). Type-species, *Tipula nubifera* Coquillett (orig. des.)=*coquilletti* Enderlein.

abdominalis (Say), 1823: 18 (1859b: 45) (*Ctenophora*).—Pa.; Wis. to Nfld. s. to Kans. and Fla.
albilata Walker, 1848: 65.—?N. Amer.

Subgenus TIPULA Linnaeus

paludosa Meigen, 1830: 289.—Europe; Nfld., N.S. Immigrant.

Subgenus PLATYTIPULA Matsumura

Platytipula Matsumura, 1916: 459 (as genus). Type-species, *moiwana* Matsumura (orig. des.).

carinata Doane, 1901: 103.—Wash.; Oreg.
cunctans Say, 1823: 23 (1859b: 48).—Pa.; Man. to N.B., s. to Colo. and Ala.
casta Loew, 1863b: 289 (Cent. 4, no. 25).—Pa.
infuscata Loew, 1863b: 289 (Cent. 4, no. 26).—N.Y.
maritima Alexander, 1930a: 276.—Mass.; Maine.
nebulinervis Alexander, 1940c: 152.—Fla.
paterifera Alexander, 1962: 2.—Tenn.
pendulifera Alexander, 1919c: 166.—Colo.; Alaska to n. Que., s. to Utah and Colo., Nfld.
spenceriana spenceriana Alexander, 1943d: 141.—B.C.; Oreg., Nfld., Maine.
ssp. **hardyi** Alexander, 1943d: 142 (as sp.).—Utah; Wyo.
tennessa Alexander, 1920d: 226.—Tenn.; Mass.
ultima Alexander, 1915c: 128 (n. name for *flavicans* Fabricius).—N. Amer.; Sask. to N.S., s. to Wyo., Miss., and Fla.
flavescens Fabricius, 1805: 24 (preocc. Linnaeus, 1758).—N. Amer.
flavicans Fabricius, 1805: 373 (n. name for *flavescens* Fabricius, but preocc. Müller, 1764).—N. Amer.

Subgenus YAMATOTIPULA Matsumura

Yamatotipula Matsumura, 1916: 461 (as genus). Type-species, *nohirae* Matsumura (orig. des.)=*nova* Walker.

albocaudata Doane, 1901: 123.—Wash.; B.C., Oreg., Wyo., Utah.
alexandriana Dietz, 1917: 146.—Calif.
aprilina Alexander, 1918a: 63.—Va.; Maine, Mass., N.C., S.C.
aspidoptera Alexander, 1916b: 49.—Tex.
brevifurcata Alexander, 1926c: 291.—Tenn.
caloptera Loew, 1863b: 292 (Cent. 4, no. 30).—R.I.; Wis. to Nfld., s. to Mo. and Fla.
calopteroides Alexander, 1919c: 168.—N.C.; Pa., S.C.
antiopa Dietz, 1921a: 266.—Pa.
catawbiana Alexander, 1940a: 609.—Tenn.; N.C.
cayuga Alexander, 1915a: 485.—N.Y.; Mich. to Nfld., s. to Tenn.
cervicula Doane, 1901: 100.—Wash.
cimmeria Speiser, 1909: 57 (n. name for *strigata* Coquillett).—Alaska.
strigata Coquillett, 1900h: 402 (1904: 16) (preocc. Loew 1866).—Alaska.

cognata Doane, 1901: 123.—Wash.; B.C., Oreg., Utah.
colteri Alexander, 1943b: 725.—Wyo.; B.C., Oreg., Colo.
comanche Alexander, 1916b: 50.—Tex.
concava Alexander, 1926c: 294.—Ind.; Mich. to Maine, s. to Mo. and Tenn.
conspicua Dietz, 1917: 149.—N.C.
dejecta Walker, 1856b: 442.—U.S.; Mich. to Que., s. to Ill. and Va.
fumosa Doane, 1901: 99.—Ohio.
brevicollis Loew *in* Alexander, 1915a: 460. Nomen nudum.
edmundsi Alexander, 1948a: 20.—Utah; Oreg.
eluta Loew, 1863b: 290 (Cent. 4, no. 27).—D.C.; Ont. to N.B., s. to Ill. and Fla.
floridensis Alexander, 1926c: 292.—Fla.
footeana Alexander, 1961a: 11.—Idaho; Nfld.
fraterna Loew, 1864a: 56 (Cent. 5, no. 14).—D.C.; N.H. to Fla.
fulvilineata Doane, 1912: 61 (n. name for *graphica* Doane).—Calif.; Oreg.
graphica Doane, 1901: 124 (preocc. Schiner, 1868).—Calif.
furca Walker, 1848: 70.—N. Amer.; Kans. to Que. and Maine, s. to Tex. and Fla.
bella Loew, 1863b: 291 (Cent. 4, no. 29).—Conn.
fuscifer Harris *in* Johnson, 1925c: 61. Nomen nudum.
glendenningi Alexander, 1943d: 140.—B.C.; Oreg.
grenfelli Alexander, 1928b: 96.—Labr.
iroquois Alexander, 1915c: 128 (n. name for *cincta* Loew).—D.C.; Nfld. to Tenn. and N.C.
cincta Loew, 1863b: 288 (Cent. 4, no. 24) (preocc. Gmelin, 1792).—D.C.
jacintoensis Alexander, 1946e: 65.—Calif.
jacobus Alexander, 1930b: 277.—Fla.; N.S., s. to Tenn. and Fla.
filipes Walker of Johnson, 1909a: 131.
kennicotti Alexander, 1915a: 480.—N.W.T.; Alta. to N.W.T., s. to Colo. and Ind.
diluta Doane, 1901: 117 (preocc. Müller, 1764).—Colo.
parvemarginata Alexander, 1926c: 295.—N. Dak.
tetra Loew *in* Alexander, 1915a: 482. Nomen nudum.
ludoviciana Alexander, 1919c: 196.—La.; Fla.
maculipleura Alexander, 1927g: 182.—Tenn.
manahatta Alexander, 1919c: 169.—N.Y.; N.Y. to Tenn. and Fla.
meridiana meridiana Doane, 1912: 58.—Ariz.; Calif., Utah.
ssp. **continentalis** Alexander, 1941c: 85 (as sp.).—Colo.; Alaska to Calif. and Colo.
nephophila Alexander, 1940a: 610.—Tenn.; N.C.

noveboracensis Alexander, 1919c: 167.—N.Y.; Mich. to Nfld., s. to Md.
nuntia Alexander, 1946c: 140.—Wash.
osceola Alexander, 1927g: 181.—Fla.
sackeniana Alexander, 1918a: 62.—Va.; N.Y. and Conn., s. to Tenn. and Ga.
sayi Alexander, 1911c: 194 (n. name for *costalis* Say).—Md., Pa.; Iowa to Nfld., s. to La. and Fla., Bermuda.
costalis Say, 1823: 23 (1859b: 48) (preocc. Swederus, 1787).—Md., Pa.
spernax spernax Osten Sacken, 1877: 210.—Calif.; B.C., Wash., Oreg., Wyo., Utah.
ssp. **lanei** Alexander, 1940b: 84 (as sp.).—Oreg.; Wash.
strepens Loew, 1863b: 291 (Cent. 4, no. 28).—N.Y.; Kans. to Nfld., s. to N.J.
subeluta Johnson, 1913a: 42.—Fla.; Mass. to Fla.
succincta Alexander, 1940c: 151.—Ind.
sulphurea sulphurea Doane, 1901: 99.—Mich.; Alta. to Maine, s. to Ind.
ssp. **jacksonensis** Alexander, 1945a: 402.—Wyo.
tenebrosa Coquillett, 1900h: 403 (1904: 17).—Alaska.
tenuilinea Alexander, 1959a: 69.—Calif.; Wash., Oreg., Utah.
tephrocephala Loew, 1864a: 62 (Cent. 5, no. 23).—N.H.; Wis. to Nfld., s. to Ind. and Pa.
tricolor Fabricius, 1775: 749.—N. Amer.; Wis. to Que. and Maine, s. to Ark. and Fla.
vitrea Wulp, 1881: 150.—Que.
vicina Dietz, 1917: 148.—Mich.; Mich. to Nfld., s. to Pa.
xanthostigma Dietz, 1917: 150.—Colo.

Subgenus TIPULODINA Enderlein

Tipulodina Enderlein, 1912b: 30 (as genus). Type-species, *magnicornis* Enderlein (orig. des.).

lacteipes Alexander, 1943d: 142.—Calif.

Subgenus ARCTOTIPULA Alexander

Tipula, subg. **Arctotipula** Alexander, 1933b: 410. Type-species, *besselsi* Osten Sacken (orig. des.).

alascaensis Alexander, 1923: 167.—Alaska (Pribilof Is.).
aleutica Alexander, 1923: 164.—Alaska (Pribilof Is.).
bakeriana Alexander, 1954: 28.—Oreg.
besselsi Osten Sacken, 1876b: 42.—Greenland; Alaska.
besselsoides Alexander, 1919b: 15.—N.W.T.

dickinsoni Alexander, 1932: 240.—Wis.; Mich.
kincaidi Alexander, 1949a: 278.—Wash.
loganensis Alexander, 1946b: 67.—Mont.
piliceps Alexander, 1915a: 482.—Hudson Bay Territory.
plutonis Alexander, 1919c: 197.—Calif.; Wash., Oreg., Wyo.
absaroka Alexander, 1943b: 727.—Wyo.
sacra Alexander, 1946g: 93.—Idaho; Wash., Alta.
semidea Alexander, 1944c: 89.—Oreg.; Wash., Idaho, Mont.
suttoni Alexander, 1934: 5.—N.W.T. (Southampton I.).
thulensis Alexander, 1947c: 245.—N.W.T. (Baffin I.).
tribulator Alexander, 1956a: 179.—Que.
twogwoteeana Alexander, 1945a: 403.—Wyo.; Colo.
williamsiana Alexander, 1940a: 611.—Tenn.; S.C.

Subgenus ANGAROTIPULA Savtshenko

Tipula, subg. **Angarotipula** Savtshenko, 1961: 347. Type-species, *tumidicornis* Lundström (orig. des.).

illustris Doane, 1901: 97.—Idaho; B.C. to Nfld., s. to Colo. and N.J.
fuscipennis Loew, 1866a: 129 (Cent. 6, no. 3) (*Stygeropis;* preocc. Curtis, 1834).—Ill.
parrioides (Alexander), 1919b: 9 (*Stygeropis*).—Alaska.

Subgenus VESTIPLEX Bezzi

Tipula, subg. **Vestiplex** Bezzi, 1924a: 230. Type-species, *cisalpina* Riedel (orig. des.).

aldrichiana Alexander, 1929d: 16.—Alaska.
arctica Curtis, 1835b: lxxviii.—Arctic Amer.; Greenland, n. Eurasia.
nodulicornis Zetterstedt, 1838: 841.—Greenland.
glomerata Walker, 1848: 70.—N. Amer.
balioptera Loew, 1863b: 284 (Cent. 4, no. 15).—Man.; Alta. and Wis. to Que. and Maine.
baliopteroides Alexander, 1945a: 405.—Wyo.; Colo.
bergrothiana Alexander, 1918a: 68.—Alaska.
canadensis Loew, 1864a: 59 (Cent. 5, no. 19).—N.W.T.; N.W.T. to Alta., Ont., and Labr.
caroliniana Alexander, 1916b: 46.—N.C.
centralis Loew, 1864a: 60 (Cent. 5, no. 21).—N.W.T.; N.W.T. to Que. and N.H.
churchillensis Alexander, 1940b: 85.—Man.
fultonensis Alexander, 1918a: 67.—N.Y.; Alaska, se. to Nfld. and N.Y.
hinei Alexander, 1920i: 200.—Alaska.
leucophaea Doane, 1901: 117.—Colo.; Oreg., Wyo., Utah.

longiventris Loew, 1863b: 278 (Cent. 4, no. 5).—Ill.; Wis. to Maine, s. to Tex. and S.C.
nigrocorporis Doane, 1912: 45.—Colo.; Alta.
alticola Alexander, 1915c: 141.—Colo.
perretti Alexander, 1928b: 98.—Labr.
platymera Walker, 1856b: 441.—Canada; Ont. to Labr., s. to N.Y. and N.H.
tessellata Loew, 1863b: 277 (Cent. 4, no. 3) (preocc. Villers, 1789).—Labr.
septentrionalis Loew, 1863b: 278 (Cent. 4, no. 4).—Labr.
labradorica Alexander, 1915c: 128 (n. name for *tessellata* Loew).—Labr.
serrulata Loew, 1864a: 58 (Cent. 5, no. 18).—N.W.T.
tacomicola Alexander, 1949a: 280.—Wash.; B.C.

Subgenus ODONATISCA Savtshenko

Tipula, subg. **Odonatisca** Savtshenko, 1956: 130. Type-species, *juncea* Meigen (orig. des.).

breviligula Alexander, 1956a: 178.—Ont.; Alta. to Ont.
optiva Alexander, 1921a: 106.—Wash.
pribilofensis Alexander, 1923: 163.—Alaska (Pribilof Is.).
subarctica Alexander, 1919b: 15.—Alaska.
taenigaster Alexander, 1920i: 201.—Alaska.

Subgenus NESOTIPULA Alexander

Tipula, subg. **Nesotipula** Alexander, 1921b: 183. Type-species, *pribilovia* Alexander (orig. des.).

pribilovia Alexander, 1921b: 183.—Alaska (Pribilof Is.).

Subgenus OREOMYZA Pokorny

Oreomyza Pokorny, 1887b: 50 (as genus). Type-species, *glacialis* Pokorny (Coquillett, 1910b: 580).

accurata Alexander, 1927e: 184.—B.C.; Alta., Oreg., Utah, Colo.
johannus Alexander, 1945a: 412.—Wyo.
afflicta Dietz, 1915b: 125 (n. name for *suspecta* Dietz).—N.Y.
suspecta Dietz, 1914: 351 (preocc. Loew, 1863).—N.Y.
albertensis albertensis Alexander, 1927f: 217.—Alta.
ssp. **fenebris** Alexander, 1955a: 17.—Colo.
alcestis Alexander, 1946e: 175.—Idaho.
alia Doane, 1911: 161 (as *olia*).—Wash.; Oreg., Calif., Wyo.
alta Doane, 1912: 44.—Wyo.

angulata angulata Loew, 1864a: 61 (Cent. 5, no. 22).—Mass.; Wis. to N.S., s. to Ill. and N.Y.
decora Doane, 1901: 125.—Que.
ssp. **cherokeana** Alexander, 1940a: 614.—Tenn.; N.C.
appendiculata Loew, 1863b: 287 (Cent. 4, no. 20).—Sask.; Alaska, s. to Utah and e. to Nfld.
stalactoides Doane, 1901: 102.—Alaska.
derelicta Dietz, 1914: 358.—Alaska.
gaspensis Alexander, 1929e: 233.—Que.
athabasca Alexander, 1927f: 217.—Alta.
bakeri Alexander, 1954: 33.—Oreg.
banffiana Alexander, 1946c: 141.—Alta.; Wyo., Colo.
barbata Doane, 1901: 105.—Colo.; Alta., Utah.
borealis Walker, 1848: 66.—N.S.; Wis. to N.S., s. to Kans. and S.C.
hebes Loew, 1863b: 285 (Cent. 4, no. 18).—Conn.
broweri Alexander, 1940d: 83.—Maine.
cineracea Coquillett, 1900h: 404 (1904: 18).—Alaska.
clathrata Dietz, 1914: 356.—Utah; Colo., N. Mex.
coleana Alexander, 1940a: 615.—Tenn.
coloradensis Doane, 1911: 164.—Colo.; Utah, Wyo., S. Dak.
fundata Alexander, 1945a: 407.—Wyo.
comstockiana Alexander, 1947g: 36.—Calif.
criddlei Dietz, 1914: 360.—Man.
cylindrata cylindrata Doane, 1912: 46.—Calif.
ssp. **barda** Alexander, 1959a: 71.—Calif.
diflava Alexander, 1919b: 12.—N.W.T.; Y.T.
doanei doanei Dietz, 1914: 352.—N. Mex.
ssp. **bifida** Dietz, 1914: 354.—N. Mex.
dorothea Alexander, 1954: 31.—Oreg.
entomophthorae Alexander, 1918a: 385.—N.C.; Alta. to Labr. and Nfld., s. to Ind. and N.C.
similissima Dietz, 1921a: 263.—Pa.
fallax Loew, 1863b: 281 (Cent. 4, no. 10).—Calif.; Wash., Oreg.
fragilina Alexander, 1919c: 171.—Alaska; B.C., Mont., Colo.
fragilis Loew, 1863b: 279 (Cent. 4, no. 7).—Maine; Alta. to N.B., s. to Ind. and D.C.
suspecta Loew, 1863b: 280 (Cent. 4, no. 8).—D.C.
gelida Coquillett, 1900h: 404 (1904: 18).—Alaska.
graciae Alexander, 1947e: 93.—Calif.
graminivora Alexander, 1921d: 135.—Calif.
helderbergensis Alexander, 1918a: 64.—N.Y.; Mich. to N.B. and N.Y.

helvocincta Doane, 1901: 101.—Wash.; B.C., Oreg.
hollandi Alexander, 1934: 4.—N.W.T.
huntsmaniana Dietz, 1920: 7.—N.S. Unrecognized.
huron Alexander, 1918a: 66.—Wis.
idahoensis Alexander, 1955a: 16.—Idaho.
ignobilis Loew, 1863b: 280 (Cent. 4, no. 9).—D.C.; Ill. to N.B., s. to Tenn. and N.C.
illinoiensis Alexander, 1915c: 128 (n. name for *versicolor* Loew).—Ill.; Man. to N.H., s. to Ill.
versicolor Loew, 1863b: 285 (Cent. 4, no. 17) (preocc. Gmelin, 1792).—Ill.
imbellis Alexander, 1927e: 186.—B.C.; Wash.
inclusa Dietz, 1921a: 267.—Pa.
incurva Doane, 1912: 43.—Nebr. ?=*angulata*.
ingrata Dietz, 1914: 355.—Colo.; Alta., Utah.
insignifica Alexander, 1924a: 117.—N.H.; Maine.
inyoensis Alexander, 1946e: 173.—Calif.
kirbyana Alexander, 1918a: 244.—Alaska.
latipennis Loew, 1864a: 60 (Cent. 5, no. 20).—N.H.; Alta. to N.S., s. to Wis. and N.J.
ottawaensis Dietz, 1914: 349.—Man.
madera Doane, 1911: 162.—Calif.
mandan Alexander, 1915a: 499.—Mont.; Oreg., Wyo., Utah.
perexigua Alexander, 1924d: 15.—Mont.
margarita Alexander, 1918a: 243.—N.Y.; Ohio.
marina Doane, 1912: 44.—Calif.
nebulipennis Alexander, 1919c: 170.—Labr.; Que., N.H.
neptun Dietz, 1921c: 300.—Colo.; Alaska.
newcomeri Doane, 1911: 163.—Calif.
packardi Alexander, 1928b: 99.—Labr.
paiuta Alexander, 1948a: 23.—Utah.
penobscot Alexander, 1915a: 472.—Maine; Alta. to N.B., s. to Mich. and Pa.
perparvula Alexander, 1926e: 120.—Man.
phoroctenia Alexander, 1919c: 170.—Maine; B.C. to Nfld. and Maine.
productella Alexander, 1928b: 100.—Labr.
pseudotruncorum Alexander, 1920d: 228.—Wash.; B.C., s. to Calif. and Wyo.
truncorum Meigen of Snodgrass, 1904: 211.
resurgens Walker, 1848: 67.—Nfld.; Alta. to Nfld., s. to Ind. and D.C.
grata Loew, 1863b: 281 (Cent. 4, no. 11).—D.C.
rohweri Doane, 1911: 165.—Colo.; Wyo., Utah.

senega Alexander, 1915c: 128 (n. name for *pallida* Loew).—Mass.; Alta. to Nfld., s. to Iowa and N.J.
pallida Loew, 1863b: 284 (Cent. 4, no. 16) (preocc. Fabricius, 1781).—Mass.
sequoicola Alexander, 1947d: 205.—Calif.
serta Loew, 1863b: 283 (Cent. 4, no. 14).—Man.; Alta. to Labr. and Nfld., s to Minn. and N.Y., ?Eurasia.
discolor Loew, 1863b: 282 (Cent. 4, no. 12) (preocc. Gmelin, 1792).—Mass.
albonotata Doane, 1901: 120.—Mich.
ignota Alexander, 1915c: 128 (n. name for *discolor* Loew).—Mass.
shoshone Alexander, 1946e: 66.—Wash.; B.C., Oreg.
stylifera Dietz, 1921a: 264.—Pa.
subbarbata Alexander, 1927e: 185.—Sask.; Alta.
subfasciata Loew, 1863b: 282 (Cent. 4, no. 13).—Man.; Wis., N.S.
subserta Alexander, 1928b: 97.—Labr.; Maine.
ternaria Loew, 1864a: 57 (Cent. 5, no. 15).—N.W.T.; Y.T. to Nfld., s. to Alta. and N.H.
tristis Doane, 1901: 102.—Calif.; Oreg.
trivittata trivittata Say, 1823: 26 (1859b: 50).—Pa.; Iowa to Nfld., s. to Tenn. and S.C.
simulata Walker, 1856b: 441.—Canada.
ssp. **laetifica** Alexander, 1945a: 411.—Wyo.
variata Alexander, 1927f: 216.—Alta.
whitneyi Alexander, 1923: 161.—Alaska (Pribilof Is.).
yellowstonensis Alexander, 1946b: 65.—Wyo.; Wash., Oreg., Utah.

Subgenus EUMICROTIPULA Alexander

Microtipula, subg. **Eumicrotipula** Alexander, 1922c: 74. Type-species, *macrotrichiata* Alexander (orig. des.).

chiricahuensis Alexander, 1946a: 495.—Ariz.
werneri Alexander, 1950a: 43.—Ariz.

Subgenus LUNATIPULA Edwards

Tipula, subg. **Lunatipula** Edwards, 1931: 81. Type-species, *lunata* Linnaeus (orig. des.).

acuta Doane, 1901: 116.—Calif.; Oreg., Utah.
acutipleura Doane, 1912: 42.—Calif.
aequalis Doane, 1901: 108.—Wash.; Oreg., Calif.
reesi Alexander, 1939b: 143.—Calif.
alaska Alexander, 1918a: 412.—Alaska.

albocincta Doane, 1901: 110.—Colo.; Wyo.
albofascia Doane, 1901: 126.—Oreg.; Wash., Calif.
biarmata Doane, 1912: 55.—Wash.
aperta Alexander, 1918a: 62 (n. name for *imperfecta* Alexander).—Labr. ?Subg. *Arctotipula*.
imperfecta Alexander, 1915a: 484 (preocc. Brunetti, 1913).—Labr.
apicalis Loew, 1863b: 277 (Cent. 4, no. 2).—Maine; Mich. to N.S., s. to Tenn. and N.C.
armata Doane, 1901: 119.—Wash.; Oreg., Calif.
varia Doane, 1901: 122.—Wash.
atrisumma Doane, 1912: 42.—Calif.
australis Doane, 1901: 104.—Ga.; Tex. to Ga., n. to Md.
awanichi Alexander, 1947g: 38.—Calif.
bernardinensis Alexander, 1946c: 143.—Calif.
bicornis Forbes, 1890: 78.—Ill.; Wis. to N.B., s. to Kans., Tenn., and Va.
marginalis Harris *in* Johnson, 1925c: 61. Nomen nudum.
bifalcata Doane, 1912: 55.—Calif.
bigeminata Alexander, 1915c: 140.—Nev.
biproducta Alexander, 1947b: 69.—Calif.
bisetosa bisetosa Doane, 1901: 111.—Wash.; Oreg., Calif., Idaho.
ssp. **percita** Alexander, 1945a: 411.—Wyo.
biuncus Doane, 1912: 58.—Calif.
boregoensis Alexander, 1946b: 45.—Calif.
bucera Alexander, 1927e: 187.—Alta.; Mont.
calcarata Doane, 1901: 107.—Wash.; Oreg., Calif.
carunculata Alexander, 1946c: 186.—Calif.
catawba Alexander, 1915c: 134.—N.C.; S.C.
cladacantha Alexander, 1945d: 130.—Calif.
coconino Alexander, 1946a: 504.—Ariz.
costaloides Alexander, 1915c: 137.—Tex.
degeneri Alexander, 1944a: 166.—Calif.
densursi Alexander, 1943b: 729.—Mont.; Wyo.
diabolica Alexander, 1954: 35.—Calif.; Oreg.
diacanthophora Alexander, 1945e: 33.—Calif.; Oreg.
dido dido Alexander, 1947e: 95.—Calif.
ssp. **malheurensis** Alexander, 1950a: 156.—Oreg.
dietziana Alexander, 1915a: 501.—D.C.; Kans. to N.Y. and S.C.
dimidiata Dietz, 1921b: 12.—N. Mex.
disjuncta Walker, 1856b: 442.—U.S.; Iowa to Vt., s. to Ill. and Del.
taughannock Alexander, 1915a: 476.—N.Y.
diversa Dietz, 1921b: 4.—Utah; Wyo., Colo., N. Mex., Ariz.

doaneiana Alexander, 1919c: 195 (n. name for *californica* Doane, 1912).—Calif.
californica Doane, 1912: 49 (preocc. Doane, 1908).—Calif.
dorsimacula dorsimacula Walker, 1848: 69.—N.S.; B.C. to N.S., s. to Calif. and N.J.
angustipennis Loew, 1863b: 286 (Cent. 4, no. 19).—Man.
beaulieui Dietz, 1921c: 301.—Que.
nubilis Harris, 1835: 595. Nomen nudum.
ssp. **shasta** Alexander, 1919c: 198 (as sp.).—Calif.; Oreg.
downesi Alexander, 1944a: 171.—Calif.
duplex Walker, 1848: 66.—N.S.; Kans. to N.S. and Fla.
cinctocornis Doane, 1901: 110.—Pa.
mingwe Alexander, 1915a: 490.—N.Y.
dupliciformis Alexander, 1940b: 86.—Ill.
evidens Alexander, 1920b: 44.—Calif.
fattigiana Alexander, 1944d: 125.—Ga.
fenderi Alexander, 1954: 36.—Oreg.
filamentosa Alexander, 1959a: 72.—Calif.
flavibasis Alexander, 1918a: 414.—Kans.
flavocauda Doane, 1912: 60.—Ariz. (as Calif., error); N. Mex.
buenoi Alexander, 1946a: 499.—Ariz.
flavomarginata Doane, 1912: 46.—Calif.
flavoumbrosa Alexander, 1918a: 415.—Kans.; Kans. to Mich., S. C., and Fla.
fuliginosa (Say), 1823: 18 (1859b: 44) (*Ctenophora*).—Mo.; Kans. to Ont. and N.H., s. to N.C.
speciosa Loew, 1863b: 288 (Cent. 4, no. 22).—Ill.
fulvinodus Doane, 1912: 45.—Wash.
georgiana Alexander, 1915c: 133.—Ga.
inornata Loew *in* Alexander, 1915c: 134. Nomen nudum.
hastingsae Alexander, 1951: 87.—Calif.
hirsuta Doane, 1901: 113.—Mich.; Wis. to Vt., s. to Pa.
impudica Doane, 1901: 104.—Wash.; Oreg., Colo.
inadusta Alexander, 1946a: 508.—Ariz.
incisa incisa Doane, 1901: 118.—Wash.; B.C., Mont.
flavicoma Doane, 1912: 57.—Mont.
ssp. **eriensis** Alexander, 1942b: 285 (as sp.).—Ohio.
ssp. **kansensis** Alexander, 1918a: 411 (as sp.).—Kans.; Okla.
ssp. **picturata** Alexander, 1961b: 84.—Ariz.
ssp. **queres** Alexander, 1946a: 502.—N. Mex.
inusitata Alexander, 1949b: 17.—Calif.
johnsoniana Alexander, 1915a: 505.—Vt.; Mass., Md.
winnemana Alexander, 1915c: 136.—Md.
kaibabensis Alexander, 1946a: 506.—Ariz.

kirkwoodi Alexander, 1961b: 82.—Ariz.
lamellata Doane, 1901: 105.—Wash.; Oreg., Utah, Mont.
rangiferina Alexander, 1915a: 498.—Mont.
leechi Alexander, 1938b: 71.—B.C.; Wash., Oreg., Calif.
leiocantha Alexander, 1959c: 132.—Calif.
loewiana Alexander, 1915a: 488.—N.W.T.
simplex Loew *in* Alexander, 1915a: 490. Nomen nudum.
lucida Doane, 1901: 126.—Idaho; B.C., Wash., Oreg., Calif.
lygropis Alexander, 1920d: 227.—Calif.
lyrifera Dietz, 1921b: 5.—Utah.
macnabi Alexander, 1939a: 92.—Oreg.; Wash.
macracantha Alexander, 1946b: 49.—Ariz.
macrolabis macrolabis Loew, 1864a: 58 (Cent. 5, no. 17).—N.W.T.; Alaska to Labr. and Nfld., s. to Idaho and Mich., Eurasia.
spectabilis Doane, 1901: 120.—Idaho.
ssp. **macrolaboides** Alexander, 1918a: 69 (as sp.).—N. Mex.; Alaska, Wyo., Colo.
madina Dietz, 1921b: 6.—Utah.
mainensis Alexander, 1915a: 475.—Maine; Alta. to Nfld., s. to Colo. and Mass.
laevigata Loew *in* Alexander, 1915a: 476. Nomen nudum.
mallochi Alexander, 1920g: 91.—Ill.; Mo. to Md. and Fla.
mariannae Alexander, 1940c: 153.—Fla.
mariposa Alexander, 1946c: 187.—Calif.
megalabiata megalabiata Alexander, 1915c: 139.—Nev.; Wash., Oreg., Calif.
ssp. **referta** Alexander, 1947g: 41.—Calif.
megaura Doane, 1901: 112.—Mich.; Minn. to Que., s. to Iowa and Vt.
mesotergata Alexander, 1930b: 277.—Calif.
mitrata Dietz, 1921b: 11.—N. Mex.
miwok Alexander, 1945b: 35.—Calif.
modoc Alexander, 1945e: 35.—Calif.
mohavensis Alexander, 1946b: 47.—Ariz.
mono Alexander, 1945e: 40.—Calif.
monticola Alexander, 1915a: 492.—N.Y.; Ont. to Maine, s. to Pa.
mormon Alexander, 1948a: 27.—Utah.
morrisoni Alexander, 1915a: 507.—Ind.; Kans. to R.I., s. to Miss. and S.C.
occidentalis Doane, 1912: 59.—Calif.
olympia Doane, 1912: 61 (n. name for *concinna* Doane).—Wash.; Oreg., Calif.
concinna Doane, 1901: 115 (preocc. Philippi, 1865).—Wash.
oxytona Alexander, 1927g: 183.—Fla.

palmarum Alexander, 1947d: 61.—Calif.
parshleyi Alexander, 1915a: 510.—Maine; Alta. to Nfld., s. to Colo. and Mass.
scaphula Loew *in* Alexander, 1915a: 512. Nomen nudum.
pellucida Doane, 1912: 61 (n. name for *clara* Doane).—Wash.; Wash. to Calif. and Colo.
clara Doane, 1901: 107 (preocc. Kirby, 1884).—Wash.
pyramis Doane, 1912: 53.—Nev.
penicillata Alexander, 1915a: 496.—Hudson Bay Territory.
perfidiosa Alexander, 1945e: 38.—Calif.
perlongipes Johnson, 1909a: 131 (n. name for *filipes* Walker).—Fla.
longipes (error) Rogers, 1926b: 7.
filipes Walker, 1848: 65 (preocc. Fabricius, 1805).—Fla.
planicornia Doane, 1912: 52.—Calif.
pleuracicula Alexander, 1915c: 130.—Colo.; Nev., Utah, Ariz.
arizonica Alexander, 1916b: 53.—Ariz.
monochroma Dietz, 1919: 88.—Colo.
polingi Alexander, 1950d: 163.—Tex.
polycantha Alexander, 1942a: 209.—N. Mex.; Ariz.
praecisa Loew, 1872a: 51 (Cent. 10, no. 2).—Calif.; Wash., Oreg.
tingi Alexander, 1939a: 93.—Calif.
pubera Loew, 1864a: 57 (Cent. 5, no. 16).—Calif.; B.C. to Calif.
quaylii Doane, 1909: 18.—Calif.
rabiosa Alexander, 1943a: 154.—Colo.; Wyo., Utah.
rainiericola Alexander, 1946b: 69.—Wash.
ramona Alexander, 1941c: 207.—Colo.
retusa Doane, 1901: 109.—Wash.; B.C., Oreg., Idaho.
rotundiloba Alexander, 1915c: 132.—Tex.
ruidoso Alexander, 1946a: 510.—N. Mex.
sagittifera Alexander, 1948b: 125.—Colo. or Mont.
sanctaeritae Alexander, 1946a: 511.—Ariz.; Utah.
saxemontana Alexander, 1946e: 68.—Wyo.; Alaska, Y.T., B.C., Utah, Colo.
saylori Alexander, 1961b: 81.—Calif.; Mexico (Baja Calif.).
seminole Alexander, 1915a: 495.—Ga.; N.C.
sequoiarum Alexander, 1945b: 33.—Calif.
silvestra Doane, 1909: 18.—Calif.
simplex Doane, 1901: 103.—Calif.
sinistra Dietz, 1921b: 8.—Colo.; Wyo.
siskiyouensis Alexander, 1949b: 152.—Oreg.
snoqualmiensis Alexander, 1946c: 190.—Wash.; Oreg.
spaldingi Dietz, 1921b: 7.—Utah.

spatha Doane, 1912: 59.—Ariz.
spernata Dietz, 1921b: 9.—Colo.
sperryana Alexander, 1942a: 208.—Wyo.; Mont.
spinerecta Alexander, 1947b: 70.—Calif.
splendens Doane, 1901: 107.—Wash.; Oreg., Wyo., Ariz.
stalagmites Alexander, 1915c: 130.—N. Mex.
sternata Doane, 1912: 56.—Calif.
megatergata Alexander, 1920b: 45.—Calif.
submaculata Loew, 1863b: 288 (Cent. 4, no. 23).—Mass.; Wis. to N.S., s. to Tenn. and S.C.
cuspidata Doane, 1901: 111.—Pa.
bidens Loew *in* Alexander, 1915a: 464. Nomen nudum.
subtilis Doane, 1901: 106.—Calif.
sylvicola Doane, 1912: 53.—Wash.; Calif.
tanneri Alexander, 1948a: 30.—Utah; Colo.
tenaya Alexander, 1946c: 142.—Calif.
tergata Doane, 1912: 56.—Nev.; Calif.
texensis Alexander, 1916b: 48.—Tex.
timberlakei Alexander, 1947b: 71.—Calif.
translucida Doane, 1901: 109.—Pa.; Ill. to Pa., s. to Okla. and S.C.
devia Dietz, 1919: 86.—Md.
triplex triplex Walker, 1848: 66.—N.S.; Alta. to Nfld., s. to Wis. and Va.
inermis Doane, 1901: 112.—Mich.
ssp. **colei** Alexander, 1942c: 67.—Tenn.
ssp. **integra** Alexander, 1962: 4.—Ill.
ssp. **linearis** Alexander, 1940a: 617.—Tenn.
trispinosa trispinosa Lundström.—Not Nearctic.
ssp. **satyr** Alexander, 1915c: 129 (as sp.).—Colo.; Mont. to Que., s. to Colo.
claasseni Alexander, 1920d: 111.—Colo.
triton Alexander, 1915a: 487.—Ky.; Ind., D.C., S.C., Ga.
truculenta Alexander, 1943d: 144.—Calif.
tuscarora Alexander, 1915a: 493.—Va.; Mo. to Md., s. to S.C.
hamata Alexander, 1915a: 495. Nomen nudum.
twightae Alexander, 1959c: 130.—Calif.
umbrosa Loew, 1863b: 292 (Cent. 4, no. 31).—La.; Fla.
ungulata Doane, 1912: 54.—Calif.
unicincta unicincta Doane, 1901: 115.—Idaho; Wash., Oreg., Wyo.
ssp. **bifila** Alexander, 1954: 41.—Oreg.
usitata usitata Doane, 1901: 124.—Wash.; Oreg.
ssp. **aurantionota** Alexander, 1946c: 189 (as sp.).—Oreg.
utahicola Alexander, 1948a: 32.—Utah.

valida valida Loew, 1863b: 287 (Cent. 4, no. 21).—Ill.; Minn. to Nfld., s. to Ill. and N.C.
calva Doane, 1901: 114.—Mich.
ssp. **atricornis** Alexander, 1940a: 616.—Tenn.; N.C.
vestigipennis Doane, 1908d: 47.—Calif.
vitabilis Alexander, 1947g: 39.—Calif.
vittatipennis Doane, 1912: 61 (n. name for *albovittata* Doane).—Wash.; Oreg., Calif.
albovittata Doane, 1901: 119 (preocc. Macquart, 1838).—Wash.
williamsii Doane, 1909: 17.—Calif.
willissmithi Alexander, 1945a: 414.—Wyo.
woodi Alexander, 1948a: 34.—Utah.
yosemite Alexander, 1946c: 188.—Calif.
youngi Alexander, 1927f: 218.—Alta.; Alaska to Nfld., s. to Wis. and N.Y.
zelotypa Alexander, 1946e: 177.—Calif.

Subgenus HESPEROTIPULA Alexander

Tipula, subg. **Hesperotipula** Alexander, 1947d: 63. Type-species, *streptocera* Doane (orig. des.).

aitkeniana Alexander, 1944a: 61.—Calif.; Wash.
californica (Doane), 1908b: 176 (*Pachyrhina*).—Calif.; B.C., Wash., Oreg.
xanthomela Dietz, 1918: 107 (*Pachyrhina;* unjustified n. name for *californica* Doane, 1908).—Calif.
chumash Alexander, 1961a: 13.—Calif.
circularis Alexander, 1947d: 64.—Calif.
contortrix Alexander, 1944a: 169.—Calif.
coronado Alexander, 1946a: 497.—Ariz.
derbyi Doane, 1912: 47.—Calif.
fragmentata Dietz, 1919: 87.—Calif.; Wash., Oreg.
linsdalei linsdalei Alexander, 1951: 85.—Calif.
ssp. **obispoensis** Alexander, 1962: 4.—Calif.
micheneri Alexander, 1944a: 168.—Calif.
mutica Dietz, 1919: 91.—Calif.
opisthocera Dietz, 1919: 90.—Calif.
ovalis Alexander, 1951: 86.—Calif.
sanctaeluciae Alexander, 1951: 89.—Calif.
streptocera streptocera Doane, 1901: 113.—Idaho; B.C., Wash., Oreg.
ssp. **pallidocera** Dietz, 1919: 92 (as var.).—Wash. ?Ssp.
supplicata Alexander, 1944a: 170.—Calif.

sweetae Alexander, 1930b: 278.—Calif.
trypetophora Dietz, 1919: 89.—B.C.

Unplaced Species of *Tipula*

frigida Walker, 1848: 68.—N.S. Unrecognized.
hewitti Alexander, 1919b: 14.—N.W.T. ?Subg. *Oreomyza.*
johanseni Alexander, 1919b: 11.—N.W.T. ?Subg. *Oreomyza.*
katmaiensis Alexander, 1920i: 202.—Alaska. ?Subg. *Oreomyza.*
lionota Holmgren, 1883: 188.—n. Siberia; Alaska. ?Subg. *Oreomyza.*
coracina Alexander, 1918a: 70.—Alaska.
maculatipennis Say, 1824a: 359 (1859a: 243).—Northwest Territory (U.S.). Unrecognized.
maculipennis, emend.
puncticornis Macquart, 1850: 319 (1850: 15).—N. Amer. Unrecognized.
subpolaris Alexander, 1919b: 14.—N.W.T. ?Subg. *Oreomyza.*
trimaculata (Emmons), 1854: pl. 29, fig. 5 (*Ctenophora;* preocc. Macquart, 1838).—?N.Y. Unrecognized.

Subfamily CYLINDROTOMINAE

The larvae are plant feeders, occurring in wet mosses and similar plants or, in the case of *Cylindrotoma*, on terrestrial angiosperms, including both monocotyledonous and dicotyledonous genera.

REFERENCE: Alexander, 1920h (biol.).

Genus CYLINDROTOMA Macquart

Cylindrotoma Macquart, 1834a: 107. Type-species, *Limnobia distinctissima* Meigen (Westwood, 1840: 128).

americana Osten Sacken, 1865: 236.—N.H.; Mich. to Nfld., s. to Pa.
juncta juncta Coquillett, 1900h: 401 (1904: 15).—Alaska; B.C., Wash., Oreg.
splendens Doane, 1900: 197.—Alaska.
ssp. **pallescens** Alexander, 1930b: 280 (as sp.).—Colo.; Wyo.
tarsalis Johnson, 1912a: 2.—N.Y.; N.B., Vt., Conn.
anomala Johnson, 1912a: 2.—N.Y.

Genus PHALACROCERA Schiner

Phalacrocera Schiner, 1863: 224. Type-species, *Limnobia nudicornis* Schummel (orig. des.) = *replicata* (Linnaeus).

neoxena Alexander, 1914a: 603.—Ont.; Mich. to Que. and Pa.
occidentalis Alexander, 1927c: 10.—Wash.; Oreg. ?*Cylindrotoma.*

tipulina Osten Sacken, 1865: 241.—N.H.; Wis. to Nfld., s. to Pa.
vancouverensis Alexander, 1927e: 189.—B.C.

Genus LIOGMA Osten Sacken

Liogma Osten Sacken, 1869b: 298. Type-species, *Triogma nodicornis* Osten Sacken (Coquillett, 1910b: 561).

nodicornis nodicornis (Osten Sacken), 1865: 239 (*Triogma*).—N.Y., D.C.; Alta. to Nfld., s. to Ill. and D.C.
ssp. **flaveola** Alexander, 1919c: 195.—Va.; Ind., D.C., Tenn., N.C.

Genus TRIOGMA Schiner

Triogma Schiner, 1863: 223. Type-species, *Limnobia trisulcata* Schummel (orig. des.).

exsculpta Osten Sacken, 1865: 239.—Pa.; Mich. to N.H. and N.J.
exculpta, error.

Subfamily LIMONIINAE

The subfamily Limoniinae is the largest in the family Tipulidae, and includes small to medium-sized forms. Only a few species in our fauna approach the normal size of the Tipulinae (see *Pedicia*, *Limnophila*, subg. *Eutonia*). Four tribes, the Limoniini, Pediciini, Hexatomini, and Eriopterini, are included.

Tribe LIMONIINI

In our area the tribe Limoniini contains six genera, each of which represents a different subtribe. The immature stages of *Helius* live in saturated, silty sand or organic mud at the margins of marshes (Rogers, 1933a). *Antocha* is strictly aquatic under lotic conditions (Alexander, 1920h). *Elliptera* is semi-aquatic to aquatic, frequenting cliffs or similar hard surfaces that are constantly wet by percolating water. *Dicranoptycha* lives in moderately moist soil beneath a covering of leaf mold (Alexander, 1920h; Rogers, 1933a). The early stages of *Orimarga* occur in rotten wet logs in an advanced stage of decay (Rogers, 1927a, 1933a). The immature stages of *Limonia* are discussed under that genus.

Genus LIMONIA Meigen

Amphinome Meigen, 1800: 15 (preocc. Bruguière, 1792). Type-species, *Tipula tripunctata* Fabricius (Coquillett, 1910b: 505). Suppressed by I.C.Z.N., 1963b: 339.

Limonia Meigen, 1803: 262. Type-species, *Tipula tripunctata* Fabricius (Westwood, 1840: 129).

Limnobia Meigen, 1818: 116 (unjustified n. name for *Limonia* Meigen). Type-species, *Tipula tripunctata* Fabricius (aut.).

Taphrophila Rondani, 1856: 185. Type-species, *Limnobia inusta* Meigen (orig. des.).

The genus *Limonia* is the largest in the Diptera, with nearly 2,000 species distributed in more than a score of subgenera. As might be expected in such a diverse group, the immature stages frequent a range of habitats almost equivalent to that for the entire family. These habitats include semi-aquatic situations such as saturated mats or beds of algae, liverworts, and mosses (subgenera *Limonia, Dicranomyia, Geranomyia*); decaying vegetable matter; fungi, including rotting wood permeated by mycelia (*Limonia, Metalimnobia*); decaying wood (*Rhipidia, Discobola*); and mines in leaves (*Dicranomyia*). A few species are marine or virtually so (*Limonia floridana, L. marmorata*).

REFERENCE: Doane, 1908a (tax.).

Subgenus LIMONIA Meigen

badia (Walker), 1848: 46 (*Limnobia*).—N.S.

humidicola, authors, not Osten Sacken.

bistigma (Coquillett), 1905d: 57 (*Limnobia;* as *bestigma*).—B.C.; Wash., Oreg., Calif.

tributaria Alexander, 1943d: 14.—Calif.

borealis (Doane), 1900: 187 (*Dicranoptycha*).—Alaska. ?=*tripunctata* ssp.

globithorax (Osten Sacken), 1869b: 74 (*Dicranomyia*).—D.C., N.H.; Wis. to Nfld., s. to Tenn. and Fla.

indigena indigena (Osten Sacken), 1859: 215 (*Limnobia*).—D.C., Maine, Wis.; Iowa to Nfld., s. to Tenn. and S.C.

ssp. **jacksoni** (Alexander), 1917: 199 (*Limnobia*).—Colo.; Wyo., Utah, N. Mex.

ssp. **loloensis** Alexander, 1958b: 217.—Idaho.

indigenoides (Alexander), 1920i: 193 (*Limnobia*).—Alaska; Maine. ?=*badia*.

macateei (Alexander), 1916b: 42 (*Dicranomyia*).— Md.; Ind. to Maine, s. to Tenn. and Fla.

varipes Dietz, 1921a: 241 (*Dicranomyia*).—Pa.

maculicosta (Coquillett), 1905d: 57 (*Limnobia*).—B.C.; Alaska to Vt., s. to Calif. and Va., Japan.

nubeculosa nubeculosa (Meigen).—Not Nearctic.

ssp. **sciophila** (Osten Sacken), 1877: 197 (*Limnobia;* as sp.).—Calif.; Alaska to Calif. and Colo. ?Syn.

parietina (Osten Sacken), 1861: 289 (*Limnobia*).—N.Y.; Mich. to Maine, s. Ill. and N.C.
sociabilis (Osten Sacken), 1869b: 95 (*Limnobia*).—Ill.; Iowa.
tripunctata (Fabricius).—Not Nearctic.
tristigma (Osten Sacken), 1859: 216 (*Limnobia*).—Ill.; Alta. to N.B., s. to Tenn. and N.C.

Subgenus METALIMNOBIA Matsumura

Metalimnobia Matsumura, 1911: 63 (as genus). Type-species, *vittata* Matsumura (mon.) = *quadrimaculata* ssp.

annulus annulus (Meigen).—Not Nearctic.
ssp. **cinctipes** (Say), 1823: 21 (1859b: 47) (*Limnobia;* as sp.).—Mo.; Alta. to Nfld., s. to Miss. and Fla.
ssp. **triphaea** Alexander, 1954: 43.—Oreg.
californica (Osten Sacken), 1861: 288 (*Limnobia*).—Calif.; B.C., Wash., Oreg.
dietziana Alexander, 1927f: 219 (n. name for *gracilis* Dietz).—Sask.
gracilis Dietz, 1915a: 329 (*Limnobia;* preocc. Wiedemann, 1828).—Sask.
fallax (Johnson), 1909a: 125 (*Limnobia*).—N.J., Pa.; Mich. to N.J., s. to Okla. and N.C.
hudsonica (Osten Sacken), 1861: 289 (*Limnobia*).—N.W.T.; Alaska to Nfld., s. to B.C. and N.Y.
immatura (Osten Sacken), 1859: 214 (*Limnobia*).—Wis., Maine, D.C.; B.C. to Maine, s. to Fla.
novaeangliae Alexander, 1929f: 44.—Mass.; Maine, Conn., N.Y.
solitaria (Osten Sacken), 1859: 215 (*Limnobia*).—N.Y.; Alaska to N.S., s. to Minn. and Mass.
triocellata (Osten Sacken), 1859: 216 (*Limnobia*).—Wis., N.Y., D.C.; Alta. to N.S., s. to Tenn. and Ga.

Subgenus DISCOBOLA Osten Sacken

Discobola Osten Sacken, 1865: 226 (as genus). Type-species, *Limnobia argus* Say (Coquillett, 1910b: 534) = *annulata* (Linnaeus).

Trochobola Osten Sacken, 1869b: 97 (unjustified n. name for *Discobola* Osten Sacken). Type-species, *Limnobia argus* Say (aut.) = *annulata* (Linnaeus).

annulata (Linnaeus), 1758: 586 (*Tipula*).—Europe; B.C. to Nfld., s. to Oreg., Tenn., and Va., Eurasia, s. to New Guinea.
argus Say, 1824a: 358 (1859a: 243) (*Limnobia*).—Minn.

neoelegans Alexander, 1954: 48 (n. name for *elegans* Doane).—Wash.; B.C., Idaho, Oreg., Calif.

elegans Doane, 1900: 186 (*Trochobola*; preocc. Wiedemann, 1830).—Wash.

nigroclavata Alexander, 1942b: 310.—N.Y.; Maine, Mass.

Subgenus RHIPIDIA Meigen

Rhipidia Meigen, 1818: 153 (as genus). Type-species, *maculata* Meigen (mon.)=*lecontei* Alexander.

Rhipidia, subg. *Arhipidia* Alexander, 1912a: 6. Type-species, *domestica* Osten Sacken (Alexander, 1950b: 195).

Rhipidia, subg. *Monorhipidia* Alexander, 1912a: 6. Type-species, *fidelis* Osten Sacken (Alexander, 1950b: 195).

bryanti (Johnson), 1909a: 123 (*Rhipidia*).—Mass.; Colo. to Maine, s. to Ariz. and Fla.

domestica (Osten Sacken), 1859: 208 (*Rhipidia*).—D.C.; Kans. and Iowa to N.J., s. to Tex. and Fla., Neotropical.

fidelis (Osten Sacken), 1859: 209 (*Rhipidia*).—N.Y.; Alta. to N.S., s. to Oreg., Tenn., and Fla.

gaspicola Alexander, 1941c: 87.—Que.

huachucensis Alexander, 1955a: 127.—Ariz.

lecontei Alexander, 1940a: 624 (as *maculata* ssp.).—Tenn.; Alaska to Nfld., s. to Calif., Tenn., and Va., Eurasia.

maculata Meigen, 1818: 153 (*Rhipidia*; preocc. Meigen, 1804).—Europe.

schwarzi (Alexander), 1912a: 13 (*Rhipidia*).—Santo Domingo; s. Fla. to Venezuela.

shannoni (Alexander), 1914a: 581 (*Rhipidia*).—Md.; Ind., Tenn., Md. to Fla., Neotropical.

Subgenus DICRANOMYIA Stephens

Furcomyia Meigen, 1818: 133. Type-species, *Limonia lutea* Meigen (Coquillett, 1910b: 546). Unavailable name, cited in specific synonymy.

Dicranomyia Stephens, 1829a: 53 (also 1829b: 243) (as genus). Type-species, *Limnobia modesta* Meigen (Coquillett, 1910b: 533).

acerba Alexander, 1943 d: 16.—Wash.; Oreg.

adirondacensis (Alexander), 1922a: 62 (*Dicranomyia*).—N.Y.; Wis. to Que., s. to N.C.

alascaensis (Alexander), 1919b: 4 (*Dicranomyia*).—Alaska.

anteapicalis Alexander, 1946d: 155.—Calif.; Wash.

aquita (Dietz), 1915a: 331 (*Dicranomyia*).—N.W.T. Unrecognized.

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athabascae (Alexander), 1927f: 221 (*Dicranomyia*).—Alta.; B.C. to Alta., s. to Calif. and Wyo.

brevivena (Osten Sacken), 1869b: 66 (*Dicranomyia*).—N.Y., D.C.; Oreg. to Nfld., s. to Fla.

brevivenula Alexander, 1929h: 247 (n. name for *flavescens* Dietz).—Pa.

flavescens Dietz, 1921a: 239 (preocc. Macquart, 1834).—Pa.

brunnea (Doane), 1900: 184 (*Dicranomyia*).—Mass. Unrecognized.

catalinae Alexander, 1944c: 91.—Calif.

chorea (Meigen), 1818: 134 (*Limnobia*).—Europe; B.C.

citrina (Doane), 1900: 183 (*Dicranomyia*).—Wash.; Oreg., Calif., Wyo.

cramptoniana Alexander, 1929h: 247 (n. name for *cramptoni* Alexander).—Mass.

cramptoni Alexander, 1926c: 47 (*Dicranomyia;* preocc. Alexander, 1912).—Mass.

ctenopyga Alexander, 1943a: 156.—Colo.; Colo. to Mich.

distans (Osten Sacken), 1859: 211 (*Dicranomyia*).—Fla.; Md. to Ala. and Fla., Neotropical, also Calif.

cervina Doane, 1908a: 8 (*Dicranomyia*).—Calif.

diversoides (Dietz), 1921a: 240 (*Dicranomyia*).—Pa. Unrecognized.

divisa Alexander, 1929h: 247 (n. name for *diversa* Osten Sacken, 1859: 212).—D.C., Md.; Iowa to Mass., s. to Mo. and Fla., Greater Antilles.

diversa Osten Sacken, 1859: 212 (*Dicranomyia;* preocc. Osten Sacken, 1859: 207).—D.C., Md.

floridana (Osten Sacken), 1869b: 67 (*Dicranomyia*).—Fla.; Md., Va., S.C.

fulva (Doane), 1900: 185 (*Dicranomyia*).—Wash.; Oreg., Calif., Wyo.

fulvoides Alexander, 1943b: 737 (as ssp.).—Wyo.

geronimo Alexander, 1949b: 101.—Ariz.

geyserensis Alexander, 1943b: 735.—Wyo.

gladiator (Osten Sacken), 1859: 212 (*Dicranomyia*).—D.C.; Alta. to Maine, s. to Colo. and Ga.

haeretica (Osten Sacken), 1869b: 70 (*Dicranomyia*).—N.Y.; Mich. to Nfld. and R.I.

gibsoni Alexander, 1929b: 17 (*Dicranomyia*).—N.S.

halterata (Osten Sacken), 1869b: 71 (*Dicranomyia*).—Labr.; Alaska to Labr. and Nfld., s. to B.C. and Pa., Eurasia.

cinereipennis Lundström, 1912: 52 (*Dicranomyia*).—Finland.

halterella (Edwards), 1921a: 201 (*Dicranomyia*).—Scotland; Wash. and Utah to Maine, Europe.

gracilis Doane, 1900: 184 (*Dicranomyia*; preocc. Wiedemann, 1828).—Idaho.

helva (Doane), 1900: 183 (*Dicranomyia*).—Colo. Unrecognized.
homichlophila Alexander, 1958b: 129.—Calif.
humidicola (Osten Sacken), 1859: 210 (*Dicranomyia*).—N.Y., Conn., D.C.; B.C. to N.S., s. to Calif., Cent. Amer., and Tenn.
viridicans Doane, 1908a: 7 (*Dicranomyia*).—Calif.
badia, authors, not Walker.
illustris Alexander, 1944b: 91.—Oreg.; Wash.
immanis Alexander, 1950d: 164.—Mich.
immodesta (Osten Sacken), 1859: 211 (*Dicranomyia*).—Maine, N.Y., D.C.; Alta. to N.S., s. to Iowa and S.C.
immodestoides Alexander, 1919i: 327.—Japan; Oreg. to Nfld., s. to Ind.
iowensis Rogers, 1926a: 50 (*Dicranomyia*).—Iowa.
inhabilis Alexander, 1949b: 154.—Oreg.
intricata (Alexander), 1927f: 221 (*Dicranomyia*).—Alta.
isabellina (Doane), 1900: 183 (*Dicranomyia*).—Pa. Unrecognized.
lacroixi (Alexander), 1926c: 46 (*Dicranomyia*).—Mass.
liberta (Osten Sacken), 1859: 209 (*Dicranomyia*).—Ala., D.C., Ga., Wis.; Man. to Nfld., s. to Okla. and Fla., Bermuda.
libertoides (Alexander), 1912b: 361 (*Furcomyia*).—Calif.; Oreg.
linsdalei Alexander, 1943f: 253.—Calif.
longipennis (Schummel), 1829: 104 (*Limnobia*).—Europe; Oreg. and Man. to Maine, s. to Colo. and Pa., Eurasia.
immemor Osten Sacken, 1861: 287 (*Dicranomyia*).—N.Y.
magnicauda magnicauda (Lundström).—Not Nearctic.
ssp. **broweriana** Alexander, 1941d: 193.—Maine.
marmorata (Osten Sacken), 1861: 288 (*Dicranomyia*).—Calif.; B.C. to Calif. ?Subg. *Idioglochina* Alexander.
signipennis Coquillett, 1905d: 56 (*Dicranomyia*).—Calif.
rhipidioides Alexander, 1918a: 381 (*Dicranomyia*).—Calif.
melanderi melanderi Alexander, 1945c: 1.—Idaho; Oreg.
ssp. **tharpiana** Alexander, 1959a: 74.—Calif.
melleicauda (Alexander), 1917: 22 (*Dicranomyia*).—Colo.; Man., B.C.
michigana Alexander, 1950d: 166.—Mich.
modesta (Meigen), 1818: 134 (*Limnobia*).—Europe; N.W.T., Utah, Greenland, Eurasia.
moniliformis (Doane), 1900: 184 (*Dicranomyia*).—Colo.; B.C. to Ont., s. to Oreg., Colo., and Mich.
penicillata Alexander, 1927j: 7 (*Dicranomyia*).—N. Dak.
haeretica, authors, not Osten Sacken.
morioides (Osten Sacken), 1860: 17 (*Dicranomyia*).—N.Y.; Alaska to Nfld., s. to Colo. and N.C.

murina (Zetterstedt), 1851: 3882 (*Limnobia*).—n. Europe; Alta., Eurasia.

platyrostra Alexander, 1927f: 223 (*Dicranomyia*).—Alta.

neomorio (Alexander), 1927f: 220 (*Dicranomyia;* as *rufiventris* ssp.).—Alta.; Alta. to Maine.

nielseniana Alexander, 1949c: 39.—Wyo.; Oreg.

nycteris (Alexander), 1927f: 220 (*Dicranomyia*).—Alta.; Alta. and Wyo. to Que. and N.B.

particeps (Doane), 1908a: 7 (*Dicranomyia*).—Wash.; Utah.

uinta Alexander, 1948a: 38.—Utah.

pennsylvanica (Dietz), 1921a: 239 (*Dicranomyia*).—Pa. Unrecognized.

piscataquis Alexander, 1941c: 86.—Maine; Wash., Oreg., Greenland.

vibei Nielsen, 1951: 185.—Greenland.

profunda (Alexander), 1925a: 173 (*Dicranomyia*).—Mass.; Que. to Nfld., s. to N.Y. and Mass.

pudica (Osten Sacken), 1859: 212 (*Dicranomyia*).—Ill.; Mich. to Maine, s. to Ill. and N.C.

pudicoides Alexander, 1929a: 299.—Tenn.; Ind. and Tenn. to Maine.

rostrifera (Osten Sacken), 1869b: 65 (*Dicranomyia*).—N.Y.; B.C. to N.Y. and Maine.

sera sera (Walker).—Not Nearctic.

ssp. **erostrata** Alexander, 1930b: 71 (as sp.).—Utah.

ssp. **forcipula** Meijere, 1918: 128 (*Dicranomyia;* as sp.).—Holland; Man., Europe.

sphagnicola (Alexander), 1925a: 173 (*Dicranomyia*).—Mass.; Colo. to Nfld.

spinifera (Alexander), 1927a: 229 (*Dicranomyia*).—Mass.; Mich. to N.B., s. to N.C.

stigmata (Doane), 1900: 185 (*Dicranomyia*).—Calif.; Wash.

stulta (Osten Sacken), 1859: 210 (*Dicranomyia*).—N.Y., Que., Va.; Wis. to Que. and Maine, s. to Ga.

monticola Alexander, 1911c: 201 (*Furcomyia*).—Ga.

terraenovae (Alexander), 1920g: 85 (*Dicranomyia*).—Nfld.; Alaska to Nfld., s. to Colo., Europe.

tenuipes Zetterstedt, 1838: 837 (*Limnobia;* preocc. Say, 1823).—Europe. **N. syn.**

decora Staeger, 1840: 47 (*Limnobia;* preocc. Haliday, 1833).—Europe. **N. syn.**

uliginosa Alexander, 1929a: 27.—N.Y.; Mich. to Que., s. to Tenn. and S.C.

vulgata (Bergroth), 1888a: 194 (*Dicranomyia*).—Alaska; Alaska, s. to Calif. and Wyo.

ochracea Doane, 1900: 182 (*Dicranomyia*).—Idaho.

walleyi Alexander, 1942b: 325.—Ont.; Que., N.B., Maine.
willamettensis Alexander, 1949b: 155.—Oreg.; Wyo.
ypsilon Alexander, 1959a: 47.—Calif.; Wash., Oreg., Ariz.

Subgenus ALEXANDRIARIA Garrett

Alexandriaria Garrett, 1922c: 60 (as genus). Type-species, *suffusca* Garrett (orig. des.).

phalangioides Alexander, 1943b: 738.—Wyo.
suffusca (Garrett), 1922c: 60 (*Alexandriaria*).—B.C.
intermedia Garrett, 1922c: 60 (*Alexandriaria*).—B.C.
kooteniensis Garrett, 1922c: 61 (*Alexandriaria*).—B.C.
whartoni (Needham), 1908: 211 (*Dicranomyia*).—Mich.

Subgenus GERANOMYIA Haliday

Geranomyia Haliday, 1833: 154 (as genus). Type-species, *unicolor* Haliday (mon.).

canadensis (Westwood), 1835b: 684 (*Limnobiorhynchus*).—Canada; Alaska to Nfld., s. to Calif. and Fla.
communis (Osten Sacken), 1859: 207 (*Geranomyia*).—Wis., D.C. Confused in literature with *canadensis*.
costomaculata (Dietz), 1921a: 237 (*Geranomyia*).—Pa. ?=*diversa*.
distincta (Doane), 1900: 186 (*Geranomyia*).—Mass.; Mich. to Nfld., s. to Tex. and Fla.
diversa (Osten Sacken), 1859: 207 (*Geranomyia*).—N.Y.; Oreg. to Maine, s. to Calif. and S.C.
ibis (Alexander), 1916a: 493 (*Geranomyia*).—Ark.; Calif. to Ark.
parapentheres Alexander, 1948a: 40.—Utah.
perfecta (Alexander), 1928c: 109 (*Geranomyia*).—Mexico; Ariz.
remingtoni Alexander, 1947c: 247.—La.
rostrata (Say), 1823: 22 (1859b: 47) (*Limnobia*).—Md., Pa.; Mich. to Nfld., s. to La. and Fla., Greater Antilles.
valverdensis Alexander, 1946a: 514.—Tex.
vanduzeei (Alexander), 1916a: 488 (*Geranomyia*).—Fla.
virescens (Loew), 1851: 398 (*Aporosa*).—Virgin Is. (St. Thomas I.); s. Fla., Neotropical.
zionana Alexander, 1948a: 41.—Utah.

Unplaced Species of *Limonia*

apicata apicata (Alexander).—Not Nearctic.
ssp. **subapicata** Alexander, 1931b: 178 (as sp.).—Fla.
argenteceps (Alexander), 1912d: 163 (*Limnobia*).—Ariz.; Colo., N. Mex.

defuncta defuncta (Osten Sacken), 1859: 213 (*Limnobia*).—Que., Maine, N.Y., D.C.; Wis. to Nfld., s. to Ill. and S.C.
pellucidiguttata Dietz, 1921a: 242 (*Dicranomyia*).—Pa.
simulans, authors, not Walker.
ssp. **concinna** (Williston), 1893c: 60 (*Limnobia;* as sp.).—Wash.; B.C. to Wyo., s. to Calif. and N. Mex.
fusca Meigen, 1804: 54.—Europe; Mich. to Nfld., s. to Ga.
turpis Walker, 1856b: 434 (*Limnobia*).—Canada.
pubipennis Osten Sacken, 1859: 211 (*Dicranomyia*).—Md.
infuscata (Doane), 1900: 185 (*Dicranomyia*).—Idaho; Alaska to Calif. and Wyo.
adjecta Doane, 1908a: 8 (*Dicranomyia*).—Calif.
nitidiuscula Alexander, 1927j: 6.—Oreg.
kuschei Alexander, 1958b: 215.—Ariz.
nelliana (Alexander), 1914a: 579 (*Dicranomyia*).—Colo.
neonebulosa Alexander, 1924e: 555 (n. name for *nebulosa* Alexander).—Japan; Mass., China.
nebulosa Alexander, 1913b: 203 (*Dicranomyia;* preocc. Zetterstedt, 1838).—Japan.
rara (Osten Sacken), 1869b: 75 (*Dicranomyia*).—N.Y.; Iowa and Wis. to N.Y., s. to Fla.
reticulata (Alexander), 1912b: 334 (*Furcomyia*).—Cuba; s. Fla., Mexico.
rogersiana rogersiana (Alexander), 1926c: 45 (*Dicranomyia*).—Fla.; Ga.
ssp. **longistylata** Alexander, 1929f: 45.—Fla.
shelfordi Alexander, 1944d: 243.—Ky.; Mich., W. Va.
simulans (Walker), 1848: 45 (*Limnobia*).—Ont.; Que., Maine.
pemetica Alexander, 1939a: 95.—Maine.
venusta (Bergroth), 1888a: 193 (*Dicranomyia*).—Alaska; Alaska to Calif. and N. Mex.
duplicata Doane, 1900: 185 (*Dicranomyia*).—Wash.
negligens Alexander, 1927j: 8 (*Dicranomyia*).—Colo.
yellowstonensis Alexander, 1945d: 155.—Wyo.

Genus HELIUS Lepeletier and Serville

Megarhina Lepeletier and Serville *in* Latreille et al., 1828: 585. Type-species, *Limnobia longirostris* Meigen (mon.).
Helius Lepeletier and Serville *in* Latreille et al., 1828: 831 (unjustified n. name for *Megarhina* Lepeletier and Serville; as Hélius). Type-species, *Limnobia longirostris* Meigen (aut.). [Although Hélius is an invalid name because proposed in the vernacular and was an unjustified new

name for the valid name *Megarhina*, the author prefers to use this name in order not to upset long established usage.—Eds.]

Rhamphidia Meigen, 1830: 281. Type-species, *Limnobia longirostris* Meigen (Westwood, 1840: 129).

Subgenus HELIUS Lepeletier and Serville

flavipes (Macquart), 1855: 37 (1855: 17) (*Rhamphidia*).—Md.; Alta. to N.S., s. to Tex. and Fla.

prominens Walker, 1856b: 435 (*Limnobia*).—N. Amer.

brevirostris Osten Sacken, 1859: 222 (*Rhamphidia*).—Wis.

mainensis (Alexander), 1916a: 498 (*Rhamphidia*).—Maine; Wis. to Maine, s. to Ill. and Md.

Genus ANTOCHA Osten Sacken

Antocha Osten Sacken, 1859: 219. Type-species, *saxicola* Osten Sacken (mon.).

Subgenus ANTOCHA Osten Sacken

biarmata Alexander, 1940a: 620.—Tenn.; N.Y.

capitella Alexander, 1941b: 13.—Tenn.

decurvata Alexander, 1941b: 12.—Tenn.

monticola Alexander, 1917: 23.—Colo.; Y.T., s. to Calif., Colo., and Mexico.

obtusa Alexander, 1925b: 201.—Mich.; Que., N.Y.

opalizans Osten Sacken, 1859: 220.—Que., N.Y., Ga.; Wis. to Que. and Maine, s. to Ga.

saxicola Osten Sacken, 1859: 219.—D.C.; Mich. to Nfld., s. to Mo. and Ga.

Genus THAUMASTOPTERA Mik

Thaumastoptera Mik, 1866: 302. Type-species, *calceata* Mik (mon.).

Unnamed sp.—Calif.

Genus ELLIPTERA Schiner

Elliptera Schiner, 1863: 222. Type-species, *omissa* Schiner (orig. des.).

astigmatica Alexander, 1912d: 164.—B.C.; Alaska to Calif. and Colo.

clausa Osten Sacken, 1877: 198.—Calif.

coloradensis Alexander, 1920d: 109.—Colo.; Wyo.

illini Alexander, 1920g: 86.—Ill.; Tenn.

tennessa Alexander, 1926e: 114.—Tenn.

Genus DICRANOPTYCHA Osten Sacken

Dicranoptycha Osten Sacken, 1859: 217. Type-species, *germana* Osten Sacken (Coquillett, 1910b: 533).

acanthophallus Alexander, 1940a: 621.—Tenn.
australis Alexander, 1926f: 55.—Fla.; Ga.
elsa Alexander, 1929a: 28.—N.Y.; N.Y. to N.C.
germana Osten Sacken, 1859: 217.—N.Y.; Mich. to Que. and Maine, s. to Ill. and N.C.
laevis Alexander, 1948c: 131.—Calif.
megaphallus Alexander, 1926f: 57.—Tenn.; N.C., S.C., Fla.
melampygia Alexander, 1950e: 81.—Calif.; Oreg.
microphallus Alexander, 1947c: 249.—Ga.
minima Alexander, 1919e: 21.—Kans.; Ill.
nigripes Osten Sacken, 1859: 218.—Ga.; N.C.
nigrogenualis Alexander, 1949a: 291.—Wash.; Oreg.
occidentalis Alexander, 1927j: 10.—Calif.; Wash., Oreg.
pallida Alexander, 1926f: 58.—Kans.; Ind.
quadrivittata Alexander, 1919c: 191 (as *sobrina* ssp.).—Colo.; Oreg. to Mont., s. to Ariz.
rogersi Alexander, 1927h: 55.—Fla.
septemtrionis Alexander, 1926f: 56.—Mass.; Mich. to Mass., s. to Ind. and N.C.
sobrina Osten Sacken, 1859: 218.—D.C.; Ind. to N.J., s. to Tenn. and Fla.
sororcula Osten Sacken, 1859: 218.—Ga.
spinosissima Alexander, 1950e: 83.—Calif.; Oreg.
stenophallus Alexander, 1950e: 82.—Calif.; Wash., Oreg.
tennessa Alexander, 1941d: 195.—Tenn.
tigrina Alexander, 1919e: 21.—Kans.; Ind., Ill., Tenn., N.C.
winnemana Alexander, 1916a: 500.—Md.; Mo. to Md., s. to Fla.

Genus ORIMARGA Osten Sacken

Orimarga Osten Sacken, 1869b: 120. Type-species, *Limnobia alpina* Zetterstedt (Coquillett, 1910b: 580) = *attenuata* (Walker).

Subgenus ORIMARGA Osten Sacken

arizonensis Coquillett, 1902g: 83.—Ariz.
sanctaeritae Alexander, 1946a: 515.—Ariz.
wetmorei Alexander, 1920g: 87.—Fla.
zionensis Alexander, 1948a: 43.—Utah.

Subgenus DIOTREPHA Osten Sacken

Diotrepha Osten Sacken, 1878c: 219 (as genus). Type-species, *mirabilis* Osten Sacken (mon.).

Thambeta Williston, 1896a: 32. Type-species, *Diotrepha mirabilis* Osten Sacken (present des.).

mirabilis (Osten Sacken), 1878c: 220 (*Diotrepha*).—Ga.; Ind., Tex., Fla., Greater Antilles.

Tribe PEDICIINI

The tribe Pediciini is a small but very distinct group which is chiefly Holarctic. It has two subtribes, the Ularia, with the single genus *Ula*, and the Pediciaria, including *Pedicia*, *Ornithodes*, *Nasiternella*, and *Dicranota*. The immature stages of *Ula* are fungicolous, and occur in both woody and fleshy fungi, sometimes becoming economically important; *Pedicia* and *Dicranota* frequent wet to saturated, organic soil along streams and in seepage areas.

REFERENCE: Alexander, 1920h (biol.).

Genus ULA Haliday

Ula Haliday, 1833: 153. Type-species, *mollissima* Haliday (mon.) = *sylvatica* (Meigen).

elegans Osten Sacken, 1869b: 276.—N.H.; Alaska to N.S., s. to Wyo. and S.C.

longicornis Dietz, 1921a: 250.—Pa.

paupera Osten Sacken, 1869b: 277.—D.C.; Alaska to Nfld., s. to Calif., Wyo., and N.Y.

Genus PEDICIA Latreille

Pedicia Latreille, 1809: 255. Type-species, *Tipula rivosa* Linnaeus (mon.).

Peditia, error.

Subgenus PEDICIA Latreille

albivitta Walker, 1848: 37.—N.S.; Man. to Nfld., s. to Mo. and S.C.
goniphora Harris, 1835: 595. Nomen nudum.

contermina Walker, 1848: 38.—N.S.; Mich. to Nfld., s. to N.C.

falcifera Alexander, 1941c: 209.—S. Dak.; Mich.

lewisiana Alexander, 1958b: 131.—Mont.

magnifica Hine, 1903b: 417 (*Peditia*).—B.C.; Oreg., Idaho.

margarita Alexander, 1929a: 300.—Mass.; Nfld. to Tenn.

obtusa Osten Sacken 1877: 205.—Calif.; Oreg.

parvicellula Alexander, 1938b: 72.—B.C.; Wash., Oreg., Colo.
procteriana Alexander, 1939a: 97.—Maine; Ont., Mass.
subobtusa Alexander, 1949b: 19.—Calif.

Subgenus TRICYPHONA Zetterstedt

Tricyphona Zetterstedt, 1837: 65 (as genus). Type-species, *Limonia immaculata* Meigen (mon.).
Amalopis Haliday, 1856: xv. Type-species, *Limnobia occulta* Meigen (orig. des.).

aethiops Alexander, 1955a: 129.—Alta.; B.C., Mont.
ampla ampla (Doane), 1900: 195 (*Amalopis*).—Wash.; B.C., Oreg.
ssp. **cinereicolor** Alexander, 1958d: 32.—Calif.
ssp. **euryptera** Alexander, 1949c: 41.—Ariz.
ssp. **perangusta** Alexander, 1958d: 33.—Oreg.
ssp. **truncata** Alexander, 1941c: 210.—Calif.
aperta (Coquillett), 1905d: 59 (*Tricyphona*).—B.C.; Alaska to Calif., Colo., and Mont.
aspidoptera aspidoptera (Coquillett), 1905b: 347 (*Limnophila*).—N. Mex.
ssp. **convexa** Alexander, 1958d: 33.—Colo.
auripennis auripennis (Osten Sacken), 1859: 246 (*Amalopis*).—Mass.; Ont. to N.S., s. to N.Y. and Mass.
ssp. **attenuata** Alexander, 1941a: 299.—N.C.
ssp. **breviclava** Alexander, 1941a: 299.—Que.
ssp. **nephophila** Alexander, 1941a: 300.—Tenn.; N.C.
autumnalis (Alexander), 1917: 30 (*Tricyphona*).—N.Y.; n. Ont. to N.B., s. to Wis. and Pa.
bicomata Alexander, 1943d: 17.—Oreg.; Wash.
bidentifera Alexander, 1950c: 29.—Calif.
brevifurcata (Alexander), 1919b: 6 (*Tricyphona*).—Alaska.
calcar (Osten Sacken), 1859: 247 (*Amalopis*).—Mass., N.H. (Osten Sacken, 1869b: 269); Wis. to Que. and Nfld., s. to S.C.
cascadensis Alexander, 1954: 50.—Oreg.; Wash., Wyo.
cervina (Alexander), 1917: 62 (*Tricyphona*).—Colo.
claggi (Alexander), 1930b: 280 (*Tricyphona*).—Colo.
constans (Doane), 1900: 196 (*Amalopis*).—Wash.; Y.T., B.C., Alta., Oreg.
debilis (Williston), 1893c: 62 (*Rhaphidolabis*).—Calif. Unrecognized. **N. comb.**
degenerata (Alexander), 1917: 209 (*Tricyphona*).—Colo.; Wash., Oreg., Calif., Wyo.
diaphana (Doane), 1900: 195, 198 (*Amalopis;* as *disphana*, p. 195).—Wash.; B.C., Oreg., Calif.

exoloma (Doane), 1900: 194 (*Amalopis*).—Wash.; B.C., Utah.
fenderiana Alexander, 1954: 51.—Oreg.
frigida (Alexander), 1919b: 7 (*Tricyphona*).—Alaska.
fulvicolor Alexander, 1945c: 3.—Idaho; B.C., Oreg.
gigantea Alexander, 1940d: 99.—N.C.
glacialis (Alexander), 1917: 63 (*Tricyphona*).—Alaska; Wash., Oreg.
hannai hannai (Alexander), 1923: 160 (*Tricyphona*).—Alaska (Pribilof Is.).
ssp. **antennata** Alexander, 1956c: 124.—Alaska.
huffae Alexander, 1940a: 625.—Tenn.
hynesiana Alexander, 1961a: 14.—Calif.
inconstans inconstans (Osten Sacken), 1859: 247 (*Amalopis*).—N.Y., Conn., D.C., Va.; Minn. to Nfld., s. to Mo. and Ga.
ssp. **calcaroides** Alexander, 1940a: 626.—Tenn.; N.C.
johnsoni (Alexander), 1930a: 277 (*Tricyphona*).—Mass.; coastal, Mass. to Fla.
katahdin (Alexander), 1914a: 598 (*Tricyphona*).—Maine; Mich. to Maine.
macateei (Alexander), 1919c: 166 (*Tricyphona*).—Md.; N.Y. and Mass., s. to N.C.
macrophallus macrophallus Alexander, 1945c: 2.—Oreg.
ssp. **actaeon** Alexander, 1948c: 132 (as sp.).—Calif.; Oreg.
pahasapa Alexander, 1958d: 31.—S. Dak.
paludicola (Alexander), 1916a: 538 (*Tricyphona*).—N.Y.; Mich. to Nfld. and Mass.
protea (Alexander), 1918a: 242 (*Tricyphona*).—Wash.; Alaska to Calif. and Mont.
pumila Alexander, 1942d: 353.—N.B.; Mich. ?=*paludicola*.
rainieria (Alexander), 1924d: 13 (*Tricyphona*).—Wash.
rubiginosa (Alexander), 1931b: 179 (*Tricyphona*).—Alta.; B.C.
septentrionalis septentrionalis (Bergroth), 1888a: 199 (*Tricyphona*).—Alaska; Alaska to Calif. and N. Mex.
sparsipuncta Alexander, 1920g: 90 (*Tricyphona*).—Oreg.
ssp. **vitripennis** (Doane), 1900: 195 (*Amalopis*; as sp.).—Wash.; B.C., Oreg.
shastensis Alexander, 1958d: 35.—Calif.
simplicistyla (Alexander), 1930b: 72 (*Tricyphona*).—Calif.
smithae Alexander, 1941c: 88.—Wash.; Oreg.
steensensis Alexander, 1958d: 33.—Oreg.; Calif.
subaptera (Alexander), 1917: 207 (*Limnophila*).—Calif.
tacoma Alexander, 1949a: 296.—Wash.
townesiana townesiana Alexander, 1942a: 210.—Wash.; Oreg.
ssp. **majuscula** Alexander, 1954: 54.—Oreg.
unigera Alexander, 1949a: 299.—Oreg.; Wash.

vernalis vernalis (Osten Sacken), 1861: 291 (*Amalopis*).—D.C.; Ont. to Nfld., s. to Ga.
ssp. **catawba** Alexander, 1940a: 628.—Tenn.; N.C.

Genus ORNITHODES Coquillett

Ornithodes Coquillett, 1900h: 400 (1904: 14). Type-species, *harrimani* Coquillett (orig. des.).

brevirostris Alexander, 1955a: 18 (as *harrimani* ssp.).—Nev.; Calif.
harrimani Coquillett, 1900h: 400 (1904: 14).—Alaska; Alaska, s. to Oreg. and Wyo.

Genus NASITERNELLA Wahlgren

Nasiterna Wallengren, 1881: 179 (preocc. Wagler, 1832). Type-species, *Limnobia variinervis* Zetterstedt (mon.).
Nasiternella Wahlgren, 1904: 4 (n. name for *Nasiterna* Wallengren). Type-species, *Limnobia variinervis* Zetterstedt (aut.).

hyperborea (Osten Sacken), 1861: 292 (*Amalopis*).—Labr.; N.W.T. to Labr., s. to N.Y. and N.H. (Hudsonian zone).

Genus DICRANOTA Zetterstedt

Dicranota Zetterstedt, 1838: 851. Type-species, *guerini* Zetterstedt (mon.).

Subgenus EUDICRANOTA Alexander

Dicranota, subg. **Eudicranota** Alexander *in* Curran, 1934a: 46, 52. Type-species, *notabilis* Alexander (orig. des.).

catawbiensis Alexander, 1940a: 628.—Tenn.; N.C.
notabilis Alexander, 1929d: 18.—Tenn.
pallida Alexander, 1914a: 599.—N.H.; Maine.
yonahlossee Alexander, 1941b: 14.—N.C.

Subgenus RHAPHIDOLABINA Alexander

Rhaphidolabis, subg. **Rhaphidolabina** Alexander, 1916a: 540. Type-species, *flaveola* Osten Sacken (orig. des.).

flaveola (Osten Sacken), 1869b: 288 (*Rhaphidolabis*).—Mass., Md.; Mich. to Nfld., s. to N.C.

Subgenus POLYANGAEUS Doane

Polyangaeus Doane, 1900: 196 (as genus). Type-species, *maculatus* Doane (mon.).

maculata (Doane), 1900: 197 (*Polyangaeus*).—Wash.; B.C. to Calif.
megalops Alexander, 1945a: 420.—Wyo.
subapterogyne Alexander, 1943b: 741.—Wyo.; Oreg.

Subgenus DICRANOTA Zetterstedt

argentea Doane, 1900: 196.—Wash.; Alaska to Oreg. and Colo.
montana Alexander, 1920d: 110.—Colo.
astigma Alexander, 1954: 54.—Oreg.
clementi Alexander, 1956a: 181.—Que.
currani Alexander, 1926c: 50.—Ont.; Minn. to Que.
divaricata Alexander, 1925b: 203.—N.C.
fumipennis Alexander, 1941c: 89.—Minn.
notmani Alexander, 1942b: 358.—N.Y.
noveboracensis Alexander, 1914a: 600.—N.Y.; Que., Mass.
parvella Alexander, 1954: 55.—Oreg.
stainsi Alexander, 1948a: 45.—Utah.
tetonicola Alexander, 1945a: 418.—Wyo.

Subgenus PARADICRANOTA Alexander

Dicranota, subg. **Paradicranota** Alexander *in* Curran, 1934a: 46, 52. Type-species, *rivularis* Osten Sacken (orig. des.).

eucera Osten Sacken, 1869b: 281.—D.C.; Minn. to Mass., s. to Va.
iowa Alexander, 1920c: 78.—Iowa; Minn. to Que., s. to Iowa and N.H.
rogersi Alexander, 1921c: 136.—Mich.
rivularis Osten Sacken, 1859: 249.—D.C.; N.H., Mass., Va.

Subgenus PLECTROMYIA Osten Sacken

Plectromyia Osten Sacken, 1869b: 282 (as genus). Type-species, *modesta* Osten Sacken (mon.).
Astrolabis Osten Sacken, 1865: 225. Nomen nudum.

cascadica Alexander, 1949a: 303.—Wash.; Oreg.
confusa (Alexander), 1924b: 63 (*Rhaphidolabis*).—Mass.; Que. and N.B., s. to S.C.
engelmannia Alexander, 1943a: 164.—Colo.
kulshanensis Alexander, 1949a: 304.—Wash.; Calif.
modesta (Osten Sacken), 1869b: 284 (*Plectromyia*).—N.H.; N.Y., Vt., Nfld.
nooksackiae nooksackiae Alexander, 1949a: 305.—Wash.; Oreg.
ssp. **latistyla** Alexander, 1958d: 36.—Alta.
ssp. **subtruncifera** Alexander, 1954: 60.—Oreg.
petiolata (Alexander), 1919c: 194 (*Tricyphona*).—Colo.; Utah to Que. and N.H.

nemoptera Alexander, 1927i: 143 (*Limnophila*).—Utah.
stenoptera Alexander, 1927j: 16 (*Tricyphona*).—Colo.
reducta reducta (Alexander), 1921c: 135 (*Rhaphidolabis*).—Idaho; Wash., Oreg., Calif.
ssp. **tehamicola** Alexander, 1959a: 75.—Calif.
townesi Alexander, 1940c: 154.—S.C.

Subgenus RHAPHIDOLABIS Osten Sacken

Rhaphidolabis Osten Sacken, 1869b: 284 (as genus). Type-species, *tenuipes* Osten Sacken (orig. des.).

avis (Alexander), 1926c: 50 (*Rhaphidolabis*).—Va.; Maine to N.C.
cayuga (Alexander), 1916a: 543 (*Rhaphidolabis*).—N.Y.; Alaska to Nfld., s. to Oreg., Colo., and N.C.
cazieriana Alexander, 1944c: 93.—Calif.; Oreg., Utah.
fenderi Alexander, 1954: 56.—Oreg.
forceps (Alexander), 1924b: 63 (*Rhaphidolabis*).—N.Y.; Mich. to N.S., s. to Tenn.
hickmanae Alexander, 1940a: 629.—Tenn.
integriloba Alexander, 1943a: 162.—Colo.; Wash. to Calif. and Colo.
major (Alexander), 1917: 210 (*Rhaphidolabis*).—Colo.
neomexicana neomexicana (Alexander), 1912d: 170 (*Rhaphidolabis*).—N. Mex.; Alaska to Calif. and N. Mex.
ssp. **subtruncata** Alexander, 1949a: 300.—Wash.
nooksackensis nooksackensis Alexander, 1949a: 300.—Wash.; Alaska, Oreg.
ssp. **brevispinosa** Alexander, 1958d: 36.—Wash.
nuptialis Alexander, 1948c: 134.—Calif.
persimilis (Alexander), 1920c: 79 (*Rhaphidolabis*).—Va.; Md., N.C., S.C.
polymeroides (Alexander), 1914a: 601 (*Rhaphidolabis*).—Calif.; Wash., Oreg., Idaho.
querula Alexander, 1944c: 94 (as *neomexicana* ssp.).—Idaho; Oreg., Calif.
rogersiana (Alexander), 1925b: 204 (*Rhaphidolabis*).—Mich.; Que.
rubescens (Alexander), 1916a: 544 (*Rhaphidolabis*).—N.Y.; N.Y. to N.S. and Mass.
sessilis (Alexander), 1917: 210 (*Rhaphidolabis*).—Colo.
stigma (Alexander), 1924d: 14 (*Rhaphidolabis*).—Wash.; Colo.
subsessilis (Alexander), 1921c: 134 (*Rhaphidolabis*).—Idaho; B.C., Wash., Mont.
tehama Alexander, 1950c: 30.—Calif.

tenuipes (Osten Sacken), 1869b: 287 (*Rhaphidolabis*).—N.Y., Md.; Mich. to N.B. and Md.
uniplagia Alexander, 1954: 58.—Oreg.
vanduzeei (Alexander), 1930b: 73 (*Rhaphidolabis*).—Calif.
xanthosoma Alexander, 1944c: 93.—Oreg.; Wash.

Tribe HEXATOMINI

The major tribe Hexatomini includes a somewhat heterogeneous grouping of genera, some of which may prove to be wrongly assigned. There are ten subtribes in our region.

The immature stages of *Paradelphomyia* frequent organic silt along stream margins or in cool seepage areas. *Polymera* inhabits saturated silt or sandy clay soil along water bodies (Rogers, 1933b). *Epiphragma* and *Austrolimnophila* live in wet logs and limbs. *Dactylolabis* is found in algal and other plant associations in dripping water on cliff faces and comparable situations. *Pseudolimnophila* and *Prolimnophila* occur in moist-to-saturated soil along streams or in marshes. *Limnophila, Pilaria,* and *Ulomorpha* frequent wet soil ranging from sandy organic silt to black mud. The early stages of *Hexatoma,* with its important subgenus *Eriocera,* are aquatic or semiaquatic, living in or near the sandy or gravelly margins of streams or in saturated organic soil. The early stages of both *Atarba* and *Elephantomyia* occur in wet decaying hardwoods (Rogers, 1927b). Nothing is known about the early stages of *Phyllolabis.*

Genus PARADELPHOMYIA Alexander

Adelphomyia, subg. **Paradelphomyia** Alexander, 1936b: 184. Type-species, *crossospila* Alexander (orig. des.).

Subgenus OXYRHIZA Meijere

Oxydiscus Meijere, 1913b: 350 (preocc. Koken, 1889). Type-species, *nebulosus* Meijere (mon.).
Oxyrhiza Meijere, 1946: 68 (as genus; n. name for *Oxydiscus* Meijere). Type-species, *Oxydiscus nebulosus* Meijere (aut.).

americana (Alexander), 1912c: 829 (*Adelphomyia*).—N.Y.; Mich. to N.B., s. to S.C.
senilis Haliday of Alexander, 1911b: 352.
cayuga (Alexander), 1912c: 831 (*Adelphomyia*).—N.Y.; Mich. to Maine, s. to Ind. and Pa.
abnormis Dietz, 1916: 137 (*Ormosia*).—Pa.
hazletonensis Dietz, 1921a: 252 (*Adelphomyia*).—Pa.

deprivata Alexander, 1954: 60.—Oreg.; Calif.
maddocki (Alexander), 1948a: 46 (*Oxydiscus*).—Utah; Ariz.
minuta (Alexander), 1911a: 286 (*Adelphomyia*).—N.Y.; Mich. to Nfld., s. to N.C.
pacifica (Alexander), 1944b: 92 (*Oxydiscus*).—Oreg.; B.C., Wash., Calif., Utah.
pleuralis (Dietz), 1921a: 251 (*Adelphomyia*).—Pa.; Mich. to N.S., s. to Fla.
sierrensis Alexander, 1958b: 132.—Calif.

Genus POLYMERA Wiedemann

Polymera Wiedemann, 1820a: 40 (1821c: 40). Type-species, *Chironomus hirticornis* Fabricius (mon.).

Subgenus POLYMERA Wiedemann

georgiae Alexander, 1911c: 199.—Ga.; S.C., Fla.
rogersiana Alexander, 1929d: 18.—Fla.

Genus PHYLLOLABIS Osten Sacken

Phyllolabis Osten Sacken, 1877: 202. Type-species, *clavigera* Osten Sacken (Coquillett, 1910b: 590).

bryantiana Alexander, 1931b: 182.—B.C.
clavigera Osten Sacken, 1877: 203.—Calif.
encausta Osten Sacken, 1877: 204.—Calif.
fenderiana Alexander, 1949a: 307.—Oreg.; Wash.
flavida Alexander, 1918b: 287.—Calif.
hirtiloba Alexander, 1947d: 66.—Calif.; Nev.
lagganensis Alexander, 1931b: 183.—Alta.; Alta. and Wash. to Maine, s. to Colo.
latifolia Alexander, 1920g: 90.—Oreg.
meridionalis Alexander, 1945c: 5.—Calif.
myriosticta Alexander, 1945c: 6.—Calif.; Mexico (Baja Calif.).
sequoiensis Alexander, 1945c: 4.—Calif.
zionensis Alexander, 1948a: 47.—Utah.

Genus EPIPHRAGMA Osten Sacken

Limnophila, subg. **Epiphragma** Osten Sacken, 1859: 238. Type-species, *pavonina* Osten Sacken (Coquillett, 1910b: 539)=*fasciapennis* (Say).

Subgenus EPIPHRAGMA Osten Sacken

arizonensis Alexander, 1946a: 517.—Ariz.
fasciapennis (Say), 1823: 19 (1859b: 45) (*Limnobia*).—U.S.; Alta. to Nfld., s. to La. and Fla.
fascipennis, emend.
pavonina Osten Sacken, 1859: 239 (*Limnophila*).—Ill.
ocellaris (Linnaeus), 1761: 433 (*Tipula*).—Sweden; B.C., Eurasia.
solatrix (Osten Sacken), 1859: 238 (*Limnophila*).—D.C.; Mo. to N.Y., s. to La. and Fla., Neotropical.

Genus AUSTROLIMNOPHILA Alexander

Limnophila, subg. **Austrolimnophila** Alexander, 1920a: 4. Type-species, *eutaeniata* Bigot (orig. des.).

Subgenus AUSTROLIMNOPHILA Alexander

badia (Doane), 1900: 191 (*Limnophila*).—Wash.; B.C., Oreg., Calif., Nev., Wyo.
toxoneura (Osten Sacken), 1859: 236 (*Limnophila*).—N.Y.; Wis. to Nfld., s. to Tenn. and Va.

Subgenus ARCHILIMNOPHILA Alexander

Archilimnophila Alexander *in* Curran, 1934a: 47, 52 (as genus). Type-species, *Limnophila unica* Osten Sacken (orig. des.).

harperi (Alexander), 1926e: 23 (*Limnophila*).—Alta.; Alta. to N.Y., s. to Colo.
subunica (Alexander), 1920i: 197 (*Limnophila*).—Alaska; Alaska and Alta., s. to Idaho and S. Dak.
unica (Osten Sacken), 1869b: 205 (*Limnophila*).—N.H.; Wis. to Nfld. and D.C.

Genus DACTYLOLABIS Osten Sacken

Limnophila, subg. **Dactylolabis** Osten Sacken, 1859: 240. Type-species, *montana* Osten Sacken (mon.).

Subgenus DACTYLOLABIS Osten Sacken

adventitia Alexander, 1942a: 211.—Idaho; Wash.
cubitalis (Osten Sacken), 1869b: 229 (*Limnophila*).—Ohio, Va.; Wis., Ind., N.Y., N.C.
hortensia (Alexander), 1914a: 591 (*Limnophila*).—B.C.; Mont.
hudsonica Alexander, 1931b: 181.—Que.; Que. and Nfld., s. to Tenn. and N.C.

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imitata Alexander, 1945f: 91.—Calif.
knowltoni Alexander, 1941c: 90.—Utah; Oreg.
luteipyga Alexander, 1955a: 19.—Wyo.; Idaho, Mont.
montana (Osten Sacken), 1859: 240 (*Limnophila*).—Mass., D.C., Ill.; Que. to Nfld., sw. to Ill. and S.C.
nitidithorax (Alexander), 1918b: 288 (*Limnophila*).—Calif.; Wash., Oreg.
parviloba Alexander, 1944c: 92.—Calif.
pemetica Alexander, 1936a: 288.—Maine; Ohio, N.Y., N.H., N.C.
postiana Alexander, 1944b: 94.—Oreg.; Idaho.
pteropoecila (Alexander), 1921a: 104 (*Limnophila*).—Wash.; B.C., Oreg.
rhicnoptiloides (Alexander), 1919b: 6 (*Limnophila*).—N.W.T.; Alaska to Labr.
sparsimacula Alexander, 1942a: 212 (as *hortensia* ssp.).—Wash.
supernumeraria Alexander, 1929f: 46.—N.Y.; Nfld. to N.Y. and Mass.

Subgenus EUDACTYLOLABIS Alexander

Dactylolabis, subg. **Eudactylolabis** Alexander, 1950a: 45. Type-species, *Limnophila damula* Osten Sacken (orig. des.).
damula (Osten Sacken), 1877: 201 (*Limnophila*).—Calif.
vestigipennis Alexander, 1950a: 45.—Ariz.

Genus PSEUDOLIMNOPHILA Alexander

Limnophila, subg. **Pseudolimnophila** Alexander, 1919h: 917. Type-species, *luteipennis* Osten Sacken (Alexander, 1920h: 849).

Subgenus PSEUDOLIMNOPHILA Alexander

australina Alexander, 1927h: 56.—Fla.; Ind. to Md., s. to Ala. and Fla.
contempta (Osten Sacken), 1869b: 218 (*Limnophila*).—Middle States; Mich. to Nfld., s. to Mo. and Fla, ?Wash.
nigripleura Alexander and Leonard *in* Alexander, 1914a: 592 (*Limnophila*).—N.Y.
inornata inornata (Osten Sacken), 1869b: 219 (*Limnophila*).—Mass.; Mich. to Nfld., s. to Ind. and Md.
ssp. **vidua** Alexander, 1943b: 743 (as sp.).—Wyo.
luteipennis (Osten Sacken), 1859: 236 (*Limnophila*).—Mass., D.C., Fla.; Maine, Calif.
noveboracensis (Alexander), 1911c: 196 (*Limnophila*).—N.Y.; B.C. to N.S., s. to Utah and S.C.

Genus PROLIMNOPHILA Alexander

Limnophila, subg. **Prolimnophila** Alexander, 1929b: 187. Type-species, *areolata* Osten Sacken (orig. des.).

areolata (Osten Sacken), 1859: 237 (*Limnophila*).—N.Y., Md.; Wis. to Nfld., s. to Tenn. and N.C.

Genus LIMNOPHILA Macquart

Limnophila Macquart, 1834a: 95. Type-species, *Limnobia pictipennis* Meigen (Westwood, 1840: 128).

Subgenus LASIOMASTIX Osten Sacken

Limnophila, subg. **Lasiomastix** Osten Sacken, 1859: 233. Type-species, *Limnobia macrocera* Say (mon.).

macrocera macrocera (Say), 1823: 20 (1859b: 46) (*Limnobia*).—Fla.; Mich. to N.S., s. to Ill. and Fla.
carbonaria Macquart, 1838a: 70 (1838: 66).—Carolina.
ssp. **suffusa** Alexander, 1927b: 56.—Fla.; Ga.
subtenuicornis (Alexander), 1918a: 61 (*Lasiomastix*).—N.Y.; Mich., Ont., and N.Y., s. to Tenn.
tenuicornis Osten Sacken, 1869b: 208.—N.H.; Ont. to N.S., s. to S.C.

Subgenus EUTONIA Wulp

Eutonia Wulp, 1874: 147 (as genus). Type-species, *Limonia barbipes* Meigen (mon.).

alleni Johnson, 1909a: 126.—N.H.; Ohio, N.Y., Vt.
marchandi Alexander, 1916d: 118.—Conn.; Mich. to Mass., s. to Fla.
phorophragma Alexander, 1944d: 127.—Ga.; N.C.

Subgenus PRIONOLABIS Osten Sacken

Limnophila, subg. **Prionolabis** Osten Sacken, 1859: 239. Type-species, *rufibasis* Osten Sacken (mon.).

barberi Alexander, 1916d: 122.—Calif.; Wash., Oreg.
boharti Alexander, 1943e: 94.—Oreg.; Wash.
cressoni Alexander, 1917: 208.—Calif.
freeborni Alexander, 1943e: 91.—Calif.
gruiformis Alexander, 1945f: 93.—Idaho.
hepatica Alexander, 1919f: 215.—Calif.; Oreg.
indistincta Doane, 1900: 191.—Idaho; Alaska to Calif. and Idaho.
magdalena Dietz, 1920: 5.—Que. Unrecognized.
munda Osten Sacken, 1869b: 226.—N.H.; Wis. to N.S., s. to N.C.
mundoides Alexander, 1916d: 120.—Md.; Pa., Va., N.C., Fla.

oregonensis Alexander, 1940b: 87.—Oreg.; Wash.
paramunda Alexander, 1949a: 311.—Wash.
politissima Alexander, 1941a: 305.—N.C.; Tenn.
rudimentis Alexander, 1941a: 307.—N.C.; Tenn.
rufibasis rufibasis Osten Sacken, 1859: 239.—N.Y., Mass., D.C.; Wis. to Nfld., s. to S.C.
ssp. **sedula** Alexander, 1941a: 309.—N.C.; Tenn.
scaria scaria Alexander, 1945f: 92.—Wash.; Oreg.
ssp. **trifida** Alexander, 1949a: 312.—Wash.; Oreg.
sequoiarum Alexander, 1943e: 89.—Calif.
simplex Alexander, 1911c: 198.—Ga.; N.Y. to N.H., s. to Fla.
terebrans Alexander, 1916d: 121.—Md.; N.J.
vancouverensis Alexander, 1943e: 92.—Oreg.; Alaska, Wash., Calif.
walleyi Alexander, 1929b: 187.—N.Y.; Ill. to Ont., s. to N.C.

Subgenus IDIOLIMNOPHILA Alexander

Limnophila, subg. **Idiolimnophila** Alexander *in* Curran, 1934a: 48, 52. Type-species, *emmelina* Alexander (orig. des.).

emmelina Alexander, 1914a: 597.—Va.; Ont., N.Y., Mass.

Subgenus ELOEOPHILA Rondani

Eloeophila Rondani, 1856: 182 (as genus). Type-species, *Limnobia marmorata* Meigen (orig. des.).
Elaeophila, error.
Ephelia Schiner, 1863: 222. Type-species, *Limnobia marmorata* Meigen (orig. des.).
Limnophila, subg. *Trichephelia* Alexander, 1938b: 73. Type-species, *seticellula* Alexander (orig. des.).

aldrichi aldrichi Alexander, 1927j: 11.—Mont.; Alta., Wash., Oreg.
ssp. **abrupta** Alexander, 1949a: 309.—Oreg.; Wash.
ssp. **alticrista** Alexander, 1943a: 165.—Colo.; Wyo.
ssp. **collata** Alexander, 1948a: 48.—Utah.
aleator Alexander, 1945a: 422.—Wyo.; Oreg., Calif., Utah, N. Mex.
angustior Alexander, 1919c: 163.—Colo.; Oreg., Calif., Mont., Wyo., Utah.
apiculata Alexander, 1919c: 164.—Calif.
aprilina Osten Sacken, 1859: 235.—D.C.; Nfld. to S.C.
bifida Alexander, 1921c: 133.—Idaho; B.C., Oreg.
edentata Alexander, 1919c: 164.—Calif.; Ariz.
irene Alexander, 1927b: 58.—Mich.; Mich. and Ont., s. to S.C.
johnsoni Alexander, 1914a: 591.—N.Y.; Que. and N.B., s. to Tenn. and S.C.
modoc Alexander, 1946g: 95.—Calif.

nupta Alexander, 1947d: 207.—Calif.
sabrina Alexander, 1929b: 189.—Vt.; Que. to N.B., s. to N.Y. and Conn.
serotinella Alexander, 1926a: 110.—Tenn.; S.C., Fla.
seticellula Alexander, 1938b: 74.—S.C.; N.C.
shannoni Alexander, 1921c: 132.—Idaho; Wash., Oreg., Wyo.
solstitialis Alexander, 1926a: 109.—N.Y.; Mich. to Maine, s. to Tenn. and Fla.
superlineata Doane, 1900: 190.—Wash.; Oreg.
vernata Alexander, 1927b: 59.—N.C.
woodgatei Alexander, 1946a: 519.—N. Mex.

Subgenus DICRANOPHRAGMA Osten Sacken

Limnophila, subg. **Dicranophragma** Osten Sacken, 1859: 240. Type-species, *fuscovaria* Osten Sacken (mon.).

angustula Alexander, 1929b: 190.—Mass.; Mich. to Nfld., s. to Tenn. and Fla.
fuscovaria Osten Sacken, 1859: 240.—N.Y., Va.; Wis. to N.S., s. to Mo. and Fla.

Subgenus IDIOPTERA Macquart

Idioptera Macquart, 1834a: 94 (as genus). Type-species, *maculata* Macquart (mon.)=*pulchella* (Meigen).

fasciolata Osten Sacken, 1869b: 206.—Mass.; Mich. to Maine and Conn.
mcclureana Alexander, 1938b: 75.—Man.

Subgenus PHYLIDOREA Bigot

Phylidorea Bigot, 1854: 456 (as genus). Type-species, *Limnobia ferruginea* Meigen (Coquillett, 1910b: 590).

adusta Osten Sacken, 1859: 235.—Wis., Ill., N.Y., Maine; Wis. to Nfld., s. to Ill. and N.C.
adustoides Alexander, 1927b: 63.—Tenn.; Ind. and Tenn., e. to Mass.
aequiatra Alexander, 1949a: 314.—Wash.; Oreg., Calif.
aleutica Alexander, 1920i: 198.—Alaska.
auripennis Alexander, 1926a: 113.—Ill.; Mich. to Nfld., s. to Ill. and N.Y.
biterminata (Walker), 1856b: 437 (*Limnobia*).—U.S. Unrecognized. **N. comb.,** G. W. Byers *in litt.*
brevifilosa Alexander, 1959a: 50.—Calif.
caudifera Alexander, 1927b: 111.—N.Y.; Mich. to Nfld. and Vt.

claggi Alexander, 1930b: 281.—Colo.; B.C. to Mich., s. to Calif. and Colo.
columbiana Alexander, 1927j: 12.—B.C.
consimilis consimilis Dietz, 1921a: 255.—Pa.; Mich. to Que. and Vt., s. to Tenn. and N.C.
ssp. **griseipleura** Alexander, 1941a: 309.—N.C.
costata Coquillett, 1901g: 149.—N. Mex.
epimicta Alexander, 1927b: 60.—Fla.
flavapila Doane, 1900: 190.—Wash.; B.C., Oreg., Calif.
strepens Alexander, 1916a: 532.—Calif.
fratria Osten Sacken, 1869b: 220.—Unknown (as N.Y. or N.H.); Maine, Vt., Pa.
frosti Alexander, 1961b: 84.—Fla.
fumidicosta Alexander, 1927b: 115.—N.Y.; Maine, Mass. ?=*consimilis* ssp.
fuscovenosa Alexander, 1927e: 190.—Alta.; B.C.
insularis Johnson, 1913d: 443.—Bermuda.
iowensis Alexander, 1927b: 112.—Iowa; Mich.
lutea Doane, 1900: 191.—Pa.; Nfld., s. to Tenn. and Va.
luteola Alexander, 1927b: 113.—N.Y.; Que., Vt.
microphallus Alexander, 1927j: 13.—Mont.
neadusta Alexander, 1927b: 110.—N.Y.
nevadensis Alexander, 1958b: 218.—Nev.
nigrogeniculata Alexander, 1926a: 114.—Tenn.
novaeangliae Alexander, 1914a: 594.—Maine; Que., N.Y., Mass., Pa.
olympica Alexander, 1949a: 316.—Wash.; Oreg.
osceola Alexander, 1927b: 61.—Fla.
pacalis Alexander, 1949b: 156.—Oreg.
paeneadusta Alexander, 1961b: 85.—Maine.
persimilis Alexander, 1927b: 62.—Ind.
platyphallus Alexander, 1926a: 111.—Mass.; Alta. to Mich. to N.S., s. to Pa. ?=*terraenovae*.
semifacta Alexander, 1948b: 207.—Ariz.
similis Alexander, 1911c: 195.—N.Y.; Ont., Que., Maine, Mass.
siouana Alexander, 1929b: 188.—Iowa.
snoqualmiensis Alexander, 1945f: 94.—Wash.; Oreg.
stupkai Alexander, 1940a: 632.—Tenn.; N.C.
subcostata (Alexander), 1911a: 287 (*Phylidorea*).—N.Y.; Mich. to Nfld., s. to Pa.
subsimilis Alexander, 1927b: 111.—Tenn.
tepida Alexander, 1926e: 119.—Colo.; Alta., Oreg., Utah.
terraenovae Alexander, 1916d: 123.—Nfld.; N.S.
adjuncta Dietz, 1920: 6.—N.S.

Subgenus DENDROLIMNOPHILA Alexander

Limnophila, subg. **Dendrolimnophila** Alexander, 1949a: 314. Type-species, *Shannonomyia albomanicata* Alexander (orig. des.).

albomanicata (Alexander), 1945f: 96 (*Shannonomyia*).—Wash.; Oreg., Calif.

Unplaced Species of *Limnophila*

albipes Leonard, 1913: 248.—N.J.; Vt. to S.C.
amabilis Alexander, 1950e: 84.—Calif.
antennata Coquillett, 1905d: 58.—B.C.; Wash., Oreg., Calif.
bigladia Alexander, 1945a: 424.—Wyo.; Alta., Wash.
brevifurca Osten Sacken, 1859: 237.—D.C.; Mich. to Nfld., s. to S.C.
bryanti Alexander, 1927f: 224.—Alta.
cherokeensis Alexander, 1940a: 634.—Tenn.; N.C.
euxesta Alexander, 1924d: 11.—Wash.; Oreg.
galactopoda Alexander, 1943b: 741, fig.; 745, descr. (as *Pilaria phaeonota*, error, p. 745).—Wyo.; Mont.
globulifera Alexander, 1941b: 15.—N.C.
irrorata Johnson, 1909a: 127.—N.J.; N.C., Fla.
laricicola Alexander, 1912d: 167.—N.Y.; Mich. to Nfld., s. to Tenn. and Va.
lobifera Alexander, 1955a: 131.—B.C.
mcdunnoughi Alexander, 1926e: 21.—Alta.
nigrofemorata Alexander, 1927j: 14.—Mont.
niveitarsis Osten Sacken, 1869b: 209.—Del., Md.; N.Y. and Mass., s. to Tenn. and N.C.
nycteris Alexander, 1943b: 744.—Wyo.; Oreg., Calif.
occidens Alexander, 1924d: 13.—Wash.; Alaska, s. to Calif. and Colo.
poetica Osten Sacken, 1869b: 207.—Mass.; Alaska to Que., s. to B.C., Ill., and Mass.
rubida Alexander, 1924d: 12.—Oreg.; Calif.
tetonicola Alexander, 1945a: 426.—Wyo.; Wash., Oreg.

Genus SHANNONOMYIA Alexander

Shannonomyia Alexander, 1929c: 142. Type-species, *Limnophila lenta* Osten Sacken (orig. des.).

congenita (Dietz), 1921a: 257 (*Limnophila*).—Pa. ?=*lenta*.
lenta lenta (Osten Sacken), 1859: 241 (*Limnophila*).—Ill., Md., D.C., Va.; Ill. to Nfld., s. to Tenn. and Ga.
ssp. **gaspeana** Alexander, 1942b: 409.—Que.

oslari (Alexander), 1916d: 123 (*Limnophila*).—Colo.; Wyo., Utah, N. Mex.

Genus PILARIA Sintenis

Pilaria Sintenis, 1889: 398. Type-species, *Limnobia pilicornis* Zetterstedt (Coquillett, 1910b: 591)=*meridiana* (Staeger).

Limnophila, subg. *Eulimnophila* Alexander, 1919h: 917. Type-species, *Limnobia tenuipes* Say (Ishida, 1959: 8).

arguta Alexander, 1929f: 47.—Fla. ?=*recondita* ssp.
flava (Garrett), 1925b: 4 (*Cladura*).—B.C.; Wash. ?=*recondita*.
harrisoni Alexander, 1936a: 291.—N.H.
imbecilla imbecilla (Osten Sacken), 1859: 237 (*Limnophila*).—Ill., N.Y., Va., Ga.; Ill. to Que., s. to Tenn., Ga., and Mass.
ssp. **illinoiensis** (Alexander), 1920d: 226 (*Limnophila*).—Ill.; Ind., Ky., Tenn.
meridiana (Staeger), 1840: 41 (*Limnobia*).—Europe; Oreg. to Maine, s. to Colo., Eurasia.
osborni Alexander, 1914a: 596 (*Limnophila*).—Maine.
microcera Alexander, 1924d: 13.—Oreg.
phaeonota Alexander, 1943b: 746.—Wyo.
quadrata (Osten Sacken), 1859: 241 (*Limnophila*).—Md., Va.; Iowa, to N.S., s. to Fla.
recondita (Osten Sacken), 1869b: 212 (*Limnophila*).—Pa., N.Y., Ga.; Minn. to N.S., s. to La. and Fla.
stanwoodae (Alexander), 1914a: 595 (*Limnophila*).—N.Y.; Maine to S.C.
tenuipes (Say), 1823: 21 (1859b: 46) (*Limnobia*).—Pa.; Wis. to N.B., s. to Kans., Tex., and Fla.
edwardi Alexander, 1916a: 533 (*Limnophila*).—N.Y.
vermontana Alexander, 1929f: 47.—Vt.; Conn.

Genus ULOMORPHA Osten Sacken

Ulomorpha Osten Sacken, 1869b: 232. Type-species, *Limnophila pilosella* Osten Sacken (mon.).

aridela Alexander, 1927j: 15.—Oreg.
nigrodorsalis Alexander, 1949a: 317.—Wash.; Oreg.
nigronitida Alexander, 1920b: 40.—Calif.; Oreg.
pilosella (Osten Sacken), 1859: 241 (*Limnophila*).—N.Y.; Mich. to N.S., s. to Tenn. and S.C.
quinquecellula Alexander, 1920b: 40.—Calif.
rogersella Alexander, 1929f: 48.—Fla.; N.C., S.C.
sierricola Alexander, 1918a: 163.—Wash.; Oreg.
vanduzeei Alexander, 1920b: 41.—Calif.; Oreg.

Genus Gynoplistia Westwood

annulata Westwood, 1835a: 280.—Australia (as N. Amer., error). Not Nearctic.

Genus HEXATOMA Latreille

Hexatoma Latreille, 1809: 260. Type-species, *nigra* Latreille (mon.).
Anisomera Meigen, 1818: 210. Type-species, *obscura* Meigen (mon.).

Subgenus HEXATOMA Latreille

megacera (Osten Sacken), 1859: 242 (*Anisomera*).—D.C., Md.; Ont. and Que., s. to Ind. and Va.
microcera Alexander, 1926c: 49.—N. Amer.

Subgenus ERIOCERA Macquart

Caloptera Guérin-Méneville, 1831: pl. 20, fig. 2. Type-species, *fasciata* Guérin-Mèneville (orig. des., as gen. n., sp. n.). [In the interest of stability, author rejects this valid prior name.—Eds.].
Eriocera Macquart, 1838a: 78 (1838: 74) (as genus). Type-species, *Limnobia nigra* Wiedemann (mon.)=*wiedemanni* Alexander.
Penthoptera Schiner, 1863: 220. Type-species, *Tipula chirothecata* Scopoli (orig. des.).
Arrhenica Osten Sacken, 1859: 243. Type-species, *spinosa* Osten Sacken (Coquillett, 1910b: 510).

albihirta (Alexander), 1912d: 167 (*Eriocera*).—Calif.
albitarsis (Osten Sacken) 1869b: 257 (*Penthoptera*).—Pa.; Iowa to Pa., s. to Fla.
aurata (Doane), 1900: 194 (*Eriocera*).—N.C.; Tenn., S.C. ,Ga., Fla.
austera (Doane), 1900: 192 (*Eriocera*).—Wash.; Y.T., s. to Calif. and N. Mex.
obscura Williston, 1893c: 61 (*Eriocera;* preocc. Bigot, 1859).—Wash., Calif.
parva Doane, 1900: 192 (*Eriocera*).—Calif.
alberta Alexander, 1930b: 73 (*Eriocera*).—Alta.
azrael Alexander, 1943e: 98.—Calif.
beameri Alexander, 1956b: 212.—Tex.
brachycera (Osten Sacken), 1877: 205 (*Eriocera*).—N.H.; Ont. to Nfld., s. to Tenn. and N.C.
brevioricornis Alexander, 1941a: 311.—Mass.; Que., Conn., N.Y., N.C., Tenn.

brevipila (Alexander), 1918a: 164 (*Eriocera*).—Calif.
californica (Osten Sacken), 1877: 204 (*Eriocera*).—Calif.
cinerea (Alexander), 1912d: 169 (*Eriocera*).—Mass.; Ont., Que., and Maine, s. to Tenn. and S.C.
dayana Alexander, 1959a: 75.—Calif.
dorothea Alexander, 1956b: 215.—Oreg.
eriophora (Williston), 1893c: 61 (*Eriocera*).—Wash.; Oreg., Wyo., Utah, Colo., N. Mex.
fuliginosa (Osten Sacken), 1859: 243 (*Eriocera*).—D.C., Va.; Mich. to N.H., s. to Fla.
fultonensis (Alexander), 1912d: 168 (*Eriocera*).—N.Y.; Mass. to Tenn.
fulvomedia Alexander, 1956b: 123.—Ariz.
gaspensis (Alexander), 1931c: 143 (*Eriocera*).—Que.
gibbosa (Doane), 1900: 193 (*Eriocera*).—Mich.; Mich. to Mass., s. to Ill., Tenn., and Va.
intrita Alexander, 1943e: 97.—Wash.
longicornis (Walker), 1848: 82 (*Anisomera*).—e. N. Amer.; Alaska to Maine, s. to Iowa and N.C.
mariposa Alexander, 1943e: 96.—Calif.
pacifica Alexander, 1956b: 210.—Calif.
palomarensis Alexander 1947g: 43.—Calif.
rubrinota (Alexander), 1918a: 165 (*Eriocera*).—w. U.S.
saturata (Alexander), 1919c: 165 (*Eriocera*).—Calif.
sculleni Alexander, 1943d: 18.—Oreg.; Wash., Calif.
solor Alexander, 1943d: 19.—Oreg.
spinosa (Osten Sacken), 1859: 244 (*Arrhenica*).—N.Y., Mass.; Ill. to Que. and Nfld., s. to Pa.
tristis (Alexander), 1914a: 602 (*Eriocera*).—N.Y.; Ind. to Mass., s. to Va.
velveta velveta (Doane), 1900: 193 (*Eriocera*).—Colo.; Utah, Wyo., S. Dak.
ssp. **apache** Alexander, 1956b: 215.—N. Mex.
wilsonii (Osten Sacken), 1869b: 255 (*Eriocera*).—Del.; Ohio, Va., N.C.
antennaria Doane, 1900: 194 (*Eriocera*).—Ohio.

Genus ATARBA Osten Sacken

Atarba Osten Sacken, 1869b: 127. Type-species, *picticornis* Osten Sacken (mon.).

Subgenus ATARBA Osten Sacken

apache Alexander, 1949b: 102.—Ariz.
bellamyi Alexander, 1950d: 168.—Fla.; Ga.
picticornis Osten Sacken, 1869b: 128.—Del.; Mich. to N.H., s. to Mo. and Fla.
werneri Alexander, 1949b: 103.—Ariz.

Genus ELEPHANTOMYIA Osten Sacken

Elephantomyia Osten Sacken, 1859: 220. Type-species, *Limnobiorhynchus canadensis* Westwood (mon.; misident.) = *westwoodi* Osten Sacken.

Subgenus ELEPHANTOMYIA Osten Sacken

curtirostris Alexander, 1947d: 208.—Ariz.
westwoodi westwoodi Osten Sacken, 1869b: 109.—N.Y.; Wis. to Nfld. s. to Ill. and Fla.
canadensis Westwood of Osten Sacken, 1859: 221.
ssp. **adirondacensis** Alexander, 1942b: 424.—N.Y.; Maine.

Tribe ERIOPTERINI

The tribe Eriopterini is a vast group of crane flies, in our fauna containing species of small to medium size only. It includes representatives of four subtribes, the Cladurariа (*Cladura* to *Neolimnophila*), Gonomyiaria (*Gnophomyia, Gonomyia, Teucholabis*), Eriopteraria (*Cryptolabis* to *Molophilus*), and the Toxorhinaria (*Toxorhina*). *Rhabdomastix, Lipsothrix,* and *Hesperoconopa* are tentatively placed between the Gonomyiaria and Eriopteraria.

The immature stages of *Cladura* and *Chionea* occur in relatively dry woodland soil beneath decaying leaves. *Gonomyia* lives in saturated silt or sand at the margins of streams or ponds. The early stages of both *Gnophomyia* and *Teucholabis* frequent moist rotting hardwoods in various stages of decay. *Rhabdomastix* lives in wet earth near streams. *Lipsothrix* is found in saturated wood along bodies of water, either submerged or constantly moist (Rogers and Byers, 1956). The immature stages of *Erioptera, Ormosia, Tasiocera,* and *Molophilus* are found in soil or in decaying vegetable matter; most species occur in the wet sandy to richly organic soil at stream margins or in bogs and marshes. The immature stages of *Hesperoconopa, Cryptolabis,* and *Toxorhina* remain to be discovered. Habits of the adults of the first two suggest that their larvae may be aquatic; the larvae of *Toxorhina* are presumed to occur in wet-to-saturated soil, but may be found to occupy a specialized habitat within this general category.

Genus CLADURA Osten Sacken

Cladura Osten Sacken, 1859: 229. Type-species, *flavoferruginea* Osten Sacken (mon.).

Pterochionea Alexander, 1916a: 529. Type-species, *bradleyi* Alexander (orig. des.).

bradleyi (Alexander), 1916a: 530 (*Pterochionea*).—B.C.; Oreg., Idaho, Mont.

flavoferruginea Osten Sacken, 1859: 229.—D.C.; Wis. to Que. and Maine, s. to Mo. and Ga.

indivisa Osten Sacken, 1861: 291.—N.Y., Mass.

macnabi Alexander, 1944b: 95.—Oreg.; Wash.

nigricauda Alexander, 1954: 68.—Oreg.

oregona Alexander, 1919g: 147.—Oreg.; B.C., Wash.

Genus NEOCLADURA Alexander

Cladura, subg. **Neocladura** Alexander, 1920h: 947. Type-species, *delicatula* Alexander (orig. des.).

americana (Alexander), 1917: 29 (*Crypteria*).—Oreg.; Wash.

delicatula (Alexander), 1914a: 589 (*Cladura*).—N.H.; Mich. to Maine, s. to Tenn. and S.C.

Genus CHIONEA Dalman

Chionea Dalman, 1816: 104. Type-species, *araneoides* Dalman (mon.).

albertensis Alexander, 1941c: 211.—Alta.

alexandriana Garrett, 1922c: 62.—B.C.; Alta.

macnabeana Alexander, 1946d: 156.—Oreg.

nivicola Doane, 1900: 188.—Wash.; Mont.

noveboracensis Alexander, 1917: 205.—N.Y.

scita Walker, 1848: 82.—N. Amer.; N.Y., Mass.

primitiva Alexander, 1917: 204.—N.Y.

stoneana Alexander, 1940d: 100.—Ill.

valga Harris, 1841: 404.—Mass.; Sask. to Labr., s. to Minn. and Mass.

aspera Walker, 1848: 82.—Ont.

gracilis Alexander, 1917: 206.—N.Y.

waughi Curran, 1925a: 24.—Labr.

Genus NEOLIMNOPHILA Alexander

Limnophila, subg. **Neolimnophila** Alexander, 1920b: 37. Type-species, *ultima* Osten Sacken (orig. des.).

appalachicola Alexander, 1941a: 312.—N.C.; Tenn.
brevissima Alexander, 1952b: 233.—Colo.
capnioptera Alexander, 1947c: 251.—Ga.
ultima ultima (Osten Sacken), 1859: 238 (*Limnophila*).—D.C., Maine; Alta. to Que. and Maine, s. to Iowa, Miss., and Ga.
ssp. **alaskana** (Alexander), 1924d: 10 (*Limnophila*).—Alaska.

Genus GNOPHOMYIA Osten Sacken

Gnophomyia Osten Sacken, 1859: 223. Type-species, *tristissima* Osten Sacken (Coquillett, 1910b: 547).

Subgenus GNOPHOMYIA Osten Sacken

cockerelli Alexander, 1919c: 193 (as *tristissima* ssp.).—Colo.; Colo. to Ind.
tristissima Osten Sacken, 1859: 224.—N.Y., D.C., Va., Wis.; N.W.T. to Que. and Maine, s. to Tex. and Fla.

Subgenus EUGNOPHOMYIA Alexander

Gnophomyia, subg. **Eugnophomyia** Alexander, 1947f: 72. Type-species, *luctuosa* Osten Sacken (orig. des.).

apache Alexander, 1946a: 525.—Ariz.
luctuosa Osten Sacken, 1859: 224.—Fla.; Ill. to D.C., s. to Okla. and Fla.
nigricola Walker, 1861: 333 (*Limnobia*).—U.S.

Subgenus IDIOGNOPHOMYIA Alexander

Gnophomyia, subg. **Idiognophomyia** Alexander, 1956d: 403. Type-species, *capicola* Alexander (orig. des.).

comstocki Alexander, 1947g: 45.—Calif.

Genus GONOMYIA Meigen

Gonomyia Meigen, 1818: 146. Type-species, *Limnobia tenella* Meigen (mon.). Generic name cited in specific synonymy; needs action by I.C.Z.N.
Goniomyia, emend.

Subgenus PROGONOMYIA Alexander

Gonomyia, subg. *Gonomyella* Alexander, 1916a: 511 (preocc. Meunier, 1899). Type-species, *slossonae* Alexander (mon.).
Gonomyia, subg. **Progonomyia** Alexander, 1920h: 938 (n. name for *Gonomyella* Alexander). Type-species, *slossonae* Alexander (aut.).

hesperia Alexander, 1926g: 78.—Calif.
plumbea Alexander, 1946a: 522.—Ariz.
slossonae Alexander, 1914a: 588.—Fla.; Neotropical.
zionicola Alexander, 1948a: 52.—Utah.

Subgenus IDIOCERA Dale

Limnobia, subg. **Idiocera** Dale, 1842: 431, 433. Type-species, *sex-guttata* Dale (mon.).

apicispina Alexander, 1926e: 117.—Ind.
biacus Alexander, 1948b: 209.—Ariz.
blanda Osten Sacken, 1859: 231.—D.C., N.Y.; Alta. to N.S., s. to Mo. and Fla.
brookmani Alexander, 1944b: 96.—Wash.; Oreg.
californica Alexander, 1916c: 324.—Calif.; B.C.
coloradica Alexander, 1920g: 89.—Colo.; Alta., Oreg., Calif., Utah, Ariz.
icasta Alexander, 1927e: 191.—Alta.
flintiana Alexander, 1961a: 15.—Tex.
gaigei Rogers, 1931: 333.—Okla.
gothicana Alexander, 1943a: 166.—Colo.; Oreg., Calif.
lindseyi Alexander, 1946g: 97.—Calif.; Oreg.
mathesoni Alexander, 1915b: 170.—N.Y.; Iowa and Mich. to Nfld., s. to Mo. and N.C.
multistylata Alexander, 1948a: 54.—Utah.
proserpina Alexander, 1943b: 747.—Wyo.; Calif., Utah.
shannoni Alexander, 1926e: 118.—Wash.; Oreg., Idaho, Calif., Utah, Wyo.
sperryana Alexander, 1948b: 209.—Ariz.

Subgenus EUPTILOSTENA Alexander

Gonomyia, subg. **Euptilostena** Alexander, 1938a: 126. Type-species, *reticulata* Alexander (orig. des.).

knowltoniana Alexander, 1948a: 53.—Utah.
polingi Alexander, 1946a: 523.—Tex.; Calif., Ariz., Mexico.

Subgenus LIPOPHLEPS Bergroth

Leiponeura Skuse, 1890a: 795. Type-species, *gracilis* Skuse (Alexander, 1913a: 503)=*skusei* Alexander. [In the interest of stability, author rejects this valid prior name.—Eds.].
Lipophleps Bergroth, 1915: 55 (as genus; unjustified n. name for *Leiponeura* Skuse). Type-species, *Leiponeura gracilis* Skuse (aut.)=*skusei* Alexander.
burgessi Alexander, 1944d: 245.—La.

manca Osten Sacken, 1869b: 178.—N.J.; Ind. to Mass., s. to Tenn. and Fla.

curvivena Coquillett, 1908: 144 (*Dicranomyia*).—Md.

puer Alexander, 1913a: 506.—Santo Domingo; D.C., S.C., Ga., Fla., Neotropical.

sacandaga Alexander, 1914a: 587.—N.Y.; Mich. to Vt., s. to Mo. and N.C.

sulphurella Osten Sacken, 1859: 230.—N.Y., D.C.; Kans. to Nfld., s. to Tex. and Fla.

Subgenus PARALIPOPHLEPS Alexander

Gonomyia, subg. **Paralipophleps** Alexander, 1947f: 97. Type-species, *Atarba pleuralis* Williston (orig. des.).

pleuralis (Williston), 1896c: 289 (*Atarba*).—St. Vincent I.; Ga., Fla., Bermuda, Neotropical.

Subgenus NEOLIPOPHLEPS Alexander

Gonomyia, subg. **Neolipophleps** Alexander, 1947f: 98. Type-species, *Dicranomyia cinerea* Doane (orig. des.).

alexanderi (Johnson), 1912a: 3 (*Elliptera*).—N.Y.; Ill. to Nfld., s. to Okla. and S.C.

cinerea (Doane), 1900: 182 (*Dicranomyia*).—Wash.; Calif., Utah, Colo.

helophila Alexander, 1916e: 343.—Peru; Okla., Tex., Neotropical.

Subgenus GONOMYIA Meigen

abyssa Alexander, 1946c: 206.—Ariz.

aciculifera Alexander, 1919c: 193.—Calif.; Oreg., Wyo.

armigera Alexander, 1922b: 4.—Ind.; N.Y.

bidentata Alexander, 1922b: 3.—Ind.; Wis. to N.B., s. to Ind. and Conn.

bihamata Alexander, 1943b: 749.—Wyo.; Wash., Oreg., Calif., Utah.

cognatella Osten Sacken, 1859: 230.—D.C.; Wis. to Conn., s. to Mo. and S.C.

currani Alexander, 1926b: 239.—Ont.; N.Y., Mass., Conn., N.C.

extensivena Alexander, 1943a: 167.—Colo.; Wyo.

filicauda filicauda Alexander, 1916c: 320.—Colo.; Alta., Utah.

ssp. **bidenticulata** Alexander, 1949a: 319.—Wash.

filiformis Alexander, 1948b: 211.—Ariz.

flavibasis Alexander, 1916c: 317.—Calif.; Oreg. to Wyo., s. to Mexico.

florens Alexander, 1916c: 316.—N.Y.; Mich. to Que. and Maine, s. to Ill., Tenn., and N.C.

harmstoni Alexander, 1948a: 56.—Utah; Idaho.

isolata Alexander, 1949a: 319.—Wash.
kansensis Alexander, 1918a: 158.—Kans.; Okla., Mo., Ill., Ind., Mich.
mainensis Alexander, 1919c: 163.—Maine.
noveboracensis Alexander, 1916c: 319.—N.Y.; Mich. to Que. (Gaspé), s. to Ind. and Mass.
paiuta Alexander, 1948a: 59.—Utah.
percomplexa Alexander, 1946c: 206.—Oreg.; Calif.
poliocephala Alexander, 1924d: 8.—Calif.; Colo.
reflexa Alexander, 1927h: 59.—Mich.
sevierensis Alexander, 1948a: 59.—Utah.
spinifer Alexander, 1918a: 384.—Calif.; Utah, Tex.
subcinerea Osten Sacken, 1859: 231.—N.Y., D.C.; B.C. to Nfld., s. to Utah, Kans., and Fla.
obscuris Doane, 1900: 192 (*Phyllolabis*).—Wash.
taeniata Alexander, 1927h: 59.—Ga.; N.C.
tetonensis Alexander, 1946c: 207.—Wyo.
triformis Alexander, 1946a: 524.—Ariz.; Utah.
vafra Alexander, 1945a: 428.—Wyo.; Utah.
virgata Doane, 1900: 189.—Wash.; Oreg., Calif.

Genus TEUCHOLABIS Osten Sacken

Teucholabis Osten Sacken, 1859: 222. Type-species, *complexa* Osten Sacken (mon.).

Subgenus TEUCHOLABIS Osten Sacken

carolinensis Alexander, 1916b: 44.—S.C.; Fla.
complexa Osten Sacken, 1859: 223.—Ill., N.Y., D.C.; Mich. to Conn., s. to Okla. and Fla.
duncani Alexander, 1946a: 521.—Ariz.
immaculata Alexander, 1922b: 5 (as *complexa* ssp.).—Ind.; Tenn., Ga.
lucida Alexander, 1916b: 43.—D.C.; Mo. to D.C., s. to Fla.
myersi Alexander, 1926d: 228.—Cuba; s. Fla.
rubescens Alexander, 1914a: 582.—N. Mex.; Utah, Ariz.

Genus RHABDOMASTIX Skuse

Rhabdomastix Skuse, 1890a: 828. Type-species, *ostensackeni* Skuse (mon.).

Subgenus RHABDOMASTIX Skuse

nuttingi Alexander, 1950a: 46.—Ariz.

Subgenus SACANDAGA Alexander

Sacandaga Alexander, 1911b: 349 (as genus). Type-species, *flava* Alexander (orig. des.).

borealis Alexander, 1924d: 9.—Alaska.
brachyneura Alexander, 1933a: 94.—S.C.; N.C.
brittoni Alexander, 1933a: 93.—Conn.; N.H., Mass.
californiensis Alexander, 1921a: 103.—Calif.; Utah, Ariz., N. Mex.
caudata (Lundbeck), 1898: 267 (*Gonomyia*).—Greenland; N.W.T. (Baffin I.).
coloradensis Alexander, 1917: 28 (as *flava* ssp.).—Colo.
fascigera Alexander, 1920b: 36.—Calif.
flava (Alexander), 1911b: 351 (*Sacandaga*).—N.Y.; Que. and Nfld., s. to Tenn.
galactoptera (Bergroth), 1888a: 196 (*Gonomyia*).—Alaska.
hansoni Alexander, 1939a: 99.—Mass.
hudsonica Alexander, 1933a: 92.—Que.
ioogoon Alexander, 1948a: 61.—Utah.
leonardi Alexander, 1930b: 75.—Mont.; Wash., Oreg., Wyo., Utah, Colo.
leptodoma Alexander, 1943a: 170.—Colo.; Wyo.
lipophleps Alexander, 1948a: 62.—Utah.
margarita Alexander, 1940a: 639.—Tenn.; N.C.
mediovena Alexander, 1933a: 93.—S.C.
megacantha Alexander, 1959a: 77.—Calif.
monticola Alexander, 1916a: 528.—B.C.; Calif.
neolurida Alexander, 1943a: 171.—Wyo.; Alaska, B.C., Alta.
setigera Alexander, 1943a: 172 (as *neolurida* ssp.).—Colo.
subarctica Alexander, 1933a: 91.—Que.
subcaudata Alexander, 1927e: 191.—Alta.; B.C., Wash.
subfascigera Alexander, 1927e: 192.—Alta.
trichophora Alexander, 1943f: 255.—Wash.; Oreg., Calif.

Genus LIPSOTHRIX Loew

Lipsothrix Loew, 1873c: 67, 69. Type-species, *nobilis* Loew (present des.).

fenderi Alexander, 1946c: 204.—Oreg.; Wash.
nigrilinea (Doane), 1900: 190 (*Limnophila*).—Wash.; Oreg.
shasta Alexander, 1946c: 205.—Calif.
sylvia (Alexander), 1916a: 534. (*Limnophila*).—N.Y.; N.S., s. to Tenn. and N.C.

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Genus HESPEROCONOPA Alexander

Erioptera, subg. **Hesperoconopa** Alexander, 1948a: 76. Type-species, *Gnophomyia aperta* Coquillett (orig. des.).

aperta (Coquillett), 1905d: 58 (*Gnophomyia*).—B.C.; Alaska to Oreg., Utah, and Wyo.
mormon Alexander, 1927i: 144 (*Psiloconopa*).—Utah.
dolichophallus (Alexander), 1948a: 77 (*Erioptera*).—Colo.; Wash., Oreg., Utah.
melanderi (Alexander), 1944a: 217 (*Erioptera*).—Calif.
pilipennis (Alexander), 1918a: 382 (*Erioptera*).—Oreg.
pugilis (Alexander), 1952b: 236 (*Erioptera*).—Colo.

Genus CRYPTOLABIS Osten Sacken

Cryptolabis Osten Sacken, 1859: 224. Type-species, *paradoxa* Osten Sacken (mon.).

Subgenus CRYPTOLABIS Osten Sacken

bidenticulata Alexander, 1949d: 168.—Calif.
bisinuatis Doane, 1900: 189.—Wash.; Oreg., Idaho.
brachyphallus Alexander, 1950a: 159.—Calif.
magnistyla Alexander, 1962: 4.—Calif.
minutula Alexander, 1927h: 62.—Tex.
mixta Alexander, 1949d: 167.—Calif.
molophiloides Alexander, 1943b: 763.—Wyo.
pachyphallus Alexander, 1943f: 257.—Idaho.
paradoxa Osten Sacken, 1859: 225.—Va.; Ont. to N.S., s. to Tenn. and Fla.
retrorsa Alexander, 1950a: 159.—Calif.; Oreg.
sica Alexander, 1946a: 526.—Ariz.; Utah,

Subgenus PHANTOLABIS Alexander

Cryptolabis, subg. **Phantolabis** Alexander, 1956a: 184. Type-species, *Erioptera lacustris* Alexander (orig. des.).

lacustris (Alexander), 1938b: 76 (*Erioptera*).—Mich.

Genus CHEILOTRICHIA Rossi

Cheilotrichia Rossi, 1848: 12. Type-species, *Erioptera imbuta* Meigen (mon.).

Subgenus CHEILOTRICHIA Rossi

alicia (Alexander), 1914a: 585 (*Erioptera*).—Calif.; Wash., Oreg.

Subgenus EMPEDA Osten Sacken

Empeda Osten Sacken, 1869b: 183 (as genus). Type-species, *stigmatica* Osten Sacken (Coquillett, 1910b: 537).

cinereipleura (Alexander), 1917: 200 (*Erioptera*).—Colo.; Utah, N. Mex.
exilistyla (Alexander), 1949c: 42 (*Erioptera*).—Wash.
gloydae (Alexander), 1950a: 157 (*Erioptera*).—Ariz.
noctivagans (Alexander), 1917: 200 (*Erioptera*).—Va.; Fla.
perflavens (Alexander), 1948b: 212 (*Erioptera*).—Ariz.
rectispina (Alexander), 1955b: 13 (*Erioptera*).—Alaska; Y.T., B.C.
stigmatica (Osten Sacken), 1869b: 184 (*Empeda*).—N.Y.; S. Dak. to Nfld., s. to Tenn. and N.C.
subborealis (Alexander), 1955b: 13 (*Erioptera*).—Alaska; Alta.
toklat (Alexander), 1955b: 14 (*Erioptera*).—Alaska.
tristimonia (Alexander), 1943b: 752 (*Erioptera*).—Wyo.; Alaska, Y.T.
umiat (Alexander), 1955b: 15 (*Erioptera*).—Alaska.

Subgenus GONEMPEDA Alexander

Erioptera, subg. **Gonempeda** Alexander, 1924d: 8. Type-species, *Limnobia flava* Schummel (orig. des.).

burra (Alexander), 1924d: 8 (*Erioptera*).—Calif.; B.C., Oreg.
nyctops (Alexander), 1916a: 503 (*Erioptera*).—N.Y.; Mich. to Que. and Maine, s. to Tenn. and N.C.
yellowstonensis (Alexander), 1943b: 751 (*Erioptera*).—Wyo.

Genus GONOMYODES Alexander

Erioptera, subg. **Gonomyodes** Alexander, 1948a: 78. Type-species, *knowltonia* Alexander (orig. des.).

crickmeri (Alexander), 1949d: 167 (*Erioptera*).—Calif.
knowltonia (Alexander,) 1948a: 78 (*Erioptera*).—Utah.
tacoma (Alexander), 1949a: 321 (*Erioptera*).—Wash.; Alaska, Alta.
yohoensis (Alexander), 1952b: 234 (*Erioptera*).—Alta.-B.C. border; Alta.

Genus ARCTOCONOPA Alexander

Erioptera, subg. **Arctoconopa** Alexander, 1955b: 17. Type-species, *Psiloconopa forcipata* Lundström (orig. des.).

aldrichi (Alexander), 1924d: 4 (*Erioptera*).—Alaska; Y.T., B.C., Alta.
carbonipes (Alexander), 1929g: 52 (*Erioptera*).—Wash.
cinctipennis (Alexander), 1918b: 286 (*Erioptera*).—Calif.

forcipata forcipata (Lundström), 1915: 27 (*Psiloconopa*).—Siberia; Alaska, Y.T., B.C., N.W.T.

angustipennis Alexander, 1919b: 5 (*Erioptera*).—N.W.T.

alaskensis Alexander, 1924d: 5 (*Erioptera*).—Alaska.

ssp. **gaspicola** (Alexander), 1929g: 54 (*Psiloconopa;* as sp.).—Que.; Alta. and Colo. to Que.

katmai (Alexander), 1920i: 195 (*Erioptera*).—Alaska; Y.T., B.C.

kluane (Alexander), 1955b: 20 (*Erioptera*).—Y.T.

manitobensis (Alexander), 1929g: 51 (*Erioptera*).—Man.; Alta., Oreg., Wyo., Utah.

pahasapa (Alexander), 1955a: 20 (*Erioptera*).—S. Dak.

painteri (Alexander), 1929d: 19 (*Erioptera*).—Ohio.

Genus ERIOPTERA Meigen

Polymeda Meigen, 1800: 14. Type-species, *Erioptera lutea* Meigen (Coquillett, 1910b: 593). Suppressed by I.C.Z.N., 1963b: 339.

Erioptera Meigen, 1803: 262. Type-species, *lutea* Meigen (Coquillett, 1910b: 540). [In the interest of stability the author rejects the prior designation of *grisea* Meigen, a species of *Molophilus*, designated by Blanchard *in* Audouin et al., 1849: pl. 163, fig. 3.—Eds.].

Subgenus TRIMICRA Osten Sacken

Trimicra Osten Sacken, 1861: 290 (as genus). Type-species, *anomala* Osten Sacken (mon.)=*pilipes* (Fabricius).

pilipes (Fabricius), 1787: 324 (*Tipula*).—Europe; Oreg. to R.I., s. to Tex. and Fla., Mexico, virtually cosmopolitan.

anomala Osten Sacken, 1861: 290 (*Trimicra*).—D.C.

Subgenus EMPEDOMORPHA Alexander

Empedomorpha Alexander, 1916a: 507 (as genus). Type-species, *Trimicra empedoides* Alexander (orig. des.).

empedoides (Alexander), 1916b: 44 (*Trimicra*).—N. Mex.; N. Dak. to Ariz. and Tex.

Subgenus SYMPLECTA Meigen

Helobia Lepeletier and Serville *in* Latreille et al., 1828: 585 (preocc. Stephens, 1827). Type-species, *Limnobia punctipennis* Meigen (mon.)=*hybrida* (Meigen).

Symplecta Meigen, 1830: 282 (as genus). Type-species, *Limnobia punctipennis* Meigen (Westwood, 1840: 128)=*hybrida* (Meigen).

cana (Walker), 1848: 48 (*Limnobia*).—Ont.; throughout s. Canada and U.S.
hybrida, authors, not Meigen.
punctipennis, authors, not Meigen.
hybrida (Meigen), 1804: 57 (*Limonia*).—Europe; Alaska, Eurasia.
sheldoni Alexander, 1955b: 28.—Alaska.
sunwapta Alexander, 1952b: 267.—Alta.; Alaska, Y.T.

Subgenus ERIOPTERA Meigen

bryantiana Alexander, 1929g: 49.—Alta.
chlorophylla Osten Sacken, 1859: 226.—D.C., Ga.; Wis. to N.S., s. to Tenn. and Fla.
chlorophylloides chlorophylloides Alexander, 1919a: 106.—Colo.; Colo. to Que. and Nfld., s. to Tenn.
ssp. **orthomera** Alexander, 1940c: 155.—Conn.
chrysocoma Osten Sacken, 1859: 226.—D.C.; Que. and N.B., s. to N.C.
chrysocomoides Alexander, 1929g: 50.—Tenn.; Mass.
dyari Alexander, 1924d: 6.—Calif.; Wash., Oreg., Mont.
ebenina Alexander, 1926b: 237.—Ont.; Conn., N.Y.
furcifera Alexander, 1919a: 108.—Md.; Mich., Ont., and Mass., s. to Tenn. and S.C.
gaspeana Alexander, 1929e: 250.—Que.; Mich. to Que.
georgei Alexander, 1956a: 183.—Mich.
hohensis Alexander, 1949c: 44.—Wash.
kluaneana Alexander, 1955b: 31.—Y.T.
leptostyla Alexander, 1940c: 154.—Mich.
megophthalma Alexander, 1918a: 60.—N.Y.; Mich. to Que. and Nfld., s. to Tenn. and N.C.
oregonensis Alexander, 1920g: 87.—Oreg.
osceola Alexander, 1933a: 95.—Fla.
seminole Alexander, 1933a: 96.—Fla.
septemtrionis Osten Sacken, 1859: 226.—Maine, N.Y.; Wash. to Nfld., s. to Calif., Kans., and Fla.
subseptemtrionis Alexander, 1920d: 109.—Colo.
straminea Osten Sacken, 1869b: 157.—Unknown; Ill. to Que. and Maine, s. to S.C.
subchlorophylla Alexander, 1919a: 107.—N.J.; Mass. to Fla.
subfurcifera Alexander, 1929g: 51.—Mich.; Maine, Conn.
uliginosa Alexander, 1930a: 277.—Conn.; Alaska to Wis. and Maine.
vespertina Osten Sacken, 1859: 226.—D.C., Fla., Wis.; Iowa to N.S., s. to Ala. and Fla.
holoptica Dietz, 1921a: 245.—Pa.
fuscoantennata Dietz, 1921a: 246 (as *holoptica* var.).—Pa.

villosa Osten Sacken, 1859: 226.—Middle States; Sask. to Nfld., s. to Utah and Colo.
dilatata Alexander, 1924d: 7.—Mont.
viridula Alexander, 1929d: 20.—Vt.; Ont. to Nfld., s. to N.Y. and Conn.
yukonensis Alexander, 1955b: 32.—Y.T.

Subgenus MESOCYPHONA Osten Sacken

Erioptera, subg. **Mesocyphona** Osten Sacken, 1869b: 152. Type-species, *caliptera* Say (Brunetti, 1912: 458).

caliptera Say, 1823: 17 (1859b: 44).—Mo.; Calif. to Nfld., s. to Fla., Neotropical.
caloptera, emend.
distincta Alexander, 1912d: 165.—N. Mex.; Calif. to Wyo. and N. Mex.
dulcis Osten Sacken, 1877: 198.—Calif.; Wash., Oreg., Wyo.
eiseni Alexander, 1913a: 516.—Guatemala; Calif., Utah, Ariz., N. Mex., Neotropical.
evergladea Alexander, 1933a: 97.—Fla.
femoraatra Alexander, 1950d: 170.—Ga.
immaculata Alexander, 1913a: 518.—Nicaragua; Tex., Neotropical.
knabi Alexander, 1913a: 515.—Mexico; Ariz. to Mich., Ind., and Fla.
hubbelli Rogers, 1931: 332, 333 (as *hubelli*, p. 332).—Okla.
melanderiana Alexander, 1946g: 99.—Wash.; Oreg., Calif., Nev.
unduligera Alexander, 1946c: 208.—Oreg.
needhami Alexander, 1918a: 383.—N.Y.; Mo. to Ont. and N.S., s. to Fla.
parva Osten Sacken, 1859: 227.—D.C., Ga.; Kans. to Mich. and Conn., s. to Fla.
rubia Alexander, 1914a: 583.—Ariz.; Utah, Colo. ?Not subg. *Mesocyphona*.
serpentina Alexander, 1941a: 318.—N.C.; Mass.
splendida Alexander, 1913a: 514.—Guatemala; Ariz., Neotropical.
tantilla Alexander, 1916a: 502.—Miss.

Subgenus HOPLOLABIS Osten Sacken

Erioptera, subg. **Hoplolabis** Osten Sacken, 1869b: 152. Type-species, *armata* Osten Sacken (mon.)
Haplobasis, error.

armata Osten Sacken, 1859: 227.—D.C., Wis.; Colo. to Nfld., s. to Okla. and Ga.
asiatica Alexander, 1919d: 124.—Japan; Alaska, e. Asia.
bipartita Osten Sacken, 1877: 199.—Calif.
maria Alexander, 1948a: 75.—Utah.

Subgenus PSILOCONOPA Zetterstedt

Psiloconopa Zetterstedt, 1838: 847 (as genus). Type-species, *meigeni* Zetterstedt (mon.).

Ilisia Rondani, 1856: 182. Type-species, *Erioptera maculata* Meigen (orig. des.).

Erioptera, subg. *Acyphona* Osten Sacken, 1869b: 151. Type-species, *venusta* Osten Sacken (Brunetti, 1920: 238).

armillaris Osten Sacken, 1869b: 158.—N.Y., D.C.; Kans. to N.S. and N.C.

bispinigera Alexander, 1930b: 76.—Mont.; Oreg., Utah, Wyo.

bisulca Alexander, 1949d: 166.—Calif.

carsoni Alexander, 1955b: 21.—Alaska.

churchillensis Alexander, 1938b: 77.—Man.

cramptonella (Alexander), 1931c: 144 (*Psiloconopa*).—Que.; P.E.I., Nfld.

denali Alexander, 1955b: 22.—Alaska.

dorothea Alexander, 1914a: 584.—N. Mex.; Colo.

ecalcar Alexander, 1949c: 43.—Utah.

estella Alexander, 1955b: 23.—Alaska.

graphica Osten Sacken, 1859: 227.—D.C.; Nebr. to Ont. and Mass., s. to La. and Fla.

hardyi Alexander, 1948a: 68.—Utah.

hygropetrica Alexander, 1943a: 172.—Colo.; Alaska to Wash. and Colo.

crassivena Alexander, 1949a: 324.—Wash.

indianensis Alexander, 1922b: 1.—Ind.; Iowa, Mich., Mo., Ill., Ky.

irata Alexander, 1949a: 324.—Oreg.; Wash.

laevis laevis Alexander, 1930b: 77.—Mass.; Maine, Pa.

ssp. **restricta** Alexander, 1941a: 317.—N.C.

laticeps Alexander, 1916a: 501.—Calif.

lucia Alexander, 1914a: 584.—Colo.; Alta., Utah, Wyo., N. Mex.

mabelana Alexander, 1955b: 25.—Y.T.

margarita Alexander, 1919a: 104.—Colo.; Alaska, Y.T., Wash., Utah, Wyo.

mckinleyana Alexander, 1955b: 26.—Alaska.

megarhabda (Alexander), 1943a: 174 (*Ormosia*).—Colo.; Alaska, Wash., Oreg., Utah, Wyo.

microcellula Alexander, 1914a: 585.—Colo.; Utah.

neomexicana Alexander, 1929g: 53.—N. Mex.; Utah.

peayi Alexander, 1948a: 71.—Utah.

polycantha Alexander, 1945d: 156.—Wash.

rainieria Alexander, 1943f: 46.—Wash.; Oreg., Calif., Mont., Wyo.

recurva Alexander, 1949a: 326.—Wash.
shoshone Alexander, 1945a: 430.—Wyo.; Alaska and Y.T. to Oreg. and Colo.
sinawava Alexander, 1948a: 72.—Utah.
sparsa Alexander, 1919f: 214.—Calif.
stictica stictica (Meigen).—Not Nearctic.
ssp. **angularis** (Alexander), 1917: 26 (*Trimicra;* as sp.).—Utah.
sweetmani Alexander, 1940d: 102.—Ga.
telfordi Alexander, 1948a: 73.—Utah.
venusta venusta Osten Sacken, 1859: 227.—N.Y., Conn., Va.; Wis. to Que. and Maine, s. to Mo. and Fla.
ssp. **nubilosa** Alexander, 1956a: 184.—Mich.
zukeli Alexander, 1940b: 89.—Idaho; Oreg.

Genus ORMOSIA Rondani

Ormosia Rondani, 1856: 180. Type-species, *Erioptera nodulosa* Macquart (orig. des.).

Subgenus RHYPHOLOPHUS Kolenati

Rhypholophus Kolenati, 1860: 393, 407 (as genus *Rypholophus*, p. 393). Type-species, *phryganopterus* Kolenati (mon.).

arapaho Alexander, 1958b: 134.—Colo.
bicuspidata Alexander, 1944a: 221.—Wash.
bifidaria Alexander, 1919g: 143.—Colo.; Oreg., Calif., Utah.
fumata (Doane), 1900: 188 (*Rhypholophus*).—Idaho; Wash., Oreg.
hoodiana Alexander, 1944a: 219.—Oreg.
libella Alexander, 1943a: 177.—Colo.
oregonica oregonica Alexander, 1944a: 220.—Oreg.
ssp. **fugax** Alexander, 1946d: 156 (as sp.).—Oreg.
paradisea Alexander, 1920b: 35.—Wash.; B.C., Alta., Oreg., Wyo.
garretti Alexander, 1926e: 19.—Alta.
suffumata Alexander, 1943a: 178.—Colo.; Wash., Oreg., Idaho.
wasatchensis Alexander, 1948a: 64.—Utah.

Subgenus SCLEROPROCTA Edwards

Ormosia, subg. **Scleroprocta** Edwards, 1938b: 137. Type-species, *danica* Nielsen (orig. des.).

innocens (Osten Sacken), 1869b: 142 (*Rhypholophus*).—N.J., D.C.; Mich. to N.H., s. to Tenn. and S.C.
tetonica Alexander, 1945a: 434.—Wyo.; Utah.

Subgenus ORMOSIA Rondani

adirondacensis Alexander, 1919g: 145.—N.Y.; N.S. to Tenn.
affinis (Lundbeck), 1898: 266 (*Rhypholophus*).—Greenland; ?B.C.
albertensis Alexander, 1933a: 98.—Alta.; Wash., Oreg., Wyo.
albrighti Alexander, 1954: 75.—Oreg.
apicalis Alexander, 1911c: 200.—Ga.; N.Y. to Ga.
atriceps Dietz, 1916: 136.—Pa.
arcuata (Doane), 1908c: 201 (*Rhypholophus*).—N.Y.; Alta. to N.B., s. to Tenn.
bilineata Dietz, 1916: 142.—N.Y.; S. Dak. to Nfld., s. to N.C.
huronis Alexander, 1929d: 20.—Mich.
brachyrhabda Alexander, 1948a: 65.—Utah; Wyo.
brevicalcarata Alexander, 1927h: 61.—N.C.
broweri Alexander, 1939a: 100.—Maine; B.C. to Maine, s. to Colo.
burneyensis Alexander, 1950c: 33.—Calif.
carolinensis Alexander, 1925b: 229.—N.C.
cerrita Alexander, 1949a: 327.—Wash.
cockerelli (Coquillett), 1901g: 149 (*Rhypholophus*).—N. Mex.; Colo.
cornuta (Doane), 1908c: 202 (*Rhypholophus*).—Calif.
curvata Alexander, 1924d: 2.—Alaska; Wash., Oreg.
davisi Alexander, 1954: 77.—Oreg.
decussata Alexander, 1924d: 1.—Alaska; Wash., Oreg.
dedita Alexander, 1943b: 760.—Wyo.
defrenata Alexander, 1948a: 66.—Utah; Oreg., Idaho.
dentifera Alexander, 1919g: 144.—Maine; Que. and Nfld., s. to N.Y. and Conn.
divergens (Coquillett), 1905d: 57 (*Rhypholophus*).—B.C.; Wash., Oreg., Calif.
fascipennis (Zetterstedt), 1838: 831 (*Erioptera*).—N. Europe; Greenland, e. Que.
cramptoniana Alexander, 1929e: 249.—Que. (Gaspé).
fernaldi Alexander, 1924a: 116.—Mass.
frisoni Alexander, 1920d: 224.—Ill.; Iowa, Mich., Ind.
furibunda Alexander, 1954: 77.—Oreg.
fusiformis fusiformis (Doane), 1900: 187 (*Rhypholophus*).—Idaho; Wash., Oreg., Mont., Utah, Colo.
divexus Doane, 1908c: 201 (*Rhypholophus*).—Wash.
ssp. **viduata** Alexander, 1941c: 212 (as sp.).—Colo.
gaspensis Alexander, 1929e: 249.—Que.; N.B.
gerronis Alexander, 1954: 78.—Oreg.
hallahani Alexander, 1943a: 175.—Colo.; Y.T., B.C., Oreg., Wyo., S. Dak.
harrisoniana Alexander, 1940a: 642.—Tenn.
heptacantha Alexander, 1949d: 169.—Calif.

hispa Alexander, 1945d: 158.—Wash.; Oreg.
holotricha (Osten Sacken), 1859: 226 (*Erioptera*).—D.C.; N.H., s. to Tenn. and N.C.
hubbelli Alexander, 1926e: 20.—N. Dak.; Man., Minn.
hynesi Alexander, 1962: 5.—Calif.
ingloria Alexander, 1929d: 21.—Ind.; Ont.
ithacana Alexander, 1929a: 29.—N.Y.
lanuginosa (Doane), 1900: 188 (*Rhypholophus*).—Idaho.
legata Alexander, 1949d: 171.—Calif.
lilliana Alexander, 1940a: 641.—Tenn.; N.C.
longicornis (Doane), 1908c: 201 (*Rhypholophus;* as *longicornus*).—Wash.
luteola Dietz, 1916: 138.—Conn.; Mich. to Maine, s. to Pa.
manicata (Doane), 1900: 187 (*Rhypholophus*).—Idaho; Wash. to Nfld., s. to Calif. and Pa., Japan.
deviata Dietz, 1916: 143.—Pa.
fuscopyga Alexander, 1924d: 3.—Calif.
megacera Alexander, 1917: 26.—N.Y.; Que. and Nfld., s. to Pa.
divergens Dietz, 1916: 144. (preocc. Coquillett, 1905).—Pa.
meigenii (Osten Sacken), 1859: 226 (*Erioptera*).—Middle States; Ont. to N.S., s. to Ill. and S.C.
mesocera Alexander, 1917: 25.—N.Y.; Ont. to N.S., s. to N.Y. and Vt.
mitchellensis Alexander, 1941a: 314.—N.C.
modica Dietz, 1916: 141.—Calif.; Oreg.
stylifer Alexander, 1919g: 146.—Oreg.
monticola (Osten Sacken), 1869b: 145 (*Rhypholophus*).—N.H.; Mich. to N.B., s. to N.C.
nigripila (Osten Sacken), 1869b: 142 (*Rhypholophus*).—D.C.; Mich. to Nfld., s. to Fla.
nimbipennis Alexander, 1917: 24.—N.Y.; Mich. to Nfld., s. to Conn.
nonacantha Alexander, 1954: 80.—Oreg.
notmani Alexander, 1920d: 225.—N.Y.; Ont., Que., Nfld., Mass., Conn.
onerosa Alexander, 1943b: 761.—Wyo.; Wash., Oreg., Utah., Ariz., N. Mex.
opifex Alexander, 1943b: 753.—Wyo.; Utah.
palpalis Dietz, 1916: 140.—Pa.
parallela (Doane), 1908c: 202 (*Rhypholophus*).—N.Y. Unrecognized.
pernodosa Alexander, 1950c: 34.—Calif.
perplexa Dietz, 1916: 141.—N.Y.
perspectabilis Alexander, 1944a: 218.—Oreg.
pleuracantha Alexander, 1954: 81.—Oreg.; Calif.
profunda Alexander, 1943f: 49.—Calif.; Oreg.

proxima Alexander, 1924d: 3.—Alaska; Oreg.
pugetensis Alexander, 1946g: 100.—Wash.; Oreg.
pygmaea (Alexander), 1912d: 166 (*Trimicra*).—N.Y.; Mich. to N.B., s to N.C.
pilosa Dietz, 1916: 139.—Pa.
romanovichiana Alexander, 1953b: 327 (n. name for *nubila* Osten Sacken).—D.C.; Ill. to Maine, s. to Tenn. and S.C.
nubila Osten Sacken, 1859: 227 (*Erioptera;* preocc. Schummel, 1829).—D.C.
rubella (Osten Sacken), 1869b: 144 (*Rhypholophus*).—Del., N.Y.; Wis. to Nfld, s. to Ga.
enigmatica Dietz, 1921a: 249 (as ?var.).—Pa.
sentis Alexander, 1943b: 757.—Wyo.
serridens Alexander, 1919g: 144.—Va.; Md.
spinifex Alexander, 1943b: 758.—Wyo.; B.C., Utah, Colo.
subcornuta Alexander, 1920g: 88.—Oreg.; B.C., Wash.
subcostata Dietz, 1921a: 249.—Pa. Unrecognized.
subdentifera Alexander, 1941a: 316.—N.C.
subnubila Alexander, 1920i: 196.—Alaska; Alaska to Colo.
taeniocera Dietz, 1916: 145.—Calif.
tahoensis Alexander, 1950c: 32.—Calif.
tennesseensis Alexander, 1940a: 640.—Tenn.
townesi Alexander, 1933a: 99.—N.C.
tricornis Alexander, 1949d: 170.—Calif.
unicornis Alexander, 1954: 83.—Oreg.; Wash.
upsilon Alexander, 1946d: 157.—Oreg.; Wash.

Subgenus OREOPHILA Lackschewitz

Oreophila Lackschewitz, 1935: 7 (as genus). Type-species, *Rhypholophus bergrothi* Strobl (orig. des.).

absaroka Alexander, 1943b: 756.—Wyo.; B.C., Wash., Oreg., Alta.
bucera Alexander, 1954: 76.—Oreg.
flaveola (Coquillett), 1900h: 398 (1904: 12) (*Rhypholophus*).—Alaska; B.C., Oreg.
leptorhabda Alexander, 1943f: 47.—Calif.
sequoiarum Alexander, 1944a: 219.—Calif.
triangularis Alexander, 1949a: 331.—Wash.

Genus TASIOCERA Skuse

Tasiocera Skuse, 1890a: 815. Type-species, *tenuicornis* Skuse (Alexander, 1920e: 52).

Subgenus DASYMOLOPHILUS Goetghebuer

Molophilus, subg. **Dasymolophilus** Goetghebuer *in* Goetghebuer and Tonnoir, 1920: 132. Type-species, *Erioptera murina* Meigen (mon.).

miseranda Alexander, 1950a: 158.—Oreg.
niphadias (Alexander), 1925b: 229 (*Molophilus*).—Mich.; Mich. to Tenn. and Fla.
squiresi Alexander, 1948c: 134.—Oreg.
subnuda (Alexander), 1926g: 77 (*Dasymolophilus*).—Calif.
ursina (Osten Sacken), 1859: 228 (*Erioptera*).—D.C., Md.; Nfld., s. to Tenn. and N.C.

Genus MOLOPHILUS Curtis

Molophilus Curtis, 1833: pl. 444. Type-species, *brevipennis* Curtis (mon.)=*ater* (Meigen). [If the author accepted the nomenclaturally correct type-species for the genus *Erioptera*, *Molophilus* would fall as a synonym of it.—Eds.]

Subgenus MOLOPHILUS Curtis

arapahoensis Alexander, 1958b: 219.—Colo.
arizonicus Alexander, 1946a: 530.—Ariz.
aspersulus Alexander, 1962: 6.—Calif.
bispinosus Alexander, 1919c: 192.—Calif.
colonus Bergroth, 1888a: 195.—Alaska; Alaska to Calif., Utah, and Wyo.
comatus Doane, 1900: 188 (*Erioptera*).—Wash.
costopunctatus Dietz, 1921a: 248.—Pa.
cramptoni Alexander, 1924b: 61.—N.Y.; Mich. to Maine, s. to Tenn. and S.C.
dirhaphis Alexander, 1958b: 221.—Calif.
falcatus Bergroth, 1888a: 196.—Alaska; B.C., Oreg., Wyo.
fenderi Alexander, 1952b: 269.—Calif.; Oreg.
floridensis Alexander, 1925b: 230.—Fla.
forcipulus forcipulus (Osten Sacken), 1869b: 163 (*Erioptera*).—N.J.; Wis. to N.B., s. to Tenn. and Fla.
ssp. **heterocerus** Dietz, 1921a: 247.—Pa. ?=color variant only.
fultonensis Alexander, 1916a: 505.—N.Y.; Wis. to Maine, s. to Tenn. and S.C.
gracilipes Alexander, 1959a: 51.—Calif.
harrisoni Alexander, 1945a: 437.—Wyo.; Wash., Oreg., Idaho, Utah.
hirtipennis (Osten Sacken), 1859: 228 (*Erioptera*).—Md.; Ont. to Nfld., s. to Ill., Tenn., and N.C.

huron Alexander, 1929g: 56.—Mich.
kulshanicus Alexander, 1949a: 332.—Wash.; Oreg.
laricicola Alexander, 1929g: 55.—N.Y.; Maine, N.H., Vt.
millardi Alexander, 1944a: 222.—Calif.
nitidulus Alexander, 1946g: 102.—Wash.; Oreg., Idaho.
nitidus Coquillett, 1905d: 58.—Calif.; Wash., Oreg.
novacaesariensis Alexander, 1916a: 506.—N.J.; Ind. to N.J., s. to Fla.
oligacanthus Alexander, 1958b: 135.—Calif.
oregonicola Alexander, 1946d: 158.—Oreg.
palomaricus Alexander, 1947g: 47.—Calif.
paludicola Alexander, 1929g: 57.—Mass.; Maine, Vt., Conn.
paulus Bergroth, 1888a: 196.—Alaska; Wash., Oreg.
perflaveolus Alexander, 1918a: 160.—Calif.; B.C. to Calif., Utah, and Wash., also Tenn., Japan.
auricomus Alexander, 1926e: 115.—Tenn.
pollex Alexander, 1931c: 146.—Que.; N.B.
pubipennis (Osten Sacken), 1859: 228 (*Erioptera*).—D.C.; Mich. to Que. and Nfld., s. to Fla.
quadrispinosus Alexander, 1924b: 62.—N.Y.; Mich. to Nfld. and Conn.
rainierensis Alexander, 1943f: 50.—Wash.; Oreg.
rostrifer Alexander, 1943b: 762.—Wyo.; Oreg., Calif.
sackenianus Alexander, 1926g: 78.—Calif.; Wash. to Calif.
distilobatus Alexander, 1945d: 160.—Oreg.
sequoiae Alexander, 1952b: 270.—Calif.
soror Alexander, 1927a: 230.—Maine; Alta. and Mich. to N.B.
sparus Alexander, 1940c: 155.—Fla.
spiculatus spiculatus Alexander, 1918a: 161.—Colo.; Wash., Oreg., Calif.
ssp. **sigmoideus** Alexander, 1945a: 438.—Wyo.; Alaska, B.C.
squamosus Alexander, 1919c: 191.—Calif.
stolidus Alexander, 1948b: 213.—Ariz.
subnitens Alexander, 1946g: 101.—Wash.
suffalcatus Alexander, 1946d: 159.—Oreg.; B.C.
neofalcatus Alexander, 1954: 84 (unjustified n. name for *suffalcatus* Alexander).—Oreg.
unispiculatus Alexander, 1959a: 53.—Calif.
ursus Alexander, 1918a: 162.—N. Mex.
xanthus Alexander, 1955a: 21.—Wash.

Genus TOXORHINA Loew

Toxorhina Loew, 1850c: 36 (also 1851: 400). Type-species, *fragilis* Loew (Osten Sacken, 1869b: 113).

Toxorrhina, emend.

magna Osten Sacken, 1865: 232.—N.J.; Mich. to Mass., s. to La. and Fla.

muliebris Osten Sacken, 1865: 233.—Mass.; Wis. to Que. and Maine, s. to Ill. and Va.

Unplaced Species of Tipulidae

gracilis Wiedemann, 1828: 28 (*Limnobia*).—Pa.
humeralis Say, 1823: 22 (1859b: 47) (*Limnobia*).—Pa. ?*Pilaria*.
ignobilis Walker, 1856b: 437 (*Limnobia*).—N. Amer. ?*Hexatoma*.
pratorum Kirby, 1837: 310 (*Tipula*).—Arctic Amer.
retorta Wulp, 1881: 149 (*Tipula*).—Que.

Superfamily PSYCHODOIDEA

Family TANYDERIDAE

By Charles P. Alexander

Two of the ten known genera and four of the approximately 30 species occur in our faunal region. The immature stages are found in wet, sandy soil at margins of major streams, indicating an aquatic or semiaquatic habitat.

REFERENCE: Alexander, 1942b (review).

Genus PROTANYDERUS Handlirsch

Protanyderus Handlirsch, 1909: 270. Type-species, *Protoplasa vipio* Osten Sacken (mon.).

margarita Alexander, 1948a: 13.—Utah; B.C., Oreg., Idaho, Colo.
vanduzeei (Alexander), 1918b: 285 (*Protoplasa*).—Calif.
vipio (Osten Sacken), 1877: 208 (*Protoplasa*).—Calif.; Oreg.

Genus PROTOPLASA Osten Sacken

Protoplasa Osten Sacken, 1859: 251. Type-species, *fitchii* Osten Sacken (mon.).

Protoplasta, emend.

Idioplasta Osten Sacken, 1878c: 222 (unjustified n. name for *Protoplasta* Osten Sacken). Type-species, *Protoplasa fitchii* Osten Sacken (aut.).

fitchii Osten Sacken, 1859: 252.—N.Y. or Vt. (Osten Sacken, 1869b: 319); Que. and N.S., s. to Fla.

Family PSYCHODIDAE

By Laurence W. Quate

Psychodids are small, hairy, moth flies, usually found in protected, moist areas. Adults fly in short, jerky flights, and hold their wings rooflike over the body when at rest. Adult food habits are not known except for the bloodsucking *Phlebotomus* females. In the Tropics, species of this genus are the vectors of several diseases. Immature stages are generally subaquatic, living in mud or moss on stream margins. One group, *Maruina*, is fully aquatic and lives in torrents. *Psychoda* and *Phlebotomus* breed in terrestrial habitats supplied with moist, decaying organic material.

The Nearctic psychodids have been reclassified recently (Quate, 1955) but there are still undescribed species. Little work has been done on the biology of North American species.

REFERENCES: Satchell, 1947 (biol.); Quate, 1955 (rev.); Quate, 1960b (ne. N. Amer.).

Subfamily TRICHOMYIINAE

Genus TRICHOMYIA Curtis

Trichomyia Curtis, 1839: pl. 745. Type-species, *urbica* Curtis (mon.).

nuda (Dyar), 1926b: 111 (*Maruina*).—Md.; Nebr. and Minn. to N.Y., s. to Kans. and Tenn.

sequoiae Quate, 1955: 120.—Calif.

wirthi Quate, 1955: 119.—Fla.; Tenn., Ga.

Subfamily PHLEBOTOMINAE

Genus PHLEBOTOMUS Rondani and Berté

Phlebotomus Rondani and Berté *in* Rondani, 1840a: 12 (as *Flebotomus*). Type-species, *Bibio papatasii* Scopoli (mon.). Spelling fixed under suspension of Rules by I.C.Z.N., 1954b: 199.

Subgenus BRUMPTOMYIA França and Parrot

Phlebotomus, subg. **Brumptomyia** França and Parrot, 1921: 281. Type-species, *brumpti* Larrousse (Dyar, 1929a: 112.).

Phlebotomus, subg. *Dampfomyia* Addis, 1945: 120. Type-species, *anthophorus* Addis (mon.).

anthophorus Addis, 1945: 119.—Tex.; Mexico.

aquilonius Fairchild and Harwood, 1962: 244.—Wash.

californicus Fairchild and Hertig, 1957: 328.—Calif.; Wash.
diabolicus Hall, 1936: 28.—Tex.; Mexico.
oppidanus Dampf, 1944: 247.—Mexico; Wash.
shannoni Dyar, 1929a: 121.—Panama; Miss. to N.C. and Fla., Mexico, Cent. and S. Amer.
stewarti Mangabeira and Galindo, 1944: 185.—Calif.; Mexico.
texanus Dampf, 1938: 119.—Tex.; Mexico.
vexator vexator Coquillett, 1907c: 102.—Md.; s. U.S. from Calif. to Md., Mexico.
ssp. **occidentis** Fairchild and Hertig, 1957: 334.—Calif.; Wash

Subfamily PSYCHODINAE

Tribe PERICOMINI

Genus PERICOMA Walker

Pericoma Walker, 1856a: 256. Type-species, *Trichoptera trifasciata* Meigen (Coquillett, 1910b: 587).

Subgenus PERICOMA Walker

albitarsis (Banks), 1895: 324 (*Psychoda*).—N.Y.; Ohio to Mass., s. to Tenn. and N.C.
ancyla Quate, 1955: 135.—Oreg.; Wash.
aterrima (Banks), 1914a: 128 (*Psychoda*).—N.Y.
bessophila Quate, 1955: 139.—Calif.
bipunctata Kincaid, 1899: 34.—Wash.; Alaska, B.C.
biramus Quate, 1955: 140.—Calif.; Ariz., Baja Calif.
californica Kincaid, 1901: 195.—Calif.; Alaska to Calif. and Nebr.
carolina Banks, 1931: 228.—N.C.
complexa Quate, 1955: 136.—Idaho.
fluviatilis Dyar, 1926a: 106.—Mont.; B.C., Wash., Idaho, Wyo.
kincaidi Quate, 1955: 141.—Alaska; Alaska to Wash., Utah, Wyo., Mich.
lassenica lassenica Quate, 1955: 129.—Calif.; Wash.
ssp. **hiera** Quate, 1955: 129.—Idaho; B.C., Mont., Wyo.
ludificata Quate, 1955: 150.—Oreg.
marginalis (Banks), 1894: 333 (*Psychoda*).—N.Y.; Minn. to Que., s. to Ga.
melanderi Quate, 1955: 133.—Idaho; B.C., Alta., Mont.
scotiae (Curran), 1924h: 216 (*Psychoda*).—N.S.; Alta. to N.S., s. to Colo. and N.C.
alberta Curran, 1924h: 219 (*Psychoda*).—Alta.
sicula Quate, 1955: 145.—Mont.; B.C., Wyo.

signata (Banks), 1901: 274 (*Psychoda*).—D.C.; Minn. to Labr., s. to Tenn. and N.C.
megantica Curran, 1924h: 217 (*Psychoda*).—Que.
sitchana Kincaid, 1899: 33.—Alaska. Unrecognized.
slossonae (Williston), 1893a: 113 (*Psychoda*; as *slossoni*).—N.Y.; Man. to Que., s. to Mich. and Pa.
criddlei Curran, 1924h: 218 (*Psychoda*).—Man.
augusta Curran, 1926e: 228 (*Psychoda*).—Que.
truncata Kincaid, 1899: 35.—Calif.; Utah, Colo., Nebr.
usingeri Quate, 1955: 142.—Calif.
wirthi Quate, 1955: 154.—Ariz.; Calif., Tex., Fla.

Subgenus CLYTOCERUS Eaton

Phalaenula Meigen, 1800: 18. Type-species, *Trichoptera ocellaris* Meigen (Coquillett, 1910b: 587). Suppressed by I.C.Z.N., 1963b: 339.
Clytocerus Eaton, 1904: 59 (as genus). Type-species, *africanus* Tonnoir (sub. mon., Tonnoir, 1920: 137).

americana Kincaid, 1901: 194 (as *ocellaris* var.).—Maine; Wash. to Calif. and Colo., Minn. to Maine and s. to Tenn.
variegata Kincaid, 1899: 33 (preocc. Macquart, 1826).—Wash.
interrupta Banks, 1907: 150 (*Psychoda*).—Md.
satellitia Dyar, 1927: 163.—Md.

Genus BREVISCAPUS Quate

Breviscapus Quate, 1955: 155. Type-species, *Pericoma triloba* Kincaid (orig. des.).

trilobus (Kincaid), 1899: 33 (*Pericoma*).—Wash.

Genus TELMATOSCOPUS Eaton

Telmatoscopus Eaton, 1904: 58. Type-species, *Pericoma advena* Eaton (present des.).
Clogmia Enderlein, 1937a: 87. Type-species, *Psychoda albipunctata* Williston (as *albipennis;* orig. des.).

albipunctatus (Williston), 1893a: 113 (*Psychoda*).—Cuba; N.Y. and Fla. to Ariz., tropicopolitan.
albipennis, error.
snowii Haseman, 1907: 311 (*Psychoda*).—Tex.
arnaudi Quate, 1955: 167.—Mexico (Baja Calif.); Calif.

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basalis basalis (Banks), 1907: 150 (*Psychoda*).—Va.; se. Canada, U.S.
apicalis Banks, 1907: 150 (*Psychoda*).—Va.
orillia Curran, 1924h: 218 (*Psychoda*).—Ont.
ssp. **cio** Quate, 1955: 179.—Calif.
ssp. **dysmicus** Quate, 1955: 177.—Calif.
ssp. **scalus** (Haseman), 1907: 307 (*Pericoma;* as sp.).—Ariz.; Utah, Calif.
longiplata Haseman, 1907: 308 (*Pericoma*).—Ariz.
ssp. **sierra** Quate, 1955: 179.—Calif.; Wash.
furcatus (Kincaid), 1899: 34 (*Pericoma*).—Wash.; Alaska, B.C., U.S.
trialbawhorla Haseman, 1907: 306 (*Pericoma*).—Mo.
annulipes Johnson, 1913a: 43 (*Psychoda*).—Fla.
autumnalis Banks, 1914a: 127 (*Psychoda*).—D.C.
aldrichanus Dyar, 1926b: 107 (*Pericoma*).—Alaska.
littoralis Dyar, 1926b: 107 (*Pericoma*).—Calif.
jeanneae Quate, 1955: 183.—Calif.; Baja Calif.
latipenis Quate, 1960a: 144.—Wis.
macdonaldi Quate, 1960a: 146.—Calif.
macneilli Quate, 1955: 164.—Calif.
nebraskensis Quate, 1955: 163.—Nebr.; Wis., Mich.
niger (Banks), 1894: 331 (*Psychoda*).—N.Y.; Minn. to N.Y., s. to Ind. and Va.
snowhilli Del Rosario, 1936: 140 (*Psychoda*).—Md.
olympia (Kincaid), 1897: 144 (*Psychoda*).—Wash.; Calif.
patibulus Quate, 1955: 167.—Ala.; Tenn., Tex., Miss.
quadripunctatus (Banks), 1907: 149 (*Psychoda*).—Va.; Que., Ont.
sobrinus Quate, 1955: 171.—Tex.; Calif., Ariz.
subtilis Quate, 1960a: 144.—N. Mex.
superbus (Banks), 1894: 332 (*Psychoda*).—N.Y.; Nebr. to Que., s. to Tex. and Ga.
conspicuus Del Rosario, 1936: 125 (*Psychoda;* as var.).—Md.
varitarsis (Curran), 1924h: 220 (*Psychoda*).—Que.; Ont., Mich., Mass.
juno Curran, 1926e: 228 (*Psychoda*).—Ont.

Genus BRUNETTIA Annandale

Brunettia Annandale, 1910: 141. Type-species, *Diplonema superstes* Annandale (Brunetti, 1911a: 310).

nitida (Banks), 1901: 275 (*Psychoda*).—D.C.; Nebr. to Mass., s. to Tex. and Fla.
squamosa Johnson, 1913a: 43 (*Psychoda*).—Fla.
sycophanta Quate, 1955: 190.—Fla. ;Ala.

Tribe PSYCHODINI

REFERENCE: Quate, 1959 (classif.).

Genus TRICHOPSYCHODA Tonnoir

Psychoda, subg. **Trichopsychoda** Tonnoir, 1922: 59. Type-species, *hirtella* Tonnoir (orig. des.).

insulicola (Quate), 1954: 342 (*Psychoda*).—Hawaii; Ga., Ala.

Genus PHILOSEPEDON Eaton

Philosepedon Eaton, 1904: 57. Type-species, *Psychoda humeralis* Meigen (orig. des.).

bishoppi (Del Rosario), 1936: 141 (*Psychoda*).—Md.; Va., Ala.
interdicta (Dyar), 1928a: 88 (*Psychoda*).—N.Y.; Wis. to Mass., s. to Tex. and Fla., Antilles.
opposita (Banks), 1901: 274 (*Psychoda*).—D.C.; Iowa to Md., s. to Tex. and Ga.
tesca (Quate), 1955: 229 (*Psychoda*).—Calif.
tridactila (Kincaid), 1899: 32 (*Pericoma*).—Wash.

Genus THRETICUS Eaton

Threticus Eaton, 1904: 57. Type-species, *Pericoma lucifuga* Walker (Enderlein, 1935b: 249).

bicolor (Banks), 1894: 333 (*Psychoda*).—N.Y.; Mich. to Que. and Va.
jonesi (Quate), 1955: 231 (*Psychoda*).—Wis.; Tenn., Va., Miss.

Genus EURYGARKA Quate

Eurygarka Quate, 1959: 450. Type-species, *Psychoda helicis* Dyar (orig. des.).

helicis (Dyar), 1929c: 64 (*Psychoda*).—Cuba; Fla., Ala.

Genus PSYCHODA Latreille

Psychoda Latreille, 1796: 152. Type-species, *Tipula phalaenoides* Linnaeus (sub. mon., Latreille, 1802: 424).
Trichoptera Meigen, 1803: 261. Type-species, *Tipula phalaenoides* Linnaeus (Coquillett, 1910b: 616).

alternata Say, 1824a: 358 (1859a: 242).—Pa.; U.S., cosmopolitan.
schizura Kincaid, 1899: 32.—Wash.
floridica Haseman, 1907: 316.—Fla.
nocturnala Haseman, 1907: 319.—Mo.
albimaculata Welch, 1912: 411.—Ill.
dakotensis Dyar, 1926b: 108.—S. Dak.

alternicula Quate, 1955: 222.—Fla.; Tex., La., Ala., Ga.
cinerea Banks, 1894: 331.—N.Y.; Alta., Ont., U.S., P.R., Chile, Europe, Australia, New Zealand.
prudens Curran, 1924h: 219.—Alta.
degenera Walker, 1848: 33.—Ont. Unrecognized.
domestica Haseman, 1908: 285.—Mo. Unrecognized.
elegans Kincaid, 1897: 144.—Wash.; Utah.
lativentris Berdén, 1952: 111.—Sweden; Sask., U.S., Mexico, Europe, Africa.
longifringa Haseman, 1907: 318.—Fla. Unrecognized.
minuta Banks, 1894: 331.—N.Y.; Minn. to Maine, s. to Tex. and Md., Europe.
marylandana Del Rosario, 1936: 111.—Md.
phalaenoides (Linnaeus), 1758: 588 (*Tipula*).—Unknown; Alaska, Canada, U.S., Europe.
pacifica Kincaid, 1897: 143.—Wash.
horizontala Haseman, 1907: 313.—Mo.
tonnoiri Dyar, 1926a: 103.—Unknown.
angustafona Rapp, 1944: 233.—N.Y.
pusilla Tonnoir, 1922: 83.—Austria; Wash. to N.Y., s. to Calif., Tex., and Ala., Europe.
salicornia Quate, 1954: 350.—Calif.; Hawaii.
satchelli Quate, 1955: 214.—Calif.; Alaska and B.C. to Ont., U.S.
severini Tonnoir of Del Rosario, 1936: 102.
savaiiensis Edwards, 1928b: 74.—Samoa; Ala., Ga., Fla., Antilles, Cent. Amer., Pacific Is., India.
rarotongensis Satchell, 1953: 183.—Cook I.
setigera Tonnoir, 1922: 84.—Belgium; Minn. to Ont., s. to Tex.,Ala., and Va., Oreg., Europe, Japan.
uniformis Del Rosario, 1936: 113.—Md.
sigma Kincaid, 1899: 31.—Wash.; Oreg., Calif.
thrinax Quate, 1955: 199.—Ariz.; Calif., Tex., D.C.
tothastica Quate, 1955: 197.—Tex.; Fla.
trinodulosa Tonnoir, 1922: 86.—Belgium; Utah, Nebr., Minn., Wis., N.Y., Va.
umbracola Quate, 1955: 201.—Calif.; Wash., Minn., N.Y., N.H., Tenn.
uniformata Haseman, 1907: 319.—Mo.; Utah, Nebr., Ont., N.Y.

Tribe MARUININI

Genus MARUINA Müller

Maruina Müller, 1895: 480. Type-species, *pilosella* Müller (Enderlein, 1937a: 110).

REFERENCE: Quate and Wirth, 1951 (rev.).

lanceolata (Kincaid), 1899: 35 (*Sycorax*).—Calif.; Calif., Nev., Ariz., N. Mex.
californiensis Kellogg, 1901: 46 (*Pericoma*).—Calif.
unipunctata Haseman, 1907: 323 (*Trichomyia*).—Ariz.

Family PTYCHOPTERIDAE

(Liriopeidae)

By Charles P. Alexander

The family includes the subfamily Bittacomorphinae or "phantom crane flies," and the genus *Ptychoptera*. The immature stages are aquatic or semiaquatic, living in organic debris in stagnant or slowly flowing water.

REFERENCE: Alexander, 1920h (immature stages).

Subfamily PTYCHOPTERINAE

Genus PTYCHOPTERA Meigen

Liriope Meigen, 1800: 14. Type-species, *Tipula contaminata* Linnaeus (Coquillett, 1910b: 562). Suppressed by I.C.Z.N., 1963b: 339.
Ptychoptera Meigen, 1803: 262. Type-species, *Tipula contaminata* Linnaeus (Latreille, 1810: 442).
Ctenoceria Rondani, 1856: 187. Type-species, *Ptychoptera pectinata* Macquart (orig. des.).

lenis lenis Osten Sacken, 1877: 206.—Calif.; B.C., Wash., Oreg.
ssp. **coloradensis** Alexander, 1937: 141.—Colo.; Wyo.
metallica Walker, 1848: 80.—Ont.; Alta., Colo., Minn.
minor Alexander, 1920f: 3.—Calif.; Idaho.
monoensis Alexander, 1947a: 20.—Calif.; Nev.
osceola Alexander, 1959b: 55.—Fla.
pendula Alexander, 1937: 140.—Colo.; B.C., Wyo., Utah, Ariz., N. Mex.
quadrifasciata Say, 1824a: 359 (1859a: 244).—Pa.; Ill. to Que., s. to Fla.
rufocincta Osten Sacken, 1859: 252.—Pa.
sculleni Alexander, 1943c: 39.—Wash.; Oreg.
townesi Alexander, 1943c: 37.—Wash.; Oreg., Calif.
uta Alexander, 1947a: 19.—Utah.

Subfamily BITTACOMORPHINAE

Genus BITTACOMORPHELLA Alexander

Bittacomorpha, subg. **Bittacomorphella** Alexander, 1916a: 545. Type-species, *jonesi* Johnson (orig. des.).

fenderiana Alexander, 1947a: 22.—Oreg.; B.C., Wash.

jonesi (Johnson), 1905a: 75 (*Bittacomorpha*).—N.C.; Mich. to N.B., s. to S.C.

pacifica Alexander, 1958a: 49.—Wash.; Oreg., Calif.

sackenii (Röder), 1890: 230 (*Bittacomorpha*).—Nev.; Calif.

Genus BITTACOMORPHA Westwood

Bittacomorpha Westwood, 1835a: 281. Type-species, *Tipula clavipes* Fabricius (mon.).

clavipes (Fabricius), 1781: 404 (*Tipula*).—N. Amer.; Man. to Nfld., s. to Ariz. and Fla.

occidentalis Aldrich, 1895: 201.—Wash.; Oreg., Calif.

Family NYMPHOMYIIDAE

By F. P. Ide

This is a family of peculiar, small, delicate flies found in streams. Only a Japanese species (*Nymphomyia alba* Tokunaga) and two unnamed genera and species from Canada and Brazil are known. No larvae have been discovered.

Unnamed Genus

Unnamed sp.—N.B.

Superfamily CULICOIDEA

Family BLEPHARICERIDAE

By Alan Stone

The adults of this worldwide family, known as net-winged midges, are found near rapidly flowing streams. The larvae are attached to rocks in swift water by means of a series of ventral suckers, and the pupae are firmly attached in the same localities. Larval respiration is by means of tracheal gills.

References: Kellogg, 1903 (rev.); Walley, 1927b (rev.); Johannsen, 1934b (keys, immatures); Alexander, 1958c (classif., list world spp.).

Genus AGATHON Röder

Agathon Röder, 1890: 230. Type-species, *elegantulus* Röder (mon.).

comstocki (Kellogg), 1903: 192 (*Bibiocephala*).—Calif.; B.C., Oreg., ?Wyo.

canadensis Garrett, 1922a: 89 (*Bibiocephala*).—B.C. **N. syn.,** C. P. Alexander *in litt.*

doanei (Kellogg), 1900b: 39 (*Liponeura*).—Calif.

elegantulus Röder, 1890: 232.—Nev.; Idaho, Colo.

Genus BIBIOCEPHALA Osten Sacken

Bibiocephala Osten Sacken, 1874a: 564. Type-species, *grandis* Osten Sacken (mon.).

Bibionus Curran, 1923g: 266. Type-species, *griseus* Curran (orig. des.).

grandis Osten Sacken, 1874a: 566.—Colo.; B.C., Utah, Idaho, N. Mex.

grisea (Curran), 1923g: 268 (*Bibionus*).—Alta.

kelloggi Garrett, 1922a: 91.—B.C.

Genus BLEPHARICERA Macquart

Blepharicera Macquart, 1843b: 61. Type-species, *limbipennis* Macquart (mon.)=*fasciata* (Westwood).

Blepharocera, emend.

Blepharoptera (error) Loew, 1863b: 298 (Cent. 4, no. 43).

I have not attempted to give the distribution of the eastern species which are in need of revision.

capitata Loew, 1863b: 298 (Cent. 4, no. 43) (as *Blepharoptera*).—D.C.

jordani Kellogg, 1903: 189.—Calif.

micheneri Alexander, 1959b: 41.—Calif.

ostensackeni Kellogg, 1903: 191.—Calif.

separata Alexander, 1963: 54.—Maine; Pa., Tenn.

shastensis Alexander, 1959b: 42.—Calif.

similans Johannsen, 1929b: 123.—Mass.

tenuipes (Walker), 1848: 86 (*Asindulum*).—Ont.

williamsae Alexander, 1953a: 43.—Tenn.

zionensis Alexander, 1953a: 45.—Utah.

Genus DIOPTOPSIS Enderlein

Dioptopsis Enderlein, 1936b: 43. Type-species, *Philorus djordjevici* Komarek (orig. des.).

arizonica Alexander, 1958a: 50.—Ariz.

aylmeri (Garrett), 1923: 244 (*Philorus*).—Alta.; Calif.

cheaini (Garrett), 1925b: 5 (*Philorus*).—B.C.; Calif.
markii (Garrett), 1925b: 5 (*Philorus*).—B.C.; Calif.
sequoiarum (Alexander), 1952a: 91 (*Philorus*).—Calif.

Genus PHILORUS Kellogg

Philorus Kellogg, 1903: 199. Type-species, *Blepharicera yosemite* Osten Sacken (Coquillett, 1910b: 588).
Pelmia Enderlein, 1936b: 42. Type-species, *Blepharicera yosemite* Osten Sacken (orig. des.).

yosemite (Osten Sacken), 1877: 195 (*Blepharicera*).—Calif.
ancilla Osten Sacken, 1878c: 266 (*Blepharicera*).—Calif. **N. syn.,** C. L. Hogue *in litt.*

Family DEUTEROPHLEBIIDAE

By Harry D. Kennedy

This family consists of a few species of relatively rare aquatic insects commonly called mountain midges. The immature stages are found on rocks in mountain streams. There are from one to four generations a year, depending on the species. Overwintering is probably in the egg stage. The adults lack mouthparts.

REFERENCE: Kennedy, 1958 (biol., anat., rev.).

Genus DEUTEROPHLEBIA Edwards

Deuterophlebia Edwards, 1922a: 379. Type-species, *mirabilis* Edwards (orig. des.).

coloradensis Pennak, 1945: 1.—Colo.; Alta, Wyo., Utah.
inyoensis Kennedy, 1960: 192.—Calif. (Mono Co.).
nielsoni Kennedy, 1958: 206.—Calif. (Mono Co.; Tuolumne Co.).
shasta Wirth, 1951c: 51.—Calif. (Siskiyou Co.; Eldorado Co.).

Family DIXIDAE

By Alexander A. Hubert

These small, rather sedentary flies rest head upward on rocks or other substrata along streams or pools. It is not known whether or not they feed as adults. Mating occurs during swarming flights or while resting. The eggs are laid in small gelatinous masses in or just above the water. The larvae rest at the water line either in the shape of an inverted U or with the body perpendicular to the substratum. The pupae are attached by one side to the substratum slightly above the water.

Although the higher classification of the Dixidae has been explored and quite a few species have been described, a great deal of taxonomic work remains to be done.

REFERENCE: Nowell, 1951 (biol., anat., tax., cat.).

Genus DIXA Meigen

Dixa Meigen, 1818: 216. Type-species, *maculata* Meigen (Curtis, 1832: pl. 409).

Subgenus DIXA Meigen

arge Dyar and Shannon, 1924b: 199.—Wash.
blax Dyar and Shannon, 1924b: 199.—Ariz.
brevis Garrett, 1924a: 6.—B.C.
distincta Garrett, 1925a: 12.—B.C.
fraterna Garrett, 1924a: 6.—B.C.
fusca Loew, 1863a: 4 (Cent. 3, no. 5).—N.Y.; Maine, Conn.
garretti Cooper and Rapp, 1944: 247 (n. name for *montanus* Garrett).—B.C.
montanus Garrett, 1924a: 5 (preocc. Brunetti, 1911).—B.C.
hegemonica Dyar and Shannon, 1924b: 194.—Calif.
inextricata Dyar and Shannon, 1924b: 198.—Va., Md.
johannseni Garrett, 1924a: 7.—B.C.; Alta.
lobata Garrett, 1924a: 6.—B.C.
modesta Johannsen, 1903b: 429.—N.Y.; Maine, Conn., N.C., also Calif.
mystica Dyar and Shannon, 1924b: 197.—Md., Va.
notata Loew, 1863a: 4 (Cent. 3, no. 4).—Md.; Conn., N.J.
parva Garrett, 1924a: 6.—B.C.
plexipus Garrett, 1925b: 5.—B.C.
recens Walker, 1848: 85.—Ont.; N.Y., N.J., Ga.
terna Loew, 1863a: 3 (Cent. 3, no. 2).—N.Y.
rhathyme Dyar and Shannon, 1924b: 197.—Wash.; Calif.
rudis Garrett, 1924a: 6.—B.C.
similis Johannsen, 1923a: 57.—N.Y.
xavia Dyar and Shannon, 1924b: 195.—Calif.

Subgenus DIXAPUELLA Dyar and Shannon

Dixa, subg. **Dixapuella** Dyar and Shannon, 1924b: 201. Type-species, *marginata* Loew (orig. des.).

marginata Loew, 1863a: 2 (Cent. 3, no. 1).—D.C.

Subgenus DIXELLA Dyar and Shannon

Dixa, subg. **Dixella** Dyar and Shannon, 1924b: 200. Type-species, *lirio* Dyar and Shannon (mon.).
Dixa, subg. *Paradixa* Tonnoir, 1924: 223. Type-species, *neozelandica* Tonnoir (Edwards, 1932a: 9).

aliciae Johannsen, 1924b: 45.—Calif.; Colo.
californica Johannsen, 1923a: 54.—Calif.; B.C., Oreg., Utah, Colo., Ariz.
clavata Loew, 1869b: 2 (Cent. 8, no. 1).—Mass.; Maine, N.Y.
cornuta Johannsen, 1923a: 55.—N.Y.; Ill., Ohio, Ont., N.H., Maine.
dorsalis Garrett, 1924a: 4.—B.C.
dyari Garrett, 1924a: 3.—B.C.
indiana Dyar, 1925: 217.—Ind.; N.Y.
naevia Peus, 1934: 72.—Latvian S.S.R.; Alaska.
neoaliciae Garrett, 1924a: 2.—Mont.; B.C.
nocheles Dyar and Shannon, 1924b: 196.—Fla.
nova Walker, 1848: 85.—Ont.; Alaska, Oreg., Mich. to Maine and N.Y.
centralis Loew, 1863a: 3 (Cent. 3, no. 3).—N.Y.
occidentalis Garrett, 1924a: 4.—B.C.
serrata Garrett, 1924a: 2.—B.C.
simplex Garrett, 1925a: 12.—B.C.
somnolenta Dyar and Shannon, 1924b: 195.—Idaho; Alaska, B.C., Calif.
spiralis Garrett, 1924a: 1.—B.C.
thones Dyar and Shannon, 1924b: 193.—Wash.
universitatis Cockerell, 1926: 166.—Colo.
venosa Loew, 1872a: 50 (Cent. 10, no. 1).—Tex.

Subgenus MERINGODIXA Nowell

Meringodixa Nowell, 1951: 229 (as genus). Type-species, *chalonensis* Nowell (orig. des.).

chalonensis (Nowell), 1951: 229 (*Meringodixa*).—Calif.

Family CHAOBORIDAE

By E. F. Cook

This group has usually been considered a subfamily of the Culicidae. The major differences between the Chaoboridae and Culicidae are found in the shortened mouth parts of the adult chaoborids, the prehensile antennae of the larval chaoborids, and the lack of any spiracular apparatus in the larvae of the genus *Chaoborus*. The

larvae are all aquatic and predaceous on small aquatic organisms. The food habits of the adults are unknown.

REFERENCE: Cook, 1956b (rev.).

Subfamily CHAOBORINAE

Tribe CHAOBORINI

Genus CHAOBORUS Lichtenstein

Chaoborus Lichtenstein, 1800: 174. Type-species, *antisepticus* Lichtenstein (mon.)=*crystallinus* (De Geer).

Corethra Meigen, 1803: 260. Type-species, *Tipula culiciformis* De Geer (mon.; misident.)=*Corethra lateralis* Meigen, ?=*crystallinus* (De Geer).

Subgenus CHAOBORUS Lichtenstein

americanus (Johannsen), 1903b: 395 (*Corethra;* as *plumicornis* var.).—Ill.; Alaska to Que., s. to Utah and Tenn.
hudsoni Felt, 1904: 371 (*Sayomyia*).—N.Y.

borealis Cook, 1956b: 25.—Y.T.; N.W.T., Man.

flavicans (Meigen), 1830: 243 (*Corethra*).—Europe; Alaska to Maine, s. to n. Calif., Mo., and N.J.
albipes Johannsen, 1903b: 398 (*Corethra*).—N.Y.
rotundifolia Felt, 1904: 366 (*Sayomyia*).—N.Y.
eluthera Dyar and Shannon, 1924c: 211.—Idaho.

Subgenus SAYOMYIA Coquillett

Sayomyia Coquillett, 1903c: 190 (as genus). Type-species, *Corethra punctipennis* Say (orig. des.).

albatus Johnson, 1921a: 11.—Mass.; Minn. to Que., s. to La.

annulatus Cook, 1956b: 39.—Fla.; Ga.

astictopus Dyar and Shannon, 1924c: 214.—Calif.; Oreg.
lacustris Freeborn, 1926: 161.—Calif.

punctipennis (Say), 1823: 16 (1859b: 43) (*Corethra*).—Pa.; Sask. to Que., s. to Colo., Tex. and Fla.
appendiculata Herrick, 1884: 11 (*Corethra*).—Minn.

Subgenus SCHADONOPHASMA Dyar and Shannon

Chaoborus, subg. **Schadonophasma** Dyar and Shannon, 1924c: 209. Type-species, *Corethra trivittata* Loew (mon.)=*nyblaei* (Zetterstedt).

nyblaei (Zetterstedt), 1838: 830 (*Erioptera*).—Norway; n. Holarctic, Y.T. to Baffin I., s. to Calif. and Mass.

trivittata Loew, 1862b: 186 (Cent. 2, no. 1) (*Corethra*).—Maine.

knabi Dyar, 1905b: 16 (*Sayomyia*).—Mass.

Tribe MOCHLONYCHINI

Genus MOCHLONYX Loew

Mochlonyx Loew, 1844a: 121. Type-species, *Corethra velutina* Ruthe (mon.).

cinctipes (Coquillett), 1903c: 190 (*Corethra*).—N.H.; Wash., Oreg. and Que., s. to Ala.

obscura Dyar and Shannon, 1924c: 208 (*Corethra;* as var.).—Wash.

fuliginosus (Felt), 1905b: 458 (*Corethra*).—N.Y.; Mass., N.J.

velutinus (Ruthe), 1831: 1205 (*Corethra*).—Europe; Alaska to Que., s. to Utah and N.J.

culiciformis De Geer, 1776: 372 (*Tipula;* preocc. Linnaeus, 1767).—Europe.

karnerensis Felt, 1904: 347 (*Corethra*).—N.Y.

lintneri Felt, 1904: 353 (*Corethra*).—N.Y.

Subfamily EUCORETHRINAE

Genus EUCORETHRA Underwood

Eucorethra Underwood, 1903: 182. Type-species, *underwoodi* Underwood (orig. des., as gen. n., sp. n.).

Pelorempis Johannsen, 1903b: 402. Type-species, *americana* Johannsen (mon.)=*underwoodi* Underwood.

underwoodi Underwood, 1903: 182.—Maine; Alaska to N.B., s. to Calif., Utah, and N.Y.

americana Johannsen, 1903b: 403 (*Pelorempis*).—N.Y.

Subfamily CORETHRELLINAE

Genus CORETHRELLA Coquillett

Corethrella Coquillett, 1902f: 191. Type-species, *Corethra brakeleyi* Coquillett (orig. des.).

appendiculata Grabham, 1906: 343.—Jamaica; N.C. to Ga., also Tex.
brakeleyi (Coquillett), 1902c: 85 (*Corethra*).—N.J.; s. to Tex. and Fla.
laneana Vargas, 1946: 64.—Mexico; s. Calif.

Family CULICIDAE

By Alan Stone

The family Culicidae, as treated here, includes only the true mosquitoes, the subfamily Culicinae of earlier authors, and not the Chaoboridae and the Dixidae. The adult females of most species suck blood and some species, in addition to being very annoying, carry such diseases as malaria, yellow fever, dengue, and encephalitis. The larvae and pupae live in standing or slowly moving bodies of water that range in size from small accumulations held by plants to vast salt marshes. So much has been written on the biology of mosquitoes that further remarks here are hardly necessary.

REFERENCES: Ross, 1947 (Ill.); Bates, 1949 (biol.); Freeborn and Bohart, 1951 (Calif.); Stage, Gjullin, and Yates, 1952 (nw. U.S.); Carpenter and LaCasse, 1955 (N. Amer.); Horsfall, 1955 (biol.); Owen and Gerhardt, 1957 (Wyo.); Barr, 1958 (Minn.); Stone, Knight, and Starcke, 1959 (world cat.); King, Bradley, Smith, and McDuffie, 1960 (se. U.S.); Christophers, 1960 (biol., anat.); Gjullin, Sailer, Stone, and Travis, 1961 (review, Alaska).

Subfamily ANOPHELINAE

Genus ANOPHELES Meigen

Anopheles Meigen, 1818: 10. Type-species, *maculipennis* Meigen (I.C.Z.N., 1959a: 155).
Coelodiazesis Dyar and Knab, 1906c: 177. Type-species, *Anopheles barberi* Coquillett (orig. des.).

REFERENCES: Aitken, 1945 (w. N. Amer.); Freeborn *in* Boyd, 1949 (Nearctic).

Subgenus ANOPHELES Meigen

atropos Dyar and Knab, 1906b: 160.—Fla.; coastal, N.J. to Tex., Cuba, Jamaica.
barberi Coquillett, 1903e: 310.—Md.; Nebr. to N.Y., s. to Ariz. and Fla., n. Mexico.
bradleyi King, 1939: 468 (as *crucians* var.).—Fla.; coastal, N.Y. to Tex., Mexico.

crucians Wiedemann, 1828: 12.—Pa., La.; Iowa to R.I., s. to N. Mex. and Fla., Mexico to Nicaragua, Cuba, Jamaica, P.R.

earlei Vargas, 1943: 9.—Wis.; Alaska, Canada, Idaho to Maine, s. to Colo. and Conn.

freeborni Aitken, 1939: 192 (as *maculipennis* ssp.).—Calif.; B.C. to Mont., s. to Calif. and Tex., n. Mexico.

georgianus King, 1939: 462 (as *crucians* var.).—Ga.; La. to N.C. and Fla.

occidentalis Dyar and Knab, 1906b: 159.—Calif.; coastal, ?Alaska to s. Calif.

perplexens Ludlow, 1907: 267.—Pa.; e. U.S.

pseudopunctipennis pseudopunctipennis Theobald, 1901b: 305.—Grenada I.; Colo. to Tenn., s. to Argentina, Antilles.

ssp. **franciscanus** McCracken, 1904: 12 (as sp.).—Calif.; Oreg. to sw. U.S., n. Mexico.

boydi Vargas, 1939: 361.—Calif.

punctipennis (Say), 1823: 9 (1859b: 39) (*Culex*).—e. U.S.; s. Canada, U.S., Mexico.

hyemalis Fitch, 1847: 281 (*Culex*).—N.Y.

quadrimaculatus Say, 1824a: 356 (1859a: 241).—s. and w. of Great Lakes; N. Dak. to Que., s. to Tex. and Fla., Mexico.

annulimanus Wulp, 1867: 129.—Wis.

walkeri Theobald, 1901a: 199.—Ont.; Man. to N.S., s. to Tex. and Fla., also B.C., Mexico.

Subgenus NYSSORHYNCHUS Blanchard

Laverania Theobald, 1902: 183 (preocc. Grassi and Feletti, 1890). Type-species, *Anopheles argyritarsis* Robineau-Desvoidy (orig. des.).

Nyssorhynchus Blanchard, 1902: 795 (as genus; n. name for *Laverania* Theobald). Type-species, *Anopheles argyritarsis* Robineau-Desvoidy (aut.).

albimanus Wiedemann, 1820a: 10 (1821c: 10).—Hispaniola; Fla., Tex., Cent. and S. Amer. to Uruguay, Antilles.

Subfamily TOXORHYNCHITINAE

(Megarhininae)

Genus TOXORHYNCHITES Theobald

Toxorhynchites Theobald, 1901c: 234 (also 1901a: 244). Type-species, *brevipalpis* Theobald (I.C.Z.N., 1959b: 167).

Subgenus LYNCHIELLA Lahille

Megarhinus Robineau-Desvoidy, 1827: 412 (preocc. Rafinesque, 1820). Type-species, *Culex haemorrhoidalis* Fabricius (mon.).

Lynchiella Lahille, 1904: 14 (as genus; n. name for *Megarhinus* Robineau-Desvoidy). Type-species, *Culex haemorrhoidalis* Fabricius (aut.).

rutilus rutilus (Coquillett), 1896a: 44 (*Megarhinus*).—Fla.; Ga., S.C.
ssp. **septentrionalis** (Dyar and Knab), 1906d: 249 (*Megarhinus;* as sp.).—Va.; Kans. to N.J., s. to Fla. and Tex.
herrickii Theobald, 1906: 241 (*Megarhinus*).—Miss.

Subfamily CULICINAE

Tribe SABETHINI

Genus WYEOMYIA Theobald

Wyeomyia Theobald, 1901c: 235. Type-species, *grayii* Theobald (Neveu-Lemaire, 1902b: 223).

Wyeomyia, subg. *Phyllozomyia* Dyar, 1924a: 112. Type-species, *Aedes smithii* Coquillett (orig. des.).

haynei Dodge, 1947: 118.—S.C.; N.C., Ala.

mitchellii (Theobald), 1905: 37 (*Dendromyia*).—Jamaica; Fla., Antilles, Mexico to Panama, Venezuela, Trinidad.
jamaicensis Theobald, 1905: 11 (*Dendromyia*).—Jamaica. Alternate orig. name.
antoinetta Dyar and Knab, 1909b: 263.—Fla.

smithii (Coquillett), 1901a: 260 (*Aedes*).—N.J.; Man. to N.S., s. to Ill. and Del.

vanduzeei Dyar and Knab, 1906a: 138.—Fla.; Cent. Amer., Antilles.

Tribe CULICINI

Genus MANSONIA Blanchard

Panoplites Theobald, 1900: 5 (also 1901b: 173) (preocc. Gould, 1854). Type-species, *Culex taeniorhynchus* Wiedemann (aut.; misident.) = *titillans* (Walker).

Mansonia Blanchard, 1901: 1046 (n. name for *Panoplites* Theobald). Type-species, *Culex titillans* Walker (Neveu-Lemaire, 1902b: 214).

Panoplites dates from an earlier paper than that cited in I.C.Z.N., 1959c, and *titillans* was not originally included by name. One of the

three original species, "*Taeniorhynchus taeniorhynchus* Arri.", was recognized in Theobald, 1901b, as a misidentification of *titillans*. This was accepted by Neveu-Lemaire, who designated *titillans* as type of *Mansonia*.

Subgenus MANSONIA Blanchard

indubitans Dyar and Shannon, 1925a: 41.—Brazil; Ga., Fla., P.R., Jamaica, Cent. and S. Amer. to Bolivia and Uruguay.

titillans (Walker), 1848: 5 (*Culex*).—Brazil; Fla., Tex., Cent. and S. Amer., Antilles.

Subgenus COQUILLETTIDIA Dyar

Coquillettidia Dyar, 1905c: 47 (as genus). Type-species, *Culex perturbans* Walker (orig. des.).

perturbans (Walker), 1856b: 428 (*Culex*).—U.S.; B.C. to P.E.I., U.S., Mexico.

testaceus Wulp, 1867: 128 (*Culex*).—Wis.

ochropus Dyar and Knab, 1907a: 100 (*Culex*).—N.H.

Genus URANOTAENIA Lynch Arribálzaga

Uranotaenia Lynch Arribálzaga, 1891a: 375 (also 1891b: 163). Type-species, *pulcherrima* Lynch Arribálzaga (Neveu-Lemaire, 1902b: 227).

anhydor anhydor Dyar, 1907: 128.—Calif.; Ariz., Nev., Mexico.

ssp. **syntheta** Dyar and Shannon, 1924a: 189 (as sp.).—Tex.; N. Mex., Okla., Mexico.

lowii Theobald, 1901b: 339.—St. Lucia I.; Ark. to N.C., s. to Tex. and Fla., Neotropical.

continentalis Dyar and Knab, 1906c: 187.—La.

sapphirina (Osten Sacken), 1868: 47 (*Aedes*).—D.C., N.Y.; N. Dak. to Que., s. to N. Mex. and Fla., Cuba, P.R., Mexico.

coquilletti Dyar and Knab, 1906c: 187.—U.S.

Genus ORTHOPODOMYIA Theobald

Orthopodomyia Theobald, 1904: 236. Type-species, *albipes* Leicester (mon.).

Pneumaculex Dyar, 1905c: 46. Type-species, *Culex signifer* Coquillett (orig. des.).

alba Baker, 1936: 1.—N.Y.; N. Mex. to N.Y., s. to Tex. and N.C.

californica Bohart, 1950: 399.—Calif.; Ariz.

kummi Edwards, 1939: 121.—Costa Rica; Ariz. to Panama.

signifera (Coquillett), 1896a: 43 (*Culex*).—D.C.; N. Dak., Iowa, and Mass., s. to N. Mex. and Fla., Mexico, Jamaica, P.R.

Genus PSOROPHORA Robineau-Desvoidy

Psorophora Robineau-Desvoidy, 1827: 412. Type-species, *Culex ciliatus* Fabricius (Theobald, 1901a: 263).

Subgenus PSOROPHORA Robineau-Desvoidy

ciliata (Fabricius), 1794: 401 (*Culex*).—Carolina; S. Dak. to Que., s. to Tex. and Fla., Neotropical.

molestus Wiedemann, 1820a: 7 (1821c: 7) (*Culex*).—Ga.

rubidus Robineau-Desvoidy, 1827: 404 (*Culex*).—Carolina.

boscii Robineau-Desvoidy, 1827: 413 (*Culex*).—Carolina.

conterrens Walker, 1856b: 427 (*Culex*).—U.S.

ctites Dyar, 1918c: 126.—Tex.

howardii Coquillett, 1901a: 258.—S.C.; Nebr. to Md., s. to Nicaragua and Cuba.

Subgenus JANTHINOSOMA Lynch Arribálzaga

Janthinosoma Lynch Arribálzaga, 1891a: 374 (also 1891b: 152) (as genus). Type-species, *Culex discrucians* Walker (Dyar, 1905c: 47).

Conchyliastes Theobald *in* Howard, 1901: 155, 235. Type-species, *Culex musicus* Say (Coquillett, 1910b: 526)=*ferox* (Humboldt).

Lepidosia Coquillett, 1906c: 314. Type-species, *Culex cyanescens* Coquillett (orig. des.).

cyanescens (Coquillett), 1902d: 137 (*Culex*).—Tex.; Nebr. to Va., s. to N. Mex. and Fla., Mexico to Argentina.

ferox (Humboldt), 1819: 340 (*Culex*).—Ecuador; S. Dak. to N.H., s. to Tex. and Fla., S. and Cent. Amer., Greater Antilles.

musicus Say, 1829: 149 (1859b: 348) (*Culex;* preocc. Leach, 1825).—Ind.

sayi Dyar and Knab, 1906c: 181 (*Janthinosoma;* n. name for *musicus* Say).—Ind.

sayi Theobald, 1907: 155 (*Janthinosoma;* n. name for *musicus* Say).—Ind.

horrida (Dyar and Knab), 1908: 56 (*Aedes*).—Miss.; Nebr. to Pa., s. to Tex. and Fla.

johnstonii (Grabham), 1905: 410 (*Janthinosoma*).—Jamaica; Fla., Bahama Is., Cuba, P.R., Virgin Is.

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longipalpus Randolph and O'Neill *in* T.S.H.D., 1944: 88.—Tex.; S. Dak. and Mo., s. to Tex. and La. See Stone, 1962.
longipalpis Roth, 1945: 13.—Ark.
mexicana (Bellardi), 1859: 5 (1861: 205) (*Culex*).—Mexico; Tex.
varipes (Coquillett), 1904a: 10 (*Conchyliastes*).—Mexico; Okla. to N.Y., s. to Tex. and Fla., Cent. and S. Amer. to Argentina.

Subgenus GRABHAMIA Theobald

Grabhamia Theobald, 1903a: 243 (as genus). Type-species, *Culex jamaicensis* Theobald (Felt, 1904: 391*b*)=*confinnis* (Lynch Arribálzaga).
Ceratocystia Dyar and Knab, 1906c: 183. Type-species, *Culex discolor* Coquillett (orig. des.).

confinnis (Lynch Arribálzaga), 1891b: 149 (*Taeniorhynchus*).—Argentina; Calif., S. Dak. and Mass., s. to Tex. and Fla., S. and Cent. Amer., Antilles.
columbiae Dyar and Knab, 1906a: 135 (*Janthinosoma*).—Va.
floridense Dyar and Knab, 1906a: 135 (*Janthinosoma*).—Fla.
texanum Dyar and Knab, 1906a: 135 (*Janthinosoma*).—Tex.
discolor (Coquillett), 1903d: 256 (*Culex*).—N.J.; Nebr. to N.J., s. to N. Mex. and Fla.
pygmaea (Theobald), 1903a: 245 (*Grabhamia*).—Antigua I. and Jamaica; Fla., Antilles, Trinidad.
nanus Coquillett, 1903d: 256 (*Culex*).—Fla.
signipennis (Coquillett), 1904f: 167 (*Taeniorhynchus*).—Mexico; Sask. to Ky., s. to Ariz. and Tex.

Genus AEDES Meigen

Aedes Meigen, 1818: 13. Type-species, *cinereus* Meigen (mon.).

Subgenus OCHLEROTATUS Lynch Arribálzaga

Ochlerotatus Lynch Arribálzaga, 1891a: 353, 367, 374 (also 1891b: 122, 136, 143) (as genus; as *Ochlerothatus*, p. 374 or p. 143). Type-species, *confirmatus* Lynch Arribálzaga (Coquillett, 1910b: 577)=*scapularis* (Rondani).
Taeniorhynchus Lynch Arribálzaga, 1891a: 374 (also 1891b: 147). Type-species, *Culex taeniorhynchus* Wiedemann (taut.). Suppressed by I.C.Z.N., 1959c: 187.
Culicada Felt, 1904: 391*b*. Type-species, *Culex canadensis* Theobald (orig. des.).

Culicelsa Felt, 1904: 391*b*. Type-species, *Culex taeniorhynchus* Wiedemann (orig. des.).

Pseudoculex Dyar, 1905c: 47. Type-species, *Culex aurifer* Coquillett (orig. des.).

Aedes, subg. *Ochlerotatus*, globus *Hyparctius* Martini, 1930: 264. Type-species, *Culex pullatus* Coquillett (Edwards, 1932a: 135).

Aedes, subg. *Kompia* Aitken, 1941: 81. Type-species, *purpureipes* Aitken (orig. des.).

aboriginis Dyar, 1917b: 99.—Wash.; Alaska to Oreg., Idaho, and Sask.

abserratus (Felt and Young), 1904: 312 (*Culex*).—N.Y.; Minn. to Labr. and N.S., s. to Ill. and N.J.

centrotus Howard, Dyar, and Knab, 1917: 747.—Ont.

dysanor Dyar, 1921c: 70.—N.Y.

aloponotum Dyar, 1917b: 98.—Wash.; B.C., Oreg.

atlanticus Dyar and Knab, 1906c: 198.—N.J. and Fla.; Kans. to Tex. and Fla., n. to N.Y.

aurifer (Coquillett), 1903d: 255 (*Culex*).—N.H.; Man. to Que., s. to Iowa and Del.

barri Rueger, 1958: 34.—Minn.; Ont.

bicristatus Thurman and Winkler, 1950: 239.—Calif.

bimaculatus (Coquillett), 1902g: 84 (*Culex*).—Tex.; Mexico, El Salvador.

cacothius Dyar, 1923: 44.—Wyo.

campestris Dyar and Knab, 1907b: 213.—Sask.; Alaska to Que., s. to Oreg. and Tex.

callithotrys Dyar, 1920a: 16.—Y.T.

canadensis canadensis (Theobald), 1901b: 3 (*Culex*).—Ont.; forest areas of Canada and U.S., Alaska, Mexico.

nivitarsis Coquillett, 1904f: 168 (*Culex*).—N.J.

ssp. **mathesoni** Middlekauff, 1944: 42 (as sp.).—Fla.; Ala., Ga., S.C.

cantator (Coquillett), 1903d: 255 (*Culex*).—N.J.; P.E.I. to Va.

cataphylla cataphylla Dyar, 1916b: 86.—Calif.; Alaska to Man., s. to Calif. and Colo., n. and cent. Europe.

prodotes Dyar, 1917c: 118.—Mont.

ssp. **pacificensis** Hearle, 1927: 101 (as sp.).—B.C.

communis (De Geer), 1776: 316 (*Culex*).—Europe; Alaska to Labr., s. to Calif. and N.J., Siberia, Europe, Syria.

lazarensis Felt and Young, 1904: 312 (*Culex*).—N.Y.

borealis Ludlow, 1911: 178 (*Culex*).—Alaska.

tahoensis Dyar, 1916b: 82.—Calif.

altiusculus Dyar, 1917b: 100.—Wash.
masamae Dyar, 1920d: 166.—Oreg.
prolixus Dyar, 1922a: 2.—Alaska.

decticus Howard, Dyar, and Knab, 1917: 737.—Ont.; Alaska, Labr., Mich., N.H., N.Y., Mass.
pseudodiantaeus Smith, 1952: 21.—Mass.
impiger, authors, not Walker.

diantaeus Howard, Dyar, and Knab, 1913: pl. 24, fig. 167 (descr. 1917: 758).—N.H.; Alaska to Labr., s. to Wyo. and Mass., n. Europe.

dorsalis (Meigen), 1830: 242 (*Culex*).—Germany; n. Europe and Asia, B.C. to Que., s. to Calif., Miss. and Mass., Formosa, Mexico.
curriei Coquillett, 1901a: 259 (*Culex*).—Idaho.
onondagensis Felt, 1904: 304 (*Culex*).—N.Y.
lativittatus Coquillett, 1906b: 109 (*Culex*).—Calif.
quaylei Dyar and Knab, 1906c: 202.—Calif.
mediolineata Ludlow, 1907: 129 (*Grabhamia*).—N. Dak.

dupreei (Coquillett), 1904a: 10 (*Culex*).—La.; Iowa to Ky. and Md., s. to Tex. and Fla., Mexico.

excrucians (Walker), 1856b: 429 (*Culex*).—N.S.; forest areas of n. Holarctic Region, s. in U.S. to Wash., Utah, Ill., and N.J.
abfitchii Felt, 1904: 381 (*Culex*).—N.Y.
siphonalis Grossbeck, 1904a: 332 (*Culex*).—N.J.
sansoni Dyar and Knab, 1909a: 102.—Alta.
euedes Howard, Dyar, and Knab, 1913: pl. 28, fig. 191 (descr. 1917: 714).—Ont.

fitchii (Felt and Young), 1904: 312 (*Culex*).—N.Y.; Alaska to Labr., s. to Calif., Ill., and N.J.
palustris Dyar, 1916b: 89.—Calif.
pricei Dyar, 1917a: 16 (as *palustris* var.).—Calif.
mimesis Dyar, 1917c: 116.—Mont.

flavescens (Müller), 1764: 87 (*Culex*).—Unknown; Alaska to Labr., s. to Calif., Mo., and N.Y., n. Palaearctic.
fletcheri Coquillett, 1902g: 84 (*Culex*).—Sask.

fulvus fulvus (Wiedemann).—Not Nearctic.
ssp. **pallens** Ross, 1943: 148.—La.; Ill. to Md., s. to Okla., Tex., and Fla., Cuba.

grossbecki Dyar and Knab, 1906c: 201.—N.J.; Mo. to Vt., s. to La. and S.C.
sylvicola Grossbeck, 1906: 129 (*Culex*).—N.J.

hexodontus Dyar, 1916b: 83.—Calif.; N. Amer., arctic tundra and s. in Alpine meadows to Calif. and Colo.
cyclocerculus Dyar, 1920a: 23.—B.C.
leuconotips Dyar, 1920a: 24.—B.C.
labradorensis Dyar and Shannon, 1925b: 78.—Labr.

impiger (Walker), 1848: 6 (*Culex*).—Ont.; treeless arctic areas of Holarctic Region and s. along mt. ranges to Utah and Colo.
nearcticus Dyar, 1919a: 32.—N.W.T.

implicatus Vockeroth, 1954: 110.—Que.; Alaska to Que., s. to Utah and Mass.

increpitus Dyar, 1916b: 87.—Calif.; B.C. to Sask., s. to Calif. and N. Mex.
vittata Theobald, 1903c: 313 (*Grabhamia;* preocc. Bigot, 1861).—N. Mex.
mutatus Dyar, 1919b: 24.—Mont.
hewitti Hearle, 1923: 5.—B.C.

infirmatus Dyar and Knab, 1906c: 197.—La.; Mo. to N.C., s. to Tex. and Fla., Mexico.

intrudens Dyar, 1919b: 23.—Ont.; Alaska to Labr., s. to Oreg., Colo., and Pa., n. Europe.

melanimon Dyar, 1924b: 126.—Calif.; Wash. to Nebr., s. to Calif. and N. Mex.
klotsi Matheson, 1933: 69.—Colo.

mitchellae (Dyar), 1905a: 74 (*Culex*).—Fla.; N. Mex. to Ill. and Mass., s. to Fla., Mexico.

monticola Belkin and McDonald, 1957: 179.—Ariz.; Mexico (Baja Calif.).

muelleri Dyar, 1920b: 81.—Mexico; Ariz.
iridipennis Dyar, 1922b: 92.—Ariz.

nigripes (Zetterstedt), 1838: 807 (*Culex*).—Greenland; treeless arctic areas of Alaska, n. Canada, and n. Eurasia.
innuitus Dyar and Knab, 1918a: 166.—Greenland.
alpinus, authors, not Linnaeus.

nigromaculis (Ludlow), 1906c: 83 (1907: 85) (*Grabhamia*).—Mont.; Alta. to Man., s. to Calif., Tex., and Ky.
grisea Ludlow, 1907: 130 (*Grabhamia*).—Idaho.

niphadopsis Dyar and Knab, 1918a: 166.—Utah; Oreg., Idaho, Nev.

pionips Dyar, 1919b: 19.—Ont.; Alaska to Labr., s. to B.C. and Colo.

pullatus (Coquillett), 1904f: 168 (*Culex*).—B.C.; Alaska to Labr., s. to Calif., Colo., and Mich., n. Eurasia.
acrophilus Dyar, 1917d: 127.—Alta.
pearyi Dyar and Shannon, 1925b: 78.—Labr.

punctodes Dyar, 1922a: 1.—Alaska.

punctor (Kirby), 1837: 309 (*Culex*).—N.W.T.; Alaska to Labr., s. to Utah, Mich., and Md., n. Eurasia.

implacabilis Walker, 1848: 7 (*Culex*).—Ont.

provocans Walker, 1848: 7 (*Culex*).—N.S.

auroides Felt, 1905b: 449 (*Culicelsa*).—N.Y.

purpureipes Aitken, 1941: 82.—Mexico (Baja Calif.); Mexico, Ariz.

rempeli Vockeroth, 1954: 112.—Que.; N.W.T.

riparius Dyar and Knab, 1907b: 213.—Man.; Alaska to Ont., s. to Colo., Iowa, and N.Y., n. Eurasia.

scapularis (Rondani), 1848: 109 (*Culex*).—Brazil; Fla., Tex., Greater Antilles, Cent. and S. Amer.

schizopinax Dyar, 1929b: 1.—Mont.; Oreg. to Mont., s. to Calif. and Colo.

sierrensis (Ludlow), 1905a: 231 (*Taeniorhynchus*).—Calif.; B.C., Wash., Idaho, Mont., Oreg.

varipalpus, authors, not Coquillett.

sollicitans (Walker), 1856b: 427 (*Culex*).—U.S.; Ariz. to Fla., n. to N.S., also N. Dak., Nebr., Ill., Ind., Antilles.

colon Harris, 1835: 595 (*Culex*). Nomen nudum.

spencerii spencerii (Theobald), 1901b: 99 (*Culex*).—Man.; B.C. to Man., s. to Utah, Kans., and N.Y., Mexico.

ssp. **idahoensis** (Theobald), 1903a: 250 (*Grabhamia*; as var.).—Idaho; B.C. to N. Dak., s. to Nev. and Colo.

squamiger (Coquillett), 1902g: 85 (*Culex*).—Calif.; Mexico.

deniedmannii Ludlow, 1904: 234 (*Grabhamia*).—Calif.

sticticus (Meigen), 1838: 1 (*Culex*).—Germany; B.C. to N.B., s. to Calif., Tex., and Fla., n. Eurasia.

hirsuteron Theobald, 1901b: 98 (*Culex*).—Va.

pretans Grossbeck, 1904b: 332 (*Culex*).—N.J.

aestivalis Dyar, 1904b: 245 (*Culex*).—B.C.

aldrichi Dyar and Knab, 1908: 57.—Idaho.

gonimus Dyar and Knab, 1918a: 165.—Tex.

vinnipegensis Dyar, 1919b: 34.—Man.

lateralis, authors, not Meigen.

stimulans (Walker), 1848: 4 (*Culex*).—N.S.; Alaska to Que., s. to Colo., Miss., and Del.

subcantans Felt, 1905b: 474 (*Culicada*).—?N.Y.

mercuator Dyar, 1920a: 13.—Y.T.

classicus Dyar, 1920c: 113 (as ssp.).—N.J.

mississippii Dyar, 1920c: 113 (as ssp.).—Miss.

albertae Dyar, 1920c: 115 (as ssp.).—Alta.

taeniorhynchus (Wiedemann), 1821a: 43 (1821c: 43) (*Culex*).—Mexico; coasts and inland saline areas, Calif. to Peru and Mass. to Brazil, Antilles, Galapagos Is.
damnosus Say, 1823: 11 (1859b: 40) (*Culex*).—Pa.
thelcter Dyar, 1918c: 129.—Tex.; Fla., Okla., Mexico.
keyensis Buren, 1947: 228.—Fla.
thibaulti Dyar and Knab, 1910: 174.—Ark.; Ill. to Ohio and N.C., s. to Tex. and Fla.
tormentor Dyar and Knab, 1906c: 191.—La.; Okla. to Ohio and N.C., s. to Tex. and Fla., Mexico, Guatemala, Honduras.
tortilis (Theobald), 1903d: 281 (*Culex*).—Jamaica; Fla., Bahama Is., Virgin Is., Greater Antilles, Mexico, Guatemala.
trichurus (Dyar), 1904a: 170 (*Culex*).—B.C.; B.C. to N.S., s. to Wash., Mich., and R.I.
cinereoborealis Felt and Young, 1904: 312 (*Culex*).—N.Y.
pagetonotum Dyar and Knab, 1909b: 253.—Ont.
poliochros Dyar, 1919b: 35.—Man.
trivittatus (Coquillett), 1902f: 193 (*Culex*).—N.J.; Idaho to N.S., s. to N. Mex. and Ga., Mexico.
inconspicuus Grossbeck, 1904b: 332 (*Culex*).—N.J.
varipalpus (Coquillett), 1902b: 292 (*Culex*).—Ariz.; Utah.
ventrovittis Dyar, 1916b: 84.—Calif.; Wash., Idaho.
fisheri Dyar, 1917a: 19.—Calif.

Subgenus FINLAYA Theobald

Finlaya Theobald, 1903a: 281 (as genus). Type-species, *Culex kochi* Dönitz (Blanchard, 1905: 415).
Protomacleaya Theobald, 1907: 149. Type-species, *Culex triseriatus* Say (mon.).

atropalpus (Coquillett), 1902b: 292 (*Culex*).—Md.; Minn. to Labr. s. to Ariz., Panama, and Ga.
hendersoni Cockerell, 1918: 199 (as *triseriatus* var.).—Wyo.; Mont., Colo., Tex.
triseriatus (Say), 1823: 12 (1859b: 40) (*Culex*).—Pa.; B.C. to Que., s. to Tex. and Fla., Mexico.
nigra Ludlow, 1905b: 387 (?*Finlaya*).—Ill.
zoosophus Dyar and Knab, 1918a: 165.—Tex.; Kans., Okla., Mexico.
alleni Turner, 1924: 84.—Tex.

Subgenus STEGOMYIA Theobald

Stegomyia Theobald *in* Howard, 1901: 235 (as genus). Type-species, *Culex fasciatus* Fabricius (Neveu-Lemaire, 1902b: 212) = *aegypti* (Linnaeus).

aegypti (Linnaeus), 1762: 470 (*Culex*).—Egypt; Pantropical, mostly within the 10° C. isotherms. Application for the validation of this name and with its accepted identity has been made to the I.C.Z.N. by Mattingly, Stone, and Knight, 1962: 208.
taeniatus Wiedemann, 1828: 10 (*Culex*).—Ga.
excitans Walker, 1848: 4 (*Culex*).—Ga.

Subgenus AEDIMORPHUS Theobald

Aedimorphus Theobald, 1903a: 290 (as genus). Type-species, *Uranotaenia domestica* Theobald (mon.).
Ecculex Felt, 1904: 391c. Type-species, *Culex sylvestris* Theobald (orig. des.) =*vexans* (Meigen).

vexans (Meigen), 1830: 241 (*Culex*).—Germany; Y.T. to N.S., s. to Calif. and Fla., Holarctic, Oriental, Pacific Is., Transvaal.
sylvestris Theobald, 1901a: 406 (*Culex;* preocc. Ross, 1898).—Ont. and Man.
montcalmi Blanchard, 1905: 307 (*Culex*; n. name for *sylvestris* Theobald).—Ont., Man.
euochrus Howard, Dyar, and Knab, 1917: 716.—B.C.

Subgenus AEDES Meigen

cinereus Meigen, 1818: 13.—Europe; Canada, U.S., n. Eurasia.
fuscus Osten Sacken, 1877: 191.—Mass.
pallidohirta Grossbeck, 1905: 359 (*Culex*).—N.J.
hemiteleus Dyar, 1924c: 179 (as race).—Calif.

Genus HAEMAGOGUS Williston

Haemagogus Williston, 1896c: 271. Type-species, *splendens* Williston (mon.).

Subgenus LONGIPALPIFER Levi-Castillo

Haemagogus, subg. **Longipalpifer** Levi-Castillo, 1951: erratas. Type-species, *Haemagogus panarchys* Dyar (orig. des.).

equinus Theobald, 1903d: 282.—Jamaica; Tex., Mexico, Cent. Amer., n. S. Amer.

Genus CULISETA Felt

Theobaldia Neveu-Lemaire, 1902a: 1331 (preocc. Fischer, 1885). Type-species, *Culex annulatus* Schrank (orig. des.).
Culiseta Felt, 1904: 391c. Type-species, *Culex absobrinus* Felt (orig. des.) =*impatiens* (Walker).

Subgenus CULISETA Felt

alaskaensis (Ludlow), 1906b: 326 (*Theobaldia*).—Alaska; Alaska to Labr., s. in w. to Colo., n. and cent. Palaearctic Region.

impatiens (Walker), 1848: 5 (*Culex*).—Ont.; Alaska to Labr., s. to Calif., Mo., and Mass.

pinguis Walker *in* Lord, 1866: 337 (*Culex*).—B.C.

absobrinus Felt, 1904: 318 (*Culex*).—N.Y.

incidens (Thomson), 1869: 443 (*Culex*).—Calif.; Alaska to N.S., s. to Calif., Tex., and Mich.

inornata (Williston), 1893d: 253 (*Culex*).—Calif.; N.W.T. to N.H., s. to Calif., n. Mexico, and Fla.

magnipennis Felt, 1904: 322 (*Culex*).—N.Y.

particeps (Adams), 1903a: 26 (*Culex*).—Ariz.; Oreg., Calif., Mexico to Costa Rica.

maccrackenae Dyar and Knab, 1906a: 133.—Calif.

Subgenus CULICELLA Felt

Culicella Felt, 1904: 391*c* (as genus). Type-species, *Culex dyari* Coquillett (orig. des.)=*morsitans* (Theobald).

minnesotae Barr, 1957: 163.—Minn.; Utah, Ont., N.J., Mass.

morsitans (Theobald), 1901b: 8 (*Culex*).—England; Alaska to Labr., s. to Oreg., Colo., and Del., n. Eurasia, Morocco.

dyari Coquillett, 1902f: 192 (*Culex*).—N.H.

brittoni Felt, 1905a: 79 (*Culex*).—Conn.

parodites (Dyar), 1928b: 244 (*Culicella*).—Wis.

Subgenus CLIMACURA Howard, Dyar, and Knab

Culex, subg. **Climacura** Howard, Dyar, and Knab, 1915: 452. Type-species, *Culex melanurus* Coquillett (mon.).

melanura (Coquillett), 1902f: 193 (*Culex*).—N.H.; Colo. to Maine, s. to Tex. and Fla.

Genus CULEX Linnaeus

Culex Linnaeus, 1758: 602. Type-species, *pipiens* Linnaeus (Latreille, 1810: 442).

Laiomyia Izquierdo, 1916: 65. Type-species, *Culex stigmatosoma* Dyar (Edwards, 1932a: 200)=*peus* Speiser.

Culex, subg. *Transculicia* Dyar, 1918a: 184. Type-species, *eleuthera* Dyar (mon.)=*bahamensis* Dyar and Knab.

Subgenus NEOCULEX Dyar

Neoculex Dyar, 1905c: 48 (as genus). Type-species, *Culex territans* Walker (orig. des.).

apicalis Adams, 1930a: 26.—Ariz.; Calif., Mexico.
arizonensis Bohart, 1949: 341.—Ariz.; Mexico.
boharti Brookman and Reeves, 1950: 159 (n. name for *reevesi* Bohart).—Calif.; Nev.
reevesi Bohart, 1949: 342 (preocc. Wirth, 1948).—Calif.
reevesi Wirth *in* Usinger et al., 1948: 230.—Calif.; Mexico (Baja Calif.).
territans Walker, 1856b: 428.—U.S.; Alaska and B.C. to Vt., s. to Calif. and Fla., Europe.
saxatilis Grossbeck, 1905: 360.—N.J.
frickii Ludlow, 1906a: 132.—Minn.
apicalis, authors, not Adams.

Subgenus CULEX Linnaeus

bahamensis Dyar and Knab, 1906c: 210.—Bahama Is.; Fla., Antilles, Trinidad, ?French Guiana.
chidesteri Dyar, 1921d: 117.—Panama; Tex., Cent. and n. S. Amer., Antilles.
coronator Dyar and Knab, 1906c: 215.—Trinidad; Tex. to Argentina.
declarator Dyar and Knab, 1906c: 211.—Trinidad; Tex. to Uruguay and Bolivia.
virgultus, authors, not Theobald.
erythrothorax Dyar, 1907: 124.—Calif.; Idaho, Utah, Mexico.
badgeri Dyar, 1924b: 125.—Calif.
interrogator Dyar and Knab, 1906c: 209.—Mexico; Tex. to Panama.
nigripalpus Theobald, 1901b: 322.—St. Lucia I.; Tenn. and N.C., s. to Tex. and Fla., Antilles, Cent. Amer. to Brazil and Ecuador.
peus Speiser, 1904a: 148 (n. name for *affinis* Adams).—Ariz.; Wash. to Okla., s. to Venezuela.
affinis Adams, 1903a: 25 (preocc. Stephens, 1825).—Ariz.
stigmatosoma Dyar, 1907: 123.—Calif.
pipiens pipiens Linnaeus, 1758: 602.—Europe, Lapland, America; B.C. to N.S., s. to Calif., Okla., and Ga., Palaearctic, e. and s. Africa, s. S. Amer.
consobrinus Robineau-Desvoidy, 1827: 408.—Pa.
var. **pallens** Coquillett, 1898j: 303 (as sp.).—Japan; Calif., across cent. U.S., Mexico, China.
dipseticus Dyar and Knab, 1909c: 34 (as *quinquefasciatus* ssp.).—Calif.
comitatus Dyar and Knab, 1909c: 35.—Calif.
ssp. **quinquefasciatus** Say, 1823: 10 (1859b: 39) (as sp.).—Mississippi River; Utah to Md., s. to Calif. and Fla., cosmotropical.

pungens Wiedemann, 1828: 9.—La.
ferruginosus Wiedemann, 1828: 12 (*Anopheles*).—La.
restuans Theobald, 1901b: 142.—Ont.; B.C. to N.S., s. to Calif. and Fla., Mexico.
brehmei Knab, 1916a: 161.—N.J.
territans, authors, not Walker.
salinarius Coquillett, 1904b: 73.—N.J.; Idaho to N.S., s. to N. Mex. and Fla., Mexico, Bermuda.
tarsalis Coquillett, 1896a: 43.—Calif.; B.C. to Mexico, e. to N.W.T., Mich., S.C., and Fla.
willistoni Giles, 1900: 281.—Calif.
kelloggii Theobald, 1903b: 211.—Calif.
thriambus Dyar, 1921a: 33.—Tex.; Calif., Okla., Mexico.

Subgenus MELANOCONION Theobald

Melanoconion Theobald, 1903a: 238 (as genus). Type-species, *Culex* atratus Theobald (Dyar, 1905c: 49).
Culex, subg. *Choeroporpa* Dyar, 1918b: 103. Type-species, *anips* Dyar (orig. des.).

abominator Dyar and Knab, 1909b: 257.—Tex.
anips Dyar, 1916a: 48.—Calif.; Mexico (Baja Calif.).
atratus Theobald, 1901b: 55.—Jamaica, Trinidad; Fla., Antilles, Brazil, French Guiana, Panama.
erraticus (Dyar and Knab), 1906c: 224 (*Mochlostyrax*).—La.; N. Dak., Mich., and Md., s. to Brazil and Fla.
egberti Dyar and Knab, 1907b: 214.—Fla.
peribleptus Dyar and Kanb, 1918b: 181.—S.C.
pose Dyar and Knab, 1918b: 182.—Tex.
degustator Dyar, 1921b: 39.—Ark.
homoepas Dyar and Ludlow, 1921: 46.—La.
iolambdis Dyar, 1918b: 106.—Panama; Fla., Mexico, Colombia, P.R., Jamaica.
mulrennani Basham, 1948: 1.—Fla.; Cuba.
opisthopus Komp, 1926: 44.—Honduras; Fla., P.R., Mexico, Panama.
peccator Dyar and Knab, 1909b: 256.—Ark.; Kans., Mich., and Md., s. to Mexico and P.R.
incriminator Dyar and Knab, 1909b: 257.—Miss.

Subgenus MOCHLOSTYRAX Dyar and Knab

Mochlostyrax Dyar and Knab, 1906c: 223 (as genus). Type-species, *caudelli* Dyar and Knab (orig. des.).

pilosus (Dyar and Knab), 1906c: 224 (*Mochlostyrax*).—Mexico; Ky. to N.C., s. to Argentina and Antilles.
floridanus Dyar and Knab, 1906b: 171 (*Mochlostyrax*).—Fla.
deceptor Dyar and Knab, 1909b: 257.—Fla.

Genus DEINOCERITES THEOBALD

Deinocerites Theobald, 1901c: 235. Type-species, *cancer* Theobald (sub. mon., Theobald, 1901b: 215).
Brachiosoma Theobald, 1901c: 235. Type-species, *Deinocerites cancer* Theobald (Coquillett, 1910b: 515).

cancer Theobald, 1901b: 215.—Jamaica, St. Lucia I.; Fla., Antilles, Mexico, Cent. Amer.
mathesoni Belkin and Hogue, 1959: 426.—Tex.

Family THAUMALEIDAE

(Orphnephilidae)

By Alan Stone

This is a small family of rarely encountered flies. The larvae are found on rocks over which such a thin layer of cold water flows that the back of the larva is exposed. They feed on organic matter on the rocks. Pupation is in wet moss or mud and the adults are found on vegetation usually not far from the larval habitat.

REFERENCES: Dyar and Shannon, 1924d (rev.); Vaillant, 1959 (tax., biol.).

Genus THAUMALEA Ruthe

Thaumalea Ruthe, 1831: 1211. Type-species, *testacea* Ruthe (mon.).

americana Bezzi, 1913: 250.—N.Y.; Ont. and Que., s. to N.C.
johannis Dyar and Shannon, 1924d: 434.—Md.
testacea, authors, not Ruthe.
elnora Dyar and Shannon, 1924d: 434.—Idaho.
fusca (Garrett), 1925b: 10 (*Orphnephila*).—B.C.; Idaho.
thornburghae Vaillant, 1959: 35 (as *thornburghi*).—N.C.

Genus TRICHOTHAUMALEA Edwards

Trichothaumalea Edwards, 1929a: 125. Type-species, *Thaumalea pluvialis* Dyar and Shannon (orig. des.).

pluvialis (Dyar and Shannon), 1924d: 433 (*Thaumalea*).—B.C.
pilosa Garrett, 1925b: 10 (*Orphnephila*).—B.C.

Family CERATOPOGONIDAE

(Heleidae)

By Willis W. Wirth

The "biting midges" may be found in large numbers in nearly any aquatic or semiaquatic habitat in all regions of the world. Because of their small size (usually 1–4 mm.), they have been little collected and are very poorly known. Adult habits are diverse but most species are adapted to some type of blood-sucking. Species of *Culicoides*, *Lasiohelea*, and *Leptoconops* suck vertebrate blood and some are notorious pests, especially in beach or mountain resort areas. Some *Culicoides* are known vectors of diseases including onchocerciasis of horses and cattle, bluetongue of sheep, horse-sickness, several human filariases, and *Haemoproteus* and *Leucocytozoon* diseases of birds. Some *Atrichopogon* and *Forcipomyia* are ectoparasitic on larger insects, while many genera of Ceratopogoninae are predaceous on other smaller ones. Some genera (e.g. *Dasyhelea*) are exclusively flower-visiting, feeding on nectar, while many others thus supplement their diet or have nonhaematophagous species. The immature stages may be terrestrial under bark or on wet or damp wood (*Forcipomyia*); semiaquatic on wet alga-covered soil, wood, or rocks (*Atrichopogon*, *Dasyhelea*, etc.); in wet, decomposing, plant material such as cactus stems, banana stalks or leaf compost (*Culicoides*, etc.); or aquatic in mud or sand on lake, pond, or stream margins, salt marshes, tree holes, or water-holding plants (most genera).

REFERENCES: Malloch, 1915g (biol., rev. Ill. spp.); Edwards, 1926 (classif., generic rev., British spp.); Thomsen, 1937 (immature stages, biol.); Macfie, 1940a (world rev. of genera); Johannsen, 1943b (synopsis Amer. genera, figs., list N. Amer. spp.); Johannsen, 1952b (keys to genera, spp. of ne. U.S.); Wirth, 1952a (general classif., morph., economics, techniques, biol., immature stages, rev. Calif. spp.).

Subfamily LEPTOCONOPINAE

Genus LEPTOCONOPS Skuse

Leptoconops Skuse, 1889: 288. Type-species, *stygius* Skuse (mon.).
Tersesthes Townsend, 1893f: 370. Type-species, *torrens* Townsend (orig. des.).

REFERENCES: Carter, 1921 (rev.); Smith and Lowe, 1948 (bionomics, Calif.).

Subgenus LEPTOCONOPS Skuse

floridensis Wirth, 1951e: 282.—Fla.
torrens (Townsend), 1893f: 371 (*Tersesthes*).—N. Mex.; Calif. to Colo. and Tex.
carteri Hoffman, 1926a: 133.—Calif.

Subgenus HOLOCONOPS Kieffer

Holoconops Kieffer, 1918b: 135 (as genus). Type-species, *Leptoconops kerteszi* Kieffer (orig. des.).

bequaerti (Kieffer), 1925b: 405 (*Holoconops;* as *becquaerti*).—Honduras; coastal, Mass., N.C., Miss., Fla., circum-Caribbean.
catawbae (Boesel), 1948: 69 (*Holoconops*).—Ohio; Mich., Ont., Que.
kerteszi Kieffer, 1908a: 576.—Egypt; Wash. to Nebr., s. to Calif. and N. Mex., n. Africa.
americana Carter, 1921: 22 (as var.).—Utah.

Subgenus STYLOCONOPS Kieffer

Styloconops Kieffer, 1921c: 107 (as genus). Type-species, *Leptoconops albiventris* Meijere (orig. des.).

freeborni Wirth, 1952a: 115.—Calif.

Subfamily FORCIPOMYIINAE

Genus ATRICHOPOGON Kieffer

Ceratopogon, subg. **Atrichopogon** Kieffer, 1906a: 53. Type-species, *exilis* Coquillett (Coquillett, 1910b: 512)=*levis* (Coquillett).

REFERENCE: Ewen and Saunders, 1958 (rev. based on immature stages).

Subgenus ATRICHOPOGON Kieffer

arcticus (Coquillett), 1900h: 396 (1904: 10) (*Ceratopogon*).—Alaska; Alaska to Colo., s. to Calif. and N. Mex.
corpulentus Ewen *in* Ewen and Saunders, 1958: 681.—B.C.
crinitus Ewen *in* Ewen and Saunders, 1958: 717.—B.C.; Sask.
flavus Ewen *in* Ewen and Saunders, 1958: 697.—Sask.
fusculus (Coquillett), 1901h: 605 (*Ceratopogon*).—N.J.; Sask. to Ont., s. to Calif. and Fla.
fusinervis (Malloch), 1915g: 308 (*Ceratopogon*).—Ill.
gilvus (Coquillett), 1905d: 62 (*Ceratopogon*).—Fla.
humicola Ewen *in* Ewen and Saunders, 1958: 679.—Sask.

inconspicuus Ewen *in* Ewen and Saunders, 1958: 706.—Sask.
levis (Coquillett), 1901h: 604 (*Ceratopogon*).—Md.; Wash. to N.H., s. to Calif. and Fla.
exilis Coquillett, 1902g: 86 (*Ceratopogon*).—D.C.
maculosus Ewen *in* Ewen and Saunders, 1958: 689.—Sask.
minutus (Meigen), 1830: 263 (*Ceratopogon*).—Europe; Calif., Iowa, Mich., Ind., Md., Va.
occidentalis Wirth, 1952a: 120.—Calif.; Alaska, Mont., Calif.
peregrinus (Johannsen), 1908: 266 (*Ceratopogon*).—N.Y.
transiens (Walker), 1848: 25 (*Ceratopogon*).—Hudson Bay.
transversus Wirth, 1952a: 124.—Calif.
warmkei Wirth, 1956c: 243.—P.R.; Fla.
websteri (Coquillett), 1901h: 603 (*Ceratopogon*).—La.; Calif. to Conn., s. to Fla.

Subgenus MELOEHELEA Wirth

Atrichopogon, subg. **Meloehelea** Wirth, 1956b: 16. Type-species, *meloesugans* Kieffer (orig. des.).

REFERENCE: Wirth, 1956b (rev., habits, parasitic on blister beetles).

epicautae Wirth, 1956b: 21.—Ariz.; B.C., Mont., Calif.
farri Wirth, 1956b: 22.—Mass.; N.H.
oedemerarum Storå, 1939: 16.—Finland; Ont. to Va., Europe.

Genus FORCIPOMYIA Meigen

Forcipomyia Meigen, 1818: 73, 75. Type-species, *Tipula bipunctata* Linnaeus (Application submitted by D. E. Hardy to I.C.Z.N. to validate Meigen's generic name cited in specific synonymy, with *bipunctata* as type-species.)

REFERENCES: Saunders, 1956 (rev. subg., all stages); Wirth, 1956a (classif. spp. parasitic on insects).

Subgenus PTEROBOSCA Macfie

Pterobosca Macfie, 1932: 266 (as genus). Type-species, *Ceratopogon aeschnosuga* Meijere (Macfie, 1940a: 16).

REFERENCE: Wirth, 1956a (rev., checklist, parasitic on Odonata).

fusicornis (Coquillett), 1905d: 63 (*Ceratopogon*).—Fla.; La., Bermuda.
fur Johnson, 1913: 444 (*Ceratopogon*).—Bermuda.
floridana Johannsen, 1950: 143 (*Pterobosca*).—Fla.

Subgenus LASIOHELEA Kieffer

Lasiohelea Kieffer, 1921c: 115 (as genus). Type-species, *Atrichopogon pilosipennis* Kieffer (orig. des.)=*velox* (Winnertz).

Females suck vertebrate blood; larvae are found on wet wood.

fairfaxensis Wirth, 1951f: 317.—Va.; Iowa to Mich. and Que., s. to Va.

Subgenus NEOFORCIPOMYIA Tokunaga

Forcipomyia, subg. **Neoforcipomyia** Tokunaga *in* Tokunaga and Murachi, 1959: 200. Type-species, *Ceratopogon pectinunguis* Meijere (orig. des.).

REFERENCE: Wirth, 1956a (rev., habits, ectoparasitic on insects).

baueri Wirth, 1956a: 361.—Ariz.
eques (Johannsen), 1908: 266 (*Ceratopogon*).—N.Y.; Mich. to Que., Europe.
mcateei Wirth, 1956a: 359.—Md.; Mich. to Que., s. to Va.

Subgenus THYRIDOMYIA Saunders

Thyridomyia Saunders, 1925: 268 (as genus). Type-species, *palustris* Saunders (orig. des.).

aspinosa Saunders, 1956: 692.—Sask.
monilicornis (Coquillett), 1905d: 63 (*Ceratopogon*).—B.C.; Alaska to Que., s. to Calif. and Md.
palustris (Saunders), 1925: 269 (*Thyridomyia*).—England; B.C., Tenn., Europe.

Subgenus SYNTHYRIDOMYIA Saunders

Forcipomyia, subg. **Synthyridomyia** Saunders, 1956: 688. Type-species, *Lasiohelea acidicola* Tokunaga (orig. des.).

colemani Wirth, 1952a: 146.—Calif.
johannseni Thomsen, 1935: 286.—N.Y.

Subgenus EUFORCIPOMYIA Malloch

Euforcipomyia Malloch, 1915h: 312 (as genus). Type-species, *hirtipennis* Malloch (orig. des.).

hirtipennis (Malloch), 1915h: 313 (*Euforcipomyia*).—Ill. This may possibly be a synonym of *titillans* (Winnertz); if so then *Euforcipomyia* will replace *Proforcipomyia*.

Subgenus PROFORCIPOMYIA Saunders

Forcipomyia, subg. **Proforcipomyia** Saunders, 1956: 662. Type-species, *wirthi* Saunders (orig. des.).

calcarata (Coquillett), 1905d: 64 (*Ceratopogon*).—Mexico; Miss. to Fla. and Va.

indecora Kieffer, 1914: 269.—s. Africa; Bermuda, pantropical.
ingrami Carter, 1919: 290.—Gold Coast.
sonora Wirth, 1952a: 145 (as *calcarata* var.).—Calif.; B.C. to Utah, s. to Calif. and N. Mex.
titillans (Winnertz), 1852a: 27 (*Ceratopogon*).—Europe; Ont.
wirthi Saunders, 1956: 663.—Calif.

Subgenus METAFORCIPOMYIA Saunders

Forcipomyia, subg. **Metaforcipomyia** Saunders, 1956: 685. Type-species, *cerifera* Saunders (orig. des.).

pluvialis Malloch, 1923f: 5.—Md.; Ont. to La. and Fla.

Subgenus CALOFORCIPOMYIA Saunders

Forcipomyia, subg. **Caloforcipomyia** Saunders, 1956: 680. Type-species, *caerulea* Saunders (orig. des.).

splendida Wirth, 1951f: 315.—Va.; Mich. to Conn., s. to Fla., also Alta.

Subgenus FORCIPOMYIA Meigen

aurea Malloch, 1915g: 318.—Ill.
bipunctata (Linnaeus), 1767: 978 (*Tipula*).—Europe; entire N. Amer.
brevipennis (Macquart), 1826a: 179 (1826: 121) (*Ceratopogon*).—Europe; B.C. to Que., s. to Calif. and La.
specularis Coquillett, 1901h: 601 (*Ceratopogon*).—Pa.
christiansoni Wirth and Hubert, 1960a: 640.—Calif.
ciliata (Winnertz), 1852a: 21 (*Ceratopogon*).—Europe; N.Y., Mass.
cilipes (Coquillett), 1900h: 397 (1904: 11) (*Ceratopogon*).—Alaska; Alaska to N.Y., s. to Calif. and Colo.
cinctipes (Coquillett), 1905d: 64 (*Ceratopogon*).—Fla.; Calif., Mexico.
concolor Malloch, 1915g: 319 (as *pergandei* var.).—Ill.
desertensis Wirth and Hubert, 1960a: 639.—Calif.; Mexico (Baja Calif.).
elegantula Malloch, 1915h: 311.—Ill.; D.C., Va.
fimbriata (Coquillett), 1901h: 601 (*Ceratopogon*).—D.C.; Md.
fuliginosa (Meigen), 1818: 86 (*Ceratopogon*).—Europe; entire N. Amer., cosmopolitan.
erucicida Knab, 1914b: 65.—Fla.
coquilletti Kieffer, 1917: 297 (*Ceratopogon*).—N.Y.
brookmani Wirth, 1952a: 140.—Calif.
genualis (Loew), 1866a: 128 (Cent. 6, no. 1) (*Ceratopogon*).—Cuba; La., Ga., Fla., Bermuda, Neotropical.
raleighi Macfie, 1938: 160.—Trinidad. **N. syn.**
hurdi Wirth, 1952a: 143.—Calif.

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macswaini Wirth, 1952a: 130.—Calif.; Wash., Oreg.
occidentalis Wirth, 1952a: 141.—Calif.; N. Mex.
pallida (Winnertz), 1852a: 15 (*Ceratopogon*).—Europe; N.Y.
pergandei (Coquillett), 1901h: 602 (*Ceratopogon*).—D.C.; Kans., Ill., Md., Va.
pilosa (Coquillett), 1902g: 87 (*Ceratopogon*).—D.C.; Utah, N. Mex.
quatei Wirth, 1952a: 142.—Calif.
solonensis Wirth, 1951f: 315.—Va.
squamipes (Coquillett), 1902g: 88 (*Ceratopogon*).—N. Mex.; U.S.
brumalis Long, 1902: 3 (*Ceratopogon*).—Tex.
texana texana (Long), 1902: 10 (*Ceratopogon*).—Tex.; Calif. to D.C., s. to Tex.
ssp. **simulata** Walley, 1932: 165 (as sp.).—Ont.; Alaska to Ont., s. to Calif. and Mass.
picea, authors, not Winnertz.
townesi Wirth, 1952a: 137.—Calif.; Wash.
varipennis Wirth and Williams, 1957: 8.—Bermuda; Fla., Tex., Guatemala, P.R.

Unplaced Species of *Forcipomyia*

longitarsis (Malloch), 1915h: 314 (*Euforcipomyia*).—Ill.
obscura (Walker), 1848: 26 (*Ceratopogon*).—Hudson Bay.
parva (Walker), 1848: 26 (*Ceratopogon*).—Hudson Bay.
stenammatis (Long), 1902: 10 (*Ceratopogon*).—Conn. Larva only.
wheeleri (Long), 1902: 12 (*Ceratopogon*).—Tex. Larva and pupa only.

Subfamily DASYHELEINAE

Genus DASYHELEA Kieffer

Dasyhelea Kieffer, 1911b: 5. Type-species, *halophila* Kieffer (mon.).
Pseudoculicoides Malloch, 1915g: 309. Type-species, *Ceratopogon mutabilis* Coquillett (orig. des.).

ancora (Coquillett), 1902g: 87 (*Ceratopogon*).—Fla.; Calif., Ariz., N. Mex., Conn.
atlantis Wirth and Williams, 1957: 11.—Bermuda.
atrata Wirth, 1952a: 164.—Calif.; Alaska, La.
bahamensis (Johnson), 1908c: 71 (*Ceratopogon*).—Bahama Is.; Fla.
bermudae Wirth and Williams, 1957: 11.—Bermuda.
bifurcata Wirth, 1952a: 161.—Calif.
brookmani Wirth, 1952a: 152.—Calif.
cactorum Wirth and Hubert, 1960a: 642.—Baja Calif.; Calif., Ariz.

cincta (Coquillett), 1901h: 605 (*Ceratopogon*).—Fla.; Calif. to N.Y., s. to Fla., Bermuda.
festiva Wirth, 1952a: 161.—Calif.; Colo.
grisea (Coquillett), 1901h: 602 (*Ceratopogon*).—D.C.; Calif. to Mich. and Conn., s. to Tex. and Fla.
johannseni (Malloch), 1915g: 311 (*Pseudoculicoides*).—Calif.
luteogrisea Wirth and Williams, 1957: 10.—Bermuda; coastal, Tex. to Fla., n. to Md., Bahama Is.
major (Malloch), 1915g: 311 (*Pseudoculicoides*).—Ill.; Mich. to Conn., s. to Nebr., Ala., and Va.
mutabilis (Coquillett), 1901h: 602 (*Ceratopogon*).—D.C.; entire N. Amer.
oppressa Thomsen, 1935: 285.—N.Y.; Iowa to Que., s. to La. and Fla.
pallens Wirth, 1952a: 152.—Calif.
pentalineata Wirth and Hubert, 1960a: 644.—Mexico (Baja Calif.); Calif.
pollinosa Wirth, 1952a: 156.—Calif., Wash., Colo.
pritchardi Wirth, 1952a: 163.—Calif.
ryckmani Wirth and Hubert, 1960a: 646.—Calif.; Ariz.
sanctaemariae Wirth, 1952a: 162.—Calif.
scissurae Macfie, 1937: 15.—Trinidad; Bermuda, Neotropical.
scutellata (Meigen), 1830: 262 (*Ceratopogon*).—Europe; Greenland.
subcaerulea Thomsen, 1935: 284.—N.Y.
tenebrosa (Coquillett), 1905d: 64 (*Ceratopogon*).—Calif.; Alaska.
thomsenae Wirth, 1952a: 160.—Calif.; N. Mex., Md., Va.
traverae Thomsen, 1935: 285.—N.Y.; Mich. to N.Y., s. to La. and Va.
tristyla Wirth, 1952a: 165.—Calif.; Calif., Utah., La., Ala., Mass.

Subfamily CERATOPOGONINAE

Tribe CULICOIDINI

Genus CULICOIDES Latreille

Culicoides Latreille, 1809: 251. Type-species, *punctatus* Latreille (mon.).

References: Williams, 1951a (bionomics *C. tristriatulus* in Alaska); Williams, 1951b (immature stages); Wirth, 1952e (immature stages); Foote and Pratt, 1954 (rev. spp. e. U.S.); Fox, 1955 (cat. New World spp.); Arnaud, 1956 (world cat.); Wirth and Bottimer, 1956 (population study Tex. spp.); Wirth and Jones, 1957 (systematics *C. variipennis* group); Downes, 1958 (biol.); Jones, 1961a (larval habitats), 1961b (pupae).

Subgenus CULICOIDES Latreille

cockerellii (Coquillett), 1901h: 603 (*Ceratopogon*).—Colo.; Alaska to Calif. and Colo.

luteovenus Root and Hoffman, 1937: 156.—Mexico; Wash. to Utah, s. to Panama.

neopulicaris Wirth, 1955: 355.—Tex.; Mexico.

saltonensis Wirth, 1952a: 173 (as *cockerellii* ssp.).—Calif. **N. status.**

sordidellus (Zetterstedt), 1838: 820 (*Ceratopogon*).—Greenland.

pulicaris Linnaeus of Fabricius, 1780: 211 (as *Culex pulicans*).

tristriatulus Hoffman, 1925: 294 (as *cockerellii* var.).—Calif.; Alaska.

yukonensis Hoffman, 1925: 291.—Y.T.; Alaska, B.C.

Subgenus HOFFMANIA Fox

Culicoides, subg. **Hoffmania** Fox, 1948: 21. Type-species, *inamollae* Fox and Hoffman (orig. des.)=*insignis* Lutz.

insignis Lutz, 1913b: 51.—Brazil; Fla., Neotropical.

inamollae Fox and Hoffman, 1944: 110.—P.R.

venustus Hoffman, 1925: 290.—Md.; Wis. to Que., s. to Mo. and Fla.

Subgenus AVARITIA Fox

Culicoides, subg. **Avaritia** Fox, 1955: 218. Type-species, *Ceratopogon obsoletus* Meigen (orig. des.).

alachua Jamnback and Wirth, 1963: 187.—Fla.

chiopterus (Meigen), 1830: 263 (*Ceratopogon*).—Europe; Wash., Ont. to Va.

hirtulus (Coquillett), 1900h: 396 (1904: 10) (*Ceratopogon*).—Alaska; coastal, s. Alaska to n. Calif.

obsoletus (Meigen), 1818: 76 (*Ceratopogon*).—Europe; Alaska to Que., s. to n. Calif., Okla., Tenn., and Va.

pusillus Lutz, 1913b: 52.—Brazil; Fla., Neotropical.

sanguisuga (Coquillett), 1901h: 604 (*Ceratopogon*).—Md.; Alaska to Que., s. to Calif., Kans., and Ga., forest area pest.

nocivum Harris, 1862: 602 (*Simulium*). Nomen nudum.

Subgenus OECACTA Poey

Oecacta Poey, 1851: 238 (as genus). Type-species, *furens* Poey (mon.).

Haematomyidium Goeldi, 1905: 137. Type-species, *paraense* Goeldi (orig. des.).

alexanderi Wirth and Hubert, 1962: 190.—Mass.; Mich. to Que., s. to Tenn. and Conn.

arboricola Root and Hoffman, 1937: 166.—Md.; Wis. to Md., s. to Tex. and Fla.
arubae Fox and Hoffman, 1944: 109.—Aruba I.; Tex., Neotropical.
barbosai Wirth and Blanton, 1956: 161.—Panama; Fla., Ecuador, Bahama Is., Jamaica, salt marsh pest.
bickleyi Wirth and Hubert, 1962: 188.—Md.; Wis. to Que., s. to Fla.
biguttatus (Coquillett), 1901h: 604 (*Ceratopogon*).—D.C.; Wis. to Ont., s. to La. and Fla.
bottimeri Wirth, 1955: 356.—Tex.
cavaticus Wirth and Jones, 1956: 166.—Calif.; Oreg., Ariz.
daedalus Macfie, 1948: 83.—Mexico; Ariz., Neotropical.
debilipalpis Lutz, 1913b: 60.—Brazil; Md. to Ky. and Fla., Neotropical.
denticulatus Wirth and Hubert, 1962: 193.—Wis.; Minn. to Ont., s. to Md.
unicolor, authors, not Coquillett.
dickei Jones, 1956: 28.—Wis.; Ont., W. Va.
downesi Wirth and Hubert, 1962: 186.—Ont.; Mich., N.Y., Que.
floridensis Beck, 1951: 135.—Fla.; Bermuda, Bahama Is.
flukei Jones, 1956: 30.—Wis.; N.Y., Va.
furens (Poey), 1851: 238 (*Oecacta*).—Cuba; Gulf and Atlantic Coasts to Mass., Neotropical, salt marsh pest.
dovei Hall, 1932b: 88.—Ga.
furensoides Williams, 1955: 271.—Mich.
guttipennis (Coquillett), 1901h: 603 (*Ceratopogon*).—Ohio; Minn. to Mass., s. to Okla. and Ga.
jamnbacki Wirth and Hubert, 1962: 192.—N.Y.; Mich., Ont.
khalafi Beck, 1957: 104.—Fla.
luglani Jones and Wirth, 1958: 89.—Tex.; Ariz., Mexico, Panama.
melleus (Coquillett), 1901h: 604 (*Ceratopogon*).—Fla.; Maine to Fla. and Miss., coastal, sandy beach pest.
minutissimus (Zetterstedt), 1855: 4860 (*Ceratopogon*).—Scandinavia; Greenland, Europe.
mohave Wirth, 1952a: 187.—Calif.; Ariz., Mexico.
monoensis Wirth, 1952a: 193.—Calif.
mulrennani Beck, 1957: 103.—Fla.
nanus Root and Hoffman, 1937: 165.—Md.; Wis. to Ont., s. to Tex. and Fla.
niger Root and Hoffman, 1937: 168.—Md.; coastal, Mass. to Fla.
oklahomensis Khalaf, 1952b: 355 (as *villosipennis* ssp.).—Okla.; Ariz., Tex., Mexico.
ousairani Khalaf, 1952b: 354.—Okla.; Tex. and Okla. to Va. and Ala.
palmerae James, 1943a: 151.—Colo.; B.C. to Wyo., s. to Calif. and Nebr.

paraensis (Goeldi), 1905: 137 (*Haematomyidium*).—Brazil; Ohio to Pa., s. to Miss. and Fla., Neotropical.
pecosensis Wirth, 1955: 358.—Tex.
pifanoi Ortiz, 1951: 588.—Venezuela; Fla., Neotropical.
piliferus Root and Hoffman, 1937: 163.—Md.; Wis. to Que., s. to Va.
pseudopiliferus Wirth and Hubert, 1962: 189.—Md.; Wis. to Ont., s. to Fla.
reevesi Wirth, 1952a: 193.—Calif.; Ariz., N. Mex.
riggsi Khalaf, 1957: 198 (as *piliferus* ssp.).—Okla.
salihi Khalaf, 1952b: 351.—Okla.; Calif., N. Mex., Tex.
scanloni Wirth and Hubert, 1962: 187.—Va.; Mass. to Fla.
snowi Wirth and Jones, 1956: 163.—Va.; Ill. to Que., s. to Miss. and Ga.
spinosus Root and Hoffman, 1937: 172.—Md.; Wis. to Ont., s. to Tenn. and Fla.
stellifer (Coquillett), 1901h: 604 (*Ceratopogon*).—D.C.; Mont. to Ont., s. to Calif. and Fla.
stilobezzioides Foote and Pratt, 1954: 33.—N.Y.; Minn. to Que.
stonei James, 1943a: 149.—Colo.; Calif. to S. Dak., s. to Tex.
weesei Khalaf, 1952a: 65 (also 1952b: 351).—Okla.
testudinalis Wirth and Hubert, 1962: 191.—Pa.; Wis. to Mass., s. to Va.
travisi Vargas, 1949: 233 (n. name for *simulans* Root and Hoffman).—Md.; Wis. to Ont., s. to La. and S.C., also Ariz.
simulans Root and Hoffman, 1937: 167 (preocc. Vimmer, 1932).—Md.
horneae Foote and Pratt, 1954: 25.—N.Y. **N. syn.**
unicolor (Coquillett), 1905d: 65 (*Ceratopogon*).—Calif.
usingeri Wirth, 1952a: 192 —Calif.; Utah.
utahensis Fox, 1946: 246.—Utah; Calif., Nev.
villosipennis Root and Hoffman, 1937: 165.—Md.; Wis. to Maine, s. to Okla. and Ala.
wirthi Foote and Pratt, 1954: 36.—Mont.; B.C.

Subgenus DRYMODESMYIA Vargas

Culicoides, subg. **Drymodesmyia** Vargas, 1960: 40. Type-species, *copiosus* Root and Hoffman (orig. des.).

REFERENCE: Wirth and Hubert, 1960a (rev., larvae in cacti and tree holes).

arizonensis Wirth and Hubert, 1960a: 655.—Ariz.; Calif., Mexico (Baja Calif.).
butleri Wirth and Hubert, 1960a: 650.—Ariz.

cacticola Wirth and Hubert, 1960a: 653.—Calif.; Ariz., Tex.
copiosus Root and Hoffman, 1937: 171.—Mexico; Calif. to Tex.
hinmani Khalaf, 1952b: 353.—Okla.; Ohio to Md., s. to Tex. and Ala.
borinqueni, authors, not Fox and Hoffman.
jamaicensis Edwards, 1922c: 165 (as *loughnani* var.).—Jamaica; s. Tex., Neotropical.
jonesi Wirth and Hubert, 1960a: 650.—Tex.
loughnani Edwards, 1922c: 165.—Jamaica; Tex., Fla., West Indies.
ryckmani Wirth and Hubert, 1960a: 656.—Calif.; Ariz., Tex., Mexico (Baja Calif.).
sitiens Wirth and Hubert, 1960a: 652.—Calif.; Ariz., Mexico (Baja Calif.).

Subgenus DIPHAOMYIA Vargas

Culicoides, subg. **Diphaomyia** Vargas, 1960: 40. Type-species, *baueri* Hoffman (orig. des.).

baueri Hoffman, 1925: 297.—Md.; Wis. to Va., s. to Calif. and Fla.
blantoni Vargas and Wirth, 1955: 33.—Mexico; Tex.
footei Wirth and Jones, 1956: 162.—Va.; Ont., Tenn., Ky.
haematopotus Malloch, 1915g: 302.—Ill.; B.C. to Que., s. to Calif. and Fla.

Subgenus BELTRANMYIA Vargas

Culicoides, subg. **Beltranmyia** Vargas, 1953: 34. Type-species, *crepuscularis* Malloch (orig. des.).

alaskensis Wirth, 1951b: 84.—Alaska.
bermudensis Williams, 1956: 298.—Bermuda; Tex., Fla., Ga.
crepuscularis Malloch, 1915g: 303.—Ill.; B.C. to Que., s. to Calif., Mexico, and Fla., Bermuda.
hollensis (Melander and Brues), 1903: 13 (*Ceratopogon*).—Mass.; coastal, N.S. to Fla., salt marsh pest.
canithorax Hoffman, 1925: 284.—Ga.
knowltoni Beck, 1956: 136.—Fla.
mississippiensis Hoffman, 1926b: 158.—Miss.; La. to Fla., coastal, salt marsh pest.
sphagnumensis Williams, 1955: 269.—Mich.; Alaska, Wis., Ont.
wisconsinensis Jones, 1956: 32.—Wis.; Colo., Mich.

Subgenus MONOCULICOIDES Khalaf

Culicoides, subg. **Monoculicoides** Khalaf, 1954: 39. Type-species, *Ceratopogon nubeculosus* Meigen (orig. des.).

gigas Root and Hoffman, 1937: 172.—Sask.; B.C., Alta., Man.

variipennis variipennis (Coquillett), 1901h: 602 (*Ceratopogon*).—Va.; B.C. to Que., Colo., La., and Fla.

ssp. **albertensis** Wirth and Jones, 1957: 17.—Alta.; Alta and Mont. to Okla.

ssp. **australis** Wirth and Jones, 1957: 15.—La.; Kans. to Va., s. to Tex. and S.C.

ssp. **occidentalis** Wirth and Jones, 1957: 21.—Calif.; B.C. to Calif. and Ariz., Mexico (Baja Calif.).

ssp. **sonorensis** Wirth and Jones, 1957: 18.—Ariz.; Wash. to Utah, Okla., and Tenn., s. to Calif. and Tex., Mexico.

Subgenus SELFIA Khalaf

Culicoides, subg. **Selfia** Khalaf, 1954: 38. Type-species, *hieroglyphicus* Malloch (orig. des.).

brookmani Wirth, 1952a: 179.—Calif.; Ariz., N. Mex.

denningi Foote and Pratt, 1954: 20.—Sask.; Wash. to Sask., s. to Nev. and Colo.

hieroglyphicus Malloch, 1915g: 297.—Ariz.; Calif. to S. Dak., s. to Mexico.

jamesi Fox, 1946: 244.—Mont.; Wash. to Mont., s. to Calif. and N. Mex.

multipunctatus Malloch, 1915g: 296.—Ill.; Kans., Ill. and Tenn., s. to Tex. and Ala.

tenuistylus Wirth, 1952a: 178.—Calif.; Ariz., N. Mex.

Tribe CERATOPOGONINI

Genus CERATOPOGON Meigen

Helea Meigen, 1800: 18. Type-species, *Ceratopogon communis* Meigen (Coquillett, 1910b: 549). Suppressed by I.C.Z.N., 1963b: 339.

Ceratopogon Meigen, 1803: 261. Type-species, *Tipula barbicornis* Fabricius (mon.; misident.) ?=*communis* Meigen. Edwards (1920: 127) states that Meigen misidentified *barbicornis*, which is an *Orthocladius*, his 1803 material being *Ceratopogon communis*.

Subgenus CERATOPOGON Meigen

borealis (Kieffer), 1919b: 68 (*Psilohelea*).—Norway (Lofoten Is.); Greenland.

culicoidithorax Hoffman, 1926b: 156.—N.Y.; Ont., Que.

lacteipennis Zetterstedt, 1838: 820.—Norway; Greenland.

mallochi (Cole) *in* Cole and Lovett, 1921: 213 (*Hartomyia*).—Oreg.; Calif.

Subgenus NILOHELEA Kieffer

Nilohelea Kieffer, 1921b: 22 (as genus). Type-species, *albipennis* Kieffer (mon.).

longipennis (Wirth), 1952a: 201 (*Helea*).—Calif.
virginianus (Wirth), 1951f: 318 (*Helea*).—Va.; N.J., Md.

Subgenus ISOHELEA Kieffer

Isohelea Kieffer, 1917: 295 (as genus). Type-species, *Ceratopogon lacteipennis* Winnertz (orig. des.) = *sociabilis* Goetghebuer.

pruinosus (Wirth), 1952a: 201 (*Helea*).—Calif.; N. Mex., Colo.
serratus (Lewis), 1956: 46 (*Helea*).—Conn.
stigmalis Coquillett, 1902g: 86.—N. Mex.; Alaska, Calif.

Subgenus BRACHYPOGON Kieffer

Brachypogon Kieffer, 1899: 69 (as genus). Type-species, *Ceratopogon vitiosus* Winnertz (orig. des.).

Unnamed sp.—Fla.

Genus CAMPTOPTEROHELEA Wirth and Hubert

Camptopterohelea Wirth and Hubert, 1960b: 89. Type-species, *hoogstraali* Wirth and Hubert (orig. des.).

Unnamed sp.—s. Calif.

Genus ALLUAUDOMYIA Kieffer

Alluaudomyia Kieffer, 1913d: 12. Type-species, *imparunguis* Kieffer (mon.).
Neoceratopogon Malloch, 1915h: 310. Type-species, *Ceratopogon bellus* Coquillett (orig. des.).
Isoecacta Garrett, 1925b: 9. Type-species, *poeyi* Garrett (orig. des.) = *bella* (Coquillett).

REFERENCES: Wirth, 1952b (rev.); Williams, 1953 (biol., Ga.).

bella (Coquillett), 1902g: 87 (*Ceratopogon*).—D.C.; Alaska to Que., s. to Calif. and Fla.
poeyi Garrett, 1925b: 9 (*Isoecacta*).—B.C.
splendida, authors, not Winnertz.
footei Wirth, 1952b: 428.—Fla.; Vt. to Tenn. and Fla.
megaparamera Williams, 1957: 327.—Mich.; N.Y., Md., Va.
needhami Thomsen, 1935: 287.—N.Y.; Sask. to Conn., s. to La. and Fla.

paraspina Wirth, 1952b: 429.—Ga.; coastal, Que. to Fla.
parva Wirth, 1952b: 431.—Fla.; N.Y. and Ont., s. to Fla.
downesi Wirth, 1952b: 433.—Va.
stictipennis Wirth, 1952a: 197.—Calif.
wirthi Williams, 1957: 328.—Mich.; Sask., Va., Ga.

Tribe STILOBEZZIINI

Genus STILOBEZZIA Kieffer

Stilobezzia Kieffer, 1911a: 118. Type-species, *festiva* Kieffer (orig. des.).
Hartomyia Malloch, 1915g: 339. Type-species, *Ceratopogon pictus* Coquillett (orig. des.)=*coquilletti* Kieffer.

REFERENCE: Wirth, 1953a (rev.).

Subgenus STILOBEZZIA Kieffer

antennalis (Coquillett), 1901h: 606 (*Ceratopogon*).—D.C.; B.C. to Ont., s. to Tex. and Fla.
beckae Wirth, 1953a: 69.—Fla.; Miss., Panama, Peru.
bicolor Lane, 1947: 208.—Brazil; Tex., Neotropical.
bulla Thomsen, 1935: 289.—N.Y.; Ont. and Que., s. to La. and Fla.
coquilletti Kieffer, 1917: 308 (n. name for *pictus* Coquillett).—Va.; Ill. to Md., s. to La. and Ala., Neotropical.
pictus Coquillett, 1905d: 60 (*Ceratopogon*; preocc. Meigen, 1818).—Va.
diversa (Coquillett), 1901h: 607 (*Ceratopogon*).—N.J.; Va., Ga., Fla.
glauca Macfie, 1939: 204.—Brazil; Va., La., Miss., Fla., Neotropical.
pallidiventris (Malloch), 1915g: 344 (*Hartomyia*).—Ill.; Ind., W. Va., Conn.
pruinosa Wirth, 1952a: 203.—Calif.; Ariz., Va., Fla.
punctipes Wirth, 1953a: 79.—Fla.; Mexico.
rabelloi Lane, 1947: 203.—Brazil; La., Ga., Fla., Neotropical.
sybleae Wirth, 1953a: 82.—Va.; Mich. to Va., Tenn. and Fla., also Calif.
thomsenae Wirth, 1953a: 83.—Fla.
viridis (Coquillett), 1901h: 607 (*Ceratopogon*)—N.J.; N.J. to Fla., also Tex.

Subgenus NEOSTILOBEZZIA Goetghebuer

Stilobezzia, subg. **Neostilobezzia** Goetghebuer *in* Goetghebuer and Lenz, 1934: 53. Type-species, *Ceratopogon ochraceus* Winnertz (Wirth, 1953a: 63).

fuscula Wirth, 1952a: 204.—Calif.; Utah.

lutea (Malloch), 1918c: 18 (*Hartomyia*).—Ill.; Mich. to Ont., s. to Iowa, Tenn., and Fla.
mallochi Hoffman, 1924: 283.—N.Y., Pa.
stonei Wirth, 1953a: 66.—Va.; N.Y. and Mass. to Tenn. and Fla.

Subgenus EUKRAIOHELEA Ingram and Macfie

Eukraiohelea Ingram and Macfie, 1921: 347 (as genus). Type-species, *africana* Ingram and Macfie (Macfie, 1940a: 22).

elegantula (Johannsen), 1907a: 109 (*Bezzia*).—Kans.; La., Fla., Jamaica.

Genus ECHINOHELEA Macfie

Echinohelea Macfie, 1940b: 187. Type-species, *ornatipennis* Macfie (orig. des.).

lanei Wirth, 1951f: 319.—Va.; Mich. to Mass., s. to Miss. and Fla., Panama, Trinidad.

Genus MONOHELEA Kieffer

Monohelea Kieffer, 1917: 294. Type-species, *hieroglyphica* Kieffer (orig. des.).

REFERENCE: Wirth, 1953b (rev.).

Subgenus MONOHELEA Kieffer

johannseni Wirth, 1953b: 153.—Va.; Mich. to Md., s. to Iowa and Fla., Panama.
tessellata, authors, not Zetterstedt.
lanei Wirth, 1953b: 142.—Fla.; Bahama Is.
macfiei Wirth, 1953b: 143.—La.; Mich. to Mass., s. to La. and Va.
maculipennis (Coquillett), 1905d: 64 (*Ceratopogon*).—Fla.; La., Bahama Is., Mexico, and Panama.
nebulosa (Coquillett), 1901h: 606 (*Ceratopogon*). N.J.; Kans. to Mass., s. to Tex. and Fla.
ornata Wirth, 1953b: 144.—Fla.; Panama.
stonei Wirth, 1953b: 148.—La.; Ont., Mass. to La. and Fla., Panama.
texana Wirth, 1953b: 143.—Tex.; Calif., Ariz., N. Mex.

Subgenus SCHIZOHELEA Kieffer

Schizohelea Kieffer, 1917: 295 (as genus). Type-species, *Ceratopogon copiosus* Winnertz (mon.) = *leucopeza* (Meigen).

leucopeza (Meigen), 1804: 29 (*Ceratopogon*).—Europe; B.C. to Que., s. to Calif., Ill., and Mass.
politus Coquillett, 1901h: 606 (*Ceratopogon*).—Mass.

Genus SERROMYIA Meigen

Serromyia Meigen, 1818: 83. Type-species, *Ceratopogon femoratus* Meigen (mon.). Generic name cited in specific synonymy; needs action by I.C.Z.N.

Ceratolophus Kieffer, 1899: 69 (preocc. Barboza de Bocage, 1873). Type-species, *Ceratopogon femoratus* Meigen (mon.).

Johannseniella Williston, 1907: 1 (n. name for *Ceratolophus* Kieffer). Type-species, *Ceratopogon femoratus* Meigen (aut.).

barberi Wirth, 1952a: 205.—Calif.

crassifemorata Malloch, 1914g: 218.—Ill.; Ill. to Mich. and Md., s. to Tenn., and Va.

femorata (Meigen), 1804: 28 (*Ceratopogon*).—Europe; Alaska to Que., s. to Colo. and Va.

Genus PARABEZZIA Malloch

Parabezzia Malloch, 1915g: 358. Type-species, *petiolata* Malloch (orig. des.).

REFERENCE: Wirth, 1952c (rev.).

inermis (Coquillett), 1902g: 86 (*Ceratopogon*).—Ariz.; N. Mex.

petiolata Malloch, 1915g: 359.—Ill.; S. Dak. to Ont., s. to Ark. and Fla.

uncinata (Johannsen), 1943a: 761 (*Stilobezzia*).—Ala.; Ark., Md., Va., Jamaica.

Tribe HETEROMYIINI

Genus CLINOHELEA Kieffer

Clinohelea Kieffer, 1917: 295. Type-species, *Ceratopogon variegatus* Winnertz (orig. des.).

bimaculata (Loew), 1861b: 311 (Cent. 1, no. 6) (*Ceratopogon*).—D.C.; Mich. to Que., s. to Tex. and Fla.

curriei (Coquillett), 1905d: 62 (*Ceratopogon*).—B.C.; Alaska to Mich. N.Y., and Que.

dimidiata (Adams), 1903a: 27 (*Ceratopogon*).—Ariz.; N. Mex., Utah.

nebulosa (Malloch), 1915g: 322 (*Palpomyia*).—Mich.; Ont., Mich. to Que., s. to W. Va. and Va.

nubifera (Coquillett), 1905d: 61 (*Ceratopogon*).—Fla.

usingeri Wirth, 1952a: 209.—Calif.; Ariz.

Genus HETEROMYIA Say

Heteromyia Say, 1825: pl. 35 (1859a: 79). Type-species, *fasciata* Say (mon.).

Pachyleptus Walker, 1856b: 426. Type-species, *fasciatus* Walker (mon.).

fasciata Say, 1825: pl. 35 (1859a: 80).—N. Amer.; Mich. to Ont., s. to Ala.

festiva Loew, 1861b: 314 (Cent. 1, no. 13) (*Ceratopogon*).—Pa.

prattii Coquillett, 1902g: 88.—Va.

Genus NEUROHELEA Kieffer

Neurohelea Kieffer, 1925a: 112. Type-species, *Ceratopogon luteitarsis* Meigen (mon.).

macroneura (Malloch), 1915g: 337 (*Johannsenomyia*).—Kans.; Ill., Tex.

nigra Wirth, 1952a: 208.—Calif.; B.C.

Tribe SPHAEROMIINI

REFERENCE: Wirth, 1962b (rev.).

Genus JOHANNSENOMYIA Malloch

Johannsenomyia Malloch, 1915g: 332. Type-species, *halteralis* Malloch (Wirth, 1952a: 211).

Dicrohelea Kieffer, 1917: 363. Type-species, *Palpomyia filicornis* Kieffer (Macfie, 1940a: 26).

annulicornis Malloch, 1918m: 230.—Ill.; Mich., Ont., Va.

argentata (Loew), 1861b: 310 (Cent. 1, no. 5) (*Ceratopogon*).—D.C.; N. Dak. to Que., s. to Tex. and Fla.

halteralis Malloch, 1915g: 338.—Ill.

Genus JENKINSHELEA Macfie

Jenkinsia Kieffer, 1913e: 161 (preocc. Jordan and Evermann, 1896). Type-species, *setosipennis* Kieffer (orig. des.).

Jenkinshelea Macfie, 1934: 177 (n. name for *Jenkinsia* Kieffer). Type-species, *Jenkinsia setosipennis* Kieffer (aut.).

REFERENCE: Wirth, 1962a (rev.).

albaria (Coquillett), 1895a: 308 (*Ceratopogon*).—Fla.; Ill. to N.Y., s. to Tex. and Fla.

aequalis Malloch, 1915g: 336 (*Johannsenomyia*).—Ill.

magnipennis (Johannsen), 1908: 268 (*Johannseniella*).—N.Y.; Minn. to Que., s. to Ohio and N.Y.

Genus PROBEZZIA Kieffer

Bezzia, subg. **Probezzia** Kieffer, 1906a: 57. Type-species, *Ceratopogon venustus* Meigen (Coquillett, 1910b: 594).

Dicrobezzia Kieffer, 1919b: 127. Type-species, *Ceratopogon venustus* (orig. des.).

REFERENCE: Wirth, 1951d (rev.).

albiventris (Loew), 1861b: 311 (Cent. 1, no. 7) (*Ceratopogon*).—Ga.; Wis. to N.B., s. to Tex. and Ga.

atriventris Wirth, 1951d: 31.—Mich.

concinna (Meigen), 1818: 77 (*Ceratopogon*).—Europe; Calif., Colo., Ont., Que.

flavonigra (Coquillett), 1905d: 60 (*Ceratopogon*).—B.C.; Alta.

infuscata Malloch, 1915h: 316.—Ill.; Minn. to Ont.

ludoviciana Wirth, 1951d: 28.—La.

pallida Malloch, 1914b: 138.—Ill.; Wis. to Ont., s. to Kans. and Va., also Ariz.

rosewalli Wirth, 1951d: 32.—La.

sabroskyi Wirth, 1951d: 31.—Mich.; Wis. to N.B., s. to Ill. and Pa.

smithii (Coquillett), 1901h: 600 (*Ceratopogon*).—N.J.; Kans. to Que., s. to La. and Va.

mundus Coquillett *in* Johnson, 1900c: 628 (*Ceratopogon*). Nomen nudum.

unica (Johannsen), 1934a: 345 (*Lasiobezzia*).—N.Y.

xanthogaster (Kieffer), 1917: 329 (*Bezzia;* n. name for *elegans* Coquillett).—N.J.; Wis. to Ont., s. to Ill. and Va.

elegans Coquillett, 1901h: 599 (*Ceratopogon;* preocc. Winnertz, 1852).—N.J.

Genus SPHAEROMIAS Curtis

Sphaeromias Curtis, 1829: pl. 285. Type-species, *albomarginatus* Curtis (orig. des.)=*fasciatus* (Meigen).

longipennis (Loew), 1861b: 313 (Cent. 1, no. 10) (*Ceratopogon*).—Pa.; Minn. to Ont., s. to Tex. and Ga., also Calif.

Genus NILOBEZZIA Kieffer

Nilobezzia Kieffer, 1921b: 24. Type-species, *armata* Kieffer (mon.).

brevicornis (Wirth), 1952a: 215 (*Sphaeromias*).—Calif.; Calif. to Colo., Kans., and Tex.

mallochi Wirth, 1962b: 284.—Mich.; Sask. to Ont., s. to Okla. and Md.

minor (Wirth), 1952a: 216 (*Sphaeromias*).—Calif.; N.W.T. to Que., s. to Calif. and Tex.

schwarzii (Coquillett), 1901h: 605 (*Ceratopogon*).—Tex.; La., Fla., S.C., s. through West Indies and Panama to Brazil.
setipes Coquillett, 1905d: 59 (*Ceratopogon*).—Tex.

Genus MALLOCHOHELEA Wirth

Mallochohelea Wirth, 1962b: 278. Type-species, *Johannsenomyia albibasis* Malloch (orig. des.).

REFERENCE: Wirth, 1962b (rev.).

albibasis (Malloch), 1915h: 315 (*Johannsenomyia*).—Ill.; N.W.T. to Que., s. to Calif., La., and Ala.
albihalter Wirth, 1962b: 280.—Mich.; Wis. to Que., s. to La. and Md.
atripes Wirth, 1962b: 281.—N.J.; Mich. to Ont., s. to Fla. on e. coast.
caudellii (Coquillett), 1905d: 63 (*Ceratopogon*).—B.C.; Calif., Ariz., Tex.
flavidula (Malloch), 1914g: 230 (*Johannseniella*).—Ill.; Wis., La.
pullata (Wirth), 1952a: 213 (*Johannsenomyia*).—Calif.; Ariz., Tex., Mexico, Panama.
smithi (Lewis), 1956: 47 (*Johannsenomyia*).—Conn.; Wis. to Que., s. to Tenn. and N.C.
spinipes Wirth, 1962b: 282.—Ga.
sybleae (Wirth), 1952a: 212 (*Johannsenomyia*).—Calif.; Oreg.
texensis Wirth, 1962b: 283.—Tex.
variegata Wirth, 1962b: 283.—Mich.; Ont.

Tribe STENOXENINI

Genus STENOXENUS Coquillett

Stenoxenus Coquillett, 1899c: 61. Type-species, *johnsoni* Coquillett (mon.).

johnsoni Coquillett, 1899c: 61.—N.J.; Mo., Tex., Mexico, Panama.

Genus PARYPHOCONUS Enderlein

Paryphoconus Enderlein, 1912d: 57. Type-species, *angustipennis* Enderlein (orig. des.).

Unnamed sp.—Tex.

Tribe PALPOMYIINI

Genus PACHYHELEA Wirth

Pachyhelea Wirth, 1959: 50. Type-species, *Ceratopogon magnus* Coquillett (orig. des.)=*pachymera* (Williston).

pachymera (Williston), 1900: 224 (*Ceratopogon*).—Mexico; Tex. to Argentina.
magnus Coquillett, 1905d: 61 (*Ceratopogon*).—Tex.

Genus PALPOMYIA Meigen

Palpomyia Meigen, 1818: 82. Type-species, *Ceratopogon flavipes* Meigen (mon.). Generic name cited in specific synonymy; needs action by I.C.Z.N.

aldrichi (Malloch), 1915g: 326 (*Heteromyia*).—Idaho; Wash. and Idaho to Calif. and Nev.
armatipes Wirth, 1952a: 222.—Calif.; Utah.
cressoni (Malloch), 1915g: 327 (*Heteromyia*).—Pa.
essigi Wirth, 1952a: 225.—Calif.
flavipes (Meigen), 1804: 28 (*Ceratopogon*).—Europe; B.C. to N.H., s. to Calif., Tex., and Va.
basalis Walker, 1848: 27 (*Ceratopogon*).—Ont.
flaviceps Johannsen, 1908: 268 (*Johannseniella*).—N.Y.
hirta (Malloch), 1915g: 330 (*Heteromyia*).—Ill.; Mich.
illinoisensis Malloch, 1914g: 219.—Ill.; N.Y.
kernensis Wirth, 1952a: 223.—Calif.
lineata (Meigen), 1818: 80 (*Ceratopogon*).—Europe; N.J.
linsleyi Wirth, 1952a: 224.—Calif.; Ariz.
nigripes (Meigen), 1830: 265 (*Ceratopogon*).—Europe; Calif.
opacithorax (Malloch), 1915g: 329 (*Heteromyia*).—Ill.; N.Y.
plebeja (Loew), 1861b: 313 (Cent. 1, no. 11) (*Ceratopogon*).—Pa.; Mich. to N.H., s. to Va.
praeusta (Loew), 1869d: 50 (*Ceratopogon*).—Germany; Calif., N. Mex., Mich., Ga.
pruinescens Thomsen, 1935: 290.—N.Y.
rufa (Loew), 1861b: 314 (Cent. 1, no. 12) (*Ceratopogon*).—Pa.; Calif., Mont. to N.Y., s. to La. and Ga.
slossonae (Coquillett), 1905d: 61 (*Ceratopogon*).—N.H.; Mont. to Ont., s. to S. Dak. and Fla.
stonei Wirth, 1951f: 322.—Va.; Ont.
subasper (Coquillett), 1901h: 606 (*Ceratopogon*).—Mexico; Colo. to Ont., s. to Tex. and Fla., Mexico.
tenuicornis (Malloch), 1915g: 328 (*Heteromyia*).—Wis.
tibialis (Meigen), 1818: 82 (*Ceratopogon*).—Europe; Mich. to Ont., s. to La. and Fla.
trifasciata Wirth, 1952a: 222.—Calif.
trivialis (Loew), 1861b: 309 (Cent. 1, no. 4) (*Ceratopogon*).—D.C.; Iowa, Mich., Va.

Genus BEZZIA Kieffer

Bezzia Kieffer, 1899: 69. Type-species, *Ceratopogon ornatus* Meigen (orig. des.).

Lasiobezzia Kieffer, 1925c: 54. Type-species, *Bezzia pilipennis* Lundström (orig. des.).

Subgenus BEZZIA Kieffer

albidorsata Malloch, 1915g: 349.—Ill.; Va.
apicata Malloch, 1914h: 284.—Ill.
atlantica Wirth and Williams, 1957: 13.—Bermuda.
barberi (Coquillett), 1901h: 601 (*Ceratopogon*).—Md.; N.Y.
biannulata Wirth, 1952a: 237.—Calif.
bivittata (Coquillett), 1905d: 60 (*Ceratopogon*).—Calif.; Utah, Mont.
cockerelli Malloch, 1915g: 346.—Colo.; Alaska, Wash., Nev.
coloradensis Wirth, 1952a: 238.—Calif.
copiosa (Thomsen), 1935: 292 (*Probezzia*).—N.Y.; Mich.
dentata Malloch, 1914h: 284.—Ill.; Nebr., Va.
gibbera (Coquillett), 1905d: 60 (*Ceratopogon*).—Cuba; Fla.
glabra (Coquillett), 1902g: 85 (*Ceratopogon*).—Fla.; Calif., Mont. to Ont., s. to La. and Fla.
granulosa Wirth, 1952a: 240.—Calif.
incerta (Malloch), 1915g: 358 (*Probezzia*).—Ill.; Conn., Va.
media (Coquillett), 1904f: 166 (*Ceratopogon*).—N.J.; Va.
modocensis Wirth, 1952a: 233.—Calif.
obscura (Malloch), 1915g: 355 (*Probezzia*).—N.Y.
opaca (Loew), 1861b: 312 (Cent. 1, no. 9) (*Ceratopogon*).—D.C.; Wash. to Ont., s. to Calif. and Fla.
fulvithorax Malloch, 1915g: 354 (*Probezzia*).—Ill.
pruinosa (Coquillett), 1905d: 59 (*Ceratopogon*).—B.C.
pseudobscura Wirth, 1951f: 324.—Va.
pulverea (Coquillett), 1901h: 600 (*Ceratopogon*).—N.J.; Calif. to Fla., n. to N.J.
punctipennis (Williston), 1896c: 278 (*Ceratopogon*).—St. Vincent I.; Calif., Nev., Fla., Neotropical.
setulosa (Loew), 1861b: 312 (Cent. 1, no. 8) (*Ceratopogon*).—D.C.; Calif., Sask. to Ont., s. to Tex. and Fla.
sordida Wirth, 1952a: 232.—Calif.
varicolor (Coquillett), 1902c: 84 (*Ceratopogon*).—N.Y.; Alaska to Mass., s. to Calif. and Md.

Subgenus PSEUDOBEZZIA Malloch

Pseudobezzia Malloch, 1915g: 351 (as genus). Type-species, *Ceratopogon expolitus* Coquillett (orig. des.).

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Allobezzia Kieffer, 1917: 296. Type-species, *Ceratopogon expolitus* Coquillett (orig. des.).

REFERENCE: Wirth, 1951f (key).

bilineata Wirth, 1952a: 230.—Calif.

expolita (Coquillett), 1901h: 600 (*Ceratopogon*).—N.J.; Mont. to N.J., s. to La. and Va.

johnsoni Coquillett, 1901h: 600 (*Ceratopogon*).—N.J.

flavitarsis Malloch, 1914h: 283.—Ill.; Calif., Mich. to Conn., s. to Ill. and Ga.

mallochi Wirth, 1951f: 323.—Va.; Mass.

Unplaced Species of Ceratopogonidae

scutellatus Say, 1829: 150 (1859b: 349) (*Ceratopogon*).—Ind.

Family CHIRONOMIDAE

(Tendipedidae)

By James E. Sublette and Mary Smith Sublette

Chironomid midges, with the exception of some terrestrial Orthocladiinae (Metriocnemini, sensu Brundin, 1956), are aquatic. Most species inhabit fresh water, with some Orthocladiinae and a few Tanytarsini being littoral marine. Of the fresh-water forms, perhaps no other aquatic group of insects is more ubiquitous, with species inhabiting practically all ecological niches from mountain torrents to the anaerobic ooze of deep eutrophic lakes. In general, the Tanypodinae are predators, and move freely over the substratum of all types of water bodies. Most other fresh-water forms are tubicolous, as are the marine Orthocladiinae, and feed either on plankton or detritus. Berg (1950b) reviewed some species feeding as leafminers on *Potamogeton* and Brock (1960) recorded some *Cricotopus* symbiotic in the alga *Nostoc*. Diamesine and orthocladiine midges prefer cooler water and are more generally distributed at higher altitudes or latitudes. The Diamesinae are most characteristic of swiftly flowing, clear streams, while the orthocladiines, except for the terrestrial or subaquatic forms, occur in both lakes and streams. Chironominae in general prefer standing or slowly flowing water although some species do occur in fast streams.

A considerable difference of opinion exists between most European entomologists and those of North America as to generic limits within the family, mainly because the German school has emphasized the immature stages in its research. Many European workers have based many genera and subgenera on characters of the immature stages, virtually ignoring an analysis of the corresponding characters of the

adults. Adult characters, on the other hand, have been employed extensively by the British and American workers to establish generic limits.

Although Brundin (1956) has shown in his outstanding work on the Orthocladiinae that the two systems can be reconciled, the resulting genera and subgenera are markedly narrowed. This treatment of the Nearctic fauna would cause the genera and subgenera to be so restricted that the types of most Nearctic species would require reexamination. Consequently, the nomenclature used in this catalog is based on the broader generic limits resulting from a study of adult characters alone. It is essentially that presented by Freeman (1955–1958) in his monographic series on African midges, which in turn leans heavily on the earlier monograph of British chironomids by Edwards (1929b).

The principal differences between the American nomenclature of Townes (1945, 1952) and Johannsen (1952a) and that by Freeman (1955–1958), used in this catalog, are outlined as follows:

TOWNES (1945, 1952) JOHANNSEN (1952a)	FREEMAN (1955–1958)
Syndiamesa and *Diamesa*	*Diamesa*
Hydrobaenus (*Diplocladius*)	*Diplocladius*
Hydrobaenus (*Psectrocladius*)	*Psectrocladius*
Hydrobaenus (*Hydrobaenus*)	*Orthocladius* and *Chaetocladius*
Hydrobaenus (*Trichocladius*)	*Trichocladius*
Hydrobaenus (*Eukiefferiella*)	*Nanocladius*
Hydrobaenus (*Smittia*)	*Smittia* (in part)
Hydrobaenus (*Limnophyes*)	*Limnophyes* (in part)
Tendipes (*Tendipes*)	*Chironomus* (*Chironomus*)
Tendipes (*Einfeldia*)	
Tendipes (*Limnochironomus*)	*Chironomus* (*Dicrotendipes*)
Tendipes (*Kiefferulus*)	*Chironomus* (*Kiefferulus*)
Xenochironomus	*Chironomus* (*Xenochironomus*)
Harnischia (*Harnischia*)	*Chironomus* (*Cryptochironomus*)
Harnischia (*Cladopelma*)	
Cryptochironomus	
Kribioxenus	*Nilothauma*
Polypedilum (*Polypedilum*)	*Polypedilum* (*Polypedilum*)
Polypedilum (*Tripodura*)	
Calopsectra (*Micropsectra*)	*Micropsectra*
Calopsectra (*Calopsectra*)	*Tanytarsus* (*Calopsectra*)
	Tanytarus (*Tanytarsus*)
	Tanytarsus (*Rheotanytarsus*)
	Tanytarsus (*Cladotanytarsus*)

Calopsectra (*Stempellina*)	*Stempellina*
Glyptotendipes (*Demeijerea*)	*Chironomus* (*Endochironomus*)
Tanytarsus (*Endochironomus*)	
Tanytarus (*Tribelos*)	*Chironomus* (*Tribelos*)
Tanytarsus (*Tanytarsus*)	*Phaenopsectra*
Tanytarus (*Stictochironomus*)	*Stictochironomus*

In addition to this large- versus small-genus controversy, further nomenclatural contention exists among taxonomists. Foremost among these arguments is the matter of the Meigen names, discussed in the introduction to this volume. Another is the radical alteration in the use of *Tanytarsus* brought about by Townes' (1945) application of Coquillett's (1910b) inappropriate type designation for the genus. The I.C.Z.N. has set aside all previous type designations and designated *Chironomus signatus* Wulp, 1858, as type (I.C.Z.N., 1961b).

We are using *Tanytarsus* in the sense of *signatus* as type-species, while those species treated by Townes (1945) as *Tanytarsus* are placed in *Phaenopsectra*. Some confusion also exists concerning the type-species of the genera *Tanypus*, *Orthocladius*, and *Metriocnemus*. Pending application to, and ruling by, the I.C.Z.N., in the interest of nomenclatural stability, we also follow Edwards (1929b) in his interpretation of these genera.

We are indebted to S. S. Roback for furnishing two new names in this catalog to replace junior homonyms in *Anatopynia* and *Pentaneura*.

REFERENCES: Johannsen, 1903b, 1905 (N.Y., biol., immature stages); Malloch, 1915g (rev. Ill.); Edwards, 1929b (Britain, classif.); Goetghebuer and Lenz, 1936, 1937–1938, 1939a, b, c, 1940–1944, 1950a, 1950b, 1954–1960 (rev. Palaearctic, classif.); Andersen, 1937, 1946 (Greenland, biol.); Johannsen, 1937a, b (biol., immature stages); Miller, 1941 (biol., ecology, Ont.); Johannsen, 1952a (rev., ne. U.S.); Townes, 1952 (rev. ne. U.S.); Thienemann, 1954 (comprehensive review of biol.); Freeman, 1955–1958 (Ethiopian Region, classif.); Roback, 1957a (immature stages Philadelphia area); Dendy and Sublette, 1959 (Ala.); Bryce, 1960 (larval anat. and generic keys).

Subfamily TANYPODINAE

REFERENCES: Zavrěl and Thienemann, 1921 (immature stages); Morrissey, 1950 (Iowa); Fittkau, 1962 (rev.).

Genus ANATOPYNIA Johannsen

Anatopynia Johannsen, 1905: 135. Type-species, *Tanypus plumipes* Fries (orig. des.).

Protanypus, authors, not Kieffer.

Subgenus ANATOPYNIA Johannsen

centralis Malloch, 1934b: 13.—N.W.T.
decolorata (Malloch), 1915g: 370 (*Tanypus*).—Ill.; Wis., Mich., Ohio.
florens (Johannsen), 1908: 272 (*Tanypus*).—Colo., Wash., N.Y.
marginella (Malloch), 1915g: 374 (*Tanypus*).—Ill.; Calif.

Subgenus MACROPELOPIA Thienemann

Macropelopia Thienemann, 1916: 497 (as genus). Type-species, *Pelopia bimaculata* Kieffer (orig. des.)=*nebulosus* (Meigen).

algens (Coquillett), 1902g: 90 (*Tanypus*).—Alaska; Alta., Calif.
decedens (Walker), 1848: 22 (*Tanypus*).—Hudson Bay Territory.
hirtipennis (Loew), 1866b: 5 (Cent. 7, no. 6) (*Tanypus*).—Maine; Man. to Que. and Maine, s. to Colo. and Ill.
miripes (Coquillett), 1905d: 65 (*Tanypus*).—Calif. **N. comb.,** W. W. Wirth *in litt.*
pictipennis (Zetterstedt), 1838: 818 (*Tanypus*).—Lapland; Greenland.

Subgenus PSECTROTANYPUS Kieffer

Psectrotanypus Kieffer, 1909: 42 (as genus). Type-species, *Tipula varia* Fabricius (Fittkau, 1962: 129).
Apsectrotanypus Fittkau, 1962: 141. Type-species, *Tanypus trifascipennis* Zetterstedt (orig. des.). **N. syn.**

dena Roback (for *brunnea* Roback).—Mass.; Pa. **N. name.**
brunnea Roback, 1955: 2 (preocc. Edwards, 1931).—Mass.
discolor (Coquillett), 1902g: 89 (*Tanypus*).—N.H.
dyari (Coquillett), 1902c: 85 (*Tanypus*).—Mich., N.Y., Mass., D.C.; Man. to Mass., s. to Mo. and Va., also Wash., Idaho.
guttularis (Coquillett), 1902g: 92 (*Tanypus*).—Wash.; n. and cent. Calif.
johnsoni (Coquillett), 1901h: 609 (*Tanypus*).—N.J.; Ill., N.Y., Fla.
venusta (Coquillett), 1902g: 91 (*Tanypus*).—N. Mex.; Calif., Ill.

Unplaced Species of *Anatopynia*

alaskensis (Malloch), 1919f: 35 (*Tanypus*).—Alaska. **N. comb.**
trifascipennis (Zetterstedt).—Not Nearctic.

Genus CLINOTANYPUS Kieffer

Clinotanypus Kieffer, 1913e: 157. Type-species, *Procladius fuscosignatus* Kieffer (present des.).

caliginosus (Johannsen), 1905: 131 (*Procladius*).—N.Y.; Ohio.

flavicinctus (Loew), 1861b: 309 (Cent. 1, no. 2) (*Tanypus*).—Pa.; Ont.

pinguis (Loew), 1861b: 308 (Cent. 1, no. 1) (*Tanypus*).—N.Y.

thoracicus (Loew), 1866b: 4 (Cent. 7, no. 3) (*Tanypus*).—D.C.; Iowa, Mo., Ill., N.J., La., Fla.

Genus COELOTANYPUS Kieffer

Coelotanypus Kieffer, 1913e: 154. Type-species, *Procladius humeralis* Loew (orig. des.).

concinnus (Coquillett), 1895a: 308 (*Tanypus*).—Fla.; Iowa to Ohio, s. to Tex. and Fla.

flavus Kieffer, 1923a: 296.—Tex. **N. syn.**

scapularis (Loew), 1866b: 2 (Cent. 7, no. 1) (*Tanypus*).—D.C.; Iowa to N.J., s. to Tex. and Fla.

tricolor (Loew), 1861b: 309 (Cent. 1, no. 3) (*Tanypus*).—N.Y.; Ill., Tex., Okla., Fla.

Genus NATARSIA Fittkau

Natarsia Fittkau, 1962: 151. Type-species, *Chironomus punctatus* Fabricius (orig. des.).

fastuosa (Johannsen), 1905: 153 (*Ablabesmyia*).—N.Y.; Wash., Colo., Mich., Pa., N.J., Fla.

Genus PENTANEURA Philippi

Pentaneura Philippi, 1865: 629. Type-species, *grisea* Philippi (mon.) =*cinerea* (Philippi).

Thienemannimyia Fittkau, 1957: 315. Type-species, *Ablabesmyia geijskesi* Goetghebuer (orig. des.). **N. syn.**

Thienemannimyia, subg. *Conchapelopia* Fittkau, 1957: 317. Type-species, *Tanypus pallidulus* Meigen (orig. des.).

Arctopelopia Fittkau, 1962: 194. Type-species, *Tanypus barbitarsis* Zetterstedt (orig. des.). **N. syn.**

Zavrelimyia Fittkau, 1962: 285. Type-species, *Tanypus melanurus* Meigen (orig. des.). **N. syn.**

Labrundinia Fittkau, 1962: 372. Type-species, *Tanypus longipalpis* Goetghebuer (orig. des.). **N. syn.**

REFERENCES: Walley, 1928b (rev., Canada); Hauber, 1945 (rev., Iowa); Johannsen, 1946 (rev.).

Subgenus PENTANEURA Philippi

americana (Fittkau), 1957: 320 (*Thienemannimyia*).—Conn. **N. comb.**
vitellina Kieffer of Johannsen, 1946: 280.
apicalis (Walley), 1926a: 64 (*Tanypus*).—Que.; Ont.
aurea (Johannsen), 1907a: 110 (*Ablabesmyia*).—Kans.
barberi (Coquillett), 1902g: 90 (*Tanypus*).—N. Mex.
bifasciata (Coquillett), 1901h: 609 (*Tanypus*).—N.J., Mass.; Pa., N.Y.
carneosa (Fittkau), 1962: 315 (*Zavrelimyia*).—N. Amer.; Iowa to Que. and Maine, s. to Calif. and Fla. **N. comb.**
carnea, authors, not Fabricius.
cornuticaudata (Walley), 1925: 277 (*Tanypus*).—Que.; Ont., N.Y., Pa.
currani (Walley), 1925: 276 (*Tanypus*).—Que.; Ont., N.Y., Pa.
fimbriata (Walker), 1848: 20 (*Chironomus*).—Hudson Bay.
flavifrons (Johannsen), 1905: 150 (*Ablabesmyia*).—Wash., Idaho, N.Y.; Wash. to Maine, s. to Calif. and Fla.
fragilis (Walley), 1926b: 205 (*Tanypus*).—Ont.
futilis (Wulp), 1867: 130 (*Tanypus*).—Wis.
garretti (Walley), 1925: 275 (*Tanypus*).—B.C.
gesta Roback (for *alba* Roback).—Pa. **N. name.**
alba Roback, 1957a: 32 (preocc. Tokunaga, 1937).—Pa.
inconspicua (Malloch), 1915g: 371 (*Tanypus*).—Ill.
melanops (Meigen), 1818: 65 (*Tanypus*).—Europe; Nebr. to N.S., s. to N.J.
unicolor Walker, 1848: 19 (*Chironomus*).—N.S.
melanosoma (Goetghebuer), 1933: 20 (*Ablabesmyia*).—Greenland.
norena Roback, 1957a: 38.—Pa.
okoboji (Walley), 1928b: 582 (*Tanypus*).—Iowa.
ornata (Meigen), 1838: 14 (*Tanypus*).—Europe; Colo., N.Y.
pallens (Coquillett), 1902g: 91 (*Tanypus*).—N. Mex.; N.Y., N.J., Fla.
pilicaudata (Walley), 1925: 277 (*Tanypus*).—Ont.; Que.
pilosella (Loew), 1866b: 5 (Cent. 7, no. 7) (*Tanypus*).—D.C.; N.Y. to Fla., also Iowa.
planensis Johannsen, 1946: 284.—Tex.; Iowa.
rurika Roback, 1957a: 34.—Pa.
senata (Walley), 1925: 276 (*Tanypus*).—Ont.
sinuosa (Coquillett), 1905d: 65 (*Tanypus*).—N.H.; Mich., N.Y.
tetrasticta Kieffer.—Not Nearctic.

Subgenus GUTTIPELOPIA Fittkau

Guttipelopia Fittkau, 1962: 251 (as genus). Type-species, *Tanypus guttipennis* Wulp (orig. des.).

guttipennis (Wulp), 1874: 142 (*Tanypus*).—Netherlands; Iowa, Europe.

multipunctata (Curran), 1930j: 29 (*Tanypus*).—N.Y.

Subgenus NILOTANYPUS Kieffer

Nilotanypus Kieffer, 1923b: 191 (as genus). Type-species, *remotissimus* Kieffer (mon.).

Unnamed sp.—N.Y., Md.

dubia Meigen of Johannsen, 1946: 286.

Genus ABLABESMYIA Johannsen

Ablabesmyia Johannsen, 1905: 125. Type-species, *Tipula monilis* Linnaeus (Coquillett, 1910b: 502).

REFERENCE: Roback, 1959a (rev.).

aequifasciata (Dendy and Sublette), 1959: 507 (*Pentaneura*).—Ala. **N. comb.**

americana Fittkau, 1962: 430.—N. Amer.; Alaska to Que., s. to Colo. and Fla.

monilis, authors, not Linnaeus.

annulata (Say), 1823: 15 (1859b: 43) (*Tanypus*).—Pa.; S. Dak. to Pa., s. to Tex., Fla. **N. comb.**

aspera (Roback), 1959a: 124 (*Pentaneura*).—Maine. **N. comb.**

auriensis (Roback), 1957a: 39 (*Pentaneura*).—Pa.; Idaho, N.J. **N. comb.**

basalis (Walley), 1925: 273 (*Tanypus*).—Ont.; Mich. to Que., s. to Iowa and Fla. **N. comb.**

cinctipes (Johannsen), 1946: 271 (*Pentaneura*).—Fla. **N. comb.**

gera (Roback), 1959a: 126 (*Pentaneura*).—N.H.

idei (Walley), 1925: 272 (*Tanypus*).—Ont. **N. comb.**

illinoensis (Malloch), 1915g: 376 (*Tanypus*).—Ill.; S. Dak. to Ont., s. to La. and Fla. **N. comb.**

janta (Roback), 1959a: 131 (*Pentaneura*).—Md. **N. comb.**

johannseni (Roback), 1959a: 131 (*Pentaneura*).—Ill. **N. comb.**

mallochi (Walley), 1925: 273 (*Tanypus*).—Ont.; S. Dak. to Que. and Maine, s. to Iowa and Ga., also Calif. **N. comb.**

peleensis (Walley), 1926a: 64 (*Tanypus*).—Ont.; Mo., Iowa, N.Y., N.J., Pa., D.C. **N. comb.**

prudens (Walley), 1925: 275 (*Tanypus*).—Man.; Mo., Que. **N. comb.**

pulchripennis (Lundbeck), 1898: 293 (*Tanypus*).—Greenland.

Genus PROCLADIUS Skuse

Procladius Skuse, 1889: 283. Type-species, *paludicola* Skuse (Coquillett, 1910b: 594).

Subgenus PROCLADIUS Skuse

abruptus (Garrett), 1925b: 8 (*Tanypus*).—B.C.
arcuatus (Garrett), 1925b: 7 (*Tanypus*).—B.C.
bifidus (Garrett), 1925b: 8 (*Tanypus*).—B.C.
choreus (Meigen), 1804: 23 (*Tanypus*).—Europe; Greenland, Sask., Wis., Iowa, Tex.
claripennis (Malloch), 1915g: 387 (*Protenthes*).—Mich.; Ont.
crassinervis (Zetterstedt), 1838: 817 (*Tanypus*).—Lapland; Greenland.
culiciformis (Linnaeus), 1767: 978 (*Tipula*).—Sweden; Idaho to Ont. and N.Y., s. to Tex. and Fla., Europe.
lundstromi Goetghebuer *in* Goetghebuer and Lenz, 1936: 11.—Greenland, Scandinavia.
pulcher (Johannsen), 1908: 273 (*Protenthes*).—N.Y.; Ont., Fla.
fasciger Curran, 1930j: 29 (*Protenthes*).—N.Y.
riparius (Malloch), 1915g: 389 (*Protenthes*).—Ill.; Pa.
trifolius (Garrett), 1925b: 7 (*Tanypus*).—B.C.
vestitipennis (Kieffer), 1917: 339 (*Trichotanypus*).—N.Y.

Subgenus PSILOTANYPUS Kieffer

Psilotanypus Kieffer, 1906b: 318 (as genus). Type-species, *Tanypus bellus* Loew (Coquillett, 1910b: 597).

adumbratus Johannsen, 1905: 132.—N.Y.; Pa.
bellus (Loew), 1866b: 4 (Cent. 7, no. 4) (*Tanypus*).—D.C.; Mich. to Ont. and N.Y., s. to Tex. and Fla.
pusillus Loew, 1866b: 5 (Cent. 7, no. 5) (*Tanypus*).—D.C.
flavidus Kieffer, 1923a: 297.—Tex. **N. syn.**
malifero Garrett, 1925b: 10.—B.C.
nubifer (Coquillett), 1905d: 66 (*Tanypus*).—Utah.

Genus TANYPUS Meigen

Pelopia Meigen, 1800: 18. Type-species, *Tipula cincta* Fabricius (Coquillett, 1910b: 586; misident.)=*punctipennis* Meigen. Suppressed by I.C.Z.N., 1963b: 339.

Tanypus Meigen, 1803: 261. Type-species, *Tipula cincta* Fabricius (Latreille, 1810: 442; misident.)=*punctipennis* Meigen. Meigen, 1803, misidentified *cincta* Fabricius, as evidenced in his later works. Recent workers follow

Edwards' (1929b: 299) recognition of *punctipennis* (=*cincta* misident.) as type.

Protenthes Johannsen, 1907b: 400. Type-species, *Tanypus punctipennis* Meigen (orig. des.).

REFERENCE: Walley, 1928b (rev., Canada).

clavatus Beck, 1962: 92.—Fla.

punctipennis Meigen, 1818: 61.—Europe; Wis. to Ont. and N.Y., s. to Tex. and Fla.

americanus Kieffer, 1923a: 297 (*Protenthes;* as var.).—Tex. ?Valid sp.

stellatus Coquillett, 1902g: 89.—Tex.; Minn. to N.Y., s. to Tex. and Fla.

Subfamily PODONOMINAE

REFERENCE: Thienemann, 1937 (world rev.).

Genus BOREOCHLUS Edwards

Boreochlus Edwards, 1938c: 152. Type-species, *thienemanni* Edwards (orig. des.).

persimilis (Johannsen), 1926: 99 (*Trichotanypus*).—N.Y.

posticalis, authors, not Lundbeck.

Genus LASIODIAMESA Kieffer

Syndiamesa, subg. **Lasiodiamesa** Kieffer, 1924c: 48. Type-species, *gracilis* Kieffer (orig. des.).

Linacerus Garrett, 1925b: 9. Type-species, *piloala* Garrett (orig. des.).

piloala (Garrett), 1925b: 9 (*Linacerus*).—B.C.

Genus PODONOMUS Philippi

Podonomus Philippi, 1865: 601. Type-species, *stigmaticus* Philippi (mon.).

Paratanypus Garrett, 1925b: 8. Type-species, *kiefferi* Garrett (orig. des.).

arietinus (Coquillett), 1908: 144 (*Tanypus*).—N.Y.

confusus (Garrett), 1925b: 5 (*Adiamesa*).—B.C.

kiefferi (Garrett), 1925b: 8 (*Paratanypus*).—B.C.; Colo., Maine, N.Y., Greenland.

peregrinus Edwards, 1929b: 296.—England.

tenebrosus (Coquillett), 1905d: 66 (*Tanypus*).—N.H.

Genus TRICHOTANYPUS Kieffer

Trichotanypus Kieffer, 1906b: 319. Type-species, *Tanypus posticalis* Lundbeck (sub. mon., Kieffer, 1906a: 42).

posticalis (Lundbeck), 1898: 295 (*Tanypus*).—Greenland; N.W.T. (Ellesmere I.).

Subfamily DIAMESINAE

REFERENCES: Pagast, 1947 (world rev.); Oliver, 1959 (rev., n. Canada and Alaska).

Genus DIAMESA Waltl

Diamesa Waltl, 1837: 283. Type-species, *cinerella* Waltl (orig. des., as gen. n., sp. n.).

Eutanypus Coquillett, 1899f: 341. Type-species, *borealis* Coquillett (orig. des.)=*nivoriunda* (Fitch).

Diamesa, subg. *Adiamesa* Kieffer, 1906a: 36. Type-species, *tonsa* Haliday (mon.).

Syndiamesa Kieffer, 1918a: 101. Type-species, *Diamesa hygropetrica* Kieffer (Edwards, 1929b: 303).

Psilodiamesa Kieffer, 1918a: 104. Type-species, *spitzbergensis* Kieffer (mon.).

Potthastia Kieffer, 1922c: 362. Type-species, *longimanus* Kieffer orig. des., as gen. n., sp. n.).

aberrata Lundbeck, 1898: 289.—Greenland; N.W.T.

ancysta Roback, 1959b: 1.—Mont.

arctica (Boheman), 1865: 574 (*Chironomus*).—Spitzbergen; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).

banana Garrett, 1925b: 6.—B.C.

bertrami Edwards, 1935a: 470.—Greenland.

biappendiculata Goetghebuer *in* Remy, 1928: 52.—Greenland.

bohemani Goetghebuer, 1932a: 181.—Spitzbergen; n. Que., Greenland.

caena Roback, 1957b: 9.—Utah.

chorea Lundbeck, 1898: 291.—Greenland.

clavata Edwards, 1933: 615.—N.W.T. (Akpatok I.).

davisi Edwards, 1933: 614.—N.W.T. (Akpatok I.).

fulva Johannsen, 1921: 229.—N.Y.

garretti Sublette and Sublette (for *borealis* Garrett).—B.C. **N. name.**

borealis Garrett, 1925b: 6 (preocc. Kieffer, 1915).—B.C.

geminata Kieffer, 1926: 79.—Greenland; N.W.T.

furcata Edwards, 1933: 617.—N.W.T. (Akpatok I.).

gregsoni Edwards, 1933: 618.—N.W.T. (Akpatok I.).

incallida (Walker), 1856a: 183 (*Chironomus*).—England; Utah, Europe.
leona Roback, 1957b: 7.—Utah; Mont.
lindrothi Goetghebuer *in* Goetghebuer and Lindroth, 1931: 281.—Iceland; Greenland, Europe.
longimanus (Kieffer), 1922c: 362 (*Potthastia*).—Germany; Que.
mendotae Muttkowski, 1915: 116.—Wis.
nivoriunda (Fitch), 1847: 282 (*Chironomus*).—N.Y.; Alaska to N.H., s. to N. Mex. and Md. This name has been misapplied to several spp. in *Orthocladius*.
borealis Coquillett, 1899f: 341 (*Eutanypus*).—U.S.S.R. (Commander Is.).
heteropus Coquillett, 1905d: 66 (*Tanypus*).—Wash., N. Mex., N.H.
onteona Roback, 1957b: 6.—Utah.
parva Edwards, 1932b: 45.—Scotland; N.W.T., Europe.
pieta Roback, 1957b: 8.—Utah.
polaris Kieffer, 1926: 79.—N.W.T. (Ellesmere I.).
polaris (Kieffer), 1926: 81 (*Syndiamesa;* preocc. in *Diamesa* by Kieffer 1926 but not renamed because of probable synonomy with *parva* Edwards).—N.W.T. (Ellesmere I.).
sequax (Garrett), 1925b: 7 (*Prodiamesa*).—B.C.
simplex Kieffer, 1926: 81.—N.W.T. (Ellesmere I.).
ursa (Kieffer).—Not Nearctic.

Genus HEPTAGYIA Philippi

Heptagyia Philippi, 1865: 635. Type-species, *annulipes* Philippi (mon.).

lurida (Garrett), 1925b: 6 (*Diamesa*).—B.C.; Alaska, Wyo., N.Y.

Genus PAGASTIA Oliver

Pagastia Oliver, 1959: 49. Type-species, *orthogonia* Oliver (orig. des.).

orthogonia Oliver, 1959: 51.—Alaska; Mich.
partica (Roback), 1957b: 4 (*Syndiamesa*).—Utah; Alaska.
artisia Roback, 1957b: 5 (*Syndiamesa*).—Utah.

Genus PRODIAMESA Kieffer

Prodiamesa Kieffer, 1906a: 37. Type-species, *Diamesa praecox* Kieffer (orig. des.) = *olivacea* (Meigen).

bathyphila Kieffer.—Not Nearctic.

cubita Garrett, 1925b: 7.—B.C.
lutosopra Garrett, 1925b: 7.—B.C.
olivacea (Meigen), 1818: 29 (*Chironomus*).—Europe; Colo., Mich., Greenland, Mass., Pa., N.J.
turpis Zetterstedt, 1838: 811 (*Chironomus*).—Lapland.
occidentalis Coquillett, 1902g: 92 (*Tanypus*).—Colo.

Genus Odontomesa Pagast

fulva (Kieffer).—Not Nearctic.

Genus PSEUDODIAMESA Goetghebuer

Syndiamesa, subg. **Pseudodiamesa** Goetghebuer *in* Goetghebuer and Lenz, 1939a: 9. Type-species, *pilosa* Kieffer (orig. des.).

Subgenus PSEUDODIAMESA Goetghebuer

branickii (Nowicki), 1873: 3 (*Diamesa*).—Austria; B.C., Alta., Greenland, Europe, Asia (boreo-alpine).
pertinax (Garrett), 1925b: 6 (*Prodiamesa*).—B.C.; N.W.T., Wyo., Utah.

Subgenus PACHYDIAMESA Oliver

Pseudodiamesa, subg. **Pachydiamesa** Oliver, 1959: 54. Type-species, *Diamesa arctica* Malloch (orig. des.).

arctica (Malloch), 1919f: 37 (*Diamesa*).—N.W.T. (Victoria I.); N.W.T. (Ellesmere I.).

Subfamily ORTHOCLADIINAE

References: Thienemann, 1944 (generic key to larvae and pupae of world); Brundin, 1956 (rev., Europe); Wirth, 1949 (rev., biol. intertidal spp.).

Tribe PROTANYPODINI

Genus PROTANYPUS Kieffer

Protanypus Kieffer, 1906b: 318. Type-species, *Tanypus morio* Zetterstedt (Edwards, 1924a: 119).

caudatus Edwards, 1924a: 122.—Norway; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), Europe.

Tribe ORTHOCLADIINI

Genus BRILLIA Kieffer

Brillia Kieffer, 1913b: 34. Type-species, *bifida* Kieffer (orig. des.) = *modesta* (Meigen).

Eurycnemus, authors, not Wulp.

annuliventris (Malloch), 1915a: 46 (*Metriocnemus*).—Calif. **N. comb.**
flavifrons (Johannsen), 1905: 301 (*Metriocnemus*).—N.Y.
longifurca Kieffer, 1921a: 86.—Germany; Sask.
par (Coquillett), 1901h: 608 (*Orthocladius*).—N.J.; Maine to Fla.
scitulus Coquillett, 1901h: 608 (*Eurycnemus*).—N.J.
par Johannsen, 1905: 301 (*Metriocnemus*).—N.Y.
parva Johannsen, 1934a: 351.—N.Y.; Mass.
sera Roback, 1957a: 64.—Pa.

Genus ABISKOMYIA Edwards

Abiskomyia Edwards, 1937: 140. Type-species, *virgo* Edwards (orig. des.).

virgo Edwards, 1937: 141.—Sweden; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), n. Europe.

Genus CARDIOCLADIUS Kieffer

Cardiocladius Kieffer, 1912c: 22. Type-species, *ceylanicus* Kieffer (orig. des.).

fulvus (Johannsen), 1908: 275 (*Thalassomya*).—N.Y.; Mich., Ill.
fusca Johannsen, 1903b: 440 (*Thalassomya*). Nomen nudum.
obscurus (Johannsen), 1903b: 437 (*Thalassomya*).—N.Y.; Ill., Pa., Fla.
platypus (Coquillett), 1902g: 93 (*Orthocladius*).—Ariz. **N. comb.**

Genus DIPLOCLADIUS Kieffer

Diplocladius Kieffer, 1908b: 6. Type-species, *cultriger* Kieffer (mon.).

bilobatus Brundin, 1956: 71.—Sweden; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).
cultriger Kieffer, 1908b: 6.—Germany; N.Y., Conn., Pa., Europe.

Genus NANOCLADIUS Kieffer

Nanocladius Kieffer, 1913d: 31. Type-species, *vitellinus* Kieffer (orig. des.).

Eukiefferiella Thienemann, 1926a: 325. Type-species, *Dactylocladius longicalcar* Kieffer (orig. des.).

alternantherae Dendy and Sublette, 1959: 510.—Ala.; La.
brevinervis (Malloch), 1915g: 526 (*Orthocladius*).—Ill.; Pa.
sordens (Johannsen), 1905: 272 (*Orthocladius*).—N.Y.

Genus HETEROTRISSOCLADIUS Spärck

Heterotrissocladius Spärck, 1923: 94. Type-species, *Metriocnemus cubitalis* Kieffer (Goetghebuer *in* Goetghebuer and Lenz, 1940: 6).

subpilosus (Kieffer) *in* Kieffer and Lundbeck, 1911: 273 (*Dactylocladius*).—Bear I.; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), Greenland.

Genus TRISSOCLADIUS Kieffer

Trissocladius Kieffer, 1908b: 3. Type-species, *brevipalpis* Kieffer (Edwards, 1929b: 309).

conformis (Holmgren), 1869: 42 (*Chironomus*).—Spitzbergen; Greenland.

natvigi Goetghebuer, 1933: 25 (*Orthocladius*).—Greenland.

fusistylus (Goetghebuer), 1933: 26 (*Orthocladius*).—Greenland; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*). **N. comb.,** D. R. Oliver *in litt.*

tornetraskensis Edwards *in* Thienemann, 1941: 211 (*Orthocladius*).—Sweden; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).

Genus ORTHOCLADIUS Wulp

Orthocladius Wulp, 1874: 132. Type-species, *Chironomus sordidellus* Zetterstedt (Kieffer, 1906a: 26; misident.) = *oblidens* (Walker). Edwards' (1929b: 335) examination of type of *sordidellus* Zetterstedt showed it belongs not to the genus as usually defined, but to *Psectrocladius*. He interpreted that Kieffer understood *sordidellus* as a species near *Chironomus oblidens* Walker and named *oblidens* as type of *Orthocladius*. We are following Edwards' interpretation, but the problem should be referred to the I.C.Z.N. for decision.

Orthocladius, subg. *Dactylocladius* Kieffer, 1906c: 356. Type-species, *brevicornis* Kieffer (orig. des.).

Hydrobaenus, authors, not Fries.

Trissocladius, authors, not Kieffer.

albidohalteralis Malloch, 1915g: 528.—Ill. **N. comb.**

anteilis (Roback), 1957b: 14 (*Hydrobaenus*).—Utah; Mont. **N. comb.**

astis (Roback), 1957b: 12 (*Hydrobaenus*).—Utah. **N. comb.**
barbicornis (Linnaeus), 1767: 974 (*Tipula*).—Europe; Wash., Minn.
bifasciatus Malloch, 1918e: 42.—Ill.
carlatus (Roback), 1957a: 77 (*Hydrobaenus*).—Pa. **N. comb.**
claripennis (Lundbeck), 1898: 281 (*Chironomus*).—Greenland.
clepsydrus Coquillett, 1902g: 92.—N. Mex.
consobrinus (Holmgren), 1869: 44 (*Chironomus*).—Spitzbergen, Bear I.; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), Greenland.
curtistylus Goetghebuer.—Not Nearctic.
decoratus (Holmgren), 1869: 43 (*Chironomus*).—Spitzbergen; n. Canada, Greenland.
difficilis (Lundbeck), 1898: 282 (*Chironomus*).—Greenland.
dorenus (Roback), 1957a: 78 (*Hydrobaenus*).—Pa. **N. comb.**
dubitatus Johannsen, 1942: 72.—N.Y.; Pa.
flavoscutellatus Malloch, 1915g: 523.—Ill.
frigidus (Zetterstedt), 1838: 812 (*Chironomus*).—Greenland, Lapland; n. Que.
gelidus Kieffer.—Not Nearctic.
glacialis (Kieffer), 1926: 86 (*Camptocladius*).—N.W.T. (Ellesmere I.).
graminicola (Lundbeck), 1898: 278 (*Chironomus*).—Greenland.
groenlandensis Goetghebuer, 1933: 26.—Greenland.
groenlandicus, error.
knabeni Goetghebuer, 1933: 26.—Greenland.
mallochi Kieffer, 1919c: 191 (n. name for *lacteipennis* Malloch).—Mich.
lacteipennis Malloch, 1915g: 524 (preocc. Lundström, 1910.—Mich.
minutus (Zetterstedt), 1850: 3522 (*Chironomus*).—Sweden; Greenland.
mixtus (Holmgren), 1869: 45 (*Chironomus*).—Bear I.; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), Spitzbergen.
nanseni Kieffer, 1926: 84.—Unknown (Arctic Amer.).
nigritus Malloch, 1915g: 525.—Md.; Utah.
nitidoscutellatus Lundström.—Not Nearctic.
oblidens (Walker), 1856a: 180 (*Chironomus*).—England; n. Que.
obumbratus Johannsen, 1905: 281.—N.Y.; Alaska, Colo., Mass.
paradorenus (Roback), 1957a: 79 (*Hydrobaenus*).—Pa. **N. comb.**
pilipes Malloch, 1915g: 522.—Ill.
pleuralis Malloch, 1915g: 527.—Ill.
rivulorum Kieffer.—Not Nearctic.
semivirens Kieffer.—Not Nearctic.
spitzbergensis (Kieffer), 1919a: 116 (*Dactylocladius*).—Spitzbergen; Greenland.

subparallelus Malloch, 1915g: 522.—Ill.
traenis (Roback), 1957b: 12 (*Hydrobaenus*).—Utah. **N. comb.**
trigonolabis Edwards, 1924b: 170.—Spitzbergen; n. Canada, Palaearctic.
xethis (Roback), 1957b: 13 (*Hydrobaenus*).—Utah. **N. comb.**

Genus SYMBIOCLADIUS Kieffer

Symbiocladius Kieffer, 1925d: 565. Type-species, *Phaenocladius rhithrogenae* Zavrěl (Goetghebuer *in* Goetghebuer and Lenz, 1950a: 205).

REFERENCE: Roback, 1953 (discussion; larvae ectoparasitic on mayfly nymphs).

equitans (Claassen), 1922: 397 (*Trissocladius*).—Colo.; Calif., Utah Vt.

Genus CRICOTOPUS Wulp

Cricotopus Wulp, 1874: 132. Type-species, *Chironomus tibialis* Meigen (Coquillett, 1910b: 528).

REFERENCE: Walley, 1928a (key).

abanus Curran, 1929a: 1.—Man.
absurdus (Johannsen), 1905: 277 (*Orthocladius*).—N.Y.; Ohio.
alpicola (Zetterstedt), 1850: 3500 (*Chironomus*).—Scandinavia; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), n. Europe.
aratus Roback, 1957a: 73.—Pa.
basalis (Staeger), 1845b: 351 (*Chironomus*).—Greenland; Wash., N.W.T. (Ellesmere I.), n. Que., n. Eurasia.
belkini Dendy and Sublette, 1959: 510.—Ala.
bicinctus (Meigen), 1818: 41 (*Chironomus*).—Europe; Mich. to Ont. and N.Y., s. to Ill. and Fla.
brunnicans Walley, 1928a: 21.—Sask.
ceris Roback, 1957a: 72.—Pa.
elegans Johannsen, 1943c: 78.—Mich.; Pa.
exilis Johannsen, 1905: 255.—N.Y.; Wis., Ohio.
flavibasis Malloch, 1915g: 502.—Ill.
flavipes Johannsen, 1942: 73.—Mich.
fugax (Johannsen), 1905: 279 (*Orthocladius*).—N.Y.
fuscatus Wirth, 1957: 124.—Calif.
geminatus (Say), 1823: 14 (1859b: 42) (*Chironomus*).—Pa.
glacialis Edwards, 1922b: 209.—Spitzbergen, N. Edinburgh I.; Greenland.
globistylus Roback, 1957b: 10.—Utah.
infuscatus (Malloch), 1915g: 517 (*Orthocladius*).—Ill.
junus Roback, 1957a: 72.—Pa.

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nostocicola Wirth, 1957: 122.—Calif.; Oreg.
oceanicus (Packard), 1869b: 42 (*Chironomus*).—Mass.
pavidus (Holmgren), 1869: 42 (*Chironomus*).—Spitzbergen, Bear I.; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).
pilosellus Brundin, 1956: 114.—Sweden; Greenland, n. Canada, Palaearctic.
polaris Kieffer, 1926: 84.—Greenland.
politus (Coquillett), 1902g: 93 (*Orthocladius*).—D.C.; Colo., Ill., Ohio, N.Y., Md., Fla.
slossonae Malloch, 1915g: 506.—Ill.; N.H., Conn., Pa.
sylvestris (Fabricius), 1794: 252 (*Tipula*).—Europe; Ill.
tremulus (Linnaeus), 1758: 587 (*Tipula*).—Europe; N.Y., N.J.
tricinctus (Meigen), 1818: 41 (*Chironomus*).—Europe; Utah to N.Y., s. to Tex.
trifasciatus (Panzer), 1813: 18 (*Chironomus*).—Germany; Idaho, Ont. to N.Y., s. to Mo. and Fla., Europe.
varipes Coquillett, 1902g: 93.—Md.; Wash., N.Y., Fla.
vitripennis (Meigen), 1818: 32 (*Chironomus*).—Europe; Greenland, Que.
variabilis Staeger, 1845b: 351 (*Chironomus*).—Greenland.

Genus TRICHOCLADIUS Kieffer

Trichocladius Kieffer, 1906c: 356. Type-species, *Orthocladius fissicornis* Kieffer (orig. des.).

bacilliger Kieffer, 1926: 86 (?*Trichocladius*).—Greenland. Unrecognized.
chapmani (Edwards), 1935a: 471 (*Spaniotoma*).—Greenland. **N. comb.**
distinctus (Malloch), 1915g: 518 (*Orthocladius*).—Ill.; Fla.
basalis Malloch, 1915g: 519 (*Orthocladius;* as var.).—Ill. ?Valid sp.
bicolor Malloch, 1915g: 519 (*Orthocladius;* as var.).—Ill. ?Valid sp.
extatus Roback, 1957a: 84.—Pa.
helis Roback, 1957b: 15.—Utah.
lacteipennis Johannsen, 1908: 282.—Pa.
nitidellus (Malloch), 1915g: 515 (*Orthocladius*).—Ill.; N.Y.
nitidus (Malloch), 1915g: 515 (*Orthocladius*).—Ill.
pubitarsis (Zetterstedt), 1838: 811 (*Chironomus*).—Lapland; Greenland, N.W.T.
senex (Johannsen), 1937a: 63 (*Spaniotoma*).—N.Y.; Iowa, Pa.
septris Roback, 1957b: 14.—Utah.
striatus (Malloch). 1915g: 517 (*Orthocladius*).—Ill.

Genus PSECTROCLADIUS Kieffer

Orthocladius, subg. **Psectrocladius** Kieffer, 1906c: 356. Type-species, *psilopterus* Kieffer (orig. des.) = *sordidellus* (Zetterstedt).

aureus Johannsen, 1908: 283.—Kans.
barbatimanus Kieffer, 1926: 82.—N.W.T. (Ellesmere I.).
barbimanus (Edwards), 1929b: 333 (*Spaniotoma*).—England; Greenland, Europe.
armatus Andersen, 1937: 56.—Greenland.
brevicosta Kieffer, 1917: 362.—Wash.
elatus Roback, 1957a: 89.—N.J.; Pa.
fennicus Storå, 1939: 24.—Finland; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).
flavus (Johannsen), 1905: 270 (*Orthocladius*).—N.Y.
julia (Curran), 1930j: 34 (*Orthocladius*).—N.Y.
limbatellus (Holmgren), 1869: 44 (*Chironomus*).—Spitzbergen; N.W.T. (Ellesmere I.), Greenland.
nanseni Kieffer, 1926: 82.—N.W.T. (Ellesmere I.).
niger Roback, 1957a: 88.—Pa.
obvius (Walker), 1856a: 174 (*Chironomus*).—England; n. Que.
pilosus Roback, 1957a: 88.—N.J.
polaris Kieffer, 1926: 83.—N.W.T. (Ellesmere I.).
simulans (Johannsen), 1937a: 67 (*Spaniotoma*).—N.Y.
spinifer (Johannsen), 1928a: 34 (*Orthocladius*).—Calif. **N. comb.**
vernalis (Malloch), 1915g: 520 (*Orthocladius*).—Ill.; Ala.

Genus CHASMATONOTUS Loew

Chasmatonotus Loew, 1864a: 51 (Cent. 5, no. 1). Type-species, *unimaculatus* Loew (mon.).

REFERENCE: Rempel, 1937a (key).

atripes Rempel, 1937a: 253.—N.Y.; Ont., Ill.
bicolor Rempel, 1937a: 254.—Tenn.; N.Y.
bimaculatus Osten Sacken, 1877: 191.—N.Y., Que.
fascipennis Coquillett, 1905d: 66.—B.C.
hyalinus Coquillett, 1905d: 67.—Calif.
maculipennis Rempel, 1937a: 254.—Wash. (quarantine interception from Japan); B.C.
unimaculatus Loew, 1864a: 50 (Cent. 5, no. 1).—N.H.; Ont., Que., N.Y., N.C.
univittatus Coquillett, 1900h: 395 (1904: 9).—Alaska; B.C., Calif.

Tribe METRIOCNEMINI

Genus CHAETOCLADIUS Kieffer

Dactylocladius, subg. **Chaetocladius** Kieffer, 1911d: 182. Type-species, *setiger* Kieffer (Goetghebuer *in* Goetghebuer and Lenz, 1942: 57) = *perennis* (Meigen).

adsimilis (Goetghebuer), 1933: 25 (*Orthocladius*).—Greenland; N.W.T. (Ellesmere I.). **N. comb.**

furcatus (Kieffer) *in* Thienemann, 1916: 535 (*Dactylocladius*).—Sweden; N.Y., Europe. **N. comb.**

grandilobus Brundin, 1956: 126.—Sweden; N.W.T. (Ellesmere I., D.R. Oliver *in litt.*).

holmgreni (Jacobson), 1898: 204 (1898: 34) (*Chironomus*; n. name for *festivus* Holmgren).—Spitzbergen; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), Bear I.

festivus Holmgren, 1869: 43 (*Chironomus*; preocc. Say, 1823).—Spitzbergen.

perennis (Meigen), 1830: 249 (*Chironomus*).—Europe; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).

stamfordi (Johannsen), 1947: 171 (*Hydrobaenus*).—Conn. **N. comb.**

Genus LIMNOPHYES Eaton

Limnophyes Eaton, 1875: 60. Type-species, *pusillus* Eaton (mon.).

atomarius (Zetterstedt), 1850: 3522 (*Chironomus*).—Sweden; Greenland, N.Y.

borealis Goetghebuer, 1933: 29.—Greenland; N.W.T. (Ellesmere I.).

squamatus Andersen, 1937: 70 (as var.).—Greenland. ?Var.

eltoni (Edwards), 1922b: 203 (*Camptocladius*).—Bear I.; Greenland.

asquamatus Andersen, 1937: 72 (as var.).—Greenland ?Var.

fumosus (Johannsen), 1905: 261 (*Camptocladius*).—N.Y.

globifer (Lundstrom), 1915: 16 (*Camptocladius*).—Siberia; N.W.T. (Ellesmere I.), Greenland.

groenlandiensis Andersen, 1937: 70.—Greenland.

groenlandicus, error.

minimus (Meigen), 1818: 47 (*Chironomus*).—Europe; Idaho, Colo., N.Y.

pumilio (Holmgren), 1869: 41 (*Chironomus*).—Spitzbergen; Greenland.

Genus METRIOCNEMUS Wulp

Metriocnemus Wulp, 1874: 136. Type-species, *Chironomus albolineatus* Meigen (Coquillett, 1910b: 569).

abdominoflavatus Picado.—Not Nearctic.

aequalis Johannsen, 1934a: 348.—N.Y., Ill.
atratulus (Zetterstedt), 1850: 3590 (*Chironomus*).—Norway; Colo., N.Y., Greenland, Europe.
debilipennis (Lundbeck), 1898: 286 (*Chironomus*).—Greenland; N.Y.
edwardsi Jones, 1916: 385.—Calif.
exagitans Johannsen, 1905: 303.—N.Y.; Colo., Kans., Wis., Ill.
brachyneura Malloch, 1915g: 498.—Ill.
fuscipes (Meigen), 1818: 49 (*Chironomus*).—Europe; Greenland, Colo., N.Y.
hamatus Johannsen, 1934a: 349.—N.Y.; Mass.
hygropetricus (Kieffer), 1911d: 181 (*Orthocladius*).—Germany; Greenland, Europe.
longitarsus Goetghebuer, 1921: 77.—Belgium.
impensus (Walker), 1856a: 184 (*Chironomus*).—England; Greenland.
innocuus Curran, 1930j: 33.—N.Y.
knabi Coquillett, 1904a: 11.—Mass.; Ill., N.C., Fla., Bermuda.
lundbeckii Johannsen, 1905: 302.—Greenland; Mich., Ill., N.Y., Pa., Fla.
nanus, authors, not Meigen.
mitis Curran, 1930j: 33.—N.Y.
obscuripes (Holmgren), 1869: 38 (*Chironomus*; preocc. Meigen, 1830).—Spitzbergen; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*), Bear I. Not renamed here because of probable synonymy.
perfuscus Malloch, 1934b: 18.—N.W.T.
picipes (Meigen), 1818: 52 (*Chironomus*).—Europe; Greenland.
polaris Kieffer, 1926: 87.—N.W.T. (Ellesmere I.), Greenland.
similis Kieffer, 1922b: 11.—Novaya Zemlya; Greenland.
tristellus Edwards, 1929b: 312.—England; Greenland.
ursinus (Holmgren), 1869: 39 (*Chironomus*).—Spitzbergen; Greenland, n. Que.

Genus PARAKIEFFERIELLA Thienemann

Parakiefferiella Thienemann, 1936: 195. Type-species, *Spaniotoma coronata* Edwards (orig. des.).

nigra Brundin, 1949: 827.—Sweden; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).

Genus PARAPHAENOCLADIUS Thienemann

Paraphaenocladius Thienemann, 1926b: 9. Type-species, *Metriocnemus ampullaceus* Kieffer (mon.)=*impensus* (Walker).

despectus (Kieffer), 1926: 87 (*Metriocnemus*).—N.W.T. (Ellesmere I.). **N. comb.,** D. R. Oliver *in litt.*

Genus PROSMITTIA Brundin

Prosmittia Brundin, 1956: 165. Type-species, *Pseudosmittia jemtlandica* Brundin (orig. des.).

nanseni (Kieffer), 1926: 86 (*Camptocladius*).—N.W.T. (Ellesmere I.). **N. comb.,** D. R. Oliver *in litt.*

Genus SMITTIA Holmgren

Smittia Holmgren, 1869: 47. Type-species, *Chironomus brevipennis* Holmgren (mon.).

Camptocladius Wulp, 1874: 133. Type-species, *Tipula byssina* Schrank (Coquillett, 1910b: 518)=*stercoraria* (De Geer).

arctica Malloch, 1923i: 175.—Alaska (St. Paul I.).

aterrima (Meigen), 1818: 47 (*Chironomus*).—Europe; Colo. to Ont., s. to Ill. and N.J., also Greenland.

clavicornis (Saunders), 1928: 528 (*Camptocladius*).—B.C.; coastal, B.C. to Calif.

crassicollis (Walker), 1848: 18 (*Chironomus*).—Hudson Bay.

ephemerae Kieffer.—Not Nearctic.

extrema (Holmgren), 1869: 40 (*Chironomus*).—Spitzbergen; Greenland.

flavens (Malloch), 1915g: 511 (*Camptocladius*).—Ill.; Mich. **N. comb.**

flavibasis (Malloch), 1915g: 511 (*Camptocladius*).—Ill. **N. comb.**

fulvipluma (Kieffer), 1926: 85 (*Camptocladius*).—N.W.T. (Ellesmere I.).

fumosina (Curran), 1930j: 33 (*Camptocladius*).—N.Y. **N. comb.**

lasiophthalma (Malloch), 1915g: 509 (*Camptocladius*).—Ill. **N. comb.**

lasiops (Malloch), 1915g: 508 (*Camptocladius*).—Ill.; Fla. **N. comb.**

longitibia Goetghebuer, 1933: 29.—Greenland.

marina (Saunders), 1928: 526 (*Camptocladius*).—B.C.; coastal, B.C. to Calif.

neria (Curran), 1930j: 34 (*Camptocladius*).—N.Y. **N. comb.**

oxoniana Edwards.—Not Nearctic.

pacifica (Saunders), 1928: 523 (*Camptocladius*).—B.C.; coastal, B.C. to Calif.

parva (Lundbeck), 1898: 275 (*Chironomus*).—Greenland.

polaris (Kieffer), 1926: 85 (*Camptocladius*).—N.W.T. (Ellesmere I.).

polymorpha Andersen, 1937: 76.—Greenland; N.W.T. (Ellesmere I.).

roena Roback, 1957b: 16.—Utah.

stercoraria (DeGeer), 1776: 388 (*Tipula*).—Europe; Alaska to N.Y., s. to Mo., also Greenland.

byssina Schrank, 1803: 76 (*Tipula*).—Germany.

subaterrima (Malloch), 1915g: 512 (*Camptocladius*).—Ill. **N. comb.**

subnudipennis Goetghebuer, 1933: 28.—Greenland.
velutina (Lundbeck), 1898: 274 (*Chironomus*).—Greenland.

Genus CLUNIO Haliday

Clunio Haliday, 1855: 62. Type-species, *marinus* Haliday (mon.).

marshalli Stone and Wirth, 1947: 214.—Fla.

Genus ERETMOPTERA Kellogg

Eretmoptera Kellogg, 1900a: 82. Type-species, *browni* Kellogg (orig. des., as gen. n., sp n.).

browni Kellogg, 1900a: 82.—Calif.

Genus TETHYMYIA Wirth

Tethymyia Wirth, 1949: 160. Type-species, *aptena* Wirth (orig. des.).

aptena Wirth, 1949: 161.—Calif.

Tribe TELMATOGETONINI

Genus TELMATOGETON Schiner

Telmatogeton Schiner, 1866b: 931. Type-species, *sanctipauli* Schiner (orig. des.).

japonicus Tokunaga, 1933: 95.—Japan; N.Y., Fla., Hawaii.
macswaini Wirth, 1949: 170.—Calif.

Genus PARACLUNIO Kieffer

Paraclunio Kieffer, 1911c: 103. Type-species, *trilobatus* Kieffer (mon.).
alaskensis (Coquillett), 1900h: 395 (1904: 9) (*Telmatogeton*).—Alaska; B.C., Oreg., Calif.
trilobatus Kieffer, 1911c: 105.—Calif.; Oreg.

Genus THALASSOMYA Schiner

Thalassomya Schiner, 1856: 219. Type-species, *frauenfeldi* Schiner (mon.).
Thalassomyia, emend.

bureni Wirth, 1949: 167.—Fla.

Tribe CORYNONEURINI

Genus CORYNONEURA Winnertz

Corynoneura Winnertz, 1846: 12. Type-species, *scutellata* Winnertz (Coquillett, 1910b: 528).

Subgenus CORYNONEURA Winnertz

celeripes Winnertz, 1852b: 50.—Germany; Greenland, Ill., Ind., Ont., N.Y., Europe.
diara Roback, 1957b: 10.—Utah.
scutellata Winnertz, 1846: 13.—Germany; Ohio, N.Y., N.W.T. (Ellesmere I.), Greenland, Fla.
taris Roback, 1957a: 61.—N.J.; Pa.

Subgenus THIENEMANNIELLA Kieffer

Corynoneura, subg. **Thienemanniella** Kieffer, 1911d: 201. Type-species, *clavicornis* Kieffer (Goetghebuer *in* Goetghebuer and Lenz, 1939c: 7).

cubita Garrett, 1925b: 10.—B.C.
elana Roback, 1957b: 10.—Utah.
similis Malloch, 1915g: 413.—Ill.; Tex., N.Y.
xena Roback, 1957a: 61.—Pa.

Subfamily CHIRONOMINAE

Tribe CHIRONOMINI

REFERENCE: Townes, 1945 (rev.).

Genus CHIRONOMUS Meigen

Tendipes Meigen, 1800: 17. Type-species, *Tipula plumosa* Linnaeus (Coquillett, 1910b: 612). Suppressed by I.C.Z.N., (1963b: 339).
Chironomus Meigen, 1803: 260. Type-species, *Tipula plumosa* Linnaeus (Latreille, 1810: 442).
Einfeldia Kieffer, 1924c: 393. Type-species, *pectoralis* Kieffer (mon.).

Subgenus CHAETOLABIS Townes

Tendipes, subg. **Chaetolabis** Townes, 1945: 114. Type-species, *atroviridis* Townes (orig. des.).

atroviridis (Townes), 1945: 114 (*Tendipes*).—N.Y.; B.C. to Ont. and Mass., s. to Iowa and Va. **N. comb.**
ochreatus (Townes), 1945: 115 (*Tendipes*).—N.J.; Mich. to Maine, s. to Ark. and Fla.

Subgenus CHIRONOMUS Meigen

anthracinus Zetterstedt, 1860: 6499.—Sweden; Calif. to Alta., e. to Mass., Europe.

meridionalis Johannsen, 1908: 277 (as *hyperboreus* var.).—Unknown.

rempelii Thienemann, 1941: 234.—Sask.

hyperboreus, authors, not Staeger.

atrella (Townes), 1945: 124 (*Tendipes*).—Nev.; Alta. to P.E.I., s. to Calif., Colo., and Mass. **N. comb.**

atritibia Malloch, 1934b: 16.—N.W.T. (Southampton I.); B.C., N.Y., Ont., Que.

attenuatus Walker, 1848: 20.—Hudson Bay; B.C. to Que., s. to Calif. and Fla.

lasiopus Walker, 1848: 19.—Hudson Bay.

redeuns Walker, 1856b: 422.—U.S.

similis Johannsen, 1905: 236.—Ill., S. Dak., N.Y.

decorus Johannsen, 1905: 239.—Wash., Nebr., Kans., Iowa, Ill., Ohio, N.Y.

maturus Johannsen, 1908: 279.—N.Y.

cayugae Johannsen *in* Tilbury, 1913: 308.—N.Y.

distinguendus Kieffer, 1917: 346.—Wash.

bifimbriatus Kieffer, 1922e: 145.—Tex. **N. syn.**

biseta (Townes), 1945: 127 (*Tendipes*).—Hudson Bay Territory. **N. comb.**

brunneipennis Johannsen, 1905: 205.—N.Y.; Minn. to Mass., s. to Ark. and Fla.

carus (Townes), 1945: 118 (*Tendipes*).—Venezuela; Tex., Fla.

chelonia (Townes), 1945: 114 (*Tendipes*).—N.Y.; N.J., D.C. **N. comb.**

crassicaudatus Malloch, 1915g: 453.—Ill.; Minn. to Ont. and N.J., s. to Tex. and Fla.

decumbens Malloch, 1934b: 16.—N.W.T. (Southampton I.).

dorsalis Meigen, 1818: 25.—Europe; Idaho, Calif., S. Dak. to Mass., s. to Mo. and Fla.

ferrugineus Macquart.—Not Nearctic.

fulvipilus Rempel, 1939: 210.—Brazil; Calif., Tex., Md., Ala., Fla.

hyperboreus Staeger, 1845b: 349.—Greenland; N.W.T., Sask., Colo.

paganus Meigen, 1838: 7.—Belgium; Idaho, S. Dak., Mich., N.Y., Europe.

pilicornis (Fabricius), 1794: 243 (*Tipula*).—Europe; Alaska, Alta., Sask.

polaris Kirby, 1824: ccxviii.—Amer. within the Arctic Circle.

conformis Malloch, 1923i: 172 (preocc. Holmgren, 1869).—Alaska (St. Paul I.).

plumosus (Linnaeus), 1758: 587 (*Tipula*).—Europe; B.C. to Que., s. to Calif. and N.C., Greenland, Bermuda.
annularis De Geer, 1776: 379 (*Tipula*).—Europe.
cristatus Fabricius, 1805: 39.—N.Y.
prasinus Meigen, 1818: 22.—Europe.
ferrugineovittatus Zetterstedt, 1850: 3492.—Sweden.
imperator Walley, 1926a: 64.—Ont.
pungens (Townes), 1945: 119 (*Tendipes*).—Fla.; D.C.
riparius Meigen, 1804: 13.—Europe; Alaska to Nfld., s. to Calif. and S.C., Fla.
albistria Walker, 1848: 17.—Hudson Bay, Ont.
serus Malloch, 1915g: 481.—Ill.
militaris Johannsen, 1937b: 46.—N.Y.
staegeri Lundbeck, 1898: 271.—Greenland; B.C. to N.W.T. and Labr., s. to Calif. and N.C.
fasciventris Malloch, 1915g: 438.—Ill.
stigmaterus Say, 1823: 15 (1859b: 42).—U.S.; Wash. to N.Y., s. to Calif. and Fla.
glaucurus Wiedemann, 1828: 15.—Pa.
tentans Fabricius, 1805: 38.—Europe; B.C. to Que., s. to Utah and Ohio.
pallidivittatus Malloch, 1915g: 445 (as var.).—Ill.
tuberculatus (Townes), 1945: 128 (*Tendipes*).—Hudson Bay Territory; Alta. **N. comb.**
tuxis Curran, 1930j: 31.—N.Y.; Mich., Mass., N.J., Fla.
utahensis Malloch, 1915g: 438.—Utah; Oreg. to Alta. and Minn., s. to Colo. and Calif.
viridicollis Wulp.—Not Nearctic.

Subgenus CRYPTOCHIRONOMUS Kieffer

Cryptochironomus Kieffer, 1918a: 46 (as genus). Type-species, *Chironomus chlorolobus* Kieffer (orig. des.)=*supplicans* Meigen.
Cladopelma Kieffer, 1921a: 63. Type-species, *laminata* Kieffer (Townes, 1945: 147).
Harnischia Kieffer, 1921a: 69. Type-species, *fuscimana* Kieffer (orig. des., as gen. n., sp. n.).

REFERENCE: Curry, 1958 (biol., descr. larvae, pupae).

abortivus Malloch, 1915g: 465.—Ill.; S. Dak. to Ont., s. to Okla. and Pa., also Oreg.
alatus Beck, 1962: 91.—Fla.
alboviridis Malloch, 1915g.: 482.—Ill.; Iowa, Okla.
alphaeus (Sublette), 1960: 222 (*Tendipes*).—Calif. **N. comb.**

amachaerus (Townes), 1945: 168 (*Harnischia*).—N.Y.; Calif., Minn., Ill., N.H., Pa., Ala., Fla.

amphitrite (Townes), 1945: 151 (*Harnischia*).—S. Dak. **N. comb.**

argenteus (Townes), 1945: 164 (*Harnischia*).—Ont.; N.J. **N. comb.**

argus (Roback), 1957a: 106 (*Cryptochironomus*).—Pa. **N. comb.**

ariel (Sublette), 1960: 222 (*Tendipes*).—Calif. **N. comb.**

blarina (Townes), 1945: 99 (*Cryptochironomus*).—N.Y.; Mich., Ont., Okla., Tex. **N. comb.**

boydi Beck, 1962: 91.—Fla.

carinatus (Townes), 1945: 158 (*Harnischia*).—Ark.; Ind. to N.Y., s. to Tex. and Fla. **N. comb.**

casuarius (Townes), 1945: 162 (*Harnischia*).—N.Y.; Ont., Fla. **N. comb.**

chaetoala (Sublette), 1960: 220 (*Tendipes*).—Calif. **N. comb.**

claviger (Townes), 1945: 158 (*Harnischia*).—S.C.; Wash., Nebr., Ind. **N. comb.**

collator (Townes), 1945: 169 (*Harnischia*).—N.Y.; Minn., Ohio, Fla. **N. comb.**

cuneatus (Townes), 1945: 163 (*Harnischia*).—N.J.; Iowa to Que. and N.Y., s. to N.J. **N. comb.**

curtilamellatus Malloch, 1915g: 474.—Mich.; Calif., Tex., Ill., Ohio, N.Y., Ont., Va., Fla.

darbyi (Sublette), 1960: 221 (*Tendipes*).—Calif. **N. comb.**

digitatus Malloch, 1915g: 483.—Ill.; S. Dak. to Ont. and Mass., s. to Tex. and Ga., Calif.

directus (Dendy and Sublette), 1959: 514 (*Tendipes*).—Ala.; La. **N. comb.**

doris (Townes), 1945: 151 (*Harnischia*).—Okla.; Iowa. **N. comb.**

edwardsi (Kruseman), 1933: 194 (*Tendipes*).—Netherlands; Calif., Ont., N.Y., Fla., Europe.

elodeae (Townes), 1945: 156 (*Harnischia*).—N.Y. **N. comb.**

emorsus (Townes), 1945: 161 (*Harnischia*).—N.Y.; Iowa, Ohio, N.J., D.C., Fla. **N. comb.**

fastigatus (Townes), 1945: 162 (*Harnischia*).—N.Y.; Ill., Mich., Que. **N. comb.**

forceps (Townes), 1945: 157 (*Harnischia*).—Mass.; Man., Mich. **N. comb.**

frequens Johannsen, 1905: 230.—N.Y.; Mich. to Que. and N.Y., s. to Okla. and Fla., also Oreg. and Calif.

fulvus Johannsen, 1905: 224.—N.Y.; Mont. to Man. and Que., s. to Calif. and Fla.

abbreviatus Malloch, 1915g: 451 (preocc. Kieffer, 1913).—Ill.

parvilamellatus Malloch, 1915g: 479.—Ill.

mallochi Kieffer, 1919c: 191 (n. name for *abbreviatus* Malloch).—Ill.

galapterus (Townes), 1945: 148 (*Harnischia;* n. name for *claripennis* Malloch.).—Mich.; N.Y., Ont., Ill. **N. comb.**

claripennis Malloch, 1915g: 439 (preocc. Lundbeck, 1898).—Mich.

galeator (Townes), 1945: 170 (*Harnischia*).—Fla.; Iowa. **N. comb.**

griseus Malloch, 1915g: 468.—Mich.; Mont., Ill., Okla., Tex.

incidatus (Townes), 1945: 166 (*Harnischia*).—Okla.; Tex. **N. comb.**

monochromus Wulp, 1874: 129 (n. name for *unicolor* Wulp).—Netherlands; Ill. to Mass., s. to Tex. and Fla., Calif., Europe.

unicolor Wulp, 1858: 162 (preocc. Walker, 1848).—Netherlands.

nais (Townes), 1945: 149 (*Harnischia*).—N.Y.; Pa. **N. comb.**

nereis (Townes), 1945: 150 (*Harnischia*).—S.C.; Idaho, Ind., N.Y., Pa. **N. comb.**

nigrovittatus Malloch, 1915g: 456.—Ill.; Calif., Tex., Okla., Iowa, N.Y., Fla.

nixe (Townes), 1945: 149 (*Harnischia*).—Colo. **N. comb.**

orbicus (Townes), 1945: 151 (*Harnischia*).—Kans. **N. comb.**

pectinatellae (Dendy and Sublette), 1959: 516 (*Tendipes*).—Ala. **N. comb.**

potamogeti (Townes), 1945: 159 (*Harnischia*).—N.Y.; Man. to Que., s. to Tex. and Fla. **N. comb.**

pseudotener (Goetghebuer), 1922: 38 (*Cryptochironomus*).—Belgium; D.C., Mich., N.Y., Pa., Europe.

psittacinus Meigen, 1830: 247.—Europe; Alaska to N.Y., s. to Oreg. and Ky.

stylifera Johannsen, 1908: 281.—N.Y.

obtusilobus Malloch, 1923i: 171.—Alaska (St. George I.).

farinalis Walley, 1926b: 205.—Alta.

scimitarus (Townes), 1945: 98 (*Cryptochironomus*).—N.Y.; Md., Mich., Ont., Fla. **N. comb.**

sorex (Townes), 1945: 97 (*Cryptochironomus*).—N.Y.; Mich., Okla., Tex., Fla. **N. comb.**

spectabilis (Townes), 1945: 168 (*Harnischia*).—Ont. **N. comb.**

sublettei Beck, 1961: 127.—Fla.

tenuicaudatus Malloch, 1915g: 475.—Ill.; Oreg. to Calif. and N. Mex., Sask. to Mass., s. to Mo. and Ala.

tethys (Townes), 1945: 152 (*Harnischia*).—S. Dak. **N. comb.**

tylus (Townes), 1945: 150 (*Harnischia*).—Ind. **N. comb.**

undine (Townes), 1945: 149 (*Harnischia*).—Oreg.; Ont., N.Y., Pa., Fla. **N. comb.**

varus Goetghebuer, 1921: 162.—Belgium; Man., N.Y., Europe.

viridulus (Linnaeus), 1767: 975 (*Tipula*).—Sweden; Iowa to Ont. and N.Y., s. to Fla., Calif., Europe.

Subgenus DICROTENDIPES Kieffer

Dicrotendipes Kieffer, 1913d: 23 (as genus). Type-species, *pictipennis* Kieffer (mon.).

Limnochironomus Kieffer, 1920: 166. Type-species, *Tendipes falciformis* Kieffer (orig. des.) = *nervosus* Staeger.

aethiops (Townes), 1945: 107 (*Tendipes*).—N. Mex.; Fla.

botaurus (Townes), 1945: 109 (*Tendipes*).—Mont.; Mich. **N. comb.**

californicus Johannsen, 1905: 217.—Calif.; Oreg., Colo., Okla., Tex.

fumidus Johannsen, 1905: 221.—N.Y.; Oreg. to Ont., s. to Utah and W. Va.

incognitus Malloch, 1915g: 480.—Ill.

leucoscelis (Townes), 1945: 104 (*Tendipes*).—Idaho; Ont., Mich., Mass., R.I., N.Y., N.J., Fla.

lobiger (Kieffer), 1921a: 71 (*Limnochironomus*).—Germany; Mich., N.Y., Europe.

lobus Beck, 1962: 89.—Fla.

milleri (Townes), 1945: 110 (*Tendipes*).—N.Y.; Oreg., Mich., Ont. **N. comb.**

modestus Say, 1823: 13 (1859b: 41).—Pa.; Wash. to Que., s. to Calif. and Va.

neomodestus Malloch, 1915g: 475.—Ill.; S. Dak. to Que., s. to Tex. and Va.

nervosus Staeger, 1839: 567.—?Denmark; Alta. to Que., s. to Calif. and Fla., Greenland, Europe.

brevitibialis Zetterstedt, 1850: 3537.—Sweden.

lucifer Johannsen, 1907a: 110.—Kans.

indistinctus Malloch, 1915g: 477.—Ill.

Subgenus ENDOCHIRONOMUS Kieffer

Endochironomus Kieffer, 1918b: 69 (as genus). Type-species, *Chironomus alismatis* Kieffer (orig. des.) = *tendens* (Fabricius).

Demeijerea Kruseman, 1933: 154. Type-species, *Tipula rufipes* Linnaeus (orig. des.).

abruptus (Townes), 1945: 138 (*Glyptotendipes*).—N.Y.; Mo. **N. comb.**

atrimanus Coquillett, 1902g: 94.—Mo.; Alta. to N.Y., s. to Ala. and Fla.

brachialis Coquillett, 1901h: 607.—N.J.; Oreg. to N.Y., s. to Ala.

nigricans Johannsen, 1905: 219.—N.Y.; B.C. to Que., s. to Calif. and Fla.

johnsoni Kieffer, 1906a: 19.—N.J. Proposed for *Chironomus albipennis* Meigen of Johnson, 1900c: 627. Nomen nudum, see Townes, 1945: 64.

albipennis, authors, not Meigen.

obreptus (Townes), 1945: 139 (*Glyptotendipes*).—S.C.; N.Y. **N. comb.**

oldenbergi (Goetghebuer), 1932b: 130 (*Endochironomus*).—Lapland (Goetghebuer, 1933: 21); Greenland. **N. comb.**

subtendens (Townes), 1945: 65 (*Tanytarsus*).—N.Y.; Alta. to Ont. and Maine., s. to Colo. and Fla. **N. comb.**

Subgenus KIEFFERULUS Goetghebuer

Kiefferulus Goetghebuer, 1922: 40 (as genus). Type-species, *Tanytarsus tendipediformis* Goetghebuer (orig. des.).

dux Johannsen, 1905: 231.—N.Y.; Oreg. to Ont. and R.I., s. to La. and Fla.

obscuratus Malloch, 1915g: 479.—Ill.

Subgenus NILODORUM Kieffer

Nilodorum Kieffer, 1921d: 272 (also 1922f: 45) (as genus). Type-species, *brevibucca* Kieffer (Kieffer, 1922f: 45).

devineyae Beck, 1961: 126.—Fla.

Subgenus TRIBELOS Townes

Tanytarsus, subg. **Tribelos** Townes, 1945: 66. Type-species, *Chironomus dimorphus* Malloch (orig. des.)=*jucundus* Walker.

ater (Townes), 1945: 68 (*Tanytarsus*).—Va.; Minn., Mich., Que., Fla. **N. comb.**

fuscicornis Malloch, 1915g: 466.—Ill.; Minn. to Md., s. to Tex. and Fla.

hesperius (Sublette), 1960: 217 (*Tendipes*).—Calif. **N. comb.**

jucundus Walker, 1848: 16.—Ga.; Alta. to Que., s. to Okla. and Fla.

dimorphus Malloch, 1915g: 464.—Ill. ?Var.

fusciventris Malloch, 1915g: 465.—Wis.

protextus (Townes), 1945: 69 (*Tanytarsus*).—N.Y.; N.J. **N. comb.**

quadripunctatus Malloch, 1915g: 437.—Wis.; Mich., Ind., Ohio, Ont., Que., N.H.

Subgenus WIRTHIELLA Sublette

Tendipes, subg. **Wirthiella** Sublette, 1960: 216. Type-species, *modocensis* Sublette (orig. des.).

modocensis (Sublette), 1960: 216 (*Tendipes*).—Calif. **N. comb.**

Subgenus XENOCHIRONOMUS Kieffer

Xenochironomus Kieffer, 1921a: 69 (as genus). Type-species, *Chironomus xenolabis* Kieffer (Goetghebuer *in* Goetghebuer and Lenz, 1937: 32).

Xenochironomus, subg. *Anceus* Roback, 1963: 237. Type-species, *Chironomus festivus* Say (orig. des.). **N. syn.**

REFERENCE: Roback, 1963 (tax. and immature stages).

dorneri Malloch, 1915g: 471.—Tex.; Fla.

festivus Say, 1823: 13 (1859b: 41).—Ill.; Kans. to Que., s. to Tex.
lineatus Say, 1823: 14 (1859b: 42).—Pa.
lineola, emend.
lasiomerus Walker, 1848: 19.—Hudson Bay.

rogersi (Beck and Beck), 1958: 27 (*Xenochironomus*).—Fla. **N. comb.**

scopula (Townes), 1945: 93 (*Xenochironomus*).—Que.; Alta. to Ont. and N.Y., s. to Kans. and Ohio. **N. comb.**

taenionotus Say, 1829: 149 (1859b: 349).—Ind.; Iowa to Mich. and Pa., s. to Fla.

xenolabis Kieffer *in* Thienemann, 1916: 526.—Sweden; Mich. to Que. and Mass., s. to Okla. and Fla., Oreg., Europe.

Genus GLYPTOTENDIPES Kieffer

Glyptotendipes Kieffer, 1913f: 255. Type-species, *sigillatus* Kieffer (orig. des.).

Subgenus GLYPTOTENDIPES Kieffer

amplus Townes, 1945: 145.—N.J.

dreisbachi Townes, 1945: 145.—Mich.

seminole Townes, 1945: 146.—Fla.

senilis (Johannsen), 1937b: 37 (*Chironomus*).—N.Y.; Iowa, Mich., Ont.

unacus Townes, 1945: 146.—Que.

Subgenus PHYTOTENDIPES Goetghebuer

Glyptotendipes, subg. **Phytotendipes** Goetghebuer, 1934: 394. Type-species, *Chironomus pallens* Meigen (Goetghebuer *in* Goetghebuer and Lenz, 1937: 14).

barbipes (Staeger), 1839: 561 (*Chironomus*).—Denmark; B.C. to N.Y., s. to Ill. and N.J., Europe.

lobiferus (Say), 1823: 12 (1859b: 41) (*Chironomus*).—U.S.; B.C. to Que., s. to Calif. and Fla.

caliginosus Johannsen, 1905: 205 (*Chironomus;* preocc. Meunier, 1904).—N.Y.

ithacanensis Johannsen, 1908: 279 (*Chironomus;* n. name for *caliginosus* Johannsen).—N.Y.

americanus Kieffer, 1917: 355.—Wash.

meridionalis Dendy and Sublette, 1959: 517.—Okla.; Fla., Ala., La.

paripes (Edwards), 1929b: 392 (*Chironomus*).—England; Alta. to Ont. and N.Y., s. to Ala., Europe.

testaceus Townes, 1945: 140.—N.Y.; Okla. to N.Y., s. to La. and Fla.

Genus GRACEUS Goetghebuer

Graceus Goetghebuer, 1928: 15. Type-species, *ambiguus* Goetghebuer (mon.).

Unnamed sp.—Ont. (J. R. Vockeroth *in litt.*).

Genus LAUTERBORNIELLA Bause

Lauterborniella Bause, 1913: 120 (1914: 120). Type-species, *Tanytarsus agrayloides* Kieffer (Kieffer, 1921b: 28).

agrayloides (Kieffer), 1911b: 51 (*Tanytarsus*).—Germany; Calif., N.Y., Ont., Fla., Europe.

perpulchra (Mitchell), 1908: 13 (*Chironomus*).—Md.; Ont. to Maine, s. to Okla. and Fla.

varipennis (Coquillett), 1902g: 94 (*Chironomus*).—N. Mex.; Mich. to Que. and Mass., s. to N. Mex. and Fla.

Genus MICROTENDIPES Kieffer

Microtendipes Kieffer, 1915: 70. Type-species, *Tendipes abbreviatus* Kieffer (orig. des.)=*chloris* (Meigen).

anticus (Walker), 1848: 21 (*Chironomus*).—Ga.; coastal, Va. to Tex.

caducus Townes, 1945: 24 (n. name for *pallidus* Johannsen).—N.Y.; Minn. to Que. and N.Y., s. to Calif. and Ga.

pallidus Johannsen, 1905: 230 (*Chironomus;* preocc. Fabricius, 1805).—N.Y.

caelum Townes, 1945: 23.—Mass.

pedellus (De Geer), 1776: 378 (*Tipula*).—Sweden; B.C. to Que. and Maine, s. to Calif. and Fla., Europe.

fascipes Coquillett, 1908: 145 (*Chironomus*).—N.J.

deflexa Walley, 1926b: 206 (*Chironomus*).—Ont.
stygius Townes, 1945: 26 (as var.).—N.Y. ?Var.
var. **aberrans** (Johannsen), 1905: 221 (*Chironomus;* as sp.).—Wash., N.Y., Pa., N.J.

Genus NILOTHAUMA Kieffer

Nilothauma Kieffer, 1921b: 27, 37 (also 1921d: 270, key). Type-species, *pictipenne* Kieffer (mon.).
Kribioxenus, authors, not Kieffer.

babiyi (Rempel), 1937b: 274 (*Chironomus*).—N.Y.; Mich., Ont., Ohio, Fla. **N. comb.**
bicorne (Townes), 1945: 35 (*Kribioxenus*).—S.C.; Fla. **N. comb.**
mirabile (Townes), 1945: 35 (*Kribioxenus*).—N.Y.; Fla. **N. comb.**

Genus OMISUS Townes

Omisus Townes, 1945: 27. Type-species, *pica* Townes (orig. des.).

pica Townes, 1945: 27.—N.H.; Idaho, Mass., Conn., Fla.

Genus PARALAUTERBORNIELLA Lenz

Paralauterborniella Lenz, 1941: 48. Type-species, *Lauterborniella brachylabis* Edwards (mon.).
Apedilum Townes, 1945: 32. Type-species, *subcinctum* Townes (as *succinctum;* orig. des.).

elachista (Townes), 1945: 33 (*Apedilum*).—Tex.; Miss., Ala., Fla., Ga., Mass.
nigrohalteralis (Malloch), 1915g: 440 (*Chironomus*).—Ill.; Colo., Ind., Mich., N.Y., Ont., Fla.
subcincta subcincta (Townes), 1945: 33 (*Apedilum*).—Nev.; Calif., Ariz., N. Mex., Fla.
succinctum, error.
ssp. **alamedensis** Sublette, 1960: 203.—Calif.

Genus PARATENDIPES Kieffer

Paratendipes Kieffer, 1911b: 41. Type-species, *Chironomus albimanus* Meigen (orig. des.).

albimanus (Meigen), 1818: 40 (*Chironomus;* n. name for *annularis* Meigen).—Europe; Idaho to N.Y., s. to Calif. and N.C.
annularis Meigen, 1804: 17 (*Chironomus;* preocc. De Geer, 1776).—Europe.
basidens Townes, 1945: 30.—N.J.; Iowa, Ala.

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duplicatus (Johannsen), 1937b: 28 (*Chironomus*).—N.Y.; Mo., Ill., Mich., Ohio, R.I., Pa.

basalis Malloch, 1915g: 441 (*Chironomus*; preocc. Staeger, 1845).—Ill.

fuscitibia Sublette, 1960: 200.—Calif.

nitidulus (Coquillett), 1901h: 608 (*Chironomus*).—N.J.; Mich., Ohio, Pa., Del., Md.

subaequalis (Malloch), 1915g: 440 (*Chironomus*).—Ill.; Calif., Ont., N.Y., N.J., Fla.

thermophilus Townes, 1945: 31.—Ariz.; Calif.

Genus PHAENOPSECTRA Kieffer

Phaenopsectra Kieffer, 1921d: 274. Type-species, *Chironomus connectens* Kieffer (mon.).

Sergentia Kieffer, 1922a: 288. Type-species, *profundorum* Kieffer (orig. des.)=*coracina* (Zetterstedt).

albescens (Townes), 1945: 73 (*Tanytarsus*).—Wash.; B.C. to Alta., s. to Calif. and Colo.

coracina (Zetterstedt), 1850: 3508 (*Chironomus*).—Sweden; Alta., Sask., Mont., Wis., Ont., Greenland, Europe. **N. comb.**

dyari (Townes), 1945: 75 (*Tanytarsus*).—Calif.; Mont., Fla.

flavipes (Meigen), 1818: 50 (*Chironomus*).—Europe; Wash. to Calif., e. to Que. and Fla.

flavicauda Malloch, 1915g: 493 (*Tanytarsus*).—Ill.

incompta (Zetterstedt), 1838: 816 (*Chironomus*).—Europe; Greenland.

obediens (Johannsen), 1905: 286 (*Tanytarsus*).—Wash., N.Y.; Minn. to Que. and Maine, s. to Mo. and S.C., also Wash., Colo. **N. comb.**

profusa (Townes), 1945: 73 (*Tanytarsus*).—Nev.; Wash. to Mont., s. to Calif. and N. Mex.

punctipes (Wiedemann), 1817: 65 (*Chironomus*).—Germany; Idaho, Que., N.J., N.Y., S.C., Europe.

vittata (Townes), 1945: 77 (*Tanytarsus*).—N.J.; Ont., Que. **N. comb.**

Genus POLYPEDILUM Kieffer

Polypedilum Kieffer, 1913b: 15. Type-species, *emarginatum* Kieffer (orig. des.)=*nubeculosum* (Meigen).

Polypedilum, subg. *Tripodura* Townes, 1945: 36. Type-species, *simulans* Townes (orig. des.).

Subgenus POLYPEDILUM Kieffer

acifer Townes, 1945: 46.—Mich.

albinodus Townes, 1945: 41.—Idaho; Calif., Va.

angustum Townes, 1945: 56.—N.J.; Fla.
apicatum Townes, 1945: 39.—N. Mex.; Calif., Ill.
artifer (Curran), 1930j: 32 (*Chironomus*).—N.Y.; Calif. to Que. and Va.
aviceps Townes, 1945: 61.—N.Y.; Calif., Nev., Idaho, Mont.
braseniae (Leathers), 1922: 8 (*Chironomus*).—N.Y.; Oreg., Minn., Ont., Va., S.C., Fla.
californicum Sublette, 1960: 204.—Calif.
cinctum Townes, 1945: 59.—Nev.
convictum (Walker), 1856a: 161 (*Chironomus*).—England; Wis. to N.Y., s. to Kans. and Fla., Europe.
flavus Johannsen, 1905: 225 (*Chironomus*).—N.Y.
flaviventris Johannsen, 1907a: 111 (*Chironomus*).—Kans.
digitifer Townes, 1945: 45.—S. Dak.; S. Dak. to Mich., s. to Tex. and Fla., Calif.
fallax (Johannsen), 1905: 210 (*Chironomus*).—N.Y.; Mich. to Que. and N.H., s. to Tex. and Fla.
calopterus Mitchell, 1908: 8 (*Chironomus*).—Md. ?Var.
floridense Townes, 1945: 43.—Miss.; Fla.
fuscipenne (Meigen), 1818: 35 (*Chironomus*).—Europe; Wash., Oreg., Mont., Colo.
gomphus Townes, 1945: 42.—Mass.; S.C., Fla.
griseopunctatum (Malloch), 1915g: 428 (*Chironomus*).—Ill.; Mich. to N.Y., s. to Iowa and Va., also Mont., Nev., Fla.
halterale (Coquillett), 1901c: 17 (*Chironomus*).—D.C.; Wis. to N.Y., s. to Okla. and Fla., also Calif., Ariz.
illinoense (Malloch), 1915g: 471 (*Chironomus*).—Ill.; Mont., Calif., Minn. to Que., s. to Tex. and Fla.
decoloratus Malloch, 1915g: 472 (*Chironomus;* as var.).—Ill. ?Var.
isocerus Townes, 1945: 42.—Calif.; Nev.
labeculosum (Mitchell), 1908: 14 (*Chironomus*).—Ariz.; Calif.
laetum (Meigen), 1818: 38 (*Chironomus*).—Europe; Calif., Nev., N. Mex., Alta., Colo., N.Y., S.C.
nigritum Townes, 1945: 56.—N.Y.; Calif., Idaho, Ont., Fla.
nubeculosum (Meigen), 1804: 18 (*Chironomus*).—Europe; Idaho, Colo., Minn., Mich., N.Y., Pa.
obtusum Townes, 1945: 60.—N.Y.; Mich., Fla., La.
ontario (Walley), 1926b: 206 (*Chironomus*).—Ont.; Tex. to Que., s. to D.C.
hirtipes Mitchell, 1908: 9 (*Chironomus;* preocc. Macquart, 1834).—Md.
ophioides Townes, 1945: 57.—N.Y.; Calif., Idaho, Mich., Ohio, Ont., Que.

parascalaenum Beck, 1962: 91.—Fla.
pardus Townes, 1945: 41.—Tex.
parvum Townes, 1945: 40.—Miss.; Calif., Tex. to Md., s. to Fla.
pedatum pedatum Townes, 1945: 55.—N.Y.; Mo., La., Mich., Va.
ssp. **excelsius** Townes, 1945: 55.—Wash.; Calif.
pterospilus Townes, 1945: 40.—Tex.; Ariz., Fla.
scalaenum (Schrank), 1803: 73 (*Tipula*).—Germany; Wash. to Ont. and N.H., s. to Calif. and Fla., Europe.
needhamii Johannsen, 1908: 278 (*Chironomus*).—Wash., Kans., Ind., N.Y.
simulans Townes, 1945: 43.—N.Y.; Mont. to Ont. and Maine, s. to Calif. and Fla.
subcultellatum Sublette, 1960: 204.—Calif.
sulaceps Townes, 1945: 58.—Idaho; Calif.
trigonus Townes, 1945: 49.—N.Y.; Minn. to N.Y., s. to La. and Fla., Idaho.
vibex Townes, 1945: 52.—Ont.; Wash., Nev., N.J., Fla.
walleyi Townes, 1945: 52.—Que.; Ont.

Subgenus PENTAPEDILUM Kieffer

Pentapedilum Kieffer, 1913b: 25 (as genus). Type-species, *stratiotale* Kieffer (Edwards, 1929b: 376)=*tritum* (Walker).

albulum Townes, 1945: 63.—N.Y.; Iowa, Fla.
sordens (Wulp), 1874: 141 (*Tanytarsus*).—Netherlands; Mich., N.Y., R.I., Va., Europe.
fulvescens Johannsen, 1905: 293 (*Tanytarsus*).—N.Y.
americana Kieffer, 1917: 357 (*Calopsectra*).—N.Y.
tritum (Walker), 1856a: 342 (*Chironomus*).—England; Idaho to N.Y., s. to Calif. and Fla., Europe.

Genus PSEUDOCHIRONOMUS Malloch

Pseudochironomus Malloch, 1915g: 500. Type-species, *richardsoni* Malloch (orig. des.).

aix Townes, 1945: 19.—Mich.; Fla.
anas Townes, 1945: 17.—N.Y.
banksi Townes, 1945: 17.—Mass.; N.J., Fla.
chen Townes, 1945: 18.—Md.; Ont.
crassus Townes, 1945: 15.—Hudson Bay Territory; N.W.T.
fulviventris (Johannsen), 1905: 229 (*Chironomus*).—N.Y.; Minn. to Que., s. to Kans. and Fla.
middlekauffi Townes, 1945: 18.—N.Y.; Ill., Fla.
netta Townes, 1945: 19.—N.Y.; Mich., Mass., Ont., N.J.

pseudoviridis (Malloch), 1915g: 450 (*Chironomus*).—Ill.; Colo., Kans., Okla., Tex., Wis., Mich., N.Y.
rex Hauber, 1947: 458.—Iowa; Fla.
richardsoni Malloch, 1915g: 500.—Ill.; Calif. to Ont., and N.Y. to Fla.

Genus STENOCHIRONOMUS Kieffer

Stenochironomus Kieffer, 1919a: 44. Type-species, *Chironomus pulchripennis* Coquillett (Townes, 1945: 84).

aestivalis Townes, 1945: 86.—N.J.; N.Y.
browni Townes, 1945: 86.—Fla.
cinctus Townes, 1945: 87.—Fla.; R.I.
colei (Malloch) *in* Cole and Lovett, 1919: 255 (*Chironomus*).—Oreg.; Wash. to Alta., s. to Calif. and Colo.
hilaris (Walker), 1848: 17 (*Chironomus*).—Unknown; Wis. to Ont. and N.Y., s. to Okla. and Fla.
nephopterus Mitchell, 1908: 7 (*Chironomus*).—Md.
macateei (Malloch), 1915a: 45 (*Chironomus*).—Md.; Iowa to N.Y., s. to Tex. and Fla.
poecilopterus (Mitchell), 1908: 10 (*Chironomus*).—Md.; Colo. to N.Y., s. to Ark. and S.C., Fla.
pulchripennis (Coquillett), 1902g: 94 (*Chironomus*).—N.H.; Ont., Que., N.Y., N.J., Pa.
taeniapennis (Coquillett), 1901h: 607 (*Chironomus*).—Mass., N.J.; S. Dak. to Que. and Mass., s. to Ill. and N.C., also Calif.
exquisitus Mitchell, 1908: 11 (*Chironomus*).—Md.
zonopterus Mitchell, 1908: 12 (*Chironomus*).—N.J.
totifuscus Sublette, 1960: 210.—Calif.
unictus Townes, 1945: 89.—N.J.

Genus STICTOCHIRONOMUS Kieffer

Stictochironomus Kieffer, 1919a: 44. Type-species, *Chironomus pictulus* Meigen (Townes, 1945: 77).

albicrus (Townes), 1945: 79 (*Tanytarsus*).—Kans. **N. comb.**
annulicrus (Townes), 1945: 83 (*Tanytarsus*).—N.Y.; Ont. **N. comb.**
devinctus (Say), 1829: 150 (1859b: 349) (*Chironomus*).—Ind.; Minn. to Maine, s. to Tex. and Fla. **N. comb.**
compes Coquillett, 1908: 145 (*Chironomus*).—Md.
ornatipes Kieffer, 1917: 343 (*Chironomus*).—N.Y.
flavicingulus (Walker), 1848: 20 (*Chironomus*).—Hudson Bay. **N. comb.**

lutosus (Townes), 1945: 83 (*Tanytarsus*).—Mass. **N. comb.**
marmoreus (Townes), 1945: 81 (*Tanytarsus*).—Sask.; S. Dak., Mo., N.Y. **N. comb.**
naevus (Mitchell), 1908: 14 (*Chironomus*).—N. Mex.; Calif.
palliatus (Coquillett), 1902g: 95 (*Chironomus*).—D.C.; Wis. to N. Y., s. to Tex. and Ala.
quagga (Townes), 1945: 81 (*Tanytarsus*).—Calif.
rosenscholdi (Zetterstedt), 1838: 811 (*Chironomus*).—Europe; Sask.
unguiculatus (Malloch), 1934b: 16 (*Chironomus*).—N.W.T. (Southampton I.). **N. comb.**
varius (Townes), 1945: 82 (*Tanytarsus*).—N.Y.; Colo., Kans., Iowa, Minn., Mich., Ohio. **N. comb.**
virgatus (Townes), 1945: 84 (*Tanytarsus*).—Mont. **N. comb.**

Tribe TANYTARSINI

Genus MICROPSECTRA Kieffer

Tanytarsus, subg. **Micropsectra** Kieffer, 1909: 50. Type-species, *inermipes* Kieffer (as *inermis;* Kieffer, 1921b: 35) = *brunnipes* (Zetterstedt). Edwards, 1929b, says that the genotype has not been properly described but seems to resemble *Tanytarsus brunnipes* (Zetterstedt) which is therefore to be taken as the type of the genus.

brunnipes (Zetterstedt), 1850: 3518 (*Chironomus*).—Sweden; Mich., Greenland.
gmundensis Egger, 1863: 1109 (*Chironomus*).—Austria.
connexa (Kieffer), 1906a: 17 (*Chironomus;* n. name for *confinis* Walker).—Hudson Bay. **N. comb.**
confinis Walker, 1848: 15 (*Chironomus;* preocc. Meigen, 1830).—Hudson Bay.
brunneus Walker, 1848: 21 (*Chironomus*).—Hudson Bay. **N. syn.**
deflecta (Johannsen), 1905: 288 (*Tanytarsus*).—N.Y. **N. comb.**
dives (Johannsen), 1905: 288 (*Tanytarsus*).—N.Y.; Mont., Colo., Wis., Ky., Mass. **N. comb.**
dubia (Malloch), 1915g: 496 (*Tanytarsus*).—Ill.; Ala.
groenlandica Andersen, 1937: 33, 34.—Greenland.
insignilobus Kieffer, 1924b: 86.—Norway; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).
logani (Johannsen), 1928a: 33 (*Tanytarsus*).—Utah. **N. comb.**
natvigi Goetghebuer, 1933: 21.—Greenland.
nigripila (Johannsen), 1905: 287 (*Tanytarsus*).—N.Y.; Wash., Utah, Colo., Iowa, Ill., Ohio. **N. comb.**

polita (Malloch), 1915g: 493 (*Tanytarsus*).—Ill.; Utah, Pa., Md. **N. comb.**
recurvata Goetghebuer, 1928: 117.—Belgium; Greenland.
similata (Malloch), 1915g: 494 (*Tanytarsus*).—Wis.; Alaska (St. Paul I.). **N. comb.**
xantha (Roback), 1955: 4 (*Calopsectra*).—Mass. **N. comb.**

Genus STEMPELLINA Bause

Stempellina Bause, 1913: 120 (1914: 120). Type-species, *Tanytarsus bausei* Kieffer (Edwards, 1929b: 491).

johannsenii (Bause), 1913: 67 (1914: 67) (*Tanytarsus*).—N.Y. Larva only; unrecognized.

Genus TANYTARSUS Wulp

Tanytarsus Wulp, 1874: 134. Type-species, *signatus* Wulp (I.C.Z.N., 1961b: 361, under plenary powers).
Holtedahlia Kieffer, 1922b: 5. Type-species, *borealis* Kieffer (orig. des.).

Subgenus TANYTARSUS Wulp

brevipalpis (Kieffer), 1926: 78 (*Holtedahlia*).—N.W.T. (Ellesmere I.).
confusus Malloch, 1915g: 490.—Ill.; N.Y., D.C., Fla., Ala.
dissimilis Johannsen, 1905: 292.—Ont.; Minn., Iowa, Ohio, Okla., Tex.
fatigans Johannsen, 1905: 292.—N.Y.; Colo.
glabrescens Edwards.—Not Nearctic.
gracilentus Holmgren, 1883: 181.—Novaya Zemlya; Alaska, N.W.T. (Ellesmere I.).
deviatus Malloch, 1923i: 172 (*Chironomus*).—Alaska (St. Paul I.). **N. syn.**
guerlus (Roback), 1957a: 133 (*Calopsectra*).—Pa.; N.J. **N. comb.**
islandicus Malloch, 1934b: 17.—N.W.T.
neoflavellus Malloch, 1915g: 489.—Ill.; Ohio, N.Y., Okla., Tex., Ala.
niger Andersen, 1937: 40.—Greenland; N.W.T. (Ellesmere I.).
varelus (Roback), 1957a: 128 (*Calopsectra*).—Pa. **N. comb.**

Subgenus CALOPSECTRA Kieffer

Tanytarsus, subg. **Calopsectra** Kieffer, 1909: 50. Type-species, *gregarius* Kieffer (Kieffer, 1921b: 36).

gregarius Kieffer.—Not Nearctic.
muticus Johannsen, 1905: 294.—N.Y.; Colo., Wis., Ill., Ohio.

Subgenus CLADOTANYTARSUS Kieffer

Cladotanytarsus Kieffer, 1922d: 100 (as genus). Type-species, *pallidus* Kieffer (mon.).

viridiventris Malloch, 1915g: 491.—Mich.; Ont., N.Y., Ala.

Subgenus LUNDSTROEMIA Kieffer

Lundstroemia Kieffer, 1921b: 36 (as genus). Type-species, *Tanytarsus roseiventris* Kieffer (mon.).

Ditanytarsus Kieffer, 1922d: 98. Type-species, *unicolor* Kieffer (Goetghebuer *in* Goetghebuer and Lenz, 1938: 102).

setosimanus (Goetghebuer), 1933: 21 (*Ditanytarsus*).—Greenland; N.W.T. (Ellesmere I., D. R. Oliver *in litt.*).

Subgenus RHEOTANYTARSUS Bause

Syntanytarsus, subg. **Rheotanytarsus** Bause, 1913: 120 (1914: 120). Type-species, *Tanytarsus pentapoda* Kieffer (Goetghebuer *in* Goetghebuer and Lenz, 1954: 132).

akrina (Roback), 1960: 1 (*Calopsectra*).—Kans. **N. comb.**

exiguus Johannsen, 1905: 294.—N.Y.; Wis. to N.Y., s. to Iowa and Ky., also Idaho.

pellucidus (Walker), 1848: 21 (*Chironomus*).—Hudson Bay.

Unplaced Species of *Tanytarsus*

bausei Kieffer.—Not Nearctic.

flabellatus (Meigen).—Not Nearctic.

flavellus (Zetterstedt).—Probably not Nearctic (type unrecognizable). N. Amer. records unchecked.

junci (Meigen).—Not Nearctic.

tenuis (Meigen).—Not Nearctic.

Genus ZAVRELIA Kieffer

Zavrelia Kieffer *in* Bause, 1913: 73 (1914: 73). Type-species, *pentatoma* Kieffer (mon.).

This genus has been reported from the Nearctic Region from larval identifications (Roback, 1953, 1957a). No species have been definitely identified.

pentatoma Kieffer.—Not Nearctic.

Genus CORYNOCERA Zetterstedt

Corynocera Zetterstedt, 1838: 856. Type-species, *ambigua* Zetterstedt (mon.).

REFERENCE: Hirvenoja, 1961 (tax., biol., immature stages).

ambigua Zetterstedt, 1838: 856.—Sweden (Lapland); N.W.T. (Southampton I.), n. Europe.

Unplaced Species of Chironomidae

baltimoreus Macquart, 1855: 35 (1855: 15) (*Tanypus*).—Md.
bimaculus Walker, 1848: 15 (*Chironomus*).—Hudson Bay.
borealis Curtis, 1835b: lxxvii (*Chironomus*).—Arctic Amer.
excavatus Kieffer, 1917: 348 (*Chironomus*).—N.Y.
excisus Kieffer, 1917: 346 (*Chironomus*).—Pa.
halophilus Packard *in* Verrill, 1873: 539 (*Chironomus*).—Mass.
harti Malloch, 1915g: 457 (*Chironomus*).—Ill.
melanderi Kieffer, 1917: 347 (*Chironomus*).—Wash.
nigritibia Walker, 1848: 16 (*Chironomus*).—Hudson Bay.
tibialis Say, 1823: 15 (1859b: 43) (*Tanypus*).—Pa.
tibialis Staeger, 1845b: 354 (*Tanypus;* preocc. Say, 1823).—Greenland.
trichomerus Walker, 1848: 21 (*Chironomus*).—Hudson Bay.

Family SIMULIIDAE

By Alan Stone

The adults of the family Simuliidae are commonly known as black flies or buffalo gnats. The immature stages are found in flowing water, usually attached to sticks, stones, or living vegetation. Many of the species are bloodsucking and cause a great deal of annoyance; heavy attacks may be fatal to cattle, horses, or poultry. Black flies have been incriminated in the transmission of several diseases of wild and domestic birds. The family is undergoing intensive taxonomic and biological study in the United States and Canada. Recent cytogenetic studies indicate that a number of the named species are complexes of sibling species and in these instances little reliance can be placed on distribution records. Certain Palaearctic species, such as *Simulium latipes* and *S. aureum*, are probably represented in the Nearctic Region by closely related ones.

REFERENCES: Malloch, 1914j (rev.); Dyar and Shannon, 1927 (rev.); Twinn, 1936 (e. Canada); Stone, 1952 (Alaska); Stone and Jamnback, 1955 (N.Y.); Sommerman, Sailer, and Esselbaugh, 1955 (biol.; Alaska); Peterson, 1960b (Utah); Davies, Peterson, and Wood, 1962 (keys, Ont.).

Subfamily PROSIMULIINAE

Tribe GYMNOPAIDINI

Genus GYMNOPAIS Stone

Gymnopais Stone, 1949: 260. Type-species, *dichopticus* Stone (orig. des.).

dichopticus Stone, 1949: 261.—Alaska; N.W.T.
holopticus Stone, 1949: 265.—Alaska; n. Canada.

Genus TWINNIA Stone and Jamnback

Twinnia Stone and Jamnback, 1955: 18. Type-species, *tibblesi* Stone and Jamnback (orig. des.).

nova (Dyar and Shannon), 1927: 5 (*Prosimulium*).—Mont.; B.C. and Mont. to n. Calif. and Wyo.
biclavata Shewell, 1959: 686.—B.C. **N. syn.**
tibblesi Stone and Jamnback, 1955: 19.—Labr.; Ont., N.Y., N.H., Vt.

Tribe PARASIMULIINI

Genus PARASIMULIUM Malloch

Parasimulium Malloch, 1914j: 24. Type-species, *furcatum* Malloch (orig. des.).

furcatum Malloch, 1914j: 24.—n. Calif.; Oreg.

Tribe PROSIMULIINI

Genus PROSIMULIUM Roubaud

Simulium, subg. **Prosimulium** Roubaud, 1906: 521. Type-species, *hirtipes* Fries (Malloch, 1914j: 16).

Subgenus PROSIMULIUM Roubaud

alpestre Dorogostajskij, Rubzov, and Vlasenko, 1935: 136.—U.S.S.R.; Alaska, Y.T., B.C., e. Siberia. Unrevised species complex.
caudatum Shewell, 1959: 688.—B.C.; Wash.
daviesi Peterson and DeFoliart, 1960: 85.—Utah; Wyo.
decemarticulatum (Twinn), 1936: 110 (*Simulium*).—Ont.; Alaska, Y.T., Man., Wis., Mich., N.H.
dicum Dyar and Shannon, 1927: 7.—Wash.; B.C. to cent. Calif.
doveri Sommerman, 1962a: 226.—Alaska.

exigens Dyar and Shannon, 1927: 10.—Idaho; B.C. to Calif., Ariz., and Colo.

dicentum Dyar and Shannon, 1927: 7.—Calif.

hardyi Stains and Knowlton, 1940: 78 (*Simulium*).—Utah.

tenuicalx (in part) Enderlein, 1925c: 203. Males only.

flaviantennum (Stains and Knowlton), 1940: 79 (*Simulium*).—Utah; Idaho, Mont., Wyo., Colo.

fontanum Syme and Davies, 1958: 708.—Ont.; Que.

formosum Shewell, 1959: 692.—B.C.; Y.T., Alta.

frohnei Sommerman, 1958: 196.—Alaska.

fulvithorax Shewell, 1959: 694.—B.C.

fulvum (Coquillett), 1902g: 96 (*Simulium*).—Alaska, B.C., Mont., Colo.; Alaska and Y.T., s. to Calif. and Colo.

fuscum Syme and Davies, 1958: 702.—Ont.; Wis. to Labr., N.S., and N.Y.

gibsoni (Twinn), 1936: 108 (*Simulium*).—Ont.; n. Man. to Que., s. to Wis.

hirtipes (Fries).—Not Nearctic.

longilobum Peterson and DeFoliart, 1960: 100.—Utah.

magnum Dyar and Shannon, 1927: 6.—Va.; Mich. to Conn., s. to Ill. and Ga.

frisoni Dyar and Shannon, 1927: 18 (*Eusimulium*).—Ill.

mixtum Syme and Davies, 1958: 706.—Ont.; e. Ont. to Labr., N.S., and N.Y., ?Wis., ?Minn.

multidentatum (Twinn), 1936: 106 (*Simulium*).—Que.; Mich., Ont., Ohio, N.Y.

perspicuum Sommerman, 1958: 199.—Alaska.

pleurale Malloch, 1914j: 17.—B.C.; Alaska, Idaho, Mont.

tenuicalx Enderlein, 1925c: 203.—Idaho (as U.S.A.; unpublished). **N. syn.** Females only, lectotype to be selected; males=*exigens*.

pancerastes Dyar and Shannon, 1927: 10.—Idaho.

rhizophorum Stone and Jamnback, 1955: 28.—Pa.; Ill., N. Y., Conn., R.I., Maine.

saltus Stone and Jamnback, 1955: 29.—N.Y.

shewelli Peterson and DeFoliart, 1960: 96.—Wyo.; Utah.

travisi Stone, 1952: 76.—Alaska; Alaska to N.W.T., s. to Calif. and Wyo.

uinta Peterson and DeFoliart, 1960: 91.—Wyo.; Utah.

unicum (Twinn), 1938: 49 (*Simulium*).—Utah.

ursinum (Edwards), 1935b: 535 (*Simulium*).—Bear I. (Greenland Sea); N.W.T., ?Alaska.

browni Twinn, 1936: 113 (*Simulium*).—N.W.T. (Baffin I.).

vernale Shewell, 1952: 33.—Ont.

Subgenus HELODON Enderlein

Helodon Enderlein, 1921a: 199 (as genus). Type-species, *Simulium ferrugineum* Wahlberg (orig. des.).

onychodactylum Dyar and Shannon, 1927: 4.—Colo.; Alaska, s. to n. Calif. and Colo.

Subfamily SIMULIINAE

Genus CNEPHIA Enderlein

Cnephia Enderlein, 1921a: 199. Type-species, *Simulium pecuarum* Riley (orig. des.).

Subgenus CNEPHIA Enderlein

borealis (Malloch), 1919f: 41 (*Prosimulium*).—N.W.T. (Victoria I.). Unrecognized.

dacotensis (Dyar and Shannon), 1927: 20 (*Eusimulium*).—S. Dak.; Sask. to Nfld., s. to S. Dak., Ill., Pa., and R.I.

lascivum Twinn, 1936: 127 (*Simulium*).—Ont.

eremites Shewell, 1952: 36.—N.W.T.; Alaska, Man.

freytagi DeFoliart and Peterson, 1960: 216.—Wyo.

jeanae DeFoliart and Peterson, 1960: 218.—Utah; Wyo.

ornithophilia Davies, Peterson, and Wood, 1962: 102.—Ont.

osborni (Stains and Knowlton), 1943: 271 (*Eusimulium*).—Calif.

pecuarum (Riley), 1887: 512 (*Simulium*).—La.; Okla., Ill., and S.C., s. to Tex. and Fla.

saileri Stone, 1952: 82.—Alaska; n. Canada.

saskatchewana Shewell and Fredeen, 1958: 733.—Sask.

sommermanae Stone, 1952: 84.—Alaska.

villosa DeFoliart and Peterson, 1960: 213.—Wyo.; Utah.

Subgenus STEGOPTERNA Enderlein

Stegopterna Enderlein, 1930a: 89 (as genus). Type-species, *richteri* Enderlein (orig. des.).

emergens Stone, 1952: 80.—Alaska; N.W.T., n. Man., Wis., Ont.

minus (Dyar and Shannon), 1927: 21 (*Eusimulium*).—Calif.; Wash., Mont., Wyo.

mutata (Malloch), 1914j: 20 (*Prosimulium*).—N.J.; Alaska to Labr., s. to n. Calif., Utah, and Appalachian Mts. to Ala.

permutatum Dyar and Shannon, 1927: 17 (*Eusimulium;* as ssp.).—B.C.

stewarti Coleman, 1953: 45.—Calif.

Subgenus ECTEMNIA Enderlein

Ectemnia Enderlein, 1930a: 88 (as genus). Type-species, *Cnetha taeniatifrons* Enderlein (orig. des.).

invenusta (Walker), 1848: 112 (*Simulium*).—Ont.; Que., N.Y.
loisae Stone and Jamnback, 1955: 35.—N.Y.

taeniatifrons (Enderlein), 1925c: 206 (*Cnetha*).—Ill.; Alta. to Mich. and Ill.

Unplaced Species of *Cnephia*

abdita Peterson, 1962: 96.—Ont.; N.Y.

denaria Davies, Peterson, and Wood, 1962: 97.—Ont.

Genus SIMULIUM Latreille

Simulium Latreille, 1802: 426. Type-species, *Rhagio colombaschensis* Fabricius (mon.).

Simulia, emend.

Aspathia Enderlein, 1935a: 359. Type-species, *Simulium hunteri* Malloch (orig. des.).

Subgenus EUSIMULIUM Roubaud

Simulium, subg. **Eusimulium** Roubaud, 1906: 521. Type-species, *aureum* Fries (mon.).

aestivum Davies, Peterson, and Wood, 1962: 104.—Ont.

aureum Fries, 1824: 16.—Scandinavia; Holarctic, s. to Ariz., Guatemala, Ark., Ga., Sardinia. Unrevised species complex.
bracteatum Coquillett, 1898i: 69.—Mass., Calif.
pilosum Knowlton and Rowe, 1934: 580 (*Eusimulium*).—Utah.
utahense Knowlton and Rowe, 1934: 582 (*Eusimulium*).—Utah.

baffinense Twinn, 1936: 121.—N.W.T.; Arctic and Transition, Alaska to Utah and Que.
pallens Twinn, 1936: 123 (as form).—N.W.T.

bicorne Dorogostajskij, Rubzov, and Vlasenko, 1935: 178.—U.S.S.R.; Alaska, N.W.T., B.C., Utah, e. Siberia.

canonicola (Dyar and Shannon), 1927: 22 (*Eusimulium*).—Wyo.; B.C. to Sask., s. to Calif. and Colo.
quadratus Stains and Knowlton, 1943: 271 (*Eusimulium*).—Utah.

congareenarum (Dyar and Shannon), 1927: 20 (*Eusimulium*).—S.C.; N.Y., Va., Ga., Fla., La., ?Wis.

croxtoni Nicholson and Mickel, 1950: 41.—Minn.; Wis., Ont., N.Y., Maine, Labr.
emarginatum Davies, Peterson, and Wood, 1962: 110.—Ont.
euryadminiculum Davies, 1949: 45.—Ont.; Wis., Que., Labr., Maine.
excisum Davies, Peterson, and Wood, 1962: 113.—Ont.
furculatum (Shewell), 1952: 40 (*Eusimulium*).—Man.; Alaska to Nfld.
gouldingi Stone, 1952: 90.—Pa.; Alaska, Wis., Ont., N.Y., N.H.
impar Davies, Peterson, and Wood, 1962: 116.—Ont.
innocens (Shewell), 1952: 38 (*Eusimulium*).—Ont.
johannseni johannseni Hart *in* Forbes, 1912: 31.—Ill.; Wyo. to N.Y., s. to Miss.
ssp. **duplex** Shewell and Fredeen, 1958: 734.—Sask.
latipes (Meigen), 1804: 96 (*Atractocera*).—Europe; Alaska to Maine, s. to Calif., Wis., and Pa. Unrevised species complex.
pugetense (Dyar and Shannon), 1927: 23 (*Eusimulium*).—Wash.; Alaska to Que. and Maine, s. to Calif., Utah, and W. Va.
quebecense Twinn, 1936: 117.—Que.; Ont.
rivuli Twinn, 1936: 120.—Ont.; Que., N.H., Conn.
subexcisum Edwards.—Not Nearctic.
wyomingense Stone and DeFoliart, 1959: 395.—Wyo.

Subgenus BYSSODON Enderlein

Byssodon Enderlein, 1925c: 209 (as genus). Type-species, *Simulium forbesi* Malloch (orig. des.) = *meridionale* Riley.

meridionale Riley, 1887: 513.—Miss.; Alaska to Ind., s. to Calif., Mexico, and Fla.
occidentale Townsend, 1891g: 107.—N. Mex.
forbesi Malloch, 1914j: 63.—Ill.
rugglesi Nicholson and Mickel, 1950: 60.—Minn.; Alaska, Y.T., Sask. to Labr., s. to Utah, Vt., and N.B.
slossonae Dyar and Shannon, 1927: 34.—Fla.; Va. to Tex. (coastal plain).
transiens Rubzov, 1940a: 361.—e. Siberia; Alta., Sask.

Subgenus PSILOPELMIA Enderlein

Psilopelmia Enderlein, 1934a: 283 (as genus). Type-species, *rufidorsum* Enderlein (orig. des.) = *escomeli* Roubaud.

bivittatum Malloch, 1914j: 31.—N. Mex.; Alta., Sask., and w. U. S., e. to S. Dak., Nebr., Tex.
clarum Dyar and Shannon, 1927: 21 (*Eusimulium*).—Calif.
idahoense Twinn, 1938: 50.—Idaho.

griseum Coquillett, 1898i: 69.—Colo.; Sask. and Alta., s. to Calif. and Tex.
mediovittatum Knab, 1915b: 77.—Tex.
notatum Adams, 1904b: 434.—Ariz.; Calif., Nev.
trivittatum Malloch, 1914j: 30.—Mexico; Calif., N. Mex., Tex.
distinctum Malloch, 1913p: 133 (preocc. Lutz, 1910).—Tex.
venator Dyar and Shannon, 1927: 36.—Nev.; Calif.
beameri Stains and Knowlton, 1943: 279.—Calif.

Subgenus PSILOZIA Enderlein

Psilozia Enderlein, 1936c: 113 (as genus). Type-species, *groenlandica* Enderlein (orig. des.)=*vittatum* Zetterstedt.
Simulium, subg. *Neosimulium* Vargas, Martínez Palacios, and Díaz Nájera, 1946: 103, 108. Type-species, *vittatum* Zetterstedt (orig. des.).
Simulium, subg. *Neosimulium* Rubzov, 1940a: 116, 124, 130. Nomen nudum, type-species as above, but no descr.

argus Williston, 1893d: 253.—Calif.; B.C. to Man., s. to s. Calif. and Tex.
obtusum Dyar and Shannon, 1927: 15 (*Eusimulium*).—Calif.
kamloopsi Hearle, 1932: 12.—B.C.
hearlei Twinn, 1938: 50.—Utah.
encisoi Vargas and Díaz Nájera, 1949: 292.—Mexico; Calif.
vittatum Zetterstedt, 1838: 803.—Greenland; Alaska to Greenland, s. to Calif., Tex., La., and S.C., Iceland.
tribulatum Lugger, 1897: 179.—Minn.
glaucum Coquillett, 1902g: 97.—Mo.
venustoides Hart *in* Forbes, 1912: 42.—Ill.
groenlandica Enderlein, 1936c: 114 (*Psilozia*; preocc. Enderlein,1935).—Greenland.
asakakae Smart, 1944: 131 (n. name for *groenlandica* Enderlein).—Greenland.

Subgenus HEMICNETHA Enderlein

Hemicnetha Enderlein, 1934c: 190 (as genus). Type-species, *mexicana* Enderlein (orig. des.)=*paynei* Vargas.

solarii Stone, 1948: 402.—Tex.; Mexico.
virgatum Coquillett, 1902g: 97.—N. Mex.; Calif., e. to S. Dak. and Tex., Mexico.
cinereum Bellardi, 1859: 13 (1861: 213) (preocc. Macquart, 1834).—Mexico.

Subgenus HEARLEA Vargas, Martínez Palacios, and Díaz Nájera

Simulium, subg. **Hearlea** Vargas, Martínez Palacios, and Díaz Nájera, 1946: 104, 106. Type-species, *canadense* Hearle (orig. des.).

Simulium, subg. *Hearlea* Rubzov, 1940a: 116, 126. Nomen nudum, type-species as above, but no descr.

canadense Hearle, 1932: 14 (as *virgatum* ssp.)—B.C.; B.C. to S. Dak., s. to s. Calif. and N. Mex.

fraternum Twinn, 1938: 53.—Utah.

Subgenus GNUS Rubzov

Simulium, subg. **Gnus** Rubzov, 1940a: 363. Type-species, *decimatum* Dorogostajskij, Rubzov, and Vlasenko (orig. des.).

arcticum Malloch, 1914j: 37.—B.C.; w.N. Amer., e. to Man., Mont., Colo., and Ariz.

brevicercum Knowlton and Rowe, 1934: 583.—Utah.

nigresceum Knowlton and Rowe, 1934: 583.—Utah.

corbis Twinn, 1936: 147.—Que.; Alaska to Nfld., s. to Utah, Wis., and N.H.

defoliarti Stone and Peterson, 1958: 1.—Wyo.; B.C. to Calif., Utah, and Wyo.

malyschevi Dorogostajskij, Rubzov, and Vlasenko, 1935: 142.—Siberia; Alaska, N.W.T., Alta.

nigricoxum Stone, 1952: 94 (n. name for *similis* Malloch).—N.W.T.; Alaska.

similis Malloch, 1919f: 42 (preocc. Silva, 1917).—N.W.T.

Subgenus HAGENOMYIA Shewell

Simulium, subg. **Hagenomyia** Shewell, 1959: 83. Type-species, *pictipes* Hagen (orig. des.).

longistylatum Shewell, 1959: 84.—Que.; Ont., Labr.

pictipes Hagen, 1880: 306.—N.Y.; Minn. to Que., s. to Ala., also ?Okla., ?Colo.

innoxium Comstock and Comstock, 1895: 453.—N.Y.

aldrichiana Enderlein, 1936c: 120 (*Schoenbaueria*).—N.Y.

Subgenus SIMULIUM Latreille

dahlgrueni Enderlein.—Not Nearctic, erroneously ascribed to Greenland by Dyar and Shannon (1927: 29).

decorum Walker, 1848: 112.—Ont.; Alaska to Nfld., s. to Oreg., Colo., and Fla.
piscicidium Riley *in* McBride, 1870: 367.—N.Y.
katmai Dyar and Shannon, 1927: 31 (as ssp.).—Alaska.
ottawaense Twinn, 1936: 146.—Que.
fibrinflatum Twinn, 1936: 141.—Ont.; Ont. to Ala.
hunteri Malloch, 1914j: 59.—Colo.; Alaska and Y.T. to Calif. and N. Mex.
jacumbae Dyar and Shannon, 1927: 44.—Calif.; Nev., Tex.
jenningsi Malloch, 1914j: 41.—Md.; Man. to Maine, s. to Tex. and Fla. Unrevised species complex.
nigroparvum Twinn, 1936: 142.—Ont.
luggeri Nicholson and Mickel, 1950: 54 (as *jenningsi* ssp.).—Minn.; N.W.T. to Alta., Okla., Miss., and Va.
parnassum Malloch, 1914j: 36.—N.H.; Alleghanian from Ont. and N.S. to Ga.
hydationis Dyar and Shannon, 1927: 28.—Va.
petersoni Stone and De Foliart, 1959: 394.—Wyo.; Utah, Calif.
piperi Dyar and Shannon, 1927: 38.—Wash.; Calif., Idaho, Utah, Colo.
sayi Dyar and Shannon, 1927: 40.—Colo.
knowltoni Twinn, 1938: 53.—Utah.
stonei Stains and Knowlton, 1943: 277.—Utah.
rubtzovi Smart, 1945: 528 (also 1946: 22) (n. name for *similis* Rubzov).—Siberia; Alaska.
similis Rubzov, 1940b: 196 (preocc. Silva, 1917).—Siberia.
tuberosum (Lundström), 1911a: 14 (*Melusina*).—Finland; Alaska to Greenland, s. to Calif., Tex., and Fla., Holarctic. Unrevised species complex.
perissum Dyar and Shannon, 1927: 43.—Va.
vandalicum Dyar and Shannon, 1927: 44.—Calif.
turmale Twinn, 1938: 51.—Utah.
twinni Stains and Knowlton, 1940: 77.—Utah.
venustum Say, 1823: 28 (1859b: 51).—Ohio; Alaska to Greenland, s. to Tex., Miss., and S.C., Holarctic.
molestum Harris 1841: 405.—?Mass.
minutum Lugger, 1897: 175.—Minn.
irritatum Lugger, 1897: 177.—Minn.
rileyana Enderlein, 1922b: 75 (*Boophthora*).—N.Y.
groenlandicum Enderlein, 1935a: 363.—Greenland.
verecundum Stone and Jamnback, 1955: 83.—Pa.; Alaska to N.S., s. to Wash., Wyo., Ala., and S.C.

744-243—65——13

Superfamily ANISOPODOIDEA

Family ANISOPODIDAE

(Rhyphidae, Phryneidae, Sylvicolidae)

By Charles P. Alexander

The adults of this family may be rather common, occurring on tree trunks and similar places, or in small swarms. The immature stages occur in decaying organic matter such as fermenting sap and mammalian manure.

REFERENCES: Edwards, 1928a (rev.); Alexander, 1942b (keys).

Subfamily ANISOPODINAE

Genus SYLVICOLA Harris

Sylvicola Harris, 1776: 100. Type-species, *brevis* Harris (Coquillett, 1910b: 610=*fenestralis* (Scopoli).

Phryne Meigen, 1800: 16. Type-species, *Tipula fuscata* Fabricius (Coquillett, 1910b: 589). Suppressed by I.C.Z.N., 1963b: 339.

Anisopus Meigen, 1803: 264. Type-species, *fuscus* Meigen (Coquillett, 1910b: 507)=*fuscata* (Fabricius).

Rhyphus Latreille, 1804: 188. Type-species, *Tipula fenestralis* Scopoli (as *fenestrarum*; mon.).

alternatus (Say), 1823: 27 (1859b: 51) (*Rhyphus*).—Pa.; Wis. to to Maine, s. to Tex. and Ga.

fenestralis (Scopoli), 1763: 322 (*Tipula*).—Europe; Wash. and Idaho to Calif., Ont. and N.S., s. to Pa. and N.J.

diversipes Fitch *in* Edwards, 1923: 476. Nomen nudum.

fuscatus (Fabricius), 1775: 755 (*Tipula*).—Sweden; Europe, Alaska, N.H.

marginatus (Say), 1823: 27 (1859b: 50) (*Rhyphus*).—Pa.; Wis. to Maine, s. to Kans. and Va.

punctatus, authors, not Fabricius.

Genus OLBIOGASTER Osten Sacken

Olbiogaster Osten Sacken, 1886a: 20. Type-species, *Rhyphus taeniatus* Bellardi (Coquillett, 1910b: 579).

REFERENCE: Lane and d'Andretta, 1958 (key).

sackeni Edwards, 1915b: 502.—Mexico; Tex., Fla., S.C.

scalaris (Wiedemann), 1830: 618 (*Rhyphus*).—Brazil (as Ga., error). Not Nearctic.

taeniata (Bellardi), 1862: 5 (1864: 202) (*Rhyphus*).—Mexico; Tex., Fla.

texana Lane and d'Andretta, 1958: 525.—Tex.

Subfamily MYCETOBIINAE

Genus MYCETOBIA Meigen

Mycetobia Meigen, 1818: 229. Type-species, *pallipes* Meigen (Westwood, 1840: 127).

divergens Walker, 1856b: 418.—U.S.; Colo. to Maine, s. to Ariz. and Fla.

persica Riley, 1867: 397 (*Mycetophila*).—Ill.

sordida Packard, 1869a: 388.—Unknown.

marginalis Adams, 1903a: 21.—Mo.

Superfamily BIBIONOIDEA

Family BIBIONIDAE

By D. Elmo Hardy

The biologies of the Bibionidae are not clearly understood. Apparently all species are herbivores. They feed predominantly as scavengers on decaying plant material. Some species are of economic importance, attacking the roots and tubers of a wide variety of crops. The adults of certain species may occur in enormous numbers for a short period, causing much comment and some annoyance.

References: Morris, 1921 (biol.), 1922 (biol.); Hardy, 1945 (rev.); Bollow, 1954 (biol.).

Subfamily HESPERININAE

Genus HESPERINUS Walker

Hesperinus Walker, 1848: 81. Type-species, *brevifrons* Walker (mon.).

Spodius Loew, 1858a: 101. Type-species, *imbecillus* Loew (mon.).

brevifrons Walker, 1848: 81.—Ont.; Alaska, Canada, w. and ne. U.S.

flagellaria Garrett, 1925a: 11.—B.C.

Subfamily PLECIINAE

Genus PENTHETRIA Meigen

Penthetria Meigen, 1803: 264. Type-species, *funebris* Meigen (sub. mon., Meigen, 1804: 104).

Eupeitenus Macquart, 1838a: 88 (1838: 84). Type-species, *Penthetria atra* Macquart (mon.)=*heteroptera* (Say).

heteroptera (Say), 1823: 77 (1859b: 69) (*Bibio*).—Md.; throughout Nearctic Region.

atra Macquart, 1834a: 175.—Pa.

longipes Loew, 1858a: 109 (*Plecia*).—La.

lugubris Harris, 1835: 596. Nomen nudum.

Genus PLECIA Wiedemann

Plecia Wiedemann, 1828: 72. Type-species, *Hirtea fulvicollis* Fabricius (Blanchard, 1840: 576).

americana Hardy, 1940a: 15.—Fla.; s. U.S., n. Mexico.

nearctica Hardy, 1940a: 20.—Tex.; s. U.S., Mexico, Cent. Amer.

Subfamily BIBIONINAE

Genus BIBIO Geoffroy

Bibio Geoffroy, 1762: 568. Type-species, *Tipula hortulana* Linnaeus (Latreille, 1810: 442). Validated by I.C.Z.N., 1957a: 86.

abbreviatus Loew, 1864a: 54 (Cent. 5, no. 9).—D.C.; Kans., e. to Que. and Ga.

albipennis albipennis Say, 1823: 77 (1859b: 69).—Pa.; Nearctic, s. into Mexcio.

hirtus Loew, 1864a: 51 (Cent. 5, no. 2).—Calif.

tenuipes Coquillett, 1902g: 95.—Ariz.

conjunctivus Hardy, 1937: 200.—Md.

ssp. **beameri** Hardy, 1945: 451.—Kans.

alexanderi James, 1936b: 1.—Colo.; Okla.

alienus McAtee, 1923: 62.—N.C.

articulatus Say, 1823: 77 (1859b: 69).—Pa. Unrecognized.

atripilosus James, 1936b: 2.—Colo.; Utah.

baltimoricus Macquart, 1855: 37 (1855: 17).—Md. Unrecognized.

brunnipes (Fabricius), 1794: 250 (*Tipula;* n. name for *rufipes* Fabricius).—Nfld. Unrecognized.

rufipes Fabricius, 1781: 410 (*Tipula;* preocc. Linnaeus, 1761).—Nfld.

carolinus Hardy, 1945: 457 (n. name for *afer* McAtee).—N.C.; se. U.S.
afer McAtee, 1923: 63 (preocc. Loew, 1854.—N.C.
carri Curran, 1927f: 80.—Alta.
castanipes Jaennicke, 1867: 317 (1868: 9).—Ill. Unrecognized.
cognatus Hardy, 1937: 199.—Calif.
columbiaensis Hardy, 1938a: 207.—B.C.
curtipes James, 1936b: 5.—Colo.; Utah.
femoratus Wiedemann, 1820a: 35 (1821c: 35).—N. Amer.; Canada, U.S. from Colo., e. and s. to Miss.
fuscipennis Macquart, 1838a: 91 (1838: 87).—N. Amer.
senilis Wulp, 1869: 81.—Wis.
fluginatus Hardy, 1937: 201.—B.C.
flukei Hardy, 1937: 202.—Colo.
fraternus Loew, 1864a: 54 (Cent. 5, no. 8).—D.C.; e. Canada and U.S., w. to Utah and s. to Miss.
fumipennis Walker, 1848: 122.—Ont.; Commander Is., Alaska, Canada, Labr., Nfld., n. and w. U.S.
inaequalis Loew, 1864a: 51 (Cent. 5, no. 3).—Alaska.
simplicis Curran, 1923l: 245.—Alta.
holtii McAtee, 1922: 11.—Ariz.; B.C. to Oreg., Wyo., Colo., Utah.
imparilis Hardy, 1959a: 209.—Calif.
kansensis James, 1936b: 6.—Kans.
knowltoni Hardy, 1937: 202.—Utah; Wash., Ariz.
paltidus Hardy, 1937: 203 (as var).—Utah.
labradorensis Johnson, 1929a: 133.—Labr.; Alaska, Alta. to Labr.
lobatus Hardy, 1937: 203.—Calif.
longipes Loew, 1864a: 55 (Cent. 5, no. 12).—D.C.; Alta. to N.S., s. to Ariz. and Va.
melanopilosus Hardy, 1936: 195.—Utah; Calif.
bisepta Hardy, 1937: 204 (as var.).—Utah.
mickeli Hardy, 1937: 204.—Minn.; B.C. and Calif., e. to N.Y.
monstri James, 1936b: 3.—Colo.; Utah.
necotus Hardy, 1937: 205.—Calif.; Wash.
nigrifemoratus Hardy, 1937: 206.—B.C.; w. U.S.
gilvus Hardy, 1937: 206 (as var.).—Utah.
nigripilus Loew, 1864a: 55 (Cent. 5, no. 10).—Man.; S. Dak. to Que., s. to Mo. and Va.
lucens Hardy, 1937: 203.—Ont.
nigritus Curran, 1924i: 250 (as *lacteipennis* var.).—B.C.; Labr.
lacteipennis Curran, 1924i: 250 (preocc. Zetterstedt, 1850).—B.C.
bryanti Johnson, 1929a: 133.—Labr.

currani Hardy, 1937: 200 (n. name for *lacteipennis* Curran).—B.C.

painteri James, 1936b: 2.—Kans.; Colo. and Ohio, s. to Ariz. and Okla.

pallipes Say, 1823: 76 (1859b: 68).—Pa. Unrecognized.

pingreensis James, 1936b: 4.—Colo.; Utah.

rufalipes Hardy, 1937: 207.—Tex.

rufithorax Wiedemann, 1828: 78.—Pa.; Pa., s. to Tex. and Fla.

rufitibialis Hardy, 1938a: 209 (as *jacobi* var.).—B.C.

jacobi Hardy, 1938a: 209 (preocc. Villeneuve, 1924).—B.C.

neojacobi Hardy, 1945: 476 (n. name for *jacobi* Hardy).—B.C.

sericatus Hardy, 1937: 207.—Wash.; B.C.

sierrae Hardy, 1960a: 255.—Calif.

similis James, 1936b: 5.—Colo.; Utah.

slossonae Cockerell, 1909b: 174 (n. name for *gracilis* Walker).—N.S.; Canada, n. and w. U.S., Ind., Alaska.

gracilis Walker, 1848: 123 (preocc. Unger, 1841).—N.S.

striatipes Walker, 1848: 122.—Ont.; Man., N.W.T.

conus Hardy, 1938a: 208.—Man.

teneus Hardy, 1937: 208.—Alaska.

thoracicus Say, 1824a: 368 (1859a: 250).—Fla. Unrecognized.

townesi Hardy, 1945: 487.—R.I.; Ohio, N.Y., N.H., Conn.

tristis Williston *in* Kellogg, 1893: 113.—Kans.; Wash., Utah, Ariz.

utahensis Hardy, 1937: 208.—Utah; Wash., Calif.

velcidus Hardy, 1937: 209.—Ont.; N.B.

velorum McAtee, 1923: 63.—N.C.; ?Colo.

vestitus Walker, 1848: 122.—N.S.; Alaska, Canada, n. and w. U.S.

nervosus Loew, 1864a: 52 (Cent. 5, no. 4).—Alaska.

variabilis Loew, 1864a: 53 (Cent. 5, no. 7).—Alaska.

basalis Loew, 1864a: 55 (Cent. 5, no. 11).—N.H.

xanthopus Wiedemann, 1828: 80.—N.Y.; widespread over U.S. and Canada.

canadensis Macquart, 1838b: 179 (1839: 295).—Canada.

humeralis Walker, 1848: 121.—N.S.

scita Walker, 1848: 122.—N.S.

obscurus Loew, 1864a: 52 (Cent. 5, no. 5).—Ont.

lugens Loew, 1864a: 52 (Cent. 5, no. 6).—Man.

palliatus McAtee, 1922: 16 (as ssp.).—Idaho.

macateei James, 1936b: 4.—Colo.

signatus Hardy, 1937: 208.—Utah.

Genus BIBIODES Coquillett

Bibiodes Coquillett, 1904f: 171. Type-species, *halteralis* Coquillett (orig. des.).

aestivus Melander, 1912: 338.—Wash.; B.C. and Mont. to Oreg. and Utah.

femoratus Melander, 1912: 340.—Tex.; Tenn.

halteralis Coquillett, 1904f: 171.—Calif.; Sask., Ariz., N. Mex., Tex., Kans., Mexico (Baja Calif.).

Genus DILOPHUS Meigen

Philia Meigen, 1800: 20. Type-species, *Tipula febrilis* Linnaeus (Coquillett, 1910b: 588). Suppressed by I.C.Z.N., 1963b: 339.

Dilophus Meigen, 1803: 264. Type-species, *Tipula febrilis* Linnaeus (Latreille, 1810: 442).

arizonaensis (Hardy), 1937: 209 (*Philia*).—Ariz.; N. Mex., Nev., Calif.

caurinus McAtee, 1922: 19.—Alaska; Canada, nw. U.S., e. to Mich. and Ohio.

emarginatus McAtee, 1922: 20.—Calif.

fulvicoxa Walker, 1848: 117.—Ont.

longiceps Loew, 1861b: 315 (Cent. 1, no. 14).—Ill. Unrecognized.

obesulus Loew, 1869c: 162 (Cent. 9, no. 60).—D.C.; Canada, Calif., Colo., Pa., Va.

jamesi Hardy, 1937: 210 (*Philia*).—Colo.

occipitalis Coquillett *in* Baker, 1904: 20.—Calif.; s. U.S., e to La. and N.C.

oklahomensis Hardy, 1937: 211 (*Philia*).—Okla.

orbatus (Say), 1823: 78 (1859b: 69) (*Bibio*).—Pa.; s. U.S., Calif. to S.C. Current usage is based on probable misidentification by Osten Sacken. A new name may be required.

proximus McAtee, 1922: 22.—Colo.; Wyo.

sectus McAtee, 1922: 22.—N.H.

serotinus Loew, 1861b: 315 (Cent. 1, no. 15).—Ill.; B.C. and Oreg. to Md. and Miss.

serraticollis Walker, 1848: 117.—Ont. Unrecognized.

spinipes Say, 1823: 79 (1859b: 71).—Mo.; throughout U.S.

thoracicus Say, 1823: 80 (1859b: 71).—Pa.

bimaculata Walker, 1856b: 422 (*Plecia*).—U.S.

dimidiatus Loew, 1869b: 4 (Cent. 8, no. 3).—N.Y.

stigmaterus stigmaterus Say, 1823: 78 (1859b: 70).—Mo.; B.C. to N.S., s. to Ariz. and Ind.

pusillus Wiedemann, 1828: 77.—U.S.

fraternus Harris, 1835: 596. Nomen nudum.

ssp. **niger** (Hardy), 1937: 212 (*Philia*).—Minn.; Man.

strigilatus McAtee, 1922: 24.—Calif. (Catalina I.).

stygius Say, 1832: 15 (1859a: 309) (preocc. Say, 1829).—La. Unrecognized.

tibialis tibialis Loew, 1869c: 162 (Cent. 9, no. 61).—Alaska; Canada, U.S.

atelestes Hardy, 1937: 210 (*Philia*; as *breviceps* var.).—Que.

ssp. **breviceps** Loew, 1869c: 162 (Cent. 9, no. 59) (as sp.).—N.H.; throughout U.S.

tingi (Hardy), 1942b: 132 (*Philia*).—Calif.; Mexico.

Family PACHYNEURIDAE

By Charles P. Alexander

The members of this family have been placed by some in Anisopodidae, by others in the Bibionidae, but they do not fit satisfactorily in either. The larva of only *Axymyia furcata* is known.

REFERENCE: Edwards, 1928a (rev.); Krogstad, 1959 (biol.).

Genus AXYMYIA McAtee

Axymyia McAtee, 1921a: 49. Type-species, *furcata* McAtee (orig. des.).

furcata McAtee, 1921a: 49.—Pa.; Mass., N.Y., Va.

fitchii Osten Sacken of Alexander, 1920h: 769 (*Protoplasa*).

Genus CRAMPTONOMYIA Alexander

Cramptonomyia Alexander, 1931a: 7. Type-species, *spenceri* Alexander (orig. des.).

spenceri Alexander, 1931a: 8.—B.C.; Wash., Oreg.

Superfamily MYCETOPHILOIDEA

Family MYCETOPHILIDAE

(Fungivoridae)

By Jean L. Laffoon

The family Mycetophilidae, or fungus gnats, are usually small flies with prominent coxae. The adults are particularly common in

dark, humid habitats in wooded areas. The larvae of most species are fungivorous, but those of most Keroplatinae seem to be predominantly predaceous.

Edwards (1925a) provided a generic classification which is generally sound. However, much revisionary work on the Nearctic species is needed. It is presently impossible to make reliable determinations in most genera by means of the literature alone.

Several varieties are recognized in this catalog, but the status of each is considered uncertain. Also several junior homonyms (*Macrocera pilosa* Garrett, *Orfelia nigra* (Cole), *Dziedzickia johannseni* Sherman, *Docosia setosa* Garrett, *Sciophila bicolor* Garrett, *S. fusca* Garrett, and *S. parva* Garrett) are not renamed because some may be junior synonyms.

REFERENCES: Johannsen, 1909 (cat., world), 1910a, 1910b, 1912a, 1912b (revs.); Edwards, 1925a (world genera, key); Landrock, 1926–1927 (rev. Palaearctic); Tonnoir, 1929 (world genera, key); Madwar, 1937 (larvae); Kessel and Kessel, 1939 (biol.); Shaw and Shaw, 1951 (anat. pleuron); Shaw and Fisher, 1952 (key, Conn.); Shaw, 1952b (anat.); Buxton, 1960 (biol.).

Subfamily BOLITOPHILINAE

Most larval records are from Agaricaceae, but larvae have also been found in Boletaceae and Polyporaceae. Most of the hosts grow on the ground.

Genus BOLITOPHILA Meigen

Bolitophila Meigen, 1818: 220. Type-species, *cinerea* Meigen (Westwood, 1840: 127).

Bolitophilella Landrock, 1925a: 179. Type-species, *Bolitophila cinerea* Meigen (Okada, 1939: 292).

REFERENCE: Fisher, 1937 (key); Shaw, 1962 (key).

acuta Garrett, 1925a: 7.—B.C.; N.Y.
alberta Fisher, 1937: 389.—Alta.
atlantica Fisher, 1934: 276.—N.H.
bilobata Garrett, 1925a: 7.—B.C.
bucera Shaw, 1940: 48.—Oreg.
cinerea Meigen, 1818: 221.—Germany, Denmark; B.C., N.Y. to Maine, S.C., Europe, Japan.
clavata Garrett, 1925a: 6.—B.C.
connectans Garrett, 1925a: 6.—B.C.
distus Fisher, 1937: 389.—N.Y.
dubia Siebke, 1863: 185.—Sweden; B.C., Alta., Idaho, N.Y. to Maine, Europe, Japan.
disjuncta Loew, 1869a: 19.—Germany.

dubiosa Van Duzee, 1928a: 32.—Calif.; B.C.
dupla Garrett, 1925a: 6.—B.C.
hybrida (Meigen), 1804: 47 (*Macrocera*).—Europe; B.C. to Calif., also Que., s. to Ind. and N.C., Europe.
fusca Meigen, 1818: 221.—Europe.
montana Coquillett, 1901h: 593.—N.H.; B.C., N.Y., Maine.
patulosa Garrett, 1925a: 7.—Calif.
perlata Garrett, 1925a: 6.—B.C.; Que., Conn.
raca Garrett, 1925a: 6.—B.C.
recurva Garrett, 1925a: 6.—B.C.; Alta.
simplex Garrett, 1925a: 6.—B.C.
subteresa Garrett, 1925a: 7.—B.C.

Subfamily DIADOCIDIINAE

The larvae live in mucus tubes on wood.

REFERENCE: Fisher, 1941 (rev.).

Genus DIADOCIDIA Ruthe

Diadocidia Ruthe, 1831: 1210. Type-species, *flavicans* Ruthe (orig. des., as gen. n., sp. n.)=*ferruginosa* (Meigen).
Macronevra Macquart, 1834a: 146. Type-species, *winthemi* Macquart (mon.)=*ferruginosa* (Meigen).

borealis Coquillett, 1900h: 390 (1904: 4).—B.C.; B.C. to Calif., also N.H., N.C., S.C.
ferruginosa (Meigen), 1830: 294 (*Mycetobia*).—Germany; B.C. to Calif., N.S. to S.C., Europe.
stanfordensis Arnaud and Hoyt, 1956: 87.—Calif.

Subfamily DITOMYIINAE

The larvae of *Ditomyia fasciata* live in hard species of Polyporaceae, those of *Symmerus annulatus* in decaying wood. Those of a Neotropical genus, *Neoditomyia*, live in mucus webs under overhanging rocks and tree trunks; they feed on insects caught in these webs.

REFERENCE: Fisher, 1941 (rev.).

Genus DITOMYIA Winnertz

Ditomyia Winnertz, 1846: 14. Type-species, *trifasciata* Winnertz (mon.)=*fasciata* (Meigen).

euzona Loew, 1869c: 130 (Cent. 9, no. 1).—D.C.; N.H., N.J.
potomaca Fisher, 1941: 278.—Va.; Conn., Md.

Genus SYMMERUS Walker

Symmerus Walker, 1848: 88. Type-species, *ferrugineus* Walker (mon.) = *annulatus* (Meigen).

Plesiastina Winnertz, 1852b: 55. Type-species, *Mycetobia annulata* Meigen (Coquillett, 1910b: 592).

annulatus (Meigen), 1830: 294 (*Mycetobia*).—Europe; ?B.C., ?Oreg.

coqulus Garrett, 1925a: 12.—B.C.; s. Alaska to Maine, s. to Oreg. and N.J.

annulatus, authors, not Meigen.

dilutus Fisher, 1938a: 196.—W. Va.

lautus (Loew), 1869c: 132 (Cent. 9, no. 3) (*Plesiastina*).—N.Y.; Ind., Vt., Md.

tristis (Loew), 1869c: 131 (Cent. 9, no. 2) (*Plesiastina*).—D.C.; Ind., Maine, Mass., N.C.

Subfamily KEROPLATINAE

The larvae of probably all species spin mucus webs and those of certain species, such as *Orfelia fultoni*, are luminescent. The larvae of *Keroplatus* are found in or on wood or on fungi, and that of one species of *Asindulum* in decaying wood. Those of *Macrocera* and *Orfelia* are found under rocks, in and under logs, or in the soil around roots, and that of *Platyura marginata* is recorded from a cavity in the soil under wood. Some species of *Orfelia* secrete oxalic acid droplets on the webs. The larvae of *Keroplatus* are primarily fungus-spore feeders, of *Orfelia* primarily predatory, and some species of *Macrocera* at least, feed on both fungus spores and small animals. The adults of *Asindulum* have elongate mouthparts and feed on nectar.

REFERENCE: Mansbridge, 1933 (biol.).

Genus ASINDULUM Latreille

Asindulum Latreille, 1805: 290. Type-species, *nigrum* Latreille (mon.).

Asyndulum, error.

coxale Loew, 1869c: 132 (Cent. 9, no. 4).—Canada; Que., N.H., Maine.

montanum Röder, 1887: 116.—N.H.; Alta. to Que., s. to S. Dak. and N.J.

winnertzi (Tarwid), 1936: 6 (*Zelmira;* n. name for *flava* Winnertz).—Europe; N.H., N.C., Europe.

flava Winnertz, 1846: 17 (*Macrorrhyncha;* preocc. in *Zelmira* by Macquart, 1826, orig. *Platyura*, now *Orfelia*).—Europe.

Genus FENDEROMYIA Shaw

Fenderomyia Shaw, 1948: 94. Type-species, *smithi* Shaw (orig. des.).

smithi Shaw, 1948: 94.—Oreg.

Genus HESPERODES Coquillett

Hesperodes Coquillett, 1900b: 429. Type-species, *johnsoni* Coquillett (orig. des.).

johnsoni Coquillett, 1900b: 429.—N.J.; Mass.

Genus KEROPLATUS Bosc

Keroplatus Bosc, 1792: 42. Type-species, *tipuloides* Bosc (mon.).
Ceroplatus, emend.

REFERENCES: Edwards, 1929c (subg. of world); Fisher, 1941 (key).

Subgenus CEROTELION Rondani

Cerotelion Rondani, 1856: 191 (as genus). Type-species, *Platyura laticornis* Meigen (orig. des.)=*lineatus* (Fabricius).

johannseni Fisher, 1940: 243.—N.C.; N.H. to Ga., also Iowa.
bellulus, authors, not Williston.

Subgenus EUCEROPLATUS Edwards

Keroplatus, subg. **Euceroplatus** Edwards, 1929c: 174. Type-species, *notaticoxa* Senior-White (orig. des.).

fasciatus (Garrett), 1925a: 12 (*Cerotelion*).—B.C.; Wash., Calif.
fasciolus Coquillett, 1894c: 126.—Wash.; Ark.
fenestralis Fisher, 1938a: 197.—Mich.

Subgenus HETEROPTERNA Skuse

Heteropterna Skuse, 1888: 1129 (as genus). Type-species, *macleayi* Skuse (mon.).

cressoni Fisher, 1941: 293.—Pa.

Subgenus KEROPLATUS Bosc

carbonarius Bosc *in* S.N.A., 1803: 543.—Carolina; Ind., Pa., Tenn.
clausus Coquillett, 1901h: 594.—N.H.; Mich. to Maine, s. to Tex. and S.C.
fernaldi Shaw, 1941d: 20.—Mass.
militaris Johannsen, 1910a: 237.—Pa.; Mich. to Maine, s. to Tenn. and Md., also Wash., Iowa, Fla.
terminalis Coquillett, 1905d: 69.—B.C.; Kans., Tex.

Unplaced Species of *Keroplatus*

apicalis Adams, 1903a: 22.—Kans.

Genus MACROCERA Meigen

Euphrosyne Meigen, 1800: 16. Type-species, *Macrocera lutea* Meigen (Coquillett, 1910b: 542). Suppressed by I.C.Z.N., 1963b: 339.

Macrocera Meigen, 1803: 261. Type-species, *lutea* Meigen (Curtis, 1837a: pl. 637).

beringensis Malloch, 1923i: 177.—Alaska (Pribilof Is.).
bicolor Garrett, 1925a: 7.—B.C.
clara Loew, 1869c: 133 (Cent. 9, no. 6).—D.C.; Wis. to Maine, s. to Tenn. and S.C., also B.C.
clavinervis Van Duzee, 1928a: 35.—Calif.
diluta Adams, 1903a: 22.—Ariz.
distincta Garrett, 1925a: 8.—B.C.
fisherae Shaw, 1935b: 229 (as *fisheri*).—S.C.
floridana Johnson, 1926b: 299.—Fla.; S.C.
formosa Loew, 1866b: 6 (Cent. 7, no. 8).—N.Y.; Maine to N.J., also S.C., Oreg.
var. **indigena** Johannsen, 1910a: 270.—N.Y.; Conn., S.C. ?Var.
geminata Johannsen, 1910a: 272.—N.Y.
hirsuta Loew, 1869c: 132 (Cent. 9, no. 5).—D.C.; Ind. to Maine, s. to N.C.
hirtipennis Van Duzee, 1928a: 36.—Calif.
hyalipennis Shaw, 1941a: 171.—Tenn., N.C.
immaculata Johnson, 1902a: 240.—N.Y., Pa.; N.C., S.C.
inconcinna Loew, 1869c: 133 (Cent. 9, no. 7).—D.C.; Vt. to Maine, s. to D.C.
nebulosa Coquillett, 1901h: 594.—N.J., N.H.; N.Y. to Maine, s. to N.J.
nobilis Johnson, 1922: 21.—N.H.; Mass.
pilosa Garrett, 1925a: 8 (preocc. Landrock, 1917).—B.C. Unrecognized.
similis Garrett, 1925a: 8.—B.C.
trivittata Johnson, 1922: 21.—Sask.
uniqua Garrett, 1925a: 8.—B.C.
variola Garrett, 1925a: 7.—B.C.
villosa Garrett, 1925a: 8.—B.C.

Genus ORFELIA Costa

Zelmira Meigen, 1800: 16. Type-species, *Platyura fasciata* Meigen (Coquillett, 1910b: 621). Suppressed by I.C.Z.N., 1963b: 339.

Orfelia Costa, 1857: 448. Type-species, *Platyura fasciata* Meigen (Hardy, 1960b: 200).

Proceroplatus Edwards, 1925a: 523. Type-species, *Platyura pictipennis* Williston (orig. des.).

Calliplatyura Malloch, 1928b: 600 (as *Calloplatyura*, p. 601). Type-species, *Platyura elegans* Coquillett (orig. des.). **N. syn.**

Neoplatyura Malloch, 1928b: 601. Type-species, *Platyura setiger* Johannsen (orig. des.). **N. syn.**

Platyura, subg. *Rutylapa* Edwards, 1929c: 171. Type-species, *ruficornis* Zetterstedt (orig. des.). **N. syn.**

Platyura, authors, not Meigen.

A subgeneric classification is available, but most Nearctic species have not yet been assigned to subgenera.

REFERENCES: Edwards, 1929c (tax., as *Platyura*); Fulton, 1941 (biol.)

alexanderi (Shaw), 1941a: 168 (*Platyura*).—Tenn. **N. comb.**

angustata (Van Duzee), 1928a: 34 (*Platyura*).—Calif. **N. comb.**

apicalis (Shaw), 1935b: 229 (*Platyura*).—S.C. **N. comb.**

discoloria (Meigen), 1818: 239 (*Platyura*).—Europe; Wis., Maine to Ga., Europe. **N. comb.**

diluta Loew, 1869c: 134 (Cent. 9, no. 9) (*Platyura*).—D.C.

divaricata (Loew), 1869c: 134 (Cent. 9, no. 8) (*Platyura*).—Ga.; N.C. **N. comb.**

elegans (Coquillett), 1895a: 307 (*Platyura*).—Ga., Fla.; Iowa to Que., s. to Tenn. and Fla. **N. comb.**

elegantula (Williston), 1900: 218 (*Platyura*).—Mexico; Ariz. **N. comb.**

equalis (Van Duzee), 1928a: 35 (*Platyura*).—Oreg. **N. comb.**

fascipennis (Say), 1824a: 360 (1859a: 244) (*Platyura*).—Northwest Territory (U.S.); Ont. to Que., s. to N.J., also B.C., Alta. **N. comb.**

var. **sagax** (Johannsen), 1910a: 258 (*Platyura*).—Maine; B.C., Alta. ?Var. **N. comb.**

fultoni (Fisher), 1940: 245 (*Platyura*).—N.C.; Va., S.C. **N. comb.**

genualis (Johannsen), 1910a: 262 (*Platyura*).—Wis., Tenn., N.C.; Wis. to Maine, s. to Tenn. and N.C. **N. comb.**

inops (Coquillett), 1901h: 594 (*Platyura*).—N.J.; Vt. to N.J., also N.C., S.C. **N. comb.**

intermedia (Sherman), 1921: 16 (*Platyura*).—B.C. **N. comb.**

lurida (Coquillett), 1895d: 199 (*Platyura*).—Wash. **N. comb.**
melasoma (Loew), 1869c: 135 (Cent. 9, no. 12) (*Platyura*).—D.C.; Que., N.H., Mass., N.J. **N. comb.**
mendica (Loew), 1869c: 135 (Cent. 9, no. 10) (*Platyura*).—N.Y.; Maine to N.J., N.C. **N. comb.**
mendosa (Loew), 1869c: 135 (Cent. 9, no. 11) (*Platyura*).—D.C.; B.C., Tenn., Maine to S.C. **N. comb.**
mimula (Johannsen), 1910a: 255 (*Platyura*).—Wis., N.H.; N.C. **N. comb.**
miriamae (Shaw), 1941a: 170 (*Platyura*).—N.C. **N. comb.**
mitchellensis (Shaw), 1941a: 168 (*Platyura*).—N.C. **N. comb.**
moerens (Johannsen), 1910a: 262 (*Platyura*).—Wash.; B.C., N.Y. **N. comb.**
moesta (Johannsen), 1910a: 259 (*Platyura*).—Wash. **N. comb.**
nigra (Cole) *in* Cole and Lovett, 1919: 222 (*Platyura*; preocc. Macquart, 1826).—Oreg. **N. comb.** Unrecognized.
nigribarba (Van Duzee), 1928a: 34 (*Platyura*).—Calif. **N. comb.**
nigrita (Johannsen), 1910a: 256 (*Platyura*).—Wash. **N. comb.**
notabilis (Williston), 1893c: 59 (*Platyura*).—Wash. **N. comb.**
palmi (Shaw), 1951b: 277 (*Platyura*).—Wyo. **N. comb.**
pellita (Fisher), 1937: 390 (*Platyura*).—N.S.; N.Y. **N. comb.**
pullata (Coquillett), 1904f: 171 (*Platyura*).—Calif. **N. comb.**
scapularis (Johannsen), 1910a: 263 (*Platyura*).—Wash., Idaho, Calif. **N. comb.**
semirufa (Meigen), 1818: 237 (*Platyura*).—Europe; Mass., N.J., Great Smokies (N.C. or Tenn.), Palaearctic. **N. comb.**
taeniata Winnertz, 1863: 701 (*Platyura*).—Europe.
setiger (Johannsen), 1910a: 252 (*Platyura*).—Wash. **N. comb.**
subterminalis (Say), 1829: 152 (1859b: 350) (*Platyura*).—Ind.; Wis., Maine to N.J., S.C. **N. comb.**
var. **nexilis** (Johannsen), 1910a: 261 (*Platyura*).—Wis. ?Var. **N. comb.**
williami (Shaw), 1953a: 66 (*Zelmira*).—Conn. **N. comb.**

Genus PALEOPLATYURA Meunier

Paleoplatyura Meunier, 1899: 164. Type-species, *macrocera* Meunier (mon.).

REFERENCE: Fisher, 1941 (key).

aldrichii Johannsen, 1909: 10.—Wash.
johnsoni Johannsen, 1910a: 226.—Vt.; N.Y., Mass., Conn., Md., N.C.
melanderi Fisher, 1941: 296.—Wash.

Genus PLATYURA Meigen

Platyura Meigen, 1803: 264. Type-species, *marginata* Meigen (Blanchard *in* Audouin et al., 1849: pl. 164).

Apemon Johannsen, 1909: 20. Type-species, *Platyura pectoralis* Coquillett (orig. des.).

REFERENCE: Fisher, 1941 (key).

manteri (Johnson), 1931: 23 (*Apemon*).—Conn.; N.H., Maine.
maudae Coquillett, 1895d: 199.—Wash.; Oreg.
nigriventris (Johannsen), 1910a: 245 (*Apemon*).—B.C.; Wash., Idaho, Mont.
pectoralis Coquillett, 1895d: 199.—Nev.; Wash., Oreg., Idaho.
rufa Van Duzee, 1928a: 32 (*Apemon*).—Calif. ?Syn.
pulchra Williston, 1893c: 59.—Wash.
similis Johnson, 1931: 22 (*Apemon*).—N.H.; Que., Maine.
willistoni Laffoon (for *gracilis* Williston).—Wash. **N. name.**
gracilis Williston, 1893c: 60 (preocc. Skuse, 1890).—Wash.

Subfamily LYGISTORRHININAE

Genus LYGISTORRHINA Skuse

Lygistorrhina Skuse, 1890b: 598. Type-species, *insignis* Skuse (mon.).

Unnamed spp.—se. U.S.

Subfamily MANOTINAE

Genus MANOTA Williston

Manota Williston, 1896c: 260. Type-species, *defecta* Williston (mon.).

Unnamed sp.—B.C. (Sherman, 1920: 15).

Subfamily MYCETOPHILINAE

Tribe EXECHIINI

The larvae of this tribe have been found in Agaricaceae (generally in the stalk), Boletaceae, Polyporaceae, Clavariaceae (one record), and *Peziza*, a genus of Ascomycetes. The host fungi for most species of *Brachypeza* are on wood, for most *Exechia* and *Rymosia* on the ground.

Genus ALLODIA Winnertz

Allodia Winnertz, 1863: 826. Type-species, *Mycetophila ornaticollis* Meigen (Johannsen, 1909: 104).

Brachycampta Winnertz, 1863: 833. Type-species, *Mycetophila alternans* Zetterstedt (Coquillett, 1910b: 515).

actuaria Johannsen, 1912a: 317.—N.Y., Mass.
anglofennica Edwards, 1921b: 122.—Scotland; N.S., n. Europe.
beata Johannsen, 1912a: 319.—N.Y.; Iowa.
bella Johannsen, 1912a: 318.—B.C.; Alta.
bulbosa Johannsen, 1912a: 316.—N.H., N.Y., N.J.
callida Johannsen, 1912a: 319.—Wash., Wyo.; Costa Rica.
cincta Van Duzee, 1928a: 50.—Calif.
crassicornis (Stannius), 1831b: 22 (*Mycetophila*).—Germany; Maine to Md., Europe.
delita Johannsen, 1912a: 320.—Wash., Calif.
elata Johannsen, 1912a: 318.—N.H., Mass.; Maine, Vt.
hirticauda Van Duzee, 1928a: 50.—Calif.
lugens (Wiedemann), 1817: 68 (*Mycetophila*).—Germany; N.S., Europe.
ornaticollis (Meigen), 1818: 269 (*Mycetophila*).—Europe; Alta., N.Y., N.J., Europe.
falcata Johannsen, 1912a: 317.—N.Y., N.J.
pistillata (Lundström), 1911b: 399 (*Brachycampta*).—Hungary, Rumania; Alta., Europe.
subelata Malloch, 1923i: 178.—Alaska (Pribilof Is.).
truncata Edwards, 1921b: 123.—England; N.S., N.Y., n. Europe.
unicolor (Lundbeck), 1898: 260 (*Brachycampta*).—Greenland.

Genus ANATELLA Winnertz

Anatella Winnertz, 1863: 854. Type-species, *gibba* Winnertz (Johannsen, 1909: 90).

REFERENCE: Fisher, 1938a (key).

affinis Fisher, 1938a: 196.—Md.
ciliata Winnertz, 1863: 856.—Europe; Mo., N.Y., Md., Europe.
difficilis Garrett, 1925a: 5.—B.C.
silvestris Johannsen, 1909: 91.—N.Y.; B.C.
simpatica Dziedzicki, 1923: 6.—Europe; N.S.
incisurata Edwards, 1925a: 589.—England.

Genus BRACHYPEZA Winnertz

Brachypeza Winnertz, 1863: 806. Type-species, *bisignata* Winnertz (Johannsen, 1909: 101).

brevitibia Van Duzee, 1928a: 47.—Calif.
dentica (Guthrie), 1917: 315 (*Allodia*).—Calif.; Wash., Iowa. **N. comb.**

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divergens Johannsen, 1912a: 309 (as *bisignata* var.).—N.H., Vt., Maine; Maine to N.Y., also Iowa, N.C. **N. status.**

Genus EXECHIA Winnertz

Exechia Winnertz, 1863: 879. Type-species, *Mycetophila fungorum* De Geer (Johannsen, 1909: 106; misident.)=*fusca* (Meigen). Unpublished request before I.C.Z.N., according to Melville, 1961: 33, to fix *Mycetophila fusca* Meigen as type.

abrupta Johannsen, 1912b: 68.—N.Y.
absoluta Johannsen, 1912b: 72.—Maine; Man., S. Dak., Que., N.Y., Conn., N.J.
absurda Johannsen, 1912b: 74.—N.Y.; Alta., Maine.
adamsi Laffoon (for *analis* Adams).—Ind. **N. Name.**
analis Adams, 1907: 37 (*Mycetophila;* preocc. Meigen, 1818).—Ind.
aequalis Van Duzee, 1928a: 54.—Calif.
alexanderi Shaw, 1951a: 65.—Wyo.
angustata Van Duzee, 1928a: 56.—Calif.
assidua Johannsen, 1912b: 71.—Wash.; Alta.
attrita Johannsen, 1912b: 73.—Wis., N.Y., Maine, R.I., N.J.; N.H.
auxiliaria Johannsen, 1912b: 71.—N.Y.; Wis., Maine, S.C.
aviculata Shaw, 1935c: 89.—N.Y.
bella Johannsen, 1912b: 72.—N.Y.; Wis., Maine.
bellula Johannsen, 1912b: 71.—Maine; B.C.
bicincta (Staeger), 1840: 263 (*Mycetophila*).—Denmark; Greenland, Europe.
interrupta Zetterstedt, 1852: 4240 (*Mycetophila*).—Sweden.
bifurcata Fisher, 1934: 277.—N.Y.
bilobata Shaw, 1951b: 275.—Wyo.
borealis Van Duzee, 1928a: 53.—Alaska.
brevipetiolata Van Duzee, 1928a: 55.—Calif.
canalicula Johannsen, 1912b: 69.—N.C.; N.J.
capillata Johannsen, 1912b: 73.—N.Y.; Calif., Wyo., R.I.
captiva Johannsen, 1912b: 72.—N.J.; N.H., Vt., Mass.
cincinnata Johannsen, 1912b: 69.—Maine; Oreg., Calif., Maine to N.Y., S.C.
clepsydra Fisher, 1937: 397.—N.Y.
contaminata Winnertz, 1863: 891.—Europe; N.Y., Europe.
frigida (Boheman), 1865: 576 (*Mycetophila*).—Spitzbergen; Alaska, Wyo., N.Y., N.W.T., Greenland, n. Palaearctic.
casta Johannsen, 1912b: 74.—Wyo.
lundstroemi Landrock, 1923: 170.—Finland; N.Y., Europe.

nativa Johannsen, 1912b: 70.—Maine; Ill., N.Y., Vt.
nexa Johannsen, 1912b: 68.—N.Y.; Mass.
nitidicollis Lundström, 1913: 311.—France; Greenland.
noctivaga Van Duzee, 1928a: 54.—Calif.
nugatoria Johannsen, 1912b: 70.—N.Y.; Alta., Wis., R.I.
nugax Johannsen, 1912b: 68.—Que.; B.C., N.Y.
obediens Johannsen, 1912b: 73.—Calif.; Alta., Oreg.
ovata Fisher, 1934: 278.—N.Y.; Iowa.
palmata Johannsen, 1912b: 71.—Wyo.; B.C., Man., Wash., S.C.
perspicua Johannsen, 1912b: 67.—Maine; B.C., Wyo.
plebeia (Walker), 1848: 100 (*Mycetophila*).—Ont.
pollex Shaw, 1935c: 89.—N.Y.
pratti Shaw, 1951a: 66.—Wyo.
quadrata Johannsen, 1912b: 69.—N.Y.; Wis., N.J., N.C.
repanda Johannsen, 1912b: 73.—N.Y.; Mass., Conn., England, Netherlands.
satiata Johannsen, 1912b: 69.—N.Y.
shawi Fisher, 1934: 276.—N.H.
subligulata Shaw, 1952a: 148 (n. name for *ligulata* Shaw).—Wyo.
ligulata Shaw, 1951a: 66 (preocc. Lundström, 1913).—Wyo.
umbratica (Aldrich), 1897: 186 (*Mycetophila*).—Ind.; B.C., Oreg., N.Y., Pa., S.C.
umbrosa Van Duzee, 1928a: 56.—Calif.
unicincta Van Duzee, 1928a: 57.—Calif.
unicolor Van Duzee, 1928a: 53.—Alaska.

Genus RYMOSIA Winnertz

Rymosia Winnertz, 1863: 810. Type-species, *Mycetophila discoidea* Meigen (Johannsen, 1909: 102)=*fasciata* (Meigen).
Rhymosia, emend.

akeleyi Johannsen, 1912a: 312.—Wis., N.H.; Alta.
beckeri Shaw, 1951a: 68.—Wyo.
var. **marionae** Shaw, 1951a: 70.—Wyo. ?Var.
brevicornis Sherman, 1921: 19.—B.C.
coheri Shaw, 1951b: 277.—Wyo.
dietrichi Shaw, 1951b: 279.—Wash.
diffissa Johannsen, 1912a: 313.—Calif., Idaho.
domestica (Meigen), 1830: 303 (*Mycetophila*).—Europe; N.Y., Vt., N.H., Mass., Europe, Japan.
captiosa Johannsen, 1912a: 313.—Vt., N.H., Mass.
faceta Sherman, 1921: 18.—B.C.
filipes Loew, 1869c: 149 (Cent. 9, no. 36).—Conn.; B.C., Ind., N.H.
imitator Johannsen, 1912a: 312.—Wyo., Calif., Tex.; B.C., Pa.

inflata Johannsen, 1912a: 311.—N.Y.
lacki Edwards, 1935a: 468.—Greenland.
parvicauda Van Duzee, 1928a: 48.—Calif.
pectinata Sherman, 1921: 19.—B.C.
pediformis Shaw, 1951a: 68.—Wyo.
plumosa Van Duzee, 1928a: 49.—Calif.
prolixa Sherman, 1921: 18.—B.C.
seminigra Sherman, 1921: 18.—B.C.
sericea (Say), 1824a: 365 (1859a: 248) (*Mycetophila*).—Northwest Territory (U.S.).
serripes Johannsen, 1912a: 311.—N.Y.
spinicauda Van Duzee, 1928a: 47.—Calif.
triangularis Shaw, 1935c: 89.—N.Y.; Pa.

Tribe MYCETOPHILINI

The larvae of most, or possibly all, Mycetophilini are associated with fungi, including Ascomycetes, Myxomycetes, and 11 families of Basidiomycetes. Those of *Cordyla* are in ground-inhabiting fungi, of *Dynatosoma* in wood-inhabiting fungi, and those *Mycetophila* which live in Basidiomycetes ordinarily live in the flesh of the fungi. Species of *Platurocypta* have been reared only from Myxomycetes. Larvae of *Epicypta* carry cases made from their feces and other material; some species of *Phronia* have a protective mucus coating or a firm black excrement case; and certain species of *Trichonta* live in a space between the lower side of a fungus sporophore and a mucus sheet secreted by the larvae.

Genus CORDYLA Meigen

Polyxena Meigen, 1800: 19. Type-species, *Cordyla fusca* Meigen (Stone, 1941: 414). Suppressed I.C.Z.N., 1963b: 339.
Cordyla Meigen, 1803: 263. Type-species, *fusca* Meigen (sub. mon., Meigen, 1804: 93).

confera Garrett, 1925b: 14.—B.C.
gracilis Fisher, 1938a: 198.—Calif.
manca Johannsen, 1912a: 307.—N.Y.; B.C.
neglecta Johannsen, 1912a: 308.—Calif.; B.C.
parva Garrett, 1925b: 14.—B.C.
recens Johannsen, 1912a: 307.—N.Y.
scita Johannsen, 1912a: 307.—Wash.; B.C.
scutellata Garrett, 1925b: 14.—B.C.
verio Garrett, 1925b: 14.—B.C.
volucris Johannsen, 1909: 101.—N.Y.; Iowa, Maine.

Genus DYNATOSOMA Winnertz

Dynatosoma Winnertz, 1863: 947. Type-species, *Mycetophila fuscicornis* Meigen (Johannsen, 1909: 114).

Johannseni Guthrie, 1917: 316. Type-species, *aurei* Guthrie (mon.).

aureum (Guthrie), 1917: 316 (*Johannseni*).—Calif.

bifasciatum (Walker), 1848: 96 (*Mycetophila*).—Ont.; B.C., Alta., Oreg., Ont. to Maine, s. to Mass.

nigrina Johannsen, 1912b: 75.—Mass.

coquilletti Landrock, 1918: 44 (n. name for *thoracica* Coquillett).—Ill., N.H.

thoracica Coquillett 1901h: 598 (preocc. Zetterstedt, 1838).—Ill., N.H.

errans Garrett, 1925b: 11.—N.Y.

fulvidum Coquillett, 1895d: 200.—Wash.; B.C., N. Mex., N.Y. to Maine, s. to Conn., S.C.

huliphilum Garrett, 1925b: 12.—B.C.

var. **grande** Garrett, 1925b: 12.—B.C. ?Var.

montanum Garrett, 1925b: 11.—B.C.

placidum Johannsen, 1912b: 76.—Ont.; B.C., N.Y., N.H., N.C.

Genus EPICYPTA Winnertz

Epicypta Winnertz, 1863: 909. Type-species, *Mycetophila scatophora* Perris (Johannsen, 1909: 110).

Delopsis Skuse, 1890b: 623. Type-species, *flavipennis* Skuse (mon).

REFERENCE: Steenberg, 1938 (biol.).

scatophora (Perris), 1849: 58 (*Mycetophila*).—Europe; Man. to Mass., s. to Iowa and N.C., B.C., Europe.

pulicaria Loew, 1869c: 151 (Cent. 9, no. 41).—Pa. **N. syn.**

vitrea Coquillett, 1905d: 68 (*Mycetophila*).—B.C., N.J.

anomala Johannsen, 1912b: 96 (*Mycetophila*; preocc. Macquart, 1826).—Wis.

Genus MYCETOPHILA Meigen

Fungivora Meigen, 1800: 16. Type-species, *Tipula agarici* Villers (as Olivier; Coquillett, 1910b: 545). Suppressed I.C.Z.N., (1963b: 339.).

Mycetophila Meigen, 1803: 263. Type-species, *Tipula agarici* Villers (Johannsen, 1909: 116). Unpublished request before I.C.Z.N., according to Melville, 1961: 33, to fix *Tipula fungorum* De Geer as type.

Mycothera Winnertz, 1863: 913. Type-species, *Mycetophila dimidiata* Staeger (Johannsen, 1909: 111)=*ocellus* Walker.

Opistholoba Mik, 1891a: 5. Type-species, *Mycetophila caudata* Staeger (orig. des.).

REFERENCE: Laffoon, 1957 (rev.).

alata Guthrie, 1917: 315.—Calif.

singularis Van Duzee, 1928a: 62.—Calif.

alberta Curran, 1927f: 80.—Alta.; Alaska to Calif.

alea Laffoon (for *guttata* Dziedzicki).—Europe; s. Alaska, s. Canada to cent. Calif. and N.C., Europe. **N. name.**

guttata Dziedzicki, 1884: 309 (1886: 326) (preocc. Hutton, 1881).—Europe.

alexanderi (Laffoon), 1957: 267 (*Fungivora*).—Iowa; s. Canada, s. to Calif. and Pa. **N. comb.**

analis (Coquillett), 1901h: 598 (*Exechia*).—N.J.; Wis.

arnaudi (Laffoon), 1957: 222 (*Fungivora*).—Calif.; Wash., Oreg. **N. comb.**

attonsa (Laffoon), 1957: 233 (*Fungivora*).—Idaho; Wash. **N. comb.**

bentincki (Laffoon), 1957: 271 (*Fungivora*).—Calif. **N. comb.**

bipunctata Loew, 1869c: 152 (Cent. 9, no. 44).—Wis.; Minn. to se. Canada, s. to Tenn. and N.C.

bohartorum (Laffoon), 1957: 289 (*Fungivora*).—Calif. **N. comb.**

browningi (Laffoon), 1957: 191 (*Fungivora*).—Iowa; Wis. to Mass., s. to Mo. and N.C. **N. comb.**

byersi (Laffoon), 1957: 286 (*Fungivora*).—Iowa; Man. to N.H., s. to Iowa and Mass., Ky. **N. comb.**

capreolata (Laffoon), 1957: 223 (*Fungivora*).—Minn.; N.H. **N. comb.**

carruthi Shaw, 1951b: 276.—Colo.; B.C. to S. Dak., s. to Calif. and N. Mex.

caudata Staeger, 1840: 243.—Denmark; s. Canada, s. to Calif. and Ga., Europe.

polita Loew, 1869c: 158 (Cent. 9, no. 53).—N.Y.

ocellata Johannsen, 1909: 126 (*Opistholoba*).—N.Y.

caurina (Laffoon), 1957: 224 (*Fungivora*).—Wyo.; B.C., Wash. **N. comb.**

cavillator (Laffoon), 1957: 212 (*Fungivora*).—Alta.; Calif., Utah. **N. comb.**

celator (Laffoon), 1957: 242 (*Fungivora*).—Iowa; Ga. **N. comb.**

chamberlini (Laffoon), 1957: 260 (*Fungivora*).—Alaska. **N. comb.**

cingulum Meigen, 1830: 299.—Europe; Alaska, N.H., Europe.

clavata Van Duzee, 1928a: 58.—Calif.; B.C. to N.H., s. to Calif. and N.C.

spinigera Van Duzee, 1928a: 61 (preocc. Tonnoir, 1927).—Calif.

pacifica Fisher, 1938a: 199.—B.C.

denningi Shaw, 1951a: 67.—Ariz.

comata (Laffoon), 1957: 196 (*Fungivora*).—Ill.; Iowa, N.Y., Md., Del., D.C. **N. comb.**

concinna (Laffoon), 1957: 235 (*Fungivora*).—Iowa; Sask., Mo., Mich., Ind., N.Y., D.C. **N. comb.**

consonans (Laffoon), 1957: 223 (*Fungivora*).—Wash.; Oreg., Calif. **N. comb.**

contigua Walker, 1848: 96.—N.S.; s. Canada, s. to cent. Calif. and Md.
fallax Loew, 1869c: 156 (Cent. 9, no. 50).—Md.
lassata Johannsen, 1912b: 101.—Calif.

crassiseta (Laffoon), 1957: 209 (*Fungivora*).—N. Mex.; B.C., Wash. **N. comb.**

cruciator (Laffoon), 1957: 212 (*Fungivora*).—Calif.; N. Mex., Ont. **N. comb.**

dentata Lundström, 1913: 319.—Romania; s. Alaska to cent. Calif., Utah, Minn. to N.H., s. to Iowa and Md., Europe.
permata Guthrie, 1917: 314.—Calif.

devia (Laffoon), 1957: 197 (*Fungivora*).—Minn. **N. comb.**

discors (Laffoon), 1957: 265 (*Fungivora*).—Iowa; Minn. to Maine, s. to Iowa and Pa. **N. comb.**

edura Johannsen, 1912b: 103.—N.Y.; Minn. to N.H., s. to Iowa and Pa.

exstincta Loew, 1869c: 152 (Cent. 9, no. 43).—Middle States; Wis. to Que., s. to Iowa and N.C.

faceta (Laffoon), 1957: 203 (*Fungivora*).—Wash.; Calif. **N. comb.**

falcata Johannsen, 1912b: 93.—N.Y.; s. Canada, s. to Calif. and Fla.

fascinator (Laffoon), 1957: 272 (*Fungivora*).—Minn.; Wash., Que., N.H., Pa., Calif. **N. comb.**

fatua Johannsen, 1912b: 103.—Idaho; B.C. to Mont., s. to cent. Calif. and Wyo.

finlandica Edwards, 1913: 377.—Finland, U.S.S.R., Great Britain; N.Y., Maine, Tenn., Europe.

fisherae (Laffoon), 1957: 180 (*Fungivora*).—Iowa; s. Canada, s. to Colo., Tex., and Ga. **N. comb.**

foecunda Johannsen, 1912b: 99.—N.Y.; Alaska, Oreg., Idaho, Vt., Mass.

frustrator (Laffoon), 1957: 225 (*Fungivora*).—Calif.; Alta., Wash., Idaho, Mont., Oreg. **N. comb.**

fungorum (DeGeer), 1776: 361 (*Tipula*).—Scandinavia; Alaska to Greenland, s. to Calif. and N. Mex., n. Wis., Palaearctic, India, Thailand.
punctata Meigen, 1804: 91.—Europe.

ghanii Shaw, 1951b: 276.—Wyo.; Wash., Oreg.

hiulca (Laffoon), 1957: 223 (*Fungivora*).—N.H.; B.C. **N. comb.**

ichneumonea Say, 1823: 16 (1859b: 43).—Pa.; s. Canada, s. to Mont. and N.C.

mutica Loew, 1869c: 152 (Cent. 9, no. 45).—Middle States.

illudens (Laffoon), 1957: 188 (*Fungivora*).—Iowa; Wis. to Vt., s. to Mo. and Pa. **N. comb.**

impellans (Johannsen), 1912b: 83 (*Mycothera*).—N.Y.; Alaska to n. Canada, s. to cent. Calif. and N.C.

edentula Johannsen, 1912b: 105.—B.C.

pectoralis Van Duzee, 1928a: 62.—Calif.

itascae (Laffoon), 1957: 228 (*Fungivora*).—Minn. **N. comb.**

jucunda Johannsen, 1912b: 90.—N.Y.; Minn., Wis., Que.

jugata Johannsen, 1912b: 104.—Calif.; B.C., Wash., Oreg., Idaho.

laeta Walker, 1848: 97.—N.S.

lenis Johannsen, 1912b: 94.—Maine.

lenta Johannsen, 1912b: 102.—Maine; Alta., Wis., N.Y., Que., N.B., N.S.

limata (Laffoon), 1957: 262 (*Fungivora*).—La.; Iowa, Wis., N.C., S.C. **N. comb.**

luctuosa Meigen, 1830: 299.—Europe; s. Alaska to Que., s. to cent. Calif. and S.C., Europe.

extenta Johannsen, 1912b: 105.—N.Y.

mitis (Johannsen), 1912b: 82 (*Mycothera*).—Wis.; Minn. to Que., s. to Tex. and S.C., Scotland.

moravica Landrock, 1925b: 38.—Czechoslovakia; s. Alaska to Sask., s. to Ariz., also Minn., N.Y., Tenn., Europe.

napaea (Laffoon), 1957: 292 (*Fungivora*).—Minn.; N.B. **N. comb.**

ocellus Walker, 1848: 95.—England; Hudsonian zone of Alaska and Canada, s. to s. Calif. and Ga., Europe, Japan.

monochaeta Loew, 1869c: 158 (Cent. 9, no. 54).—D.C.

fenestrata Coquillett *in* Baker, 1904: 19.—Calif.

praenubila Johannsen, 1912b: 83 (*Mycothera*; as *fenestrata* var.).—N.J.

exusta Johannsen, 1912b: 104.—Mass.

fusca Van Duzee, 1928a: 60.—Calif.

parva Walker, 1848: 97.—Ont. Unrecognized.

parvimaculata Van Duzee, 1928a: 59.—Calif.; B.C., Oreg., Ariz.

maculosa Guthrie, 1917: 314 (preocc. Meigen, 1818).—Calif.

paula (Loew), 1869c: 151 (Cent. 9, no. 42) (*Mycothera*).—Middle States; s. Alaska to s. Canada, s. to Calif. and Ga.

trifasciata Coquillett *in* Baker, 1904: 18.—Calif.

paxillata (Laffoon), 1957: 218 (*Fungivora*).—Idaho; Alta., Wash., Oreg. **N. comb.**

pectita Johannsen, 1912b: 101.—B.C.; s. Alaska to s. Canada, s. to cent. Calif. and Pa.

bispina Van Duzee, 1928a: 58.—Calif.

ovata Van Duzee, 1928a: 59.—Calif.

percursa (Laffoon), 1957: 245 (*Fungivora*).—Oreg. **N. comb.**

perita Johannsen, 1912b: 90.—N.Y.; s. Canada, s. to Calif. and Gulf of Mexico.

pictula Meigen, 1830: 299.—Europe; Ill. to Que., s. to Va., Europe.

bimaculata Fabricius, 1805: 59 (*Sciara*; preocc. Meigen, 1804).—Denmark.

imitator Johannsen, 1912b: 99.—N.Y.

pinguis Loew, 1869c: 153 (Cent. 9, no. 47).—Ont.; Sask. to Maine, s. to Ark. and N.C.

scalaris Loew, 1869c: 154 (Cent. 9, no. 48).—Middle States.

procera Loew, 1869c: 159 (Cent. 9, no. 55).—N.Y.

propinqua Walker, 1848: 96.—N.S.; Wash. to N.B., s. to Oreg. and N.Y.

perlonga Johannsen, 1912b: 100.—N.Y.

recta (Johannsen), 1912b: 82 (*Mycothera*).—N.Y.; s. Canada, s. to cent. Calif. and N.C.

paradoxa Johannsen, 1912b: 82 (*Mycothera*).—N.Y.

recula (Laffoon), 1957: 217 (*Fungivora*).—Calif. **N. comb.**

ruficollis Meigen, 1818: 262.—Austria; Hudsonian zone of Alaska and Canada, s. to Ariz. and N.H., Palaearctic, Ethiopian, Java.

scitula (Laffoon), 1957: 275 (*Fungivora*).—N.Y. **N. comb.**

scotica Edwards, 1941: 80.—Scotland; Alaska, Calif.

seclusa (Laffoon), 1957: 232 (*Fungivora*).—Wash.; Colo. **N. comb.**

sepulta (Laffoon), 1957: 175 (*Fungivora*).—Iowa; s. Alaska to n. Que., s. to Calif., Tex., and Conn. **N. comb.**

sertata (Laffoon), 1957: 225 (*Fungivora*).—Oreg.; Wash., Idaho, Calif., Utah, Wyo., N.H. **N. comb.**

shawi (Laffoon), 1957: 273 (*Fungivora*).—Md.; B.C., Minn. to s. Que., s. to Mo. and Va. **N. comb.**

sierrae (Laffoon), 1957: 234 (*Fungivora*).—Calif. **N. comb.**

sigillata Dziedzicki, 1884: 308 (1886: 265).—Europe; B.C., Oreg., Idaho, Wyo., Que., N.S., Europe.

sigmoides Loew, 1869c: 156 (Cent. 9, no. 51).—Middle States; s. Canada, s. to Wash., Mo., and Ga., U.S.S.R. (Kamchatka).

fastosa Johannsen, 1912b: 91.—N.Y.

signatoides Dziedzicki, 1884: 310 (1886: 326).—Europe; s. Canada, s. to Oreg. and N.C., Europe.

sordida Wulp, 1874: 125.—Netherlands; s. Alaska and s. Canada, s. to n. Calif. and Pa., Europe.

spleniata (Laffoon), 1957: 244 (*Fungivora*).—Mass.; N.B., N.Y. **N. comb.**

stolida Walker, 1856a: 15.—England; s. Alaska, S. Dak. to N.H., s. to Kans. and Va., Europe.

socia Johannsen, 1912b: 106.—N.Y.

stricklandi (Laffoon), 1957: 251 (*Fungivora*).—s. Alaska; Oreg., Alta., Sask., Minn., Wis. **N. comb.**

strigata Staeger, 1840: 242.—Denmark; Wash., Oreg., Iowa, Que. to D.C., Europe.

trichonota Loew, 1869c: 155 (Cent. 9, no. 49).—D.C.

subita (Laffoon), 1957: 283 (*Fungivora*).—Idaho; Wash., Oreg., Calif. **N. comb.**

thioptera Shaw, 1940: 48.—Okla.; Wis. to Mass., s. to Gulf of Mexico.

trinotata Staeger, 1840: 242.—Denmark; s. Alaska, cent. Calif., Sask. to Que., s. to Okla. and S.C., Europe.

quatuornotata Loew, 1869c: 157 (Cent. 9, no. 52).—Md.

subquatuornotata Shaw, 1940: 48.—Okla.

uncinata (Laffoon), 1957: 221 (*Fungivora*).—Wyo.; Mont., Utah. **N. comb.**

unipunctata Meigen, 1818: 272.—Germany; Minn. to s. Que., s. to La. and S.C., Europe.

discoida Say, 1829: 153 (1859b: 351).—Ind.

inculta Loew, 1869c: 153 (Cent. 9, no. 46).—D.C.

vegeta (Laffoon), 1957: 192 (*Fungivora*).—Iowa; Calif., Ariz., Ill., Pa., Md., S.C. **N. comb.**

venusta (Laffoon), 1957: 290 (*Fungivora*).—Alaska; s. Alaska to s. Que., s. to Tex. and Md. **N. comb.**

verecunda (Laffoon), 1957: 270 (*Fungivora*).—Iowa; Minn., Ill., N.Y., Mass. **N. comb.**

vesca (Laffoon), 1957: 213 (*Fungivora*).—N.Y.; Md., Tenn. **N. comb.**

wirthi (Laffoon), 1957: 197 (*Fungivora*).—Va. **N. comb.**

Genus PHRONIA Winnertz

Phronia Winnertz, 1863: 857. Type-species, *rustica* Winnertz (Johannsen, 1909: 96)=*exigua* (Zetterstedt).

Macrobrachius Dziedzicki, 1889: 520. Type-species, *kowarzii* Dziedzicki (mon.).

Telmaphilus Becker, 1908: 66. Type-species, *biarcuatus* Becker (Johannsen, 1909: 126).

REFERENCES: Steenberg, 1924, 1943 (biol.).

californica Fisher, 1938b: 222 (n. name for *basalis* Van Duzee).—Calif.
basalis Van Duzee, 1928a: 51 (preocc. Winnertz, 1863).—Calif.
despecta (Walker), 1848: 101 (*Mycetophila*).—Ont.
difficilis Johannsen, 1912b: 61.—N.Y.
exigua (Zetterstedt), 1852: 4246 (*Mycetophila*).—Norway, Sweden; Greenland, Europe.
rustica Winnertz, 1863: 875.—Europe.
flabellata Van Duzee, 1928a: 51.—Calif.
fusciventris Van Duzee, 1928a: 52.—Calif.
hitchcocki Shaw, 1951a: 67.—Wyo.
incerta (Adams), 1907: 37 (*Mycetophila*).—Ind.
insulsa Johannsen, 1912b: 60.—R.I., N.Y.; B.C., Maine.
nebulosa (Johannsen), 1912b: 64 (*Telmaphilus*).—N.Y.; B.C.
producta Johannsen, 1912b: 60.—Mass.
similis Johannsen, 1912b: 62.—N.Y.
tenebrosa Coquillett, 1904f: 170.—Calif.; B.C., Oreg.
venusta Johannsen, 1912b: 61.—Idaho; B.C., Alta., S. Dak., N.Y.

Genus PLATUROCYPTA Enderlein

Platurocypta Enderlein, 1910a: 76. Type-species, *limbatifemur* Enderlein (mon.).
Neoepicypta Coher, 1950: 114. Type-species, *Mycetophila punctum* Stannius (orig. des.). **N. syn.**
Epicypta, authors, not Winnertz.

REFERENCE: Buxton, 1954 (biol.).

punctum (Stannius), 1831b: 16 (*Mycetophila*).—Germany; Mass., N.Y., N.J., S.C., Europe.
testata (Edwards), 1925b: 167 (*Epicypta*).—Europe; Que., Mass., N.Y., N.J., S.C., Europe.
testacea (error) Shaw and Fisher, 1952: 208.

Genus SCEPTONIA Winnertz

Sceptonia Winnertz, 1863: 907. Type-species, *Mycetophila nigra* Meigen (Johannsen, 1909: 113).

autumnalis Garrett, 1925b: 16 (as *autumnals*).—B.C.
johannseni Garrett, 1925b: 15 (as *johannsoni*).—B.C.
nigra (Meigen).—Not Nearctic.

Genus TRICHONTA Winnertz

Trichonta Winnertz, 1863: 847. Type-species, *Mycetophila melanura* Staeger (Johannsen, 1909: 94).

bellula Johannsen, 1912a: 304.—Vt.; N.H., Maine.
chaoi Shaw, 1951b: 279.—Wyo.
cincta Johannsen, 1912a: 303.—Maine.
diffissa Johannsen, 1912a: 305.—N.Y., Mass.; Conn.
foeda Loew, 1869c: 150 (Cent. 9, no. 38).—Middle States.
fusciventris Van Duzee, 1928a: 43.—Calif.
hansoni Shaw, 1940: 50.—Maine.
obesa Winnertz, 1863: 854.—Europe; Greenland, Austria.
patens Johannsen, 1912a: 305.—N.Y.
perspicua Wulp, 1881: 142.—Que.; Maine, Vt., N.J.
sagana Shaw, 1940: 51.—Maine.
triangularis Johannsen, 1912a: 303.—N.Y.
vulgaris Loew, 1869c: 149 (Cent. 9, no. 37).—Md., D.C.

Genus ZYGOMYIA Winnertz

Zygomyia Winnertz, 1863: 901. Type-species, *Mycetophila vara* Staeger (Johannsen, 1909: 112).

bifasciata Garrett, 1925b: 15.—B.C.
christata Garrett, 1925b: 15.—B.C.
christulata Garrett, 1925b: 15.—B.C.
coxalis Garrett, 1925b: 15.—B.C.
ignobilis Loew, 1869c: 150 (Cent. 9, no. 39).—Middle States; N.Y., S.C.
interrupta Malloch, 1914g: 234.—Ill.; Iowa.
ornata Loew, 1869c: 150 (Cent. 9, no. 40).—Pa.; Wis. to N.Y., s. to Iowa and N.C.
pilosa Garrett, 1925b: 14.—B.C.
vara (Staeger), 1840: 266 (*Mycetophila*).—Denmark; Maine, N.Y., Europe.

Subfamily SCIOPHILINAE

Tribe GNORISTINI

Larvae of this tribe have been reported from a variety of habitats such as fungi (*Boletina*, *Coelosia*), decaying wood (*Boletina*, *Synapha*), liverwort (*Boletina*), webs in moss (*Gnoriste*), and webs on cave walls (*Speolepta*).

Genus BOLETINA Staeger

Boletina Staeger, 1840: 233. Type-species, *Leia trivittata* Meigen (Johannsen, 1909: 73).

abdominalis Adams, 1903a: 24.—Mo.

akpatokensis Edwards, 1933: 613.—N.W.T. (Akpatok I.).
antica Garrett, 1924c: 165.—B.C.
antoma Garrett, 1924c: 166.—B.C.
arctica Holmgren, 1872: 105.—Greenland.
astacus Garrett, 1924c: 164.—B.C.
atra Cole *in* Cole and Lovett, 1921: 219.—Oreg.
birulai Lundström, 1915: 3.—Siberia; Alaska.
cincta Johannsen, 1912a: 270.—Vt., N.Y.; N.H., Conn., N.C.
crassicauda Van Duzee, 1928a: 44.—Alaska.
delicata Johannsen, 1912a: 276.—Wyo.
differens Garrett, 1924c: 168.—B.C.
gracilis Johannsen, 1912a: 271.—Calif., Wyo.
groenlandica Staeger, 1845b: 356.—Greenland; Alaska, Colo., N.H., Maine, N.J., n. Europe.
hopkinsii (Coquillett), 1895d: 200 (*Mycetophila*).—W. Va.; N.H.
imitator Johannsen, 1912a: 271.—Wash.; B.C., Alta., N.Y.
inops Coquillett, 1900h: 391 (1904: 5).—Alaska; B.C., Idaho.
jucunda Garrett, 1924c: 167.—B.C.
longicornis Johannsen, 1912a: 272.—Idaho.
magna Garrett, 1925a: 5.—B.C.
melancholica Johannsen, 1912a: 271.—Wyo.; B.C., N.C.
montana Garrett, 1924c: 163.—B.C.
nacta Johannsen, 1912a: 277.—Wyo.
notescens Johannsen, 1912a: 272.—N.Y., Mass.; B.C., N.H., Maine, N.C.
obesula Johannsen, 1912a: 276.—Alaska.
obscura Johannsen, 1912a: 270.—N.Y., N.H., Mass., N.J.; Conn., R.I., N.C.
oviducta (Garrett), 1924c: 164 (*Mycomya*).—B.C.
profectus Shaw and Fisher, 1952: 197.—N.Y., N.S.
punctus Garrett, 1925a: 5.—B.C.
sciarina Staeger, 1840: 236.—Denmark; N.Y., N.H., Maine, Conn., Greenland, Europe.
sedula Johannsen, 1912a: 277.—Wash.; Alta.
shermani Garrett, 1924c: 166.—B.C.
sobria Johannsen, 1912a: 274.—Wash.; B.C.
subatra Fisher, 1938b: 222 (n. name for *atra* Van Duzee).—Alaska.
atra Van Duzee, 1928a: 45 (preocc. Cole, 1921).—Alaska.
tricincta Loew, 1869c: 143 (Cent. 9, no. 25).—Wis., Md.; B.C., Wis., Maine to Md., S.C.
unusa Garrett, 1924c: 168.—N.Y.

Genus COELOSIA Winnertz

Coelosia Winnertz, 1863: 796. Type-species, *Boletina flava* Staeger (Johannsen, 1909: 86).

flava (Staeger).—Not Nearctic.
gracilis Johannsen, 1912a: 294.—Calif., Colo.; B.C.
lepida Johannsen, 1912a: 294.—Calif.; B.C.
modesta Johannsen, 1912a: 294.—Calif.
pygophora Coquillett, 1904f: 170.—Calif.; Oreg.
tenella (Zetterstedt), 1852: 4165 (*Boletina*).—Sweden; Alta., Oreg., Calif., Europe, Mongolia.
flavicauda Winnertz, 1863: 798.—Europe.
truncata Lundström, 1909: 18.—Finland; Alaska, N.W.T., Sask., Que., Latvia.

Genus DZIEDZICKIA Johannsen

Hertwigia Dziedzicki, 1885: 166 (preocc. Schmidt, 1880). Type-species, *marginata* Dziedzicki (mon.).
Dziedzickia Johannsen, 1909: 44 (n. name for *Hertwigia* Dziedzicki). Type-species, *Hertwigia marginata* Dziedzicki (aut.).
Syntemna, authors, not Winnertz.

columbiana Sherman, 1921: 17.—B.C.
fuscipennis (Coquillett), 1905d: 67 (*Sciophila*).—B.C.
immaculata Cole *in* Cole and Lovett, 1919: 222.—Oreg.
johannseni Sherman, 1921: 17 (preocc. Meunier, 1917).—B.C. Unrecognized.
longicornis (Coquillett), 1901h: 597 (*Docosia*).—N.H.; Mass.
rejecta Johannsen, 1912a: 296 (*Syntemna*).—Mass.
occidentalis Sherman, 1921: 17.—B.C.
oregona Cole *in* Cole and Lovett, 1919: 223.—Oreg.
polyzona (Loew), 1869c: 142 (Cent. 9, no. 24) (*Syntemna*).—Middle States; Maine, R.I., N.Y., N.J., N.C., S.C.
pullata (Coquillett) *in* Baker, 1904: 19 (*Neoempheria*).—Calif.
rutila Sherman, 1921: 17.—B.C.
separata (Johannsen), 1912a: 297 (*Syntemna*).—Vt.
vernalis Sherman, 1921: 16.—B.C.
vittata (Coquillett), 1901h: 597 (*Docosia*).—N.H.; Maine.
var. **fasciata** (Johannsen), 1912a: 297 (*Syntemna*).—Maine. ?Var.

Genus GNORISTE Meigen

Gnoriste Meigen, 1818: 243. Type-species, *apicalis* Meigen (mon.).
apicalis Meigen.—Not Nearctic.

groenlandica Lundbeck, 1898: 259.—Greenland; Conn.
macra Johannsen, 1912a: 257.—Wis.; N.H., Maine.
macroides Curran, 1927f: 79.—Ont.; Que.
megarrhina Osten Sacken, 1877: 193.—Calif.; Labr. to N.J., N.C.

Genus HADRONEURA Lundström

Hadroneura Lundström, 1906: 10. Type-species, *palmeni* Lundström (mon.).

kincaidi (Coquillett), 1900h: 391 (1904: 5) (*Neoempheria*).—Alaska (Popof I.).

Genus SPEOLEPTA Edwards

Speolepta Edwards, 1925a: 566. Type-species, *Polylepta leptogaster* Winnertz (orig. des.).

REFERENCE: Schmitz, 1913 (biol.).

leptogaster (Winnertz), 1863: 746 (*Polylepta*).—Europe; Ind., N.H.

Genus SYNAPHA Meigen

Synapha Meigen, 1818: 227. Type-species, *fasciata* Meigen (mon.).
Empalia Winnertz, 1863: 762. Type-species, *Sciophila vitripennis* Meigen (mon.).

bicolor Shaw and Fisher, 1952: 196.—N.Y., R.I.
disjuncta (Garrett), 1925b: 11 (*Empalia*).—B.C. **N. comb.**
tibialis (Coquillett), 1901h: 596 (*Polylepta*).—N.H.; N.Y., N.J.

Tribe MYCOMYINI

The larvae of this tribe have been found under bark, in decaying wood, and in basidiomycete fungi. At least some species of *Mycomya* secrete mucus webs.

REFERENCE: Coher, 1959 (tax.).

Genus MYCOMYA Rondani

Mycomya Rondani, 1856: 194. Type-species, *Sciophila marginata* Meigen (mon.).
Mycomyia, error or emend.
Sciophila, authors, not Meigen.

REFERENCE: Fisher, 1937 (key).

alternata Fisher, 1937: 396.—N.Y.; B.C., Wyo., Iowa, Maine to Tenn.
ampla Garrett, 1924c: 64.—Alta.; B.C.

angulata (Adams), 1903a: 22 (*Sciophila*).—Colo.
armata Garrett, 1924c: 163.—B.C.
ata Garrett, 1924c: 159.—B.C.
autumnalis Garrett, 1924c: 160.—B.C.
biseriata (Loew), 1869c: 140 (Cent. 9, no. 20) (*Sciophila*).—Red River of the North (probably Man.); B.C., Vt., Maine.
brevivitta (Coquillett), 1905d: 67 (*Sciophila*).—B.C.; Wis. to Que., s. to Ill. and N.Y., also B.C.
calcarata (Coquillett) *in* Baker, 1904: 19 (*Sciophila*).—Calif.; B.C.
californica Van Duzee, 1928a: 40.—Calif.
caulfieldi Garrett, 1924c: 62.—B.C.
cranbrooki Garrett, 1924c: 61.—B.C.
curvata Fisher, 1937: 395.—Alta.; N.W.T., B.C., Wash., Mont., Wyo., Maine.
dentata Fisher, 1937: 396.—N.H.; Minn. to Vt., s. to N.C.-Tenn. border.
dichaeta Fisher, 1937: 394.—N.Y.; Iowa, Mass. to Md.
difficilis Garrett, 1924c: 65.—B.C.
dura Garrett, 1924c: 162.—B.C.
echinata Garrett, 1924c: 161.—B.C.; Wash., Idaho, Mont., Utah, Calif.
abbreviata Van Duzee, 1928a: 42.—Calif.
flavohirta (Coquillett), 1901h: 596 (*Sciophila*).—N.H.; B.C., Wash., Ont., Conn.
fragilis (Loew), 1869c: 138 (Cent. 9, no. 16) (*Polylepta*).—Mass.; Minn., N.H. to Md.
frequens Johannsen, 1910b: 171 (as *littoralis* var.).—Calif.; Alta., N.C.
fulvitibia Van Duzee, 1928a: 38.—Calif.
longispina Van Duzee, 1928a: 41.—Calif.
fuscipalpis Van Duzee, 1928a: 40.—Calif.
hamata Garrett, 1924c: 160.—B.C.
hirticauda Van Duzee, 1928a: 38.—Calif.; Wash., Oreg.
hirticollis (Say), 1824a: 362 (1859a: 246) (*Sciophila*).—Northwest Territory (U.S.); s. Canada, s. to Oreg. and Tenn.
appendiculata Loew, 1869c: 139 (Cent. 9, no. 19) (*Sciophila*).—N.Y.
humida Garrett, 1924c: 62.—B.C.; Mont.
imitans Johannsen, 1910b: 177.—B.C., Wis., N.Y., Mass., R.I.; B.C., Alta., Wis. to Que., s. to Iowa and N.C.
incompta Johannsen, 1910b: 186.—B.C., N.Y., Maine.
intermedia Fisher, 1937: 396.—Calif.
kiamichii Shaw, 1940: 50.—Okla.; Iowa.

littoralis (Say), 1824a: 361 (1859a: 245) (*Sciophila*).—Northwest Territory (U.S.); Alta. to Que., s. to Mo. and N.C.
magna Garrett, 1924c: 64.—B.C.
marginalis Johannsen, 1910b: 177.—B.C.; Wash.
maxima Johannsen, 1910b: 179.—Maine; B.C. to Labr., s. to Oreg. and N.Y.
mendax Johannsen, 1910b: 182.—B.C., Idaho, Calif.; Oreg., N.Y., Vt., N.H.
mutabilis Sherman, 1921: 16.—B.C.
nigra Fisher, 1938a: 198.—Md.
nigricauda (Adams), 1903a: 23 (*Sciophila*).—Colo.; N.Y.
nigrihirta Van Duzee, 1928a: 39.—Calif.; Oreg.
nugatoria Johannsen, 1910b: 183.—Wis., N.C.; Iowa, Que., Mass.
obliqua (Say), 1824a: 363 (1859a: 247) (*Sciophila*).—Northwest Territory (U.S.); Man. to Que., s. to Iowa and N.C.
obtruncata Loew, 1869c: 139 (Cent. 9, no. 18) (*Sciophila*).—D.C.
onusta (Loew), 1869c: 138 (Cent. 9, no. 17) (*Sciophila*).—D.C.; Maine, Mass.
ornata (Meigen).—Not Nearctic.
parascopula Fisher, 1937: 394.—Md.; Iowa, S.C.
polleni Garrett, 1924c: 65.—B.C.
pseudomaxima Fisher, 1937: 393.—N.Y.
recurva Johannsen, 1910b: 185.—Wis.; Maine
var. **chloratica** Johannsen, 1910b: 185.—Wis. ?Var.
scopula Fisher, 1937: 394.—N.Y.; Que., Vt.
sequax Johannsen, 1910b: 172.—N.Y.; Alta., Maine, S.C.
shermani Garrett, 1924c: 66.—B.C.
sigma Johannsen, 1910b: 180.—N.C.; B.C., Idaho, Wyo., N.Y., Mass.
simplex (Coquillett), 1905d: 67 (*Sciophila*).—B.C.
sphagnicola Shaw, 1941a: 171.—N.C.; B.C., Oreg., N.Y., Nfld.
sublittoralis Shaw, 1941a: 172.—N.C.; s. Canada, s. to Wash. and N.C.
tantilla (Loew), 1869c: 140 (Cent. 9, no. 21) (*Sciophila*).—Nebr.; s. Canada, s. to N. Mex. and N.C., Costa Rica.
tenuis (Walker), 1856a: 37 (*Sciophila*).—England; Greenland, Europe.
terminata Garrett, 1924c: 60.—B.C.; Oreg.
triacantha Shaw, 1941a: 172.—N.C.-Tenn. border; N.H., N.C., Tenn.
turitella Fisher, 1937: 395.—Fla.; N.C.
unicolor (Walker), 1848: 93 (*Leia*).—Ont.
vulgaris Garrett, 1924c: 63.—B.C.; Alta.

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Genus NEOEMPHERIA Osten Sacken

Empheria Winnerz, 1863: 738 (preocc. Hagen, 1856). Type-species, *Sciophila striata* Meigen (Coquillett, 1910b: 537).

Neoempheria Osten Sacken, 1878c: 9 (n. name for *Empheria* Winnertz). Type-species, *Sciophila striata* Meigen (aut.).

balioptera (Loew), 1869c: 136 (Cent. 9, no. 13) (*Empheria*).—Ill.; Ont. to Que., s. to Iowa and N.C.

lutea Tollet, 1948: 1.—Md.

didyma (Loew), 1869c: 136 (Cent. 9, no. 14) (*Empheria*; n. name for *bimaculata* Loew).—Ont.; s. Canada (from B.C. e.), s. to Mich. and N.Y.

bimaculata Loew, 1866b: 6 (Cent. 7, no. 9) (*Sciophila*; preocc. Roser, 1840).—Ont.

digitalis Fisher, 1937: 390.—Mich.

illustris Johannsen, 1910b: 163.—N.Y.; Ont., s. to Iowa and Fla.

impatiens Johannsen, 1910b: 161.—R.I.; Que., s. to Tenn. and N.C.

indulgens Johannsen, 1910b: 162.—Que., N.Y., N.C.; Iowa to Que., s. to Tenn. and N.C.

macularis Johannsen, 1910b: 159.—Que., N.Y.; Iowa to Que., s. to Tenn. and N.C.

nepticula (Loew), 1869c: 137 (Cent. 9, no. 15) (*Empheria*).—Ga.; Mass., N.J., N.C.

Tribe SCIOPHILINI

Members of this tribe have been reared from bark fungi (*Sciophila*, *Leptomorphus*), decaying wood (*Monoclona*, *Phthinia*, *Sciophila*), and mosses (*Neuratelia*). The larvae of some are known to make mucus webs.

Genus ACNEMIA Winnertz

Acnemia Winnertz, 1863: 798. Type-species, *Leia nitidicollis* Meigen (Johannsen, 1909: 63).

flaveola Coquillett, 1901h: 598.—N.J.; Que. to N.J., N.C.

psylla Loew, 1869c: 148 (Cent. 9, no. 34).—Md.; B.C., N.Y., Mass.

varipennis Coquillett, 1904f: 169.—Calif.

Genus ALLOCOTOCERA Mik

Eurycera Dziedzicki, 1885: 169 (preocc. de Laporte, 1833). Type-species, *flava* Dziedzicki (mon.)=*pulchella* (Curtis).

Allocotocera Mik, 1886: 102 (n. name for *Eurycera* Dziedzicki). Type-species, *Eurycera flava* Dziedzicki (aut.)=*pulchella* (Curtis).

parvula (Coquillett), 1901h: 597 (*Leptomorphus*).—N.J.; Wis., Maine, Mass.
flavescens Johannsen, 1909: 72.—Wis.

Genus AZANA Walker

Azana Walker, 1856a: 26. Type-species, *scatopsoides* Walker (mon.)=*anomala* (Staeger).

Unnamed sp.—Maine (Johannsen, 1912a: 260), Minn., N.S.

Genus EUDICRANA Loew

Eudicrana Loew, 1869c: 142 (Cent. 9, no. 23). Type-species, *obumbrata* Loew (mon.).

obumbrata Loew, 1869c: 141 (Cent. 9, no. 23).—N.Y.; Maine to Pa.
plexipus Garrett, 1925a: 4.—B.C.

Genus LEPTOMORPHUS Curtis

Leptomorphus Curtis, 1831: pl. 365. Type-species, *walkeri* Curtis (orig. des.).
Diomonus Walker, 1848: 87. Type-species, *nebulosus* Walker (mon.).

bifasciatus (Say), 1824a: 363 (1859a: 246) (*Sciophila*).—Northwest Territory (U.S.); Vt., N.H., Maine, Mass.
hyalinus Coquillett, 1901h: 598.—N.H.; R.I., N.C.
magnificus (Johannsen), 1910b: 155 (*Diomonus*).—Ohio, N.Y., Mass.; Wash.
nebulosus (Walker), 1848: 87 (*Diomonus*).—Ont.; N.H., Maine.
subcaeruleus subcaeruleus (Coquillett), 1901h: 595 (*Sciophila*).—Ont., N.H., Pa.; Alta., Ont. to Maine, s. to N.C.
pulcher Johannsen, 1903a: 14 (*Sciophila*).—N.Y.
ssp. **gurneyi** Shaw, 1947: 155.—Mo. ?Ssp.
walkeri Curtis, 1831: pl. 365.—England; N.J., Europe.
ypsilon Johannsen, 1912a: 265.—N.Y.

Genus MEGALOPELMA Enderlein

Megalopelma Enderlein, 1910b: 165. Type-species, *planiceps* Enderlein (orig. des.).

glabanum (Johannsen), 1910b: 136 (*Sciophila*).—N.Y., Wis.; Alta., Iowa, Vt., Maine, R.I. **N. comb.**
galbana, emend.
var. **germanum** (Johannsen), 1910b: 137 (*Sciophila*).—Wis.; Mass. ?Var. **N. comb.**

var. **socium** (Johannsen), 1910b: 137 (*Sciophila*).—Vt., Mass.; N.Y. ?Var. **N. comb.**

Genus MONOCLONA Mik

Staegeria Wulp, 1876: xlix (preocc. Rondani, 1856). Type-species, *Sciophila halterata* Staeger (mon.)=*rufilatera* (Walker).

Monoclona Mik, 1886: 279 (n. name for *Staegeria* Wulp). Type-species, *Sciophila halterata* Staeger (aut.)=*rufilatera* Walker).

REFERENCE: Fisher, 1946 (key).

elegantula Johannsen, 1910b: 128.—N.Y.; B.C., Que. to N.S., s. to Pa., N.C.
floridensis Fisher, 1946: 2.—Fla.
furcata Johannsen, 1910b: 187.—Maine; B.C., Mass.
idahoensis Fisher, 1946: 1.—Idaho.
simplex Garrett, 1925a: 9.—B.C.

Genus NEURATELIA Rondani

Neuratelia Rondani, 1856: 195. Type-species, *Mycetophila nemoralis* Meigen (orig. des.).

Anaclinia Winnertz, 1863: 770. Type-species, *Mycetophila nemoralis* Meigen (mon.).

Odontopoda Aldrich, 1897: 187. Type-species, *sayi* Aldrich (mon.).

abrevena Garrett, 1925b: 11.—B.C.
coxalis (Coquillett), 1905d: 68 (*Anaclinia*).—B.C.; Oreg.
desidiosa Johannsen, 1912a: 263.—Mass.
distincta (Garrett), 1925a: 4 (*Odontopoda*).—B.C. **N. comb.**
eminens Johannsen, 1912a: 263.—Idaho.
flexa Van Duzee, 1928a: 44.—Calif.
grandis Garrett, 1925a: 5.—B.C.
insignifica Shaw, 1941a: 173.—N.C.-Tenn. border.
nemoralis (Meigen), 1818: 265 (*Mycetophila*).—Europe; Alaska, B.C., Calif., Europe, e. Siberia, Japan.
obscura Garrett, 1925a: 5.—B.C.
sayi (Aldrich), 1897: 187 (*Odontopoda*).—Ind.
scitula Johannsen, 1912a: 263.—Vt., N.J.; Maine, R.I., N.C., S.C.
scituloides Shaw, 1941a: 173.—Tenn., N.C.
silvatica Johannsen, 1912a: 262.—Calif.; S.C.

Genus PARATINIA Mik

Paratinia Mik, 1874: 333. Type-species, *sciarina* Mik (mon.).

recurva Johannsen, 1910b: 144.—N.Y.; Vt., S.C.

Genus PHTHINIA Winnertz

Phthinia Winnertz, 1863: 779. Type-species, *humilis* Winnertz (Johannsen, 1909: 83).

carolina Fisher, 1940: 246.—N.C.
catawbiensis Shaw, 1940: 50.—N.C.
curta Johannsen, 1912a: 291.—N.Y.; B.C., Oreg., Maine.
tanypus Loew, 1869c: 143 (Cent. 9, no. 26).—N.Y.

Genus POLYLEPTA Winnertz

Polylepta Winnertz, 1863: 745. Type-species, *undulata* Winnertz (Johannsen, 1909: 43)=*guttiventris* (Zetterstedt).

modesta Van Duzee, 1928a: 43.—Calif.
nigella Johannsen, 1910b: 148.—Wash.
obediens Johannsen, 1910b: 147.—Wis., N.H., Mass.; B.C., N.Y., Maine, Conn.

Genus SCIOPHILA Meigen

Sciophila Meigen, 1818: 245. Type-species, *hirta* Meigen (Curtis, 1837: pl. 641).
Lasiosoma Winnertz, 1863: 748. Type-species, *Sciophila pilosa* Meigen (Coquillett, 1910b: 558)=*hirta* Meigen.

acuta Garrett, 1925a: 11.—B.C.
agassis Garrett, 1925a: 9.—B.C.
bicolor Garrett, 1925a: 10 (preocc. Dziedzicki, 1885).—B.C. Unrecognized.
bifida Garrett, 1925a: 10.—B.C.
distincta Garrett, 1925a: 10.—B.C.
fasciata Say, 1823: 26 (1859b: 50).—Pa., Md.; Que., Vt., N.J., N. Mex.
fusca Garrett, 1925a: 10 (preocc. Meigen, 1818).—B.C. Unrecognized.
habilis Johannsen, 1910b: 138.—N.Y.; S.C.
hebes Johannsen, 1910b: 139.—Kans., R.I.
hirta Meigen, 1818: 251.—Europe; Oreg., Greenland, Europe.
impar Johannsen, 1910b: 140.—Wash., Wyo.
incallida Johannsen, 1910b: 139.—N.Y.; N.H., Mass., Conn.
longua Garrett, 1925a: 9.—B.C.
neohebes Garrett, 1925a: 9.—B.C.; Alta.
novata Johannsen, 1910b: 140.—N.Y.; Iowa.
nugax Johannsen, 1910b: 137.—N.Y.; Wis.
pallipes Say, 1824a: 361 (1859a: 245).—Northwest Territory (U.S.); Iowa, N.Y., N.H., Maine.

parva Garrett, 1925a: 10 (preocc. Dziedzicki, 1885).—B.C. Unrecognized.
puta Laffoon (for *nitida* Van Duzee).—Calif. **N. name.**
nitida Van Duzee, 1928a: 37 (preocc. Zetterstedt, 1852).—Calif.
quadratula (Loew), 1869c: 141 (Cent. 9, no. 22) (*Lasiosoma*).—Maine; Minn., N.H.
setosa Garrett, 1925a: 11.—B.C.
severa Johannsen, 1910b: 141.—N.Y.
similis Johannsen, 1910b: 142.—Que.

Tribe TETRAGONEURINI

(Leiini)

Larvae of this tribe are mostly associated with fungi or decaying wood. Species of *Leia* are often found in mucus webs on the lower surface of fungus sporophores although several have been reared from a variety of other places. Species of *Rondaniella* and *Tetragoneura* have been reared from decaying wood and wood-inhabiting fungi. *Docosia fumosa,* a European species, has been bred repeatedly from various bird nests.

Genus DOCOSIA Winnertz

Docosia Winnertz, 1863: 802. Type-species, *Mycetophila sciarina* Meigen (Johannsen, 1909: 92).

aceus Garrett, 1925b: 13.—B.C.
affinis Garrett, 1925b: 12.—B.C.
apicula Garrett, 1925b: 13.—B.C.
defecta Van Duzee, 1928a: 46.—Calif.
dialata Van Duzee, 1928a: 46.—Calif.
dichroa Loew, 1869c: 148 (Cent. 9, no. 35).—D.C.; Wis. to Maine, s. to Kans. and D.C.
mutor Adams, 1903a: 24 (*Syntemna*).—Mo.
nebulosa Garrett, 1925b: 13.—B.C.
nigella Johannsen, 1912a: 300.—Alaska.
nigrita Garrett, 1925b: 13.—B.C.
nitida Johannsen, 1912a: 300.—S. Dak.; Alta.
obscura Coquillett, 1901h: 597.—N.H.
paradichroa Fisher, 1937: 397.—N.Y.
setosa Garrett, 1925b: 12 (preocc. Landrock, 1916).—B.C. Unrecognized.
similis Garrett, 1925b: 12.—B.C.
vierecki Garrett, 1925b: 13.—B.C.

Genus ECTREPESTHONEURA Enderlein

Ectrepesthoneura Enderlein, 1910b: 155. Type-species, *Tetragoneura hirta* Winnertz (orig. des.).

bicolor (Coquillett), 1901h: 595 (*Tetragoneura*).—N.H.; N.Y., Mass., Conn., N.C.

Genus LEIA Meigen

Leia Meigen, 1818: 253. Type-species, *fascipennis* Meigen (Curtis, 1837a: pl. 645).

Leja, error or emend.

Glaphyroptera Winnertz, 1863: 781 (preocc. Heer, 1852). Type-species, *Leia fascipennis* Meigen (Coquillett, 1910b: 547).

Neoglaphyroptera Osten Sacken, 1878c: 10 (n. name for *Glaphyroptera* Winnertz). Type-species, *Leia fascipennis* Meigen (aut.).

bivittata Say, 1829: 152 (1859b: 351).—Ind.; Minn. to Maine, s. to Kans. and N.C.

lateralis Wulp, 1867: 131 (*Glaphyroptera*).—Wis.

cephala Garrett, 1925b: 11.—B.C.

cincta (Coquillett), 1895a: 308 (*Neoglaphyroptera*).—Fla.

cuneola (Adams), 1903a: 25 (*Neoglaphyroptera*).—Colo.; Idaho.

decora (Loew), 1869c: 144 (Cent. 9, no 28) (*Glaphyroptera*).—Ga.

dryas Johannsen, 1912a: 287.—Wis.; Iowa, N.C.

hemiata Garrett, 1925a: 11.—B.C.

hyalina (Coquillett), 1905d: 68 (*Lejomya*).—N. Mex.

joculator Laffon (for *nigra* Johannsen).—Wash., Mont. **N. name.**

nigra Johannsen, 1912a: 281 (preocc. Zetterstedt, 1838).—Wash., Mont.

lineola (Adams), 1903a: 25 (*Neoglaphyroptera*).—Calif.

melaena (Loew), 1869c: 144 (Cent. 9, no. 27) (*Glaphyroptera*).—N.Y.; Ont. to Maine, s. to N.J.

nigricornis Van Duzee, 1928a: 46.—Alaska.

oblectabilis (Loew), 1869c: 146 (Cent. 9, no. 31) (*Glaphyroptera*).—Middle States; Wis. to Maine, s. to Kans. and N.C., Costa Rica.

opima (Loew), 1869c: 145 (Cent. 9, no. 29) (*Glaphyroptera*).—Conn.; Alta., Wyo., Wis. to Maine, s. to Iowa and N.C.

plebeja Johannsen, 1912a: 285.—Wis., Kans.; Iowa.

shermani Garrett, 1925a: 11.—B.C.

striata (Williston), 1893c: 60 (*Neoglaphyroptera*).—Wash.; Alta., N.Y., N.C.

sublunata (Loew), 1869c: 145 (Cent. 9, no. 30) (*Glaphyroptera*).—N.Y.; B.C., Alta., N.Y. to Maine, s. to N.C.
varia Walker, 1848: 93.—Ont.; Wyo., Iowa, Wis.
ventralis Say, 1824a: 364 (1859a: 247).—Northwest Territory (U.S.); Maine to N.J.
winthemii Lehmann, 1822: 39 (also 1824: 241).—Germany; B.C. to Maine, s. to Oreg. and N.C., Europe, Siberia, Japan, Oriental.
maculipennis Say, 1824a: 365 (1859a: 248) (*Mycetophila*).—Northwest Territory (U.S.).
trifasciata Walker, 1848: 93.—Ont.

Genus MEGOPHTHALMIDIA Dziedzicki

Megophthalmidia Dziedzicki, 1889: 404, 525 (as *Megophtalmidia*, pp. 525, 526, 532). Type-species, *zugmayeriae* Dziedzicki (mon.)=*crassicornis* (Curtis).

occidentalis Johannsen, 1909: 89.—Wash.; B.C.

Genus RONDANIELLA Johannsen

Rondaniella Johannsen, 1909: 66. Type-species, *Leia variegata* Winnertz (orig. des.).

sororcula (Loew), 1869c: 147 (Cent. 9, no. 32) (*Leia*).—N.Y.; B.C., Wis. to Maine, s. to Iowa and N.C.
abbreviata Loew, 1869c: 147 (Cent. 9, no. 33) (*Leia*).—Middle States. **N. syn.**

Genus TETRAGONEURA Winnertz

Tetragoneura Winnertz, 1846: 18. Type-species, *distincta* Winnertz (Johannsen, 1909: 34, 35)=*sylvatica* (Curtis).

arcuata Sherman, 1921: 20.—B.C.
atra Sherman, 1921: 19.—B.C.
fallax Sherman, 1921: 20.—B.C.
longicauda Van Duzee, 1928a: 36.—Calif.
marceda Sherman, 1921: 20.—B.C.
nitida Adams, 1903a: 23.—Mo.; N.C.
pimpla Coquillett, 1901h: 595.—Pa.; B.C., Oreg., N.Y., S.C.
quintana Cole *in* Cole and Lovett, 1921: 218.—Oreg.
robur Garrett, 1925a: 8.—B.C.
similis Garrett, 1925a: 8 (as *similas*, also p. 8).—B.C.

Unplaced Species of Mycetophilidae

grisea Walker, 1848: 92 (*Sciophila*).—Ont.; N.H.
nubila Say, 1829: 153 (1859b: 351) (*Mycetophila*).—Ind.
obscura Walker, 1848: 101 (*Mycetophila*).—Ont.

Family SCIARIDAE

(Lycoriidae)

By Alan Stone and Jean L. Laffoon

Flies of the family Sciaridae are usually small, dark, and rather delicate. They are found in moist places wherever fungus grows. The larvae of some species may be pests in mushroom cellars or greenhouses. Those of certain species may form snakelike masses that move over the ground.

A sound, revisionary study of the genera and species of this family for the Nearctic Region is needed. Frey (1942, 1948) and Tuomikoski (1960) have provided classifications with considerable merit, but based largely on northern European species. The present catalog does little more than list the proposed names, although several changes suggested by Frey and Tuomikoski have been adopted. Most species previously assigned to *Neosciara* are transferred to *Bradysia* to conform with Frey's classification.

"*Sciara ocellaris* Comstock," so cited in the literature, was thought to cause the gall produced by *Cecidomyia ocellaris* Osten Sacken. This was the result of an erroneous association by Comstock (1882) of the pupa and adult of an unknown species of Sciaridae with the gall.

References: Johannsen, 1912b (rev.); Pettey, 1918a (rev.); Shaw, 1953b (review).

Genus TRICHOSIA Winnertz

Trichosia Winnertz, 1867: 173. Type-species, *splendens* Winnertz (Coquillett, 1910b: 616)=*hirtipennis* (Zetterstedt).

hebes Loew, 1869c: 161 (Cent. 9, no. 58).—N.Y.; N.J.

Genus METANGELA Rübsaamen

Metangela Rübsaamen, 1894: 24. Type-species, *calliptera* Rübsaamen (Enderlein, 1911a: 126).

toxoneura (Osten Sacken), 1862a: 165 (*Sciara*).—D.C.; Kans., S.C.

Genus PHORODONTA Coquillett

Odontonyx Rübsaamen, 1894: 25 (preocc. Stephens, 1828). Type-species, *Sciara nigra* Wiedemann (Coquillett, 1910b: 578).

Phorodonta Coquillett, 1910b: 589 (n. name for *Odontonyx* Rübsaamen). Type-species, *Sciara nigra* Wiedemann (aut.).

nigra (Wiedemann), 1821a: 44 (1821c: 44) (*Sciara*).—Ga.; N. Mex., Fla., Mexico.

Genus PHYTOSCIARA Frey

Phytosciara Frey, 1942: 27. Type-species, *Sciara halterata* Lengersdorf (orig. des.).

flavipes (Meigen), 1804: 98 (*Sciara*).—Europe; Greenland, Palaearctic.

Genus SCIARA Meigen

Lycoria Meigen, 1800: 17. Type-species, *Tipula thomae* Linnaeus (Coquillett, 1910b: 563). Suppressed by I.C.Z.N., (1963b: 339.).

Sciara Meigen, 1803: 263. Type-species, *Tipula thomae* Linnaeus (mon.).

abdita Johannsen, 1912b: 125.—Ont.
arcuata Garrett, 1925b: 16.—B.C.
cingulata Rübsaamen, 1894: 31.—Ga.
clavata Garrett, 1925b: 16.—B.C.
congregata Johannsen, 1914: 93.—Ark.
cylindrica Pettey, 1918a: 329.—Calif.
dives Johannsen, 1912b: 125.—Calif.
forceps Pettey, 1918a: 328.—Fla.
futilis Johannsen, 1912b: 125.—Wis.
globosa Pettey, 1918a: 330.—Calif.
habilis Johannsen, 1912b: 126.—N.Y.; Man., Ont., Vt., Maine, Mass., N.C.
multisetifera Pettey, 1918a: 328.—Ariz.
ochrolabis Loew, 1869c: 160 (Cent. 9, no. 57).—N.Y.; Wis., Maine to N.C.
polita Say, 1824a: 366 (1859a: 249).—Northwest Territory (U.S.); Ont., N.J.
psittacus Pettey, 1918a: 330.—Maine.
sciophila Loew, 1869c: 160 (Cent. 9, no. 56).—D.C.; Maine to N.C.
obscura Harris, 1835: 595. Nomen nudum.

townesi Shaw, 1935b: 227.—S.C.
vicina Johannsen, 1912b: 124.—N.Y.; Maine.

Genus EUGNORISTE Coquillett

Eugnoriste Coquillett, 1896c: 321. Type-species, *occidentalis* Coquillett (mon.).

brevirostris Coquillett, 1904f: 169.—Colo.; Ariz., Kans., Mexico.
occidentalis Coquillett, 1896c: 322.—N. Mex.; Alta., Oreg., Idaho, N.H., N.Y., N.J.

Genus RHYNCHOSCIARA Rübsaamen

Rhynchosciara Rübsaamen, 1894: 29. Type-species, *villosa* Rübsaamen (Coquillett, 1910b: 601)=*americana* (Wiedemann).

proboscidea Lengersdorf, 1931: 254.—Wash. (?error). Unrecognized.

Genus ZYGONEURA Meigen

Zygoneura Meigen, 1830: 304. Type-species, *sciarina* Meigen (mon.).

flavicoxa Johannsen, 1912b: 116.—N.Y.; Maine, Mass., N.C., Mexico.
johannseni Shaw, 1941b: 324.—Okla.

Genus LYCORIELLA Frey

Lycoriella Frey, 1942: 36. Type-species, *Sciara vivida* Winnertz (orig. des.; misident)=*auripila* (Winnertz).

Subgenus LYCORIELLA Frey

agraria (Felt), 1898a: 225 (1898: 225) (*Sciara*).—N.Y.; England, New Zealand.
brevipetiolata (Shaw), 1941b: 322 (*Sciara*).—Okla.
caesar (Johannsen), 1929a: 223 (*Sciara*; as *caesar*).—Ont.
multiseta (Felt), 1898a: 223 (1898: 223) (*Sciara*).—N.J.; N.Y., Vt.
pauciseta (Felt), 1898a: 224 (1898: 224) (*Sciara*).—N.J.; B.C., Calif., Ont. and N.H., s. to Pa.
sativae (Johannsen), 1912b: 133 (*Sciara*).—Kans.
similans (Johannsen), 1925: 266 (*Sciara*).—N.Y.
trifolii (Pettey), 1918b: 420 (*Sciara*) (also 1918a: 334 as *Neosciara*).—Idaho.

Subgenus HEMINEURINA Frey

Lycoriella, subg. **Hemineurina** Frey, 1942: 36. Type-species, *Sciara conspicua* Winnertz (orig. des.).

cochleata (Rübsaamen), 1898: 108 (*Sciara*).—Greenland; Europe.
haemorrhoidalis Lundbeck, 1898: 247 (*Sciara*).—Greenland.
consimilis (Holmgren), 1869: 54 (*Sciara*).—Spitzbergen, Bear I.; Greenland.
permutata (Lundbeck), 1901: 313 (*Sciara*; n. name for *glacialis* Lundbeck).—Greenland.
glacialis Lundbeck, 1898: 254 (*Sciara*; preocc. Rübsaamen, 1898).—Greenland.
venosa (Staeger), 1840: 285 (*Sciara*).—Denmark; Greenland, Europe.

Genus BRADYSIA Winnertz

Bradysia Winnertz, 1867: 180. Type-species, *angustipennis* Winnertz (Enderlein, 1911a: 127).
Neosciara Pettey, 1918a: 320. Type-species, *Sciara coprophila* Lintner (orig. des.).

Subgenus BRADYSIA Winnertz

actuosa (Johannsen), 1912b: 134 (*Sciara*).—N.Y.; Conn. **N. comb.** ?*Scatopsciara*.
acuta (Johannsen), 1912b: 136 (*Sciara*).—Wash.; B.C., Idaho, S. Dak., Kans., Mexico. ?*Scatopsciara*.
bellingeri Shaw, 1953a: 67.—Conn.
biformis (Lundbeck), 1898: 256 (*Sciara*).—Greenland.
bispina (Fisher), 1938a: 199 (*Sciara*).—Mich. **N. comb.**
bournei (Shaw), 1941c: 175 (*Sciara*).—Man. **N. comb.**
browni (Shaw), 1935b: 229 (*Sciara*).—Ont. **N. comb.**
caldaria (Lintner), 1895: 398 (1896: 398) (*Sciara*).—Idaho; Alta., Utah, N.Y. **N. comb.**
conglomerata (Pettey), 1918a: 335 (*Neosciara*).—Calif. **N. comb.**
coprophila (Lintner), 1895: 394 (1896: 394) (*Sciara*).—N.Y.; Alta. to Maine, s. to Colo. and N.J., N.C.
cucumeris (Johannsen), 1912b: 133 (*Sciara*).—Ill.; Iowa. **N. comb.** ?*Scatopsciara*.
dichaeta (Shaw), 1941b: 321 (*Sciara*).—Okla. **N. comb.**
diluta (Johannsen), 1912b: 135 (*Sciara*).—N.Y.
dolens (Johannsen), 1912b: 134 (*Sciara*).—N.Y. **N. comb.**
dux (Johannsen), 1912b: 127 (*Sciara*).—Wis.; Mich., N.Y., Mass., R.I. **N. comb.**
ericia (Pettey), 1918a: 337 (*Neosciara*).—Mass. **N. comb.**
expolita (Coquillett), 1900h: 392 (1904: 6) (*Sciara*).—Alaska. **N. comb.**
falcata (Pettey), 1918a: 331 (*Neosciara*).—Mass. **N. comb.**
farri (Shaw), 1953a: 67.—Conn.

fatigans (Johannsen), 1912b: 132 (*Sciara*).—N.Y. **N. comb.**
felti (Pettey), 1918a: 339 (*Neosciara*).—N.Y. **N. comb.**
fochi (Pettey), 1918a: 331 (*Neosciara*).—Wyo. **N. comb.**
forcipulata (Lundbeck), 1898: 244 (*Sciara*).—Greenland; Finland.
fulvicauda (Felt), 1898a: 227 (1898: 227) (*Sciara*).—N.J. **N. comb.**
fumida (Johannsen), 1912b: 135 (*Sciara*).—N.Y.; Maine, Mass. **N. comb.**
grandis (Pettey), 1918a: 334 (*Neosciara*).—Ga. **N. comb.**
groenlandica (Holmgren), 1872: 104 (*Sciara*).—Greenland. **N. comb.**
hamata (Pettey), 1918a: 338 (*Neosciara*).—Ga. **N. comb.**
hartii (Johannsen), 1912b: 144 (*Sciara*).—Ill. **N. comb.**
hastata (Johannsen), 1912b: 130 (*Sciara*).—N.Y.; Maine, Mass.
imitans (Johannsen), 1912b: 128 (*Sciara*).—Wash. **N. comb.**
impatiens (Johannsen), 1912b: 136 (*Sciara*).—N.Y.; Mass.
iridipennis (Zetterstedt), 1838: 827 (*Sciara*).—Sweden, Greenland; Alaska, Finland.
joffrei (Pettey), 1918a: 332 (*Neosciara*).—Pa. **N. comb.**
johannseni (Enderlein), 1912a: 282 (*Sciara*; n. name for *nigricans* Johannsen).—R.I.; Kans., N.Y. **N. comb.**
nigricans Johannsen, 1912b: 134 (*Sciara*; preocc. Enderlein, 1911).—R.I. **N. comb.** *Lycoria nigricans* Enderlein, 1911a: 168, from Brazil, is here transferred to the genus *Bradysia*. **N. comb.**
jucunda (Johannsen), 1912b: 131 (*Sciara*).—R.I.; Wis., N.Y., N.H., Mass., Conn. **N. comb.**
kaiseri (Shaw), 1941b: 320 (*Sciara*).—Okla. **N. comb.**
lobosa (Pettey), 1918a: 333 (*Neosciara*).—B.C. **N. comb.**
longispina (Pettey), 1918a: 325 (*Neosciara*).—Maine; Scotland. **N. comb.**
lugens (Johannsen), 1912b: 132 (*Sciara*).—Maine; Mass. **N. comb.**
luravi (Johannsen), 1929c: 88 (*Sciara*).—Va.; Pa. **N. comb.**
luteola (Pettey), 1918a: 333 (*Neosciara*).—Ga. **N. comb.**
macclurei (Shaw), 1941c: 174 (*Sciara*).—Man. **N. comb.**
macfarlanei (Jones), 1920: 92 (*Neosciara*).—Miss., Ala., S.C., N.C. **N. comb.**
macrodon Frey, 1948: 85 (n. name for *pallidiventris* Holmgren).—Spitzbergen; ?Greenland.
pallidiventris Holmgren, 1869: 53 (*Sciara*; preocc. Winnertz, 1867).—Spitzbergen.
macroptera (Pettey), 1918a: 339 (*Neosciara*).—Calif. **N. comb.**
mellea (Johannsen), 1912b: 129 (*Sciara*).—Ohio; N.Y., N.H., Mass., Conn. **N. comb.**
mesochra (Shaw), 1941b: 320 (*Sciara*).—N. Mex. **N. comb.**

munda (Johannsen), 1912b: 127 (*Sciara*).—Wash.; B.C., Oreg. **N. comb.**
mutua (Johannsen), 1912b: 131 (*Sciara*).—N.Y. **N. comb.**
neglecta (Johannsen), 1912b: 133 (*Sciara*).—Calif. **N. comb.**
nemoralis (Meigen), 1818: 287 (*Sciara*).—Europe; ?Greenland.
aprilina Meigen, 1818: 285 (*Sciara*).—Europe.
nigripes (Meigen), 1830: 307 (*Sciara*).—Europe; ?Greenland.
ovata (Pettey), 1918a: 336 (*Neosciara*).—B.C. **N. comb.**
paradichaeta (Shaw), 1941b: 322 (*Sciara*).—Okla. **N. comb.**
parilis (Johannsen), 1912b: 132 (*Sciara*).—Kans.; N.Y., N.H. **N. comb.**
parva (Holmgren), 1869: 52 (*Scaeva*).—Spitzbergen; N.W.T.
penna (Pettey), 1918a: 338 (*Neosciara*).—Calif. **N. comb.**
perfecta (Pettey), 1918a: 341 (*Neosciara*).—Md. **N. comb.**
petaini (Pettey), 1918a: 334 (*Neosciara*).—Md. **N. comb.**
pilata (Pettey), 1918a: 337 (*Neosciara*).—Calif. **N. comb.**
pollicis (Pettey), 1918a: 338 (*Neosciara*).—Ariz. **N. comb.**
polychaeta (Pettey), 1918a: 335 (*Neosciara*).—Ga. **N. comb.**
prolifica (Felt), 1898a: 226 (1898: 226) (*Sciara*).—Mass.; B.C., Idaho, Man., Ont., N.Y., Maine. **N. comb.**
quadrispinosa (Pettey), 1918a: 332 (*Neosciara*).—Mass.; Maine. **N. comb.**
radialis (Shaw), 1934: 233 (*Sciara*).—N.C. **N. comb.**
reynoldsi (Metz), 1938: 177 (*Sciara*).—N.C., Ala. **N. comb.**
scita (Johannsen), 1912b: 135 (*Sciara*).—Oreg.; Wash.
sexdentata (Pettey), 1918a: 340 (*Neosciara*).—Calif. **N. comb.**
silvestrii (Kieffer), 1910: 327 (*Sciara*).—N.Y.; Maine. **N. comb.**
sylvestris and *sylvestrii*, errors or emends.
spinata (Pettey), 1918a: 324 (*Neosciara*).—R.I. **N. comb.**
subgrandis (Shaw), 1941b: 321 (*Sciara*).—Okla. **N. comb.**
subtrivialis (Pettey), 1918a: 340 (*Neosciara*).—Calif. **N. comb.**
trifurca (Pettey), 1918a: 336 (*Neosciara*).—Calif. **N. comb.**
tritici (Coquillett), 1895i: 408 (*Sciara*).—Unknown (?D.C.); Ohio, England. **N. comb.**
trivialis (Johannsen), 1912b: 136 (*Sciara*).—N.Y. **N. comb.**
unguicauda (Malloch), 1923i: 180 (*Sciara*).—Pribilof Is. **N. comb.**
varians (Johannsen), 1912b: 135 (*Sciara*).—Kans.; N.Y., Maine.

Subgenus SEMNOMYIA Frey

Neosciara, subg. **Semnomyia** Frey, 1942: 32. Type-species, *Sciara psychina* Enderlein (orig. des.).

picea (Rübsaamen), 1894: 32 (*Sciara*).—Ga.; N.C., Fla. **N. comb.**
americana, authors, not Wiedemann (*Sciara*).

Genus SCATOPSCIARA Edwards

Sciara, subg. **Scatopsciara** Edwards *in* Tonnoir and Edwards, 1927: 798. Type-species, *quinquelineata* Macquart (orig. des.)
Scaptosciara, error.

nacta (Johannsen), 1912b: 132 (*Sciara*).—N.Y.; Mass., Ky., Finland.
vivida (Winnertz), 1867: 156 (*Sciara*).—Europe; Greenland.

Genus PLASTOSCIARA Berg

Pseudosciara Kieffer, 1898b: 194 (preocc. Schiner, 1866). Type-species, *pictiventris* Kieffer (orig. des.).
Plastosciara Berg, 1899: 78 (n. name for *Pseudosciara* Kieffer). Type-species, *Pseudosciara pictiventris* Kieffer (aut.).

Unnamed spp.—Va., Ga.

Genus NIADINA Rapp

Niadina Rapp, 1946a: 126. Type-species, *jauva* Rapp (orig. des.).

jauva Rapp, 1946a: 126.—Ill.

Genus EPIDAPUS Haliday

Epidapus Haliday *in* Walker, 1851a: 7. Type-species, *Chionea venatica* Haliday (sub. mon., Walker, 1856a: 56).

johannseni Shaw, 1953a: 63.—Conn.

Genus PEYERIMHOFFIA Kieffer

Peyerimhoffia Kieffer, 1903: 198. Type-species, *brachyptera* Kieffer (Enderlein, 1911a: 185). This is possibly a syn. of the earlier genus *Aptanogyna* Börner.

johnstoni Shaw, 1935a: 160.—Mass.

Genus PNYXIA Johannsen

Pnyxia Johannsen, 1912b: 114. Type-species, *Epidapus scabiei* Hopkins (orig. des.).

scabiei (Hopkins), 1895: 152 (*Epidapus*).—W. Va.; Mo., Ohio to Mass. and R.I., Europe.

Unplaced Species of Sciaridae

abbreviata Walker, 1848: 109 (*Sciara*).—Ont.; Alaska, N.H., N.J.
atrata Say, 1824a: 366 (1859a: 249) (*Sciara*).—Northwest Territory (U.S.); Ont., N.H.

attenuata Rübsaamen, 1898: 106 (*Sciara*).—Greenland.
alternata (error) Aldrich, 1905: 149.
latipennis Lundbeck, 1898: 242 (*Sciara*).—Greenland.
borealis Rübsaamen, 1898: 109 (*Sciara*).—Greenland; Alaska.
delessei Séguy, 1953: 118 (*Lycoria*).—Greenland.
diderma Garrett, 1925b: 16 (*Sciara*).—B.C.
dimidiata Say, 1832: 15 (1859a: 308) (*Sciara*).—La.
diota Garrett, 1925b: 16 (*Sciara*).—B.C.
exigua Say, 1824a: 367 (1859a: 249) (*Sciara*).—Northwest Territory (U.S.); Canada, ?N.H.
exilis Say, 1829: 154 (1859b: 352) (*Sciara*).—Ind.
femorata Say, 1823: 78 (1859b: 70) (*Sciara*).—Pa.; N.Y., N.J.
fraterna Say, 1824a: 367 (1859a: 249) (*Sciara*).—Northwest Territory (U.S.).
fuliginosus Fitch, 1856a: 487 (1856: 255) (*Molobrus*).—N.Y.; N.H., N.J., Fla. Preocc. in *Sciara* by Blanchard, 1852.
fulviventris Wiedemann, 1821a: 44 (1821c: 44) (*Sciara*).—Amer.
fumatella Lundbeck, 1898: 249 (*Sciara*).—Greenland.
glacialis Rübsaamen, 1898: 109 (*Sciara*).—Greenland.
humicola Lundbeck, 1898: 252 (*Sciara*).—Greenland.
inconstans Fitch, 1856a: 487 (1856: 255) (*Molobrus*).—N.Y.; s. Canada, s. to Calif. and Va.
lurida Walker, 1848: 106 (*Sciara*).—N.Y.
mali Fitch, 1856a: 486 (1856: 254) (*Molobrus*).—N.Y.
marginata Rübsaamen, 1898: 107 (*Sciara;* preocc. Skuse, 1891).—Greenland.
nervosa Meigen, 1818: 283 (*Sciara*).—Europe; ?Greenland.
perpusilla Walker, 1848: 106 (*Sciara*).—Ont.
pulicaria Meigen, 1818: 282 (*Sciara*).—Europe; ?Greenland.
punctata Walker, 1848: 106 (*Sciara;* preocc. Fabricius, 1805).—N. Amer.
robusta Walker, 1848: 105 (*Sciara*).—Ont.
rotundipennis Macquart, 1838b: 178 (1839: 294) (*Sciara*).—Carolina; N.C., Mexico.
septemtrionalis Rübsaamen, 1898: 106, 109, 119 (*Sciara;* as *septentrionalis*, p. 119).—Greenland.
tridentata Rübsaamen, 1898: 107 (*Sciara*).—Greenland; B.C., Man., Bear I., Jan Mayer I., Spitzbergen.
validicornis Lundbeck, 1898: 243 (*Sciara*).—Greenland.
unicorn Garrett, 1925b: 16 (*Sciara*).—B.C.
vulgaris Fitch, 1856a: 487 (1856: 255) (*Molobrus*).—N.Y.; Calif., N.H., N.J.

Family HYPEROSCELIDIDAE

(Corynoscelididae)

By E. F. Cook

This small family, formerly placed as a subfamily of the Scatopsidae, is found in the northern Holarctic Region, Chile, and New Zealand. No life histories are known.

REFERENCES: Tollet, 1959 (tax.); Hardy and Nagatomi, 1960 (key genera).

Genus SYNNEURON Lundström

Synneuron Lundström, 1910: 5. Type-species, *annulipes* Lundström (mon.).

annulipes Lundström, 1910: 6.—Finland; Alaska, Wash., Que.

Family SCATOPSIDAE

By E. F. Cook

The biology of Scatopsidae is practically unknown. The larvae of only four of the Scatopsini and one *Ectaetia* have been described. *Scatopse fuscipes* Meigen and *S. notata* (Linnaeus), both cosmopolitan species, have been found in many types of decaying plant and animal material, including excreta. *Rhexoza similis* (Beekey) has been found under the bark of logs, and *R. incisa* Cook under the bark of elms and cottonwoods. The European species *Ectaetia platyscelis* (Loew) has been found in debris in a tree hole.

Subfamily SCATOPSINAE

Tribe SCATOPSINI

Genus SCATOPSE Geoffroy

Scatopse Geoffroy, 1762: 450. Type-species, *Tipula notata* Linnaeus (I.C.Z.N., 1957a: 86). Conserved as of 1762 under suspension of the Rules (I.C.Z.N., 1957a: 86).

Reichertella Enderlein, 1912a: 268. Type-species, *Scatopse femoralis* Meigen (orig. des.; misident.)=*nigra* Meigen.

Coboldia Melander, 1916: 17. Type-species, *formicarum* Melander (orig. des.)=*fuscipes* Meigen.

Rhaeboza Enderlein, 1936a: 55. Type-species, *Scatopse fuscipes* Meigen (orig. des.).

REFERENCES: Cook, 1957 (rev.); Meade and Cook, 1961 (biol. *S. fuscipes*).

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alpestris Cook, 1957: 600.—Colo.; Alaska to Colo.
brevipalpis Cook, 1957: 608.—N.Y.; Maine.
collaris (Melander), 1916: 10 (*Reichertella*).—Wash.; B.C., Idaho, Calif.
fattigi Cook, 1957: 604.—D.C.; Wis. to Ont., s. to Ga.
fuscipes Meigen, 1830: 314.—Europe; N. Amer., cosmopolitan.
formicarum Melander, 1916: 17 (*Coboldia*).—Wis.
barrus McAtee, 1921b: 123 (*Rhegmoclema*).—D.C.
atrata, authors, not Say.
lapponica Duda, 1928a: 27.—Europe; Y.T. to Man. and Labr.
montana Cook, 1957: 608.—Mont.; Wash.
notata (Linnaeus), 1758: 588 (*Tipula*).—Europe; Alaska, Canada, U.S., cosmopolitan.
femoralis Meigen, 1838: 55.—Europe.
nitens Walker, 1848: 114.—Ont.
nitida Harris, 1835: 596.—Nomen nudum.
producta Cook, 1957: 606.—W. Va.; Mass., Tenn.
pulicaria Loew.—Not Nearctic.
uncinata (Melander), 1916: 10 (*Reichertella*).—Alaska; Alaska, s. to Wash. and Wyo.

Genus COLOBOSTEMA Enderlein

Colobostema Enderlein, 1926a: 140. Type-species, *oldenbergi* Enderlein (orig. des.)=*tristis* (Zetterstedt).

REFERENCE: Cook, 1956a (rev.).

arizonense Cook, 1956a: 331.—Ariz.
variatum Cook, 1956a: 330.—Tex.; La., Fla.
varicorne (Coquillett), 1902g: 96 (*Scatopse*).—D.C.; Wis. to N.Y., s. to Ky. and Va.
tibialis McAtee, 1921b: 122 (*Scatopse*).—Va.

Tribe RHEGMOCLEMATINI

Genus RHEGMOCLEMA Enderlein

Rhegmoclema Enderlein, 1912a: 276. Type-species, *rufithorax* Enderlein (orig. des.).
Aldrovandiella Enderlein, 1912a: 278. Type-species, *Scatopse halterata* Meigen (orig. des.).

REFERENCE: Cook, 1955 (rev.).

boreale Cook, 1955: 249.—N.W.T.; Alaska.
halteratum (Meigen).—Not Nearctic.
hubachecki Cook, 1955: 249.—Minn.; Minn. to Maine, s. to W. Va.

majus Cook, 1955: 250.—Iowa; S. Dak. to Que. and N.Y.
minus Cook, 1955: 250.—B.C.; Oreg., Colo.
reticulatum Cook, 1955: 251.—Ont.; Mich., Wis.
truncatum Cook, 1955: 250.—Idaho; Sask. to Labr., s. to Utah and Nebr.

Genus RHEGMOCLEMINA Enderlein

Rhegmoclemina Enderlein, 1936a: 55. Type-species, *Scatopse vaginata* Lundström (orig. des.).

REFERENCE: Cook, 1955 (rev.).

Subgenus RHEGMOCLEMINA Enderlein

bimaculata (Melander), 1916: 14 (*Rhegmoclema*).—Wash.; B.C. to Calif.
melanderi Cook, 1955: 356.—Calif.; Wyo., Colo., Ont.
scrobicollis (Melander), 1916: 15 (*Rhegmoclema*).—Calif.; s. Calif.

Subgenus NEORHEGMOCLEMINA Cook

Rhegmoclemina, subg. **Neorhegmoclemina** Cook, 1955: 358. Type-species, *parvum* Cook (orig. des.).

bisaccata Cook, 1955: 358.—Iowa; N.Y.
parva Cook, 1955: 358.—La.; Va.

Genus PARASCATOPSE Cook

Parascatopse Cook, 1955: 362. Type-species, *wirthi* Cook (orig. des.).
flavida Cook, 1955: 363.—Fla.; Miss.
sonorensis Cook, 1955: 363.—Calif.
wirthi Cook, 1955: 363.—Fla.

Tribe SWAMMERDAMELLINI

Genus SWAMMERDAMELLA Enderlein

Swammerdamella Enderlein, 1912a: 277. Type-species, *Scatopse brevicornis* Meigen (orig. des.).

REFERENCE: Cook, 1956a (rev.).

bispinosa Cook, 1956a: 28.—Calif.; Sask., Mont.
brevicornis (Meigen).—Not Nearctic.
chillcotti Cook, 1956a: 26.—Man.

confusa Cook, 1956a: 22.—Va.
marginata Cook, 1956a: 24.—N. Mex.; Calif., Nev., Mexico.
nevadensis Cook, 1956a: 26.—Nev.
obtusa Cook, 1956a: 26.—Minn.; Sask. to Maine, s. to Kans. and Md.
pusilla (Walker), 1848: 114 (*Scatopse*).—Ont.; Alaska to Wyo. and Maine.
pygmaea (Loew), 1864a: 56 (Cent. 5, no. 13) (*Scatopse*).—D.C.; Md.
floralis McAtee, 1921b: 123 (*Rhegmoclema*).—Md.
reducta Cook, 1956a: 29.—Ala.; Ind.
sagittata Cook, 1956a: 24.—Tex.; Ill. to Pa. and Fla.

Genus RHEXOZA Enderlein

Rhexoza Enderlein, 1936a: 55. Type-species, *zacheri* Enderlein (orig. des.).

REFERENCE: Cook, 1956a (rev.).

aterrima (Melander), 1916: 14 (*Rhegmoclema*).—Idaho; Calif., Mont.
cryptica Cook, 1956a: 10.—Va.
dampfi (Duda), 1928b: 280 (*Scatopse*).—Mexico; Tex.
grossa Cook, 1956a: 6.—Calif.; Oreg.
incisa Cook, 1956a: 6.—Minn.; Ill., Iowa, Ont.
miniscula Cook, 1956a: 10.—Va.; S.C., Tex.
quatei Cook, 1956a: 8.—Calif.
similis (Beekey), 1938: 151 (*Scatopse*).—Maine; Ont., Que.

Subfamily PSECTROSCIARINAE

Genus PSECTROSCIARA Kieffer

Psectrosciara Kieffer *in* Enderlein, 1911a: 192 (also Kieffer, 1912a: 192). Type-species, *mahensis* Kieffer (orig. des.)= *brunnipes* (Brunetti).

REFERENCE: Cook, 1958 (rev.).

bakeri Cook, 1958: 592.—Calif.
brevipennis Cook, 1958: 594.—Calif.
californica (Cole), 1912b: 151 (*Scatopse*).—Calif.; Mexico.
discata Cook, 1958: 592.—Calif.
elongata Cook, 1958: 594.—Tex.
forcipata Cook, 1958: 591.—Calif.
oregonensis Cook, 1958: 592.—Oreg.
serrata Cook, 1958: 594.—Tex.; Mexico.
stonei Cook, 1958: 593.—Tex.

Genus ANAPAUSIS Enderlein

Anapausis Enderlein, 1912a: 278. Type-species, *Scatopse soluta* Loew (orig. des.).

cismarina McAtee, 1921b: 124.—Va.

Subfamily ECTAETIINAE

Genus ECTAETIA Enderlein

Ectaetia Enderlein, 1912a: 279. Type-species, *Scatopse clavipes* Loew (orig. des.).

clavipes (Loew), 1846b: 333 (*Scatopse*).—Germany; B.C. to Ont., s. to Oreg., Ill., and N.J., Europe.

gracilis (McAtee), 1921b: 123 (*Reichertella*).—D.C.

Subfamily ASPISTINAE

Genus ASPISTES Meigen

Aspistes Meigen, 1818: 319. Type-species, *berolinensis* Meigen (mon.).

Subgenus ASPISTES Meigen

harti Malloch, 1920i: 275.—Ill.

Subgenus ARTHRIA Kirby

Aspistes, subg. **Arthria** Kirby, 1837: 311. Type-species, *analis* Kirby (orig. des.).

analis Kirby, 1837: 311.—N.W.T.

Unplaced Species of Scatopsidae

atrata Say, 1824a: 367 (1859a: 250) (*Scatopse*).—Pa.

obscura Walker, 1848: 114 (*Scatopse*).—Ont.

Family CECIDOMYIIDAE

(Itonididae)

By Richard H. Foote

Although commonly called gall midges, only about two-thirds of the cecidomyiids cause galls on plants. The larvae of most Lestremiinae

live in decaying organic matter; a few cause primary damage to fungi. A large number of Cecidomyiinae live as inquilines in the deformations made by other insects, or are predaceous. Paedogenesis is common to many of the genera of Lestremiinae and to a few of the Cecidomyiinae.

The taxonomic status of the family is unsatisfactory. The North American species are little known except in the northeast, the fauna of which E. P. Felt made the basis for his revision published in the bulletins of the New York State Museum. A. Earl Pritchard has revised the Lestremiinae of North America; in so doing he has assigned all the North American genera of the subfamily Heteropezinae to one or the other of the two subfamilies recognized below. This catalog is a synthesis of the conclusions of both these authorities. Many vexing taxonomic problems remain unsolved, and little has been done to integrate the North American fauna with that of other faunal regions. For these reasons the family requires much additional research.

The present International Code of Zoological Nomenclature requires the following usages, which have been adopted here:

(1) Acceptable compounds. A specific name originally proposed in polynomial form is accepted as of the original date and author (and is written as one word) *only* if the two names represent a single entity (e.g., *pini rigidae* from *Pinus rigida* becomes *pinirigidae*), or if originally hyphenated (e.g., *salicis-brassicoides* becomes *salicisbrassicoides*). If not acceptable from the original publication, a polynomial specific name may subsequently be made available by any author who uses a hyphen between the two words, or combines them into one word. In these cases, the author and date of the first subsequent validation are adopted. Sometimes subsequent authors used only one part of the polynomial and validated that part alone as a specific name.

(2) Names based on galls and immature stages. A name based on the "work of an animal" (if proposed before 1931), and names founded on immature stages, are accepted as of their original author and date. I have chosen to give the author, date, and page of a subsequent adult description, often (but not always) the most comprehensive one, in cases in which adults have been *definitely* associated.

The type-localities of many of Felt's species have been supplied from Felt, 1958, or from type-specimens.

REFERENCES: Felt, 1925b (generic key, index to spp.), 1940 (galls, key and figs.); Barnes, 1946a–1956 (biol. economically important spp.); Pritchard, 1953a (Calif.), 1960a (classif. "Heteropezinae").

Subfamily LESTREMIINAE

REFERENCES: Felt, 1913g (rev.); Pritchard, 1958 (rev. ne. spp.).

Tribe CATOTRICHINI

REFERENCES: Pritchard, 1948a (rev.), 1960a (rev.).

Genus CATOTRICHA Edwards

Catotricha Edwards, 1938a: 102. Type-species, *Catocha americana* Felt (orig. des.).

americana (Felt), 1908b: 309 (*Catocha*).—N.H.
subobsoleta (Alexander), 1924c: 82 (*Catocha*).—Wash.; Oreg., Calif.

Tribe CATOCHINI

REFERENCES: Pritchard, 1948a (rev.), 1960a (rev.).

Genus TRITOZYGA Loew

Tritozyga Loew *in* Osten Sacken, 1862b: 179. Type-species, *sackeni* Felt (Felt, 1911e: 32).

sackeni Felt, 1911e: 32.—D.C.; B.C., N.Y., Conn., Md.
fenestra Felt, 1914b: 117.—N.Y.
borealis Felt, 1920: 278.—N.Y.
cranbrooki Felt, 1926c: 266 (*Neocatocha*).—B.C.

Genus NEOCATOCHA Felt

Neocatocha Felt, 1912e: 236. Type-species, *marilandica* Felt (orig. des.).
Konisomyia Felt, 1914b: 118. Type-species, *fusca* Felt (orig. des.)= *marilandica* Felt.
marilandica Felt, 1912e: 236.—Md.; Ont., s. Labr., N.Y.
fusca Felt, 1914b: 118 (*Konisomyia*).—N.Y.
borealis Felt, 1920: 279 (*Konisomyia*).—N.Y.

Genus CATOCHA Haliday

Catocha Haliday, 1833: 156. Type-species, *latipes* Haliday (mon.).

slossonae Felt, 1908b: 309.—N.H.; nw. N.W.T., N.Y.
sylvana Felt, 1920: 280 (*Neocatocha*).—N.Y.

Genus EUCATOCHA Edwards

Eucatocha Edwards, 1938a: 106. Type-species, *Catocha barberi* Felt (orig. des.).

barberi (Felt), 1913g: 131 (*Catocha*).—Wis.
betsyae Pritchard, 1960b: 195.—Calif.

Genus ANOCHA Pritchard

Anocha Pritchard, 1948a: 669. Type-species, *Neocatocha spinosa* Felt (orig. des.).

celesteana Pritchard, 1960b: 197.—Wyo.
spinosa (Felt), 1913g: 152 (*Neocatocha*).—Unknown; Minn., Maine, ?Wis.
nylanderi Felt, 1926a: 207 (*Neocatocha*).—Maine.

Tribe LESTREMIINI

REFERENCES: Pritchard, 1951 (rev.), 1958 (rev. ne. spp.), 1960a (rev.).

Genus LESTREMIA Macquart

Lestremia Macquart, 1826a: 173 (1826: 115). Type-species, *cinerea* Macquart (mon.).

cinerea Macquart, 1826a: 173 (1826: 115).—France; B.C. to N.H., s. to Calif. and Fla., Europe.
sylvestris Felt, 1907b: 102 (*Catocha*).—N.C.
dyari Felt, 1908b: 311.—B.C.
franconiae Felt, 1908b: 311.—N.H.
kansensis Felt, 1908b: 311.—Kans.
fenestrata Malloch, 1914g: 233 (*Zygoneura*).—Ill.
floridana Felt, 1915a: 226.—Fla.
garretti Felt, 1926c: 265.—B.C.
leucophaea (Meigen), 1818: 288 (*Sciara*).—Europe; B.C., Wash., Calif., Minn., N.Y.
sambuci Felt, 1907b: 101 (*Catocha*).—N.Y.
setosa Felt, 1908b: 311.—N.Y.
occidentalis Felt, 1926c: 265.—B.C.
solidaginis (Felt), 1907b: 102 (*Catocha*).—N.Y.; Minn., Wis., N.Y.

Genus ANARETELLA Enderlein

Anaretella Enderlein, 1911a: 193. Type-species, *Lestremia defecta* Winnertz (orig. des.).

Neptunimyia Felt, 1912e: 237. Type-species, *tridens* Felt (orig. des.)=*defecta* (Winnertz).

defecta (Winnertz), 1870: 33 (*Lestremia*).—Europe; Wash., Calif., Minn., Wis., N.Y.
acerifolia Felt, 1907b: 101 (*Campylomyza*).—N.Y.
pini Felt, 1907b: 103 (*Lestremia*).—N.Y.
tridens Felt, 1912e: 237 (*Neptunimyia*).—N.Y.
iola Pritchard, 1951: 250.—Wash.
spiraeina (Felt), 1907b: 102 (*Catocha*).—N.Y.; Wash., Calif., Minn., Europe.

Genus ALLARETE Pritchard

Allarete Pritchard, 1951: 250. Type-species, *Lestremia vernalis* Felt (orig. des.).

barberi (Felt), 1908b: 310 (*Lestremia*).—N. Mex.; Calif., Minn.
vernalis (Felt), 1908b: 311 (*Lestremia*).—Kans.; Minn., Tex.

Genus GONGROMASTIX Enderlein

Gongromastix Enderlein, 1936a: 60. Type-species, *andorrana* Enderlein (mon.).

epista Pritchard, 1951: 253.—Wash.; Calif.
schalis Pritchard, 1951: 252.—Minn.

Genus PARARETE Pritchard

Pararete Pritchard, 1951: 253. Type-species, *Lestremia elongata* Felt (orig. des.).

elongata (Felt), 1908b: 310 (*Lestremia*).—Calif.

Genus WASMANNIELLA Kieffer

Wasmanniella Kieffer, 1898a: 49. Type-species, *aptera* Kieffer (mon.).

clauda Pritchard, 1951: 254.—Minn.

Genus CONARETE Pritchard

Conarete Pritchard, 1951: 255. Type-species, *crebra* Pritchard (orig. des.).

crebra Pritchard, 1951: 256.—Minn.
eluta Pritchard, 1951: 257.—Minn.
eschata Pritchard, 1951: 257.—Minn.
texana (Felt), 1913g: 147 (*Microcerata*).—Tex.; Minn.

Genus ANARETE Haliday

Anarete Haliday, 1833: 156. Type-species, *candidata* Haliday (mon.).
Microcerata Felt, 1908b: 309. Type-species, *Micromya corni* Felt (orig. des.).

anepsia Pritchard, 1951: 264.—Calif.; Oreg.
buscki (Felt), 1915f: 198 (*Microcerata*).—Cuba; Ariz., Minn., P.R.
corni (Felt), 1907b: 102 (*Micromya*).—N.Y.; Wash., Oreg., N. Dak., Minn.
perplexa Felt, 1908b: 310 (*Microcerata*).—N.Y.
borealis Felt, 1913g: 147 (*Microcerata*).—N.Y.
diervillae (Felt), 1907b: 103 (*Micromya*).—N.Y.
edwardsi Pritchard, 1951: 259.—Minn.
felti Pritchard, 1951: 262.—Minn.
johnsoni (Felt), 1908b: 310 (*Microcerata*).—Pa.; Wash. to Ont., s. to Calif. and Fla.
cockerelli Felt, 1908b: 310 (*Microcerata*).—N. Mex.
spinosa Felt, 1913g: 145 (*Microcerata*).—Tex.
iridis Cockerell, 1914a: 460 (*Microcerata*).—Colo.
aldrichii Felt, 1915a: 226 (*Microcerata*).—Ind.
lacteipennis Kieffer, 1906b: 345.—Europe; Minn.
rubra Kieffer, 1906b: 343.—Europe; Oreg., Calif., Minn.

Tribe FORBESOMYIINI

REFERENCE: Pritchard, 1960a (rev.).

Genus FORBESOMYIA Malloch

Forbesomyia Malloch, 1914g: 234. Type-species, *atra* Malloch (orig. des.).
atra Malloch, 1914g: 235.—Ill.; B.C., Wash., Mont.

Tribe MOEHNIINI

Genus MOEHNIA Pritchard

Moehnia Pritchard, 1960a: 308. Type-species, *erema* Pritchard (orig. des.).

erema Pritchard, 1960a: 309.—Calif.

Tribe HETEROPEZINI

REFERENCE: Pritchard, 1960a (rev.).

Genus HETEROPEZA Winnertz

Heteropeza Winnertz, 1846: 13. Type-species, *pygmaea* Winnertz (mon.).

Oligarces Meinert, 1865: 237. Type-species, *paradoxus* Meinert (mon.).

pygmaea Winnertz, 1846: 14.—Europe; Calif., N.Y., Pa., N.J., ?Mo.
noveboracensis Felt, 1908b: 286 (*Oligarces*).—N.Y.

ulmi (Felt), 1911d: 477 (*Oligarces*).—N.Y.

Genus HETEROPEZINA Pritchard

Heteropezina Pritchard, 1960a: 311. Type-species, *cathistes* Pritchard (orig. des.).

cathistes Pritchard, 1960a: 311.—Fla.

Tribe MIASTORINI

REFERENCE: Pritchard, 1960a (rev.).

Genus MIASTOR Meinert

Miastor Meinert, 1864: 42. Type-species, *metraloas* Meinert (mon.)

REFERENCE: Felt, 1911f (biol.).

metraloas Meinert, 1864: 42.—Denmark; Minn., Ind., N.Y., Conn., N.J., n. Europe.
americana Felt, 1908b: 286.—N.Y.

Tribe ACOENONIINI

REFERENCE: Pritchard, 1960a (review).

Genus ACOENONIA Pritchard

Acoenonia Pritchard, 1947: 14. Type-species, *perissa* Pritchard (orig. des.).

perissa Pritchard, 1947: 15.—Minn.

Tribe MICROMYINI

REFERENCE: Pritchard, 1947 (rev.).

Genus CAMPYLOMYZA Meigen

Campylomyza Meigen, 1818: 101. Type-species, *flavipes* Meigen (Westwood, 1840: 126).

boulderi Felt, 1908b: 314.—Colo.
boulderensis Felt, 1913g: 177 (as *Prionellus*), emend.
dilatata Felt, 1907b: 149.—Mass.; N. Dak., Minn., Tex.
tuckeri Felt, 1908b: 316.—Tex.
monilis Felt, 1913g: 175 (*Prionellus*).—Tex.
flavipes Meigen, 1818: 102.—Europe; Calif., Minn., Ind., N.Y., Mass.
graminea Felt, 1907b: 98.—N.Y.
leguminicola Felt, 1907b: 98.—N.Y.
balsamicola Felt, 1907b: 99.—N.Y.
pomiflorae Felt, 1907b: 99.—N.Y.
karnerensis Felt, 1907b: 101.—N.Y.
tsugae Felt, 1907b: 101.—N.Y.
defectiva Felt, 1908b: 314.—N.Y.
hesperia Felt, 1908b: 315.—N.Y.
pomifolia Felt, 1908b: 315.—N.Y.
monilis Felt of Felt, 1915c: 405.
fusca Winnertz, 1870: 12.—Europe; Alta. to Vt., s. to Calif.
populi Felt, 1907b: 98.—N.Y.
latipennis Felt, 1908b: 314.—N.Y.
barlowi Felt, 1908b: 316.—R.I.
boulderensis (in part) Felt, 1913g: 177 (as *Prionellus*). Oreg. specimen only.
montana (Felt), 1913g: 182 (*Prionellus*).—Colo.
eremi Felt, 1919: 219 (*Prionellus*).—Colo.
silvana Felt, 1908b: 314.—B.C.
simulator Felt, 1908b: 314.—B.C.

Genus CORDYLOMYIA Felt

Cordylomyia Felt, 1911e: 35. Type-species, *coprophila* Felt (orig. des.)=*texana* (Felt).

denningi Pritchard, 1947: 37.—Minn.
fulva Felt, 1926c: 266.—B.C.; Minn.
praelonga Felt, 1926c: 266.—B.C.
scutellata Felt, 1926c: 267.—B.C.
sylvestris Felt, 1907b: 97.—N.C.; N. Dak., Minn.

texana (Felt), 1908b: 316 (*Campylomyza*).—Tex.; Colo., D.C., Ala.
coprophila Felt, 1911e: 35.—Unknown.
americana Felt, 1913g: 199.—Colo.
coloradensis Felt, 1913g: 199.—Colo.
foliata Felt, 1916e: 195 (*Monardia*).—Colo.
truncata (Felt), 1912c: 102 (*Campylomyza*).—Pa.
xylophila Edwards, 1938a: 200.—England; Minn.

Genus CORINTHOMYIA Felt

Corinthomyia Felt, 1911e: 35. Type-species, *Campylomyza hirsuta* Felt (orig. des.)=*brevicornis* (Felt).
brevicornis (Felt), 1907b: 97 (*Campylomyza*).—N.Y.; B.C., Minn. to Nfld., s. to Fla., also Chile, Europe.
bryanti Felt, 1908b: 313 (*Campylomyza*).—Nfld.
luna Felt, 1908b: 313 (*Campylomyza*).—N.Y.
curreyi Felt, 1908b: 315 (*Campylomyza*).—B.C.
hirsuta Felt, 1908b: 315 (*Campylomyza*).—N.Y.
gracilis Felt, 1912c: 102.—Pa.
tumida Felt, 1913g: 197 (*Cordylomyia*).—N.Y.
cincinna Felt, 1913g: 200.—N.Y.

Genus XYLOPRIONA Kieffer

Xylopriona Kieffer, 1913a: 291. Type-species, *Campylomyza pulchricornis* Kieffer (orig. des.). Chosen by first reviser, Mani, 1946: 193.
Tetraxyphus Kieffer, 1913a: 290. Type-species, *Campylomyza melanopterus* Kieffer (mon.).
articulosa (Felt), 1908b: 315 (*Campylomyza*).—N.H.
atra (Meigen), 1804: 40 (*Cecidomyia*).—Germany; Calif., also Greenland.
crebra Pritchard, 1947: 45.—Minn.
toxicodendri (Felt), 1907b: 98 (*Campylomyza*).—N.Y.; Calif., Minn., Ill. to N.Y. and Conn.
toxicodendron, error.
gilletti Felt, 1908b: 314 (*Campylomyza*).—Pa.
alexanderi Felt, 1913g: 187 (*Monardia*).—N.Y.
modesta Felt, 1913h: 142 (*Monardia*).—Conn.
illinoiensis Felt, 1935d: 47 (*Monardia*).—Ill.

Genus POLYARDIS Pritchard

Polyardis Pritchard, 1947: 47. Type-species, *Campylomyza carpini* Felt (orig. des.).
adela Pritchard, 1947: 49.—Minn.

aporia Pritchard, 1947: 51.—Minn.
carpini (Felt), 1907b: 100 (*Campylomyza*).—N.Y.
versicolor Felt, 1908b: 314 (*Campylomyza*).—N.Y.
kasloensis (Felt), 1908b: 314 (*Campylomyza*).—B.C.; Calif.
monotheca (Edwards), 1938a: 241 (*Monardia*).—England; B.C., Calif.
vitinea (Felt), 1907b: 98 (*Campylomyza*).—N.Y.

Genus MONARDIA Kieffer

Monardia Kieffer, 1895a: 111. Type-species, *stirpium* Kieffer (mon.).
antennata (Winnertz), 1870: 23 (*Campylomyza*).—Europe; Minn.
canadensis Felt, 1926c: 267.—B.C.
lignivora (Felt), 1907b: 100 (*Campylomyza*).—N.C.
multiarticulata Felt, 1914f: 109.—N.H.

Genus TRICHOPTEROMYIA Williston

Trichopteromyia Williston, 1896c: 255. Type-species, *modesta* Williston (mon.).
modesta Williston, 1896c: 255.—St. Vincent I.; Minn., N.Y., N. H. also England.
flavoscuta Felt, 1907b: 97 (*Campylomyza*).—N.Y.
rugosa Felt, 1914f: 110 (*Monardia*).—N.H.

Genus MICROMYA Rondani

Micromya Rondani, 1840b: 23. Type-species, *lucorum* Rondani (mon.).
Micromyia, emend.
Ceratomyia Felt, 1911e: 33. Type-species, *johannseni* Felt (orig. des.).
johannseni (Felt), 1911e: 33 (*Ceratomyia*).—Mexico; Minn.
mana Pritchard, 1947: 63.—Minn.

Genus MYCOPHILA Felt

Mycophila Felt, 1911e: 33. Type-species, *fungicola* Felt (orig. des.).
barnesi Edwards, 1938a: 254.—England; Calif.
fungicola Felt, 1911e: 33.—Calif.; Pa., ?Ind., ?Ohio.
lampra Pritchard, 1947: 65.—Minn.; Wis.
speyeri (Barnes), 1926: 90 (*Pezomyia*).—England; Va.

Genus BRYOMYIA Kieffer

Bryomyia Kieffer, 1895a: 78. Type-species, *bergrothi* Kieffer (mon.).
apsectra Edwards, 1938a: 210. - England; Minn.

cambrica Edwards, 1938a: 210.—England; Minn.
gibbosa (Felt), 1907b: 100 (*Campylomyza*).—N.Y.; Minn.
cerasi Felt, 1907b: 101 (*Campylomyza*).—N.Y.
flavida Felt, 1920: 279 (*Neptunimyia*).—N.Y.
producta (Felt), 1908b: 315 (*Campylomyza*).—N.Y.; Minn., Ont.

Genus APRIONUS Kieffer

Aprionus Kieffer, 1894d: 205 (also 1895c: clxxvi, as *Apriona*, error). Type-species, *spinigera* Kieffer (Kieffer, 1895a: 93).
asemus Pritchard, 1947: 72.—Minn.
longipennis (Felt), 1908b: 314 (*Campylomyza*).—N.Y.
monticola (Felt), 1920: 281 (*Campylomyza*).—N.Y.
pinicorticis (Felt), 1908b: 315 (*Campylomyza*).—N.J.

Genus PEROMYIA Kieffer

Peromyia Kieffer, 1894d: 205. Type-species, *leveillei* Kieffer (sub. mon., Kieffer, 1895c: clxxv).
Joannisia Kieffer, 1894d: 205 (preocc. Monterosato, 1884). Type-species, *aurantiaca* Kieffer (Coquillett, 1910b: 556) = *leveillei* Kieffer.

borealis (Felt), 1920: 280 (*Joannisia*).—N.Y.; Minn., also England.
modesta (Felt), 1907b: 99 (*Campylomyza*).—N.Y.
neomexicana (Felt), 1913g: 160 (*Joannisia*).—N. Mex.
ovalis (Edwards), 1938a: 258 (*Joannisia*).—England; Minn.
photophila (Felt), 1907b: 99 (*Campylomyza*).—N.Y.; Minn., Wis., Pa., N.C., also England.
carolinae Felt, 1907b: 100 (*Campylomyza*).—N.C.
flavopedalis Felt, 1908b: 313 (*Joannisia*).—N.Y.
flavoscuta Felt, 1908b: 313 (*Joannisia*).—N.Y.
pennsylvanica Felt, 1911d: 476 (*Joannisia*).—Pa.

Subfamily CECIDOMYIINAE

REFERENCE: Felt, 1958 (rev., ne. U.S.).

Tribe LEPTOSYNINI

REFERENCE: Pritchard, 1960a (rev.).

Genus HENRIA Wyatt

Henria Wyatt, 1959: 175. Type-species, *psalliotae* Wyatt (orig. des.).
Barnesina Pritchard, 1960a: 314. Type-species, *hylecoites* Pritchard (orig. des.).

Leptosyna, authors, not Kieffer.

hylecoites (Pritchard), 1960a: 315 (*Barnesina*).—Calif.
quercivora (Felt), 1912b: 123 (*Leptosyna;* n. name for *quercus* Felt).—N.Y.; Minn.
quercus Felt, 1911d: 546 (*Leptosyna;* preocc. Kieffer, 1904).—N.Y.
quercicola Kieffer, 1913c: 54 (*Leptosyna;* n. name for *quercus* Felt).—N.Y.
americana Felt, 1913g: 216 (*Leptosyna*).—N.Y.

Tribe BRACHINEURINI

Genus EPIMYIA Felt

Epimyia Felt, 1911e: 38. Type-species, *carolina* Felt (orig. des.).

carolina Felt, 1911e: 38.—N.C.

Genus BRACHINEURA Rondani

Brachineura Rondani, 1840b: 16. Type-species, *fuscogrisea* Rondani (mon.).
Brachyneura, emend.

americana Felt, 1908b: 286.—N.Y.
eupatorii Felt, 1908b: 317.—N.Y.
vitis Felt, 1908b: 317.—N.Y.

Tribe PORRICONDYLINI

REFERENCE: Felt, 1915e (rev.).

Genus JOHNSONOMYIA Felt

Johnsonomyia Felt, 1908b: 417. Type-species, *rubra* Felt (orig. des.).

fusca Felt, 1908b: 417.—N.Y.
rubra Felt, 1908b: 417.—Vt.; N.H., Mass.

Genus KRONOMYIA Felt

Kronomyia Felt, 1911d: 476. Type-species, *populi* Felt (orig. des.).

populi Felt, 1911d: 476.—N.Y.

Genus WINNERTZIA Rondani

Asinapta, subg. **Winnertzia** Rondani, 1860: 290. Type-species, *Cecidomyia lugubris* Winnertz (orig. des.).

aceris Felt, 1913f: 213.—N.Y.

ampelophila (Felt), 1907b: 144 (*Porricondyla*).—N.Y.
arizoniensis Felt, 1908b: 421.—Ariz.
calciequina Felt, 1907b: 161.—N.Y.
carpini Felt, 1907b: 148.—N.Y.
fungicola Felt, 1921e: 118.—N.J.
hudsonici Felt, 1908b: 422.—N.Y.
karnerensis Felt, 1908b: 422.—N.Y.
palustris Felt, 1915e: 133.—N.Y.
pectinata Felt, 1911d: 478.—N.Y.
pinicorticis Felt, 1908b: 304.—Va.
rubida Felt, 1908b: 422.—N.Y.
solidaginis Felt, 1907b: 149.—N.Y.

Genus HORMOSOMYIA Felt

Hormosomyia Felt, 1919: 220. Type-species, *oregonensis* Felt (orig. des.).

oregonensis Felt, 1919: 220.—Oreg.

Genus COLPODIA Winnertz

Cecidomyia, subg. **Colpodia** Winnertz, 1853: 185, 293. Type-species, *angustipennis* Winnertz (mon.).

alta Felt, 1908b: 416.—N.Y.
americana Felt, 1914d: 124.—N.Y.
capitata Felt, 1914d: 125.—N.Y.
carolinae (Felt), 1907b: 145 (*Porricondyla*).—N.C.
colei Felt, 1919: 223.—Oreg.
cornuta Felt, 1915e: 153.—Mass.
diervillae (Felt), 1907b: 145 (*Porricondyla*).—N.Y.
graminis (Felt), 1907b: 146 (*Porricondyla*).—N.Y.
maculata Felt, 1908b: 416.—N.Y.
ovata Felt, 1914d: 125.—N.Y.
pectinata (Felt), 1908b: 304 (*Bryocrypta*).—N.Y.
pinea (Felt), 1907b: 145 (*Porricondyla*).—N.C.
porrecta Felt, 1914d: 126.—N.Y.
pratensis Felt, 1908b: 416.—N.Y.
sanguinea Felt, 1908b: 416.—N.Y.; D.C.
sylvestris Felt, 1914d: 126.—N.Y.
temeritatis Felt, 1908b: 416.—N.Y.
terrena Felt, 1908b: 416.—N.Y.
trifolii (Felt), 1907b: 145 (*Porricondyla*).—N.Y.

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Genus PARWINNERTZIA Felt

Parwinnertzia Felt, 1920: 281. Type-species, *notmani* Felt (orig. des.).

notmani Felt, 1920: 281.—N.Y.

Genus DIDACTYLOMYIA Felt

Didactylomyia Felt, 1911e: 39. Type-species, *Colpodia longimana* Felt (orig. des.).

capitata Felt, 1913i: 174.—Mass.
flava Felt, 1915e: 145.—N.Y.
longimana (Felt), 1908b: 416 (*Colpodia*).—Mass.; N.Y.
maculata Felt, 1915e: 144.—N.Y.
robusta Felt, 1920: 282.—N.Y.

Genus ASYNAPTA Loew

Cecidomyia, subg. **Asynapta** Loew, 1850b: 21, 39. Type-species, *longicollis* Loew (Coquillett, 1910b: 511).

americana Felt, 1912c: 103.—Pa.
apicalis Felt, 1914d: 127.—N.Y.
borealis Felt, 1920: 285.—N.Y.
canadensis Felt, 1908b: 421.—Canada (unpublished).
caudata Felt, 1908b: 421.—N.Y.
cerasi Felt, 1907b: 147.—N.Y.
dolens Felt, 1920: 285.—N.Y.
flavida Felt, 1908b: 421.—N.Y.
frosti Felt, 1913h: 143.—Mass.
furcata (Felt), 1907b: 148 (*Winnertzia*).—N.Y.
hopkinsi Felt, 1935e: 48.—Fla.
marilandica Felt, 1916c: 412.—Md.
mediana Felt, 1914d: 128.—N.Y.
nobilis Felt, 1913h: 142.—Maine.
saliciperda Felt, 1908b: 421.—Ill.
umbra Felt, 1914d: 128.—N.Y.

Genus HOLONEURUS Kieffer

Holoneura Kieffer, 1894a: 84 (preocc. Tetens, 1891). Type-species, *cincta* Kieffer (Kieffer, 1894b: 316).

Holoneurus Kieffer, 1895b: 115 (n. name for *Holoneura* Kieffer). Type-species, *Holoneura cincta* Kieffer (aut.).

altifilus (Felt), 1907b: 147 (*Porricondyla*).—N.Y.
elongatus Felt, 1908b: 420.—B.C.

humilis (Felt), 1908b: 417 (*Johnsonomyia*).—N.Y.
inflatus Felt, 1920: 287.—N.Y.
multinodus Felt, 1908b: 420.—N.Y.
multineurus (error) Felt *in* Kieffer, 1913a: 266.
photophilus (Felt), 1907b: 148 (*Asynapta*).—N.Y.
strobilophilus Foote, 1956: 49.—Calif.; Oreg.
tarsalis Felt, 1915e: 192.—N.Y.

Genus RUBSAAMENIA Kieffer

Rubsaamenia Kieffer, 1894a: 83 (also 1894b: 333, as *Ruebsaamenia*). Type-species, *flava* Kieffer (mon.).

keeni Foote, 1956: 48.—Calif.; Oreg., Colo., N. Mex.

Genus DIRHIZA Loew

Cecidomyia, subg. **Dirhiza** Loew, 1850b: 21, 38. Type-species, *lateritia* Loew (mon.).

canadensis Felt, 1908b: 420.—N.Y.
hamata Felt, 1907b: 144.—N.Y.
montana Felt, 1908b: 420.—N.H.
multiarticulata Felt, 1908b: 420.—N.J.; N.Y.
photophila Felt, 1908b: 420.—N.Y.
sylvestris (Felt), 1907b: 146 (*Porricondyla*).—N.Y.

Genus PORRICONDYLA Rondani

Porricondyla Rondani, 1840b: 13. Type-species, *Cecidomyia albitarsis* Meigen (mon.).

antennata Felt, 1915e: 169.—N.Y.
barberi Felt, 1908b: 418.—Ariz.
bidentata Felt, 1920: 283.—N.Y.
borealis Felt, 1907b: 147.—N.Y.
canadensis Felt, 1908b: 418.—Canada (unpublished).
carolina Felt, 1908b: 418.—N.C.
caudata Felt, 1908b: 418.—N.Y.
consobrina Felt, 1919: 221.—Ont.
dietzii Felt, 1912c: 105.—Pa.
dilatata Felt, 1908b: 418.—N.Y.
dorsata Felt, 1912e: 238.—N.Y.
flava Felt, 1907b: 146.—N.Y.
fultonensis Felt, 1919: 222.—N.Y.
hamata Felt, 1907b: 146.—N.C.; Mass.
johnsoni Felt, 1920: 282.—Mass.

juvenalis Felt, 1912e: 239.—N.Y.
karnerensis Felt, 1908b: 418.—N.Y.
minor Felt, 1926c: 268.—B.C.
novaeangliae Felt, 1914f: 110 (as *novae-angliae*).—N.H.
papillata Felt, 1914f: 111.—N.H.
pennulae Felt, 1921d: 142.—Fla.
pini Felt, 1907b: 144.—N.Y.
porrecta Felt, 1912c: 105.—N.C.
quercina Felt, 1907b: 147.—N.Y.
setosa Felt, 1914d: 129.—N.Y.
spinigera Felt, 1920: 284.—N.Y.
sylvestris Felt, 1926a: 207.—Maine.
tuckeri Felt, 1908b: 418.—Kans. (unpublished).
tumidosa Felt, 1920: 284.—N.Y.
vernalis Felt, 1912c: 104.—Pa.
wellsi Felt, 1915a: 227.—N.Y.

Genus CAMPTOMYIA Kieffer

Camptomyia Kieffer, 1894a: 86 (also 1894b: 323). Type-species, *erythromma* Kieffer (orig. des., as gen. n., sp. n.).

aestiva Felt, 1912c: 104.—Pa.; N.Y.
antennata Felt, 1920: 286.—N.Y.
dentata Felt, 1920: 286.—N.Y.
montana Felt, 1915e: 180.—N.Y.
multinoda (Felt), 1908b: 419 (*Porricondyla*).—Ill.
pectinata Felt, 1920: 287.—N.Y.
tsugae Felt, 1913f: 214.—N.Y.

Tribe OLIGOTROPHINI

REFERENCE: Felt, 1915d (rev.).

Genus RHABDOPHAGA Westwood

Cecidomyia, subg. **Rhabdophaga** Westwood, 1847: 588 (as *Rabdophaga*). Type-species, *viminalis* Westwood (mon.).
Epourenia Rapp, 1946a: 128. Type-species, *viva* Rapp (orig. des.).

The identity of *Tipula salicina* Schrank, the type-species of *Phytophaga* Rondani, 1840b: 13, is in doubt. If further study confirms the possibility that it is the same as *viminalis* Westwood, *Phytophaga* replaces the name *Rhabdophaga*.

absobrina Felt, 1907b: 113.—N.Y.
acerifolia Felt, 1907b: 112.—N.Y.

aceris (Shimer), 1868: 281 (*Cecidomyia*).—Ill.; Ont., N.Y.
californica Felt, 1908b: 353.—Calif.
caulicola Felt, 1909a: 290.—Ill.
cephalanthi Felt, 1908b: 355.—N.Y.
consobrina Felt, 1907b: 113.—N.Y.
cornuta (Walsh), 1864b: 625 (*Cecidomyia*).—Ill.
elymi Felt, 1909a: 289.—Calif.
essigi Felt, 1926e: 79.—Calif.
gemmae Felt, 1908b: 354.—N.Y.
globosa Felt, 1908b: 354.—N.Y.; Conn.
hildebrandi Felt, 1928: 58.—Calif.
hirticornis Felt, 1909a: 290.—N.Y.
latebrosa Felt, 1909a: 290.—N.Y.
marginata Felt, 1908b: 352.—N.Y.
normaniana Felt, 1908b: 354.—Man. (unpublished).
occidentalis Felt, 1908b: 353.—Calif.
persimilis Felt, 1908b: 351.—N.Y.
plicata Felt, 1908b: 352.—Unknown.
podagrae Felt, 1908b: 355.—N.Y.
populi Felt, 1907b: 112.—N.Y.
porrecta Felt, 1915d: 101.—N.Y.
ponecta, error.
pratensis Felt, 1908b: 353.—N.Y.
racemi Felt, 1908b: 352.—Man. (unpublished).
ramuscula Felt, 1908b: 351.—N.Y.
rileyana Felt, 1909a: 289.—Unknown.
rosacea Felt, 1908b: 354.—Man. (unpublished).
salicifolia Felt, 1908b: 293.—N.Y.; Maine, Mass., Conn., R.I.
salicis (Schrank), 1803: 69 (*Tipula*).—Germany; N.Y.
salicisbatatas (Osten Sacken), 1878c: 4 (*Cecidomyia*; orig. as *salicis batatas* Walsh, 1864b: 601).—Ill.
batatas, emend.
salicisnodulus (Osten Sacken), 1878c: 7 (*Cecidomyia;* orig. as *salicis nodulus* Walsh, 1864b: 599).—Ill.; N.Y., Mass. Gall and larva only; adult descr. Felt, 1915d: 91.
nodulus, emend.
salicisrhodoides (Osten Sacken), 1878c: 4 (*Cecidomyia;* orig. as *salicis rhodoides* Walsh, 1864b: 587).—Ill.
rhodoides, emend.
salicistriticoides (Osten Sacken), 1878c: 7 (*Cecidomyia;* orig. as *salicis triticoides* Walsh, 1864b: 598).—Ill.; Ont., Maine, Mass. Gall only; adult descr. Felt, 1915d: 88 (as *triticoides*).
triticoides, emend.

salicishordoides Osten Sacken, 1878c: 7 (*Cecidomyia*; orig. as *salicis hordeoides* Walsh, 1864b: 599).—Ill. Gall only.
hordoides, emend.

sodalitatis Felt, 1908b: 351.—N.Y.

strobiloides (Osten Sacken), 1862b: 203 (*Cecidomyia*).—Ill.; Ill., se. N.Y. to Maine.
salicisstrobiloides Osten Sacken, 1878c: 4 (*Cecidomyia;* orig. as *salicis strobiloides* Walsh, 1864b: 580).—Ill.

swainei Felt, 1914e: 77.—Ont.; N.B., P.E.I., Nfld.

viva (Rapp), 1946a: 128 (*Epourenia*).—Ill.

Genus PROCYSTIPHORA Felt

Procystiphora Felt, 1915d: 212. Type-species, *coloradensis* Felt (orig. des.).

coloradensis Felt, 1915d: 212.—Colo.

junci Felt, 1922a: 166.—Ill.

Genus DASINEURA Rondani

Dasineura Rondani, 1840b: 17. Type-species, *luteofusca* Rondani (Coquillett, 1910b: 530).

Dasyneura Agassiz and Loew, 1846: 11, emend. (preocc. Saunders, 1842).

Perrisia Rondani, 1846: 371. Type-species, *Cecidomyia urticae* Perris (orig. des.).

Neocerata Coquillett, 1900e: 47. Type-species, *rhodophaga* Coquillett (mon.).

aberrata Felt, 1908b: 346.—N.Y.

abiesemia Foote, 1956: 52.—Oreg.; Calif.

acerifolia Felt, 1907b: 115.—N.Y.

albohirta Felt, 1908b: 346.—N.Y.

albovittata (Walsh), 1864b: 621 (*Cecidomyia*).—Ill.; N.Y.
albovitta, error.

alopecuri (Reuter), 1895: 3 (*Oligotrophus*).—Finland; Ont., N.B.

americana Felt, 1913h: 136 (n. name for *galii* Felt).—Mass.
galii Felt, 1908b: 348 (preocc. Loew, 1850).—Mass.
galiorum Kieffer, 1913a: 77 (*Perrisia;* n. name for *galii* Felt).—Mass.

ampelophila Felt, 1908b: 343.—N.Y.

anemone Felt, 1908b: 292.—N.Y.

antennata Felt, 1908b: 347.—N.Y.

apicata Felt, 1908b: 345.—N.Y.

aromaticae Felt, 1909a: 289.—Mass.

attenuata Felt, 1908b: 350.—N.Y.
augusta Felt, 1908b: 348.—N.Y.
aurihirta Felt, 1908b: 342.—N.Y.
balsamicola (Lintner), 1888a: 60 (1888: 180) (*Cecidomyia*).—N.Y.; Ont., e. to Nfld. Gall and larva only. **N. comb.**
bidentata Felt, 1907b: 114.—N.Y.
borealis Felt, 1907b: 117.—N.Y.
californica Felt, 1908b: 347.—Calif.
canadensis Felt, 1907b: 157.—Ont.; Sask.
carbonaria Felt, 1907b: 117.—N.Y.
caricicola (Kieffer), 1913a: 74 (*Perrisia;* n. name for *caricis* Felt).—N.Y.
caricis Felt, 1907b: 116 (preocc. Kieffer, 1901).—N.Y.
cerocarpi Felt 1913f: 215.—Colo.
cirsioni Felt, 1908b: 346.—N.Y.
clematidis Felt, 1908b: 344.—N.Y.
communis Felt, 1911d: 478.—N.Y.; Mass., Conn., Pa., N.J.
consobrina Felt, 1907b: 118.—N.Y.
corticis Felt, 1909a: 289 (also 1910b: 355).—Mass.
cyanococci Felt, 1908b: 292.—Mass.
denticulata Felt, 1907b: 117.—N.Y.
eugeniae Felt, 1912c: 106.—Fla.
filicis Felt, 1907b: 115.—N.Y.
flavescens Felt, 1908b: 344.—N.Y.
flavicornis Felt, 1908b: 345.—N.Y.
flavoabdominalis Felt, 1908b: 350.—N.Y.
flavoscuta Felt, 1908b: 350.—N.Y.
florida Felt, 1908b: 346.—Fla.
fraxinifolia Felt, 1908b: 293.—N.Y.
fulva Felt, 1908b: 349.—N.Y.
gemmae Felt. 1909a: 288.—Utah.
gentneri Pritchard, 1953b: 131.—Oreg.; Wash., N.Y., also Europe.
gibsoni Felt, 1911: 479.—Ont.; Ind.
glandis Felt, 1908b: 342.—Mo.
gleditchiae (Osten Sacken), 1866: 219 (*Cecidomyia*).—R.I.; Ont., N.Y., Vt., Mass., Conn.
gleditschiae, error or emend.
graminis Felt, 1908b: 342.—N.Y.
karnerensis Felt, 1908b: 341.—N.Y.
leguminicola (Lintner), 1879b: 121 (*Cecidomyia;* n. name for *trifolii* Lintner).—N.Y.; B.C. to N.S., s. to Oreg. and Va.
trifolii Lintner, 1879a: 44 (*Cecidomyia;* preocc. Löw, 1874).—N.Y.
lepidii Felt, 1908b: 346.—D.C.

lupini Felt, 1916c: 413.—Calif.
lysimachiae (Beutenmüller), 1907b: 305 (*Cecidomyia*).—N.Y.; Mass., N.J.
maculosa Felt, 1908b: 341.—N.Y.
mali (Kieffer), 1904a: 345 (*Perrisia*).—Europe; Mass.
maritima Felt, 1909a: 288.—Mass.
meliloti Felt, 1907b: 116.—N.Y.
modesta Felt, 1908b: 345.—N.Y.
multiannulata Felt, 1908b: 346.—N.Y.
oxycoccana (Johnson) *in* Skinner, 1899: 80 (*Cecidomyia;* n. name for *vaccinii* Smith).—N.J.
vaccinii Smith, 1890: 31 (*Cecidomyia;* preocc. Osten Sacken, 1862).—N.J.
parthenocissi (Stebbins), 1910: 44 (*Cecidomyia*).—Mass.; Man., Ont., N.Y. Gall only; adult descr. Felt, 1913f: 216.
pedalis Felt, 1908b: 350.—N.Y.
pergandei Felt, 1911d: 480.—Colo.
photophila Felt, 1907b: 114.—N.Y.
piperitae Felt, 1908b: 342.—N.Y.
pseudacaciae (Fitch), 1859: 833 (1859: 53) (*Cecidomyia*).—N.Y.
pudorosa Felt, 1908b: 344.—N.Y.
purpurea Felt, 1908b: 349.—N.Y.; Mass.
pyri (Bouché) 1847: 144 (*Cecidomyia*).—Europe; Conn., N.Y.
quercina Felt, 1907b: 116.—N.Y.
rachiphaga Tripp, 1955: 259.—Ont.; Que.
radifolii Felt, 1909a: 289.—Mass.
rhodophaga (Coquillett), 1900e: 47 (*Neocerata*).—D.C.; Ont. to Mass., s. to Ill. and D.C.
rhois (Coquillett), 1895g: 348 (*Cecidomyia*).—N.Y.; N.Y. to Va.
rosarum (Hardy), 1850: 186 (*Cecidomyia*).—Europe; Mass., N.J.
rubiflorae Felt, 1908b: 343.—Unknown.
rufipedalis Felt, 1908b: 349.—N.Y.
salicifolia Felt, 1908b: 293.—N.Y.; Mass.
sassafras Felt, 1916a: 29.—Ont.
scutata Felt, 1908b: 346.—N.Y.
semenivora (Beutenmüller), 1907a: 390 (*Cecidomyia*).—N.Y.; Ont., N.Y., Mass. Gall and larva only; adult descr. Beutenmüller, 1913a: 414 (as *Dasineura*).
serrulatae (Osten Sacken), 1862b: 198 (*Cecidomyia*).—D.C.; N.Y., Mass.
setosa Felt, 1907b: 115.—N.Y.
simillima (Kieffer), 1913a: 81 (*Perrisia;* n. name for *similis* Felt).—N.Y.
similis Felt, 1908b: 346 (preocc. Löw, 1888).—N.Y.

simulator Felt, 1908b: 344.—N.Y.
smilacifolia Felt, 1911d: 480.—Mass.
smilacinae Bishop, 1911: 346.—N.Y.
spiraeina Felt, 1908b: 341.—N.Y.
stanleyae (Cockerell), 1914b: 241 (*Perrisia*).—Colo.
torontoensis Felt, 1915c: 405.—Ont.
toweri Felt, 1909a: 289.—Mass.
trifolii (Löw), 1874: 143 (*Cecidomyia*).—Germany; Nebr. to Mass., s. to Ky., Europe.
tumidosae Felt, 1908b: 346.—N.Y.; Mass.
ulmea Felt, 1908b: 349.—Mass.; N.Y.
unguicula Felt, 1908b: 344.—N.Y.
vernalis Felt, 1908b: 341.—N.Y.
vitis Felt, 1908b: 341.—N.Y.
yuccae Felt, 1908b: 343.—Unknown.

Genus PHAENOLAUTHIA Kieffer

Phaenolauthia Kieffer, 1912b: 2 (1912: xi). Type-species, *Ledomyia obscuripennis* Kieffer (orig. des.).
Lasiopteryx Stephens of Felt, 1915d: 189.

arizonensis (Felt), 1915d: 195 (*Lasiopteryx*).—Ariz.
carpini (Felt), 1907b: 119 (*Asphondylia*).—N.Y.
coryli (Felt), 1908b: 292 (*Dasineura*).—N.Y.
crispata (Felt), 1914f: 111 (*Lasiopteryx*).—Mass.
flavotibialis (Felt), 1907b: 157 (*Dasineura*).—N.Y.

Genus NEUROMYIA Felt

Neuromyia Felt, 1911e: 44. Type-species, *Arnoldia minor* Felt (orig. des.).

minor (Felt), 1908b: 290 (*Arnoldia*).—N.Y.

Genus DRYOMYIA Kieffer

Dryomyia Kieffer, 1898a: 17. Type-species, *Cecidomyia cicinans* Giraud (Rübsaamen, 1910: 337).

folliculi (Felt), 1908b: 348 (*Dasineura*).—N.J.

Genus CYSTIPHORA Kieffer

Cystiphora Kieffer, 1892: 212. Type-species, *Cecidomyia hieracii* Löw (Rübsaamen, 1910: 337).

canadensis Felt, 1913b: 417.—Ont.
viburnifolia Felt, 1911d: 480.—Mass.; N.Y., Conn.

Genus ALASSOMYIA Felt

Allomyia Felt, 1918c: 380 (preocc. Banks, 1916). Type-species, *juniperi* Felt (orig. des.).

Alassomyia Felt, 1925b: 147 (n. name for *Allomyia* Felt). Type-species, *Allomyia juniperi* Felt (aut.).

juniperi (Felt), 1918c: 380 (*Allomyia*).—Colo.

Genus RHIZOMYIA Kieffer

Rhizomyia Kieffer, 1898a: 56. Type-species, *perplexa* Kieffer (mon.).

absobrina (Felt), 1908b: 289 (*Arnoldia*).—N.Y.
cerasi (Felt), 1907b: 114 (*Dasineura*).—N.Y.
cincta Felt, 1915d: 204.—N.Y.
fraxinifolia (Felt), 1908b: 289 (*Arnoldia*).—N.J.
hirta Felt, 1911d: 478.—N.Y.
hispida (Felt), 1908b: 290 (*Arnoldia*).—N.Y.
ungulata (Felt), 1908b: 290 (*Arnoldia*).—N.Y.
vitis (Felt), 1908b: 290 (*Arnoldia*).—?D.C.

Genus CTENODACTYLOMYIA Felt

Ctenodactylomyia Felt, 1915f: 199. Type-species, *watsoni* Felt (orig. des.).

watsoni Felt, 1915f: 199.—Fla.

Genus DIARTHRONOMYIA Felt

Diarthronomyia Felt, 1908b: 339. Type-species, *artemisiae* Felt (orig. des.).

artemisiae Felt, 1908b: 339.—Colo.; Utah.
californica Felt, 1912a: 752.—Calif.
chrysanthemi Ahlberg, 1939: 276.—Europe; Oreg. to Que., s. to Calif. and R.I., also New Zealand.
hypogaea Loew of Felt, 1916d: 51.
floccosa Felt, 1916e: 195.—Calif.
occidentalis Felt, 1916e: 194.—Calif.; Utah.

Genus COCCIDOMYIA Felt

Coccidomyia Felt, 1911e: 45. Type-species, *pennsylvanica* Felt (orig. des.).

erii Felt, 1912d: 147.—Calif.
pennsylvanica Felt, 1911e: 45.—Pa.

Genus FICIOMYIA Felt

Ficiomyia Felt, 1922b: 5. Type-species, *perarticulata* Felt (orig. des.).

birdi Felt, 1934b: 132.—Fla.
perarticulata Felt, 1922b: 5.—Fla.

Genus MAYETIOLA Kieffer

Mayetia Kieffer, 1896b: 5 (preocc. Mulsant and Rey, 1875). Type-species, *Cecidomyia destructor* Say (orig. des.).
Mayetiola Kieffer, 1896c: 89 (n. name for *Mayetia* Kieffer). Type-species, *Cecidomyia destructor* Say (aut.).
Phytophaga Rondani of Felt, 1911e: 45, and authors.

REFERENCES: Barnes, 1927, 1956 (nomenclature), 1958 (cross-breeding of *destructor*).

aceris (Felt), 1907b: 122 (*Oligotrophus*).—N.Y.
americana Felt, 1908b: 370.—Ill.; Conn.
azaleae (Felt), 1907b: 122 (*Oligotrophus*).—N.Y.
balsamifera Felt, 1908b: 369.—N.Y.
californica Felt, 1908b: 370.—Calif.
carpophaga (Tripp), 1955: 261 (*Phytophaga*).—Ont.
caudata (Felt), 1915e: 199 (*Phytophaga*).—N.Y.
caulicola Felt, 1908b: 370.—Ill.
celtiphyllia Felt, 1908b: 371.—Iowa.
destructor (Say), 1817b: 45 (1859b: 4) (*Cecidomyia*).—N. and Middle States; wheat-growing regions of N. Amer.
electra Felt, 1908b: 369.—N.Y.
floridensis (Felt), 1921d: 143 (*Phytophaga*).—Fla.
fraxini (Felt), 1915e: 206 (*Phytophaga*).—N.Y.
latipennis (Felt), 1908b: 353 (*Rhabdophaga*).—Ill.
latipes Felt, 1908b: 370.—N.Y.
occidentalis (Felt), 1926e: 79 (*Phytophaga*).—Calif.
painteri (Felt), 1935c: 7 (*Phytophaga*).—Tex.
perocculta (Cockerell), 1904: 156 (*Cecidomyia*).—Colo.
piceae (Felt), 1926b: 229, 240 (*Phytophaga;* as *picaea*, p. 229).—Que.; N.B.
rigidae (Osten Sacken), 1862b: 189 (*Cecidomyia;* n. name for *salicis* Fitch).—N.Y.; Ill., Ont.
salicis Fitch, 1845a: 263 (*Cecidomyia;* preocc. in *Cecidomyia* by Schrank, 1803, orig. *Tipula*, now *Rhabdophaga*).—N.Y.

saliciscornu Osten Sacken, 1878c: 4 (*Cecidomyia;* orig. as *salicis cornu* Walsh, 1864b: 590).—Ill. Gall and larva only; adult descr. Walsh, 1866: 224.
cornu, emend.
siliqua Osten Sacken, 1878c: 4 (*Cecidomyia;* orig. as *salicis siliqua* Walsh, 1864b: 591).—Ill.
sabinae (Felt), 1935c: 7 (*Phytophaga*).—Tex.
socialis Felt, 1908b: 369.—N.Y.
tetradymia (Felt), 1925a: 15 (*Phytophaga*).—Calif.
texana (Felt), 1935c: 8 (*Phytophaga*).—Tex.
thalactri (Felt), 1907b: 123 (*Oligotrophus*).—N.Y.
thujae (Hedlin), 1959: 719 (*Phytophaga*).—B.C.
timberlakei (Felt), 1916e: 191 (*Phytophaga*).—Utah.
tsugae (Felt), 1907b: 123 (*Oligotrophus*).—N.Y.; Ont.
tumidosae Felt, 1908b: 370.—Ill.; Ont.
ulmi (Beutenmüller), 1907a: 387 (*Cecidomyia*).—N.Y.; Ont.
violicola (Coquillett), 1900f: 50 (*Diplosis*).—D.C.; N.Y., Va.
virginiana Felt, 1908b: 369.—N.Y.
walshii Felt, 1908b: 371.—Ill.
wellsi (Felt), 1916e: 190 (*Phytophaga*).—Ohio.

Genus JANETIELLA Kieffer

Janetiella Kieffer, 1898a: 23. Type-species, *Cecidomyia thymi* Kieffer (Coquillett, 1910b: 556).

acerifolia (Felt), 1907b: 124 (*Oligotrophus*).—N.Y.
americana Felt, 1908b: 372.—N.Y.
asplenifolia (Felt), 1907b: 159 (*Oligotrophus*).—Mass.
breviaria Felt, 1908b: 372.—N.Y.
brevicauda Felt, 1908b: 372.—N.Y.
brevicornis (Felt), 1907b: 122 (*Oligotrophus*).—N.Y.
coloradensis Felt, 1912d: 148.—Colo.
ligni Felt, 1915e: 220.—N.Y.
nodosa (Felt), 1907b: 123 (*Oligotrophus*).—N.Y.
parma Felt, 1914d: 129.—N.Y.
pini (Felt), 1907b: 124 (*Oligotrophus*).—N.Y.
sanguinea Felt, 1908b: 372.—N.Y.
siskiyou Felt, 1917b: 194.—Oreg.
tiliacea (Felt), 1907b: 121 (*Oligotrophus*).—N.Y.

Genus OLIGOTROPHUS Latreille

Oligotrophus Latreille, 1805: 288. Type-species, *Tipula juniperina* Linnaeus (mon.).

betheli Felt, 1912d: 148.—Colo.; Utah.

betulae (Winnertz), 1853: 234 (*Cecidomyia*).—Europe; N.Y., Conn.
inquilinus Felt, 1908b: 368.—N.Y.
pattersoni White, 1950: 72.—Tex.
salicifolius Felt, 1910b: 354.—N.Y.
vernalis Felt, 1908b: 368.—N.Y.

Genus SACKENOMYIA Felt

Sackenomyia Felt, 1908b: 361. Type-species, *Rhopalomyia acerifolia* Felt (as *Oligotrophus;* orig. des.).

acerifolia (Felt), 1907b: 121 (*Rhopalomyia*).—N.Y.
packardi Felt, 1909a: 290.—Mass.; Ill.
porterae (Cockerell), 1904: 155 (*Rhabdophaga*).—N. Mex.
viburnifolia Felt, 1909a: 290.—Mass.; N.Y.

Genus WALSHOMYIA Felt

Walshomyia Felt, 1908b: 359. Type-species, *juniperina* Felt (orig. des.).

insignis Felt, 1921e: 117.—Tex.
juniperina Felt, 1908b: 360.—Calif.
texana Felt, 1916a: 30.—Tex.

Genus RHOPALOMYIA Rübsaamen

Rhopalomyia Rübsaamen, 1892: 370. Type-species, *Oligotrophus tanaceticola* Karsch (Kieffer, 1896c: 89).

abnormis Felt, 1908b: 365.—N.Y.
albipennis Felt, 1908b: 364.—N.Y.
alticola (Cockerell), 1890a: 281 (*Cecidomyia*).—Colo.
ampullaria Felt, 1916e: 185.—Utah.
antennariae (Wheeler), 1889: 209 (*Cecidomyia*).—Wis.; Maine, N.Y.
anthophila (Osten Sacken), 1869a: 302 (*Cecidomyia*).—N.Y.; Mo., N.C.
apicata Felt, 1908b: 364.—N.Y.
arcuata Felt, 1907b: 158.—N.Y.
astericaulis Felt, 1907b: 159.—Mass.
asteriflorae Felt, 1908b: 298.—N.Y.
audibertiae Felt, 1908b: 299.—N.Y.
baccharis Felt, 1908b: 364.—Unknown; Calif.
betheliana Cockerell, 1909a: 150.—Colo.
bigeloviae (Cockerell), 1889d: 324 (*Cecidomyia*).—Colo. Gall only; adult descr. Cockerell, 1890b: 109.
bigelovioides Felt, 1908b: 366.—Calif.

bulbula Felt, 1908b: 365.—Mass.
californica Felt, 1908b: 364.—Calif.
capitata Felt, 1908b: 363.—N.Y.
carolina Felt, 1908b: 363.—N.C.
castaneae Felt, 1909a: 291.—Mass.
chrysopsidis (Loew) *in* Osten Sacken, 1862b: 203 (*Cecidomyia*).—D.C.
chrysothamni Felt, 1916e: 187.—Utah.
clarkei Felt, 1908b: 299.—N.H.; Ont., Mass., N.C.
cockerelli Felt, 1915e: 237.—Colo.
crassulina (Cockerell), 1908b: 89 (*Cecidomyia*).—Colo.
cruziana Felt, 1908b: 366.—Calif.
enceliae Felt, 1916e: 183.—Unknown.
ericameriae Felt, 1916e: 190.—Calif.
erigerontis Felt, 1916e: 189.—Calif.
fusiformis Felt, 1907b: 120.—N.Y.
glutinosa Felt, 1916e: 188.—Unknown.
gnaphalodis Felt, 1911d: 484.—Colo.
grindeliae Felt, 1916e: 186.—Calif.
grossulariae Felt, 1911c: 347.—Ohio.
gutierreziae (Cockerell), 1901: 23 (*Asphondylia*).—N. Mex.
hirtipes (Osten Sacken), 1862b: 195 (*Cecidomyia*).—D.C.; N.Y., Mass.
inquisitor Felt, 1908b: 364.—N.Y. (unpublished).
lanceolata Felt, 1908b: 367.—Ill.
lateriflorae Felt, 1908b: 364.—N.Y.; Mass.
lobata Felt, 1908b: 366.—N.Y.
lonicera Felt, 1925a: 15.—Calif.
major Felt, 1907b: 121.—N.Y.
palustris Felt, 1908b: 365.—N.Y.
pedicellata Felt, 1908b: 365.—N.Y.
pilosa Felt, 1908b: 366.—N.W.T.
pini Felt, 1907b: 120.—N.Y.
racemicola (Osten Sacken), 1862b: 196 (*Cecidomyia*).—D.C.; N.C. Gall and larva only.
racemicola Felt, 1907b: 120.—N.C.
sabinae Patterson, 1919: 345, 346.—Tex.; Utah, Colo. Gall only.
sabinae Felt, 1921e: 115.—Colo. Adult.
salviae Felt, 1916e: 184.—Calif.
solidaginis (Loew) *in* Osten Sacken, 1862b: 194 (*Cecidomyia*).—D.C.
thompsoni Felt, 1907b: 159.—Mass.
thomi, error.
tridentatae Rübsaamen, 1893: 163.—N. Amer.

truncata (Felt), 1907b: 160 (*Hormomyia*).—Mass. (unpublished).
uniformis Felt, 1915e: 244 (unjustified n. name for *truncata* Felt, 1907).—Mass.
truncula Foote (for *truncata* Felt, 1908).—Calif. **N. name.**
truncata Felt, 1908b: 365 (preocc. Felt, 1907).—Calif.
utahensis Felt, 1916e: 186.—Utah.
weldi Felt, 1921e: 116.—Ill.

Tribe ASPHONDYLIINI

REFERENCE: Felt, 1916d (rev.).

Genus SCHIZOMYIA Kieffer

Schizomyia Kieffer, 1889: 183. Type-species, *galiorum* Kieffer (Coquillett, 1910b: 604).

altifila (Felt), 1907b: 119 (*Asphondylia*).—N.Y.
caryaecola Felt, 1908b: 378.—N.Y.
impatientis (Osten Sacken), 1862b: 204 (*Cecidomyia*).—D.C. Gall and larva only. **N. comb.**
macrofila (Felt), 1908b: 297 (*Asphondylia*).—Calif.
petiolicola Felt, 1908b: 379.—N.Y.; Mass.
rivinae Felt, 1908b: 379.—Fla.
rubi (Felt), 1907b: 119 (*Asphondylia*).—N.Y.
speciosa Felt, 1914f: 112.—N.H.
viburni Felt, 1908b: 378.—N.Y.
vitiscoryloides (Packard), 1869a: 377 (*Cecidomyia;* orig. as *vitis coryloides* Walsh and Riley, 1869b: 106).—Ill.; Ont., N.Y., Mass. Gall and larva only; adult descr. Felt, 1916d: 108.
coryloides, emend.
vitispomum (Osten Sacken), 1878c: 7 (*Cecidomyia;* orig. as *vitis pomum* Walsh and Riley, 1869b: 106).—Va.; N.Y., Mass., N.J. Gall and larva only; adult descr. Felt, 1916d: 109.
pomum, emend.

Genus ASPHONDYLIA Loew

Cecidomyia, subg. **Asphondylia** Loew, 1850b: 21, 37. Type-species, *sarothamni* Loew (Coquillett, 1910b: 511).

abutilon Felt, 1935c: 1.—Tex.
adenostoma Felt, 1916e: 177.—Calif.
amaranthi Felt, 1935c: 1.—Tex.
antennariae (Wheeler), 1889: 212 (*Asynapta*).—Wis.; Maine.

arizonensis Felt, 1908b: 294.—Ariz.; Calif., Colo.
artemisiae Felt, 1908b: 377.—Ariz.
atriplicicola (Cockerell), 1898a: 326 (*Diplosis*).—N. Mex.
atriplicis (Townsend), 1893j: 1021 (*Cecidomyia*).—N. Mex.; Calif. Gall and pupa only; adult descr. Cockerell, 1895: 766.
auripila Felt, 1908b: 294.—Ariz.
autumnalis Beutenmüller, 1907a: 386.—N.C.
azaleae Felt, 1908b: 295.—N.Y.
baroni Felt, 1908b: 377.—Ariz. (unpublished).
bea Felt *in* Needham, 1925: 19.—Calif.
betheli Cockerell, 1907: 324.—Colo.
bidens Johannsen, 1945: 9.—Fla.
brevicauda Felt, 1908b: 295.—Ariz.
buddleia Felt, 1935c: 2.—Tex.
bumeliae Felt, 1908b: 296.—Tex.
ceanothi Felt, 1908b: 377.—Calif.
chrysothamni Felt, 1916e: 178.—Utah.
clematidis Felt, 1935c: 3.—Tex.
diervillae Felt, 1907b: 165.—N.Y.
diplaci Felt, 1912d: 151.—Calif.
dondiae Felt, 1918c: 381.—Calif.
enceliae Felt, 1912d: 152.—Calif.
eupatorii Felt, 1911d: 546.—N.Y.
florida Felt, 1908b: 376.—Fla. (unpublished).
fulvopedalis Felt, 1907b: 118.—N.Y.; Vt.
garryae Felt, 1912i: 757 (also 1925b: 54).—Calif. Gall only; adult descr. Felt, 1934c: 34.
helianthiflorae Felt, 1908b: 376.—N.Y.; Que.
helianthiglobulus Osten Sacken, 1878c: 5 (orig. as *helianthi globulus* Osten Sacken, 1869a: 301).—Ill.; N.Y., N.J. Pupa only; adult descr. Felt, 1916d: 131.
globulus, emend.
hydrangeae Felt, 1908b: 296.—Va.; Mo.
ilicicola Foote, 1953: 197.—Va.; W. Va., Md., N.J.
ilicoides Felt, 1908b: 296.—N.Y.
integrifoliae Felt, 1908b: 376.—Calif.; Utah.
johnsoni Felt, 1908b: 377.—Pa.
lacinariae Felt, 1935c: 3.—Tex.
mentzeliae Cockerell, 1900b: 302.—N. Mex.
mimosae Felt, 1934a: 77.—Tex.
monacha Osten Sacken, 1869a: 299.—N.Y.; Ont. to Maine, s. to N.J., also N.C.
patens Beutenmüller, 1907a: 386.—N.C.

neomexicana (Cockerell), 1896: 204 (*Cecidomyia*).—N. Mex.
opuntiae Felt, 1908b: 377.—Tex.; Calif., Ariz., Colo., Mexico.
photiniae Pritchard, 1952: 16.—Calif.
prosopidis Cockerell, 1898a: 329.—N. Mex.; Tex.
ratibidae Felt, 1935c: 5.—Tex.
rudbeckiaeconspicua Osten Sacken, 1878c: 5 (orig. as *rudbeckiae conspicua* Osten Sacken, 1870: 51).—Pa.; Ariz., Mo., Ohio, Mass. to N.C.
conspicua, emend.
salictaria Felt, 1908b: 297.—Ind.
sambuci Felt, 1908b: 377.—Unknown.
shepherdiae Felt, 1916c: 414.—Colo.
smilacinae Felt, 1908b: 298.—D.C.
thalictri Felt, 1911d: 547.—Mass.; N.Y., N.H.
verbenae Felt, 1935c: 6.—Tex.
vernoniae Felt, 1908b: 377.—Va.
websteri Felt, 1917a: 562.—Ariz.; N. Mex.
xanthii Felt, 1936a: 231.—Tex.

Genus CINCTICORNIA Felt

Cincticornia Felt, 1908b: 379. Type-species, *Asphondylia transversa* Felt (orig. des.).

americana Felt, 1908b: 380.—N.Y.
canadensis Felt, 1908b: 380.—Ont.
caryae Felt, 1908b: 380.—Mass.; Maine.
connecta Felt, 1908b: 381.—Conn.
cornifolia (Felt), 1907b: 124 (*Oligotrophus*).—N.Y.
globosa Felt, 1909a: 291.—Mass.; Conn.
multifila (Felt), 1907b: 118 (*Asphondylia*).—N.Y.
pilulae (Beutenmüller), 1892: 269 (*Cecidomyia;* orig. as *quercus pilulae* Walsh, 1864a: 481).—Ill.; N.Y. to Maine, s. to N.J. Gall only; adult descr. Felt, 1916d: 164.
podagrae Felt, 1909a: 291.—Mass.
pustulata Felt, 1909a: 291.—Mass.
quercifolia Felt, 1908b: 380.—D.C.
rhoina (Felt), 1907b: 123 (*Oligotrophus*).—N.Y.
serrata Felt, 1908b: 380.—Mass.
simpla Felt, 1909a: 291.—Mass.; N.Y.
sobrina (Felt), 1907b: 158 (*Asphondylia*).—Mass.
transversa (Felt), 1907b: 118 (*Asphondylia*).—N.Y.

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Genus CARYOMYIA Felt

Caryomyia Felt, 1909a: 292. Type-species, *Cecidomyia tubicola* Osten Sacken (orig. des.).

antennata Felt, 1909a: 292.—N.Y.
arcuaria (Felt), 1908b: 388 (*Hormomyia*).—Mass.
consobrina Felt, 1909a: 292.—N.Y.; Mass., Conn.
holotricha (Osten Sacken), 1862b: 193 (*Cecidomyia*).—D.C.; Ont., Ind., Ohio, Mass. to N.C. Gall and larva only; adult descr. Felt, 1921c: 101.
inanis Felt, 1909a: 292.—N.Y.; Mass.
persicoides (Osten Sacken), 1862b: 193 (*Cecidomyia*).—N.Y.; Mass., Conn. Gall only; adult descr. Felt, 1921c: 113.
sanguinolenta (Osten Sacken), 1862b: 192 (*Cecidomyia*).—D.C.; N.Y., Mass., Conn., N.J. Gall and larva only; adult descr. Felt, 1921c: 105.
similis Felt, 1909a: 292.—N.Y.
thompsoni (Felt), 1908b: 388 (*Hormomyia*).—Mass.; N.Y., Conn.
tubicola (Osten Sacken), 1862b: 192 (*Cecidomyia*).—D.C.; N.Y., Mass. Gall and larva only; adult descr. Felt, 1921c: 108.

Unplaced Species of Asphondyliini

caryaecola Osten Sacken, 1862b: 192 (*Cecidomyia*).—D.C.; Ont., Ohio, N.Y., Mass., N.J. Gall only. ?*Caryomyia*.
cynipsea Osten Sacken, 1862b: 193 (*Cecidomyia*).—D.C.; Ohio, N.J. Gall and larva only. ?*Caryomyia*.
glutinosa Osten Sacken, 1862b: 193 (*Cecidomyia*).—D.C.; N.Y. Larva only. ?*Caryomyia*.
nucicola Osten Sacken, 1878c: 6 (*Cecidomyia*; orig. as *caryae nucicola* Osten Sacken, 1870: 53).—N.Y. Gall and larva only. ?*Caryomyia*.

Tribe LASIOPTERINI

REFERENCE: Felt, 1918a (rev.).

Genus LASIOPTERA Meigen

Lasioptera Meigen, 1818: 88. Type-species, *Cecidomyia albipennis* Meigen (Coquillett, 1910b: 558).

abhamata Felt, 1907b: 108.—N.Y.
allioides Pritchard, 1961a: 56.—Calif.
allioniae Felt, 1911d: 482.—Colo.
apocyni Felt *in* Weiss and West, 1921: 149.—N.J.
argentisquama Felt, 1908b: 324.—N.Y.

arizonensis Felt, 1908b: 325 (also 1911d: 482).—Ariz.
arizonae Kieffer, 1913a: 31 (unjustified n. name for *arizonensis* Felt, 1911d).—Ariz.
asterspinosae White, 1950: 67.—Tex.
basiflava Felt, 1908b: 324.—N.Y.
carbonitens Cockerell, 1902: 183.—N. Mex.
caryae Felt, 1907b: 106.—N.Y.
cassiae Felt, 1909a: 287.—Ariz.
caulicola Felt, 1907b: 162.—?N.Y.
centerensis Felt, 1918a: 170.—N.Y.
cinerea Felt, 1907b: 104.—N.Y.
clarkei Felt, 1909a: 287.—Mass.
clavula (Beutenmüller), 1892: 269 (*Cecidomyia*).—N.Y. Gall only; adult descr. Beutenmüller, 1907a: 396.
colorati Felt, 1918a: 129.—S. Dak.
consobrina Felt, 1907b: 104.—N.Y.
convolvuli Felt, 1907b: 149.—?N.Y.; Ill., Mass.
corni Felt, 1907b: 107.—N.Y.; Mass., Conn.
cylindrigallae Felt, 1907b: 150.—N.Y.; Mass.
danthoniae Felt, 1909a: 287.—N.Y.
desmodii Felt, 1907b: 106.—N.Y.
diplaci Felt, 1912d: 151.—Calif.
echinochloa Felt, 1916e: 181.—S. Dak.
ephedrae Cockerell, 1898a: 327.—N. Mex.
ephedricola Cockerell, 1902: 184.—N. Mex.
excavata Felt, 1908b: 287.—N.Y.; Mass.
farinosa (Osten Sacken), 1862b: 204 (*Cecidomyia*).—D.C.; Ont., N.Y. Mass. Gall and larva only; adult descr. Felt, 1918a: 134.
flavipes Felt, 1908b: 325.—N.Y.
fraxinifolia Felt, 1908b: 327.—N.Y.
fructuaria Felt *in* Woods, 1916: 266.—Maine.
galeopsidis Felt, 1909a: 287.—Mass.
hamata Felt, 1907b: 107.—N.Y.
hecate Felt, 1908b: 326.—N.Y.
howardi Felt, 1921a: 94.—Calif.
humulicaulis Felt, 1907b: 151.—N.Y.
impatientifolia Felt, 1907b: 106.—N.Y.; Mass.
inustorum Felt, 1916e: 182.—S. Dak.
juvenalis Felt, 1908b: 327.—N.Y.
kallstroemia Felt, 1935c: 6.—Tex.
lactucae Felt, 1907b: 151.—Mass.; N.Y., N.H.
linderae Beutenmüller, 1907a: 398.—N.Y. Gall and larva only; adult descr. Beutenmüller, 1913a: 415.

lupini Felt, 1908b: 326.—Calif.
lycopi Felt, 1907b: 152.—N.Y.; Mass.
mitchellae Felt, 1908b: 325.—D.C. (unpublished).
murtfeldtiana Felt, 1909a: 288.—Mo.; Kans.
nassauensis Felt, 1908b: 324.—N.Y.
neofusca Felt, 1908b: 327.—N.Y.
nodulosa Beutenmüller, 1907a: 397.—N.Y.; Mass., R.I., N.J.
palustris Felt, 1907b: 162.—N.Y.
panici Felt, 1908b: 326.—N.Y.
psederae Felt, 1934a: 77.—Ohio.
querciflorae Felt, 1908b: 325.—Ariz.
quercina Felt, 1907b: 108.—N.Y.
querciperda Felt, 1908b: 324.—Va.; Mass., Conn., R.I.
quercirami Felt, 1926e: 80.—Utah.
riparia Felt, 1909a: 287.—N.Y.
rudbeckiae Felt, 1908b: 324.—Pa.
serotina Felt, 1908b: 326.—N.Y.
solidaginis Osten Sacken, 1863: 370.—Unknown; N.Y., N.H., Mass.
tumifica Beutenmüller, 1907a: 394.—N.Y.
dorsimaculata Felt, 1908b: 325.—N.Y.
spinulae Felt, 1908b: 325.—Ariz.
spiraeafolia Felt, 1909a: 287.—Mass.; Maine.
tertia Cockerell, 1898a: 328.—N. Mex.
tibialis Felt, 1914b: 119.—Calif.
tripsaci Felt, 1910a: 10.—Tex.
ventralis Say, 1824a: 357 (1859a: 242).—Pa.
verbenae Felt, 1912d: 150.—Calif.
vernoniae (Beutenmüller), 1907a: 389 (*Cecidomyia*).—N.C.; Ind., N.Y., D.C. Gall and larva only; adult descr. Beutenmüller, 1913a: 415 (as *Lasioptera*).
vernoniflorae Felt, 1908b: 324.—Unknown.
viburni Felt, 1907b: 104.—N.Y.
virginica Felt, 1909a: 287.—Mass.
vitis Osten Sacken, 1862b: 201.—D.C.; N.Y., Mass., Conn.
weldi Felt, 1908b: 326.—Ill. (unpublished).
willistoni Cockerell, 1898a: 327.—N. Mex.
ziziae Felt, 1908b: 327.—Ill. (unpublished).
zigiae, error.

Genus NEOLASIOPTERA Felt

Neolasioptera Felt, 1908b: 330. Type-species, *Lasioptera vitinea* Felt (Coquillett, 1910b: 575).
agrostis Felt, 1908b: 331 (also 1911d: 483).—Unknown.
agrostidis Kieffer, 1913a: 22 (unjustified n. name for *agrostis* Felt, 1911d).—Unknown.

albipes Felt, 1918a: 190.—N.J.
albitarsis (Felt), 1907b: 153 (*Choristoneura*).—N.Y.
albolineata Felt, 1908b: 332.—N.Y.
ambrosiae Felt, 1909a: 288.—N.Y.
asclepiae Felt, 1908b: 332.—N.Y.
basalis (Felt), 1907b: 109 (*Choristoneura*).—N.Y.
celastri Felt, 1908b: 330.—N.Y.
cinerea (Felt), 1907b: 111 (*Choristoneura*).—N.Y.
clematidis (Felt), 1908b: 287 (*Choristoneura*).—N.Y.; Mass.
coloradensis (Cockerell), 1908c: 421 (*Hormomyia*).—Colo.
coloradensis Felt, 1918a: 194.—Colo.
cornicola (Beutenmüller), 1907a: 394 (*Lasioptera*).—N.Y.; R.I., D.C.
erigerontis (Felt), 1907b: 163 (*Choristoneura*).—N.Y.; Mass., D.C.
podagrae Beutenmüller, 1913a: 414 (*Lasioptera*).—N.Y., N.J.
eupatorii (Felt), 1907b: 154 (*Choristoneura*).—N.Y.
flavomaculata Felt, 1908b: 332.—N.Y.
flavoventris Felt, 1908b: 333.—N.Y.
hamamelidis (Felt), 1907b: 111 (*Choristoneura*).—N.Y.
hamata (Felt), 1907b: 155 (*Choristoneura*).—N.Y.
helianthi (Felt), 1908b: 288 (*Choristoneura*).—N.Y.
hibisci (Felt), 1907b: 155 (*Choristoneura*).—N.Y.
hirsuta Felt, 1908b: 331.—Ariz.
liriodendri (Felt), 1907b: 109 (*Choristoneura*).—N.Y.
major Felt, 1918a: 175.—Colo.
menthae Felt, 1909a: 288.—Ill.
mimuli Felt, 1908b: 332.—Calif.
perfoliata (Felt), 1907b: 156 (*Choristoneura*).—Mass.; N.Y., Conn.
ramuscula (Beutenmüller), 1907a: 392 (*Cecidomyia*).—N.C.; N.Y., Maine, Mass., Conn. Gall and larva only; adult descr. Beutenmüller, 1913a: 416 (as *Rhopalomyia*).
remuscula, error.
sambuci (Felt), 1906: 131 (*Cecidomyia*).—N.Y.; Mass., Conn. Gall and larva only; adult descr. Beutenmüller, 1907a: 396 (as *Lasioptera*).
sexmaculata Felt, 1908b: 331.—N.Y.
solani (Felt), 1907b: 164 (*Choristoneura*).—D.C.
squamosa Felt, 1908b: 333 (also 1911d: 483).—Mo. (unpublished).
subsquamosa Kieffer, 1913a: 23 (unjustified n. name for *squamosa* Felt, 1911d).—Mo.
tenuitas Felt, 1908b: 331.—N.Y.
tiliaginea Felt, 1908b: 332.—N.Y.
trimera Felt, 1911d: 484.—Ariz.
tripunctata Felt, 1908b: 331.—N.Y.

viburnicola (Beutenmüller), 1907a: 398 (*Lasioptera*).—N.Y.; Conn.
vitinea (Felt), 1907b: 153 (*Lasioptera*).—N.Y.; Mass.

Genus PROTAPLONYX Felt

Protaplonyx Felt, 1916b: 202. Type-species, *hagani* Felt (orig. des.).

hagani Felt, 1916b: 202.—Utah.

Genus ASTEROMYIA Felt

Asteromyia Felt, 1910b: 348. Type-species, *Cecidomyia carbonifera* Osten Sacken (as *Lasioptera carbonifera* Felt; orig. des.).
Baldratia, authors, not Kieffer.

abnormis (Felt), 1907b: 110 (*Choristoneura*).—N.Y.
agrostis (Osten Sacken), 1862b: 204 (*Cecidomyia*).—N.Y.; Ont., Ill., Ohio, N.H. to D.C. Gall and immature stages only; adult descr. Felt, 1918a: 224.
muhlenbergiae Marten, 1893: 155 (*Lasioptera*).—Ill.
albomaculata (Felt), 1907b: 111 (*Choristoneura*).—N.Y.; N.J.
asterifoliae (Beutenmüller), 1907a: 395 (*Lasioptera*).—N.C.; N.Y., Mass.
canadensis (Felt), 1907b: 105 (*Lasioptera*).—N.Y.
carbonifera (Osten Sacken), 1862b: 195 (*Cecidomyia*).—Unknown; Que. to Maine, s. to D.C. Gall only.
carbonifera Felt, 1906: 116 (*Lasioptera*).—Unknown. Adult descr.
chrysothamni Felt, 1918a: 214.—Colo.; Utah.
convoluta (Felt), 1907b: 110 (*Choristoneura*).—N.Y.
divaricata (Felt), 1908b: 330 (*Baldratia*).—N.Y.; N.H., Conn.
dumosae (Felt), 1909a: 286 (*Baldratia*).—Mass.
flavoanulata (Felt), 1908b: 329 (*Baldratia*).—N.Y.
flavolunata (Felt), 1907b: 154 (*Choristoneura*).—N.Y.; Mass.
flavomaculata (Felt), 1908b: 329 (*Baldratia*).—N.Y.
flavoscuta (Felt), 1908b: 328 (*Baldratia*).—N.Y.
grindeliae Felt, 1912d: 149.—Calif.
gutierreziae Felt, 1916e: 179.—Utah.
laeviana (Felt), 1907b: 108 (*Choristoneura*).—N.Y.; Mass., Conn., ?Ont.
modesta (Felt), 1907b: 163 (*Choristoneura*).—N.Y.
nigrina Felt, 1911d: 481.—Mass.; Conn.
nitida (Felt), 1909a: 286 (*Baldratia*).—N.Y.
paniculata (Felt), 1907b: 109 (also 1908b: 329, as *Baldratia*) (*Choristoneura*).—N.Y.
petiolicola (Felt), 1908b: 328 (*Baldratia*).—R.I.; Mo., Va.

phragmites Felt, 1936b: 9.—Mich.
pustulata (Felt), 1908b: 328 (*Baldratia*).—N.Y.
reducta Felt, 1911d: 481.—Mass.; Mo., Conn.
rosea (Felt), 1907b: 152 (*Lasioptera*).—N.Y.; Conn.
rubra (Felt), 1907b: 103 (*Lasioptera*).—N.Y.; Ont., Mo., Ill., Ohio, N.H. to D.C.
socialis (Felt), 1908b: 328 (*Baldratia*).—N.Y.
squarrosae (Felt), 1908b: 329 (*Baldratia*).—N.Y.; Ont.
sylvestris Felt, 1915a: 228.—N.Y.
vesiculosa (Felt), 1909a: 286 (*Baldratia*).—Mass.; Conn.
waldorfi (Felt), 1909a: 286 (*Baldratia*).—N.Y.

Genus APLONYX De Stefani Perez

Aplonyx De Stefani Perez, 1908: 174. Type-species, *chenopodii* De Stefani Perez (orig. des.).

sarcobati Felt, 1914c: 93.—Colo.

Genus CLINORHYNCHA Loew

Lasioptera, subg. **Clinorhyncha** Loew, 1850b: 21. Type-species, *chrysanthemi* Loew (mon.).

eupatoriflorae (Felt), 1908b: 287 (*Lasioptera*).—N.Y.; Mass., Conn.
filicis Felt, 1907b: 108.—N.Y.
karnerensis Felt, 1908b: 333.—N.Y.
millefolii Wachtl, 1884: 161.—Europe; N.Y.

Genus CAMPTONEUROMYIA Felt

Camptoneuromyia Felt, 1908b: 334. Type-species, *Dasineura virginica* Felt (Coquillett, 1910b: 518).

adhesa (Felt), 1908b: 291 (*Dasineura*).—N.Y.
brevicauda (Felt), 1908b: 343 (*Dasineura*).—N.Y.
flavescens (Felt), 1908b: 327 (*Lasioptera*).—N.Y.; N.J.
fulva Felt, 1908b: 334.—N.Y.
hamamelidis (Felt), 1907b: 116 (*Dasineura*).—N.Y.
rubifolia Felt, 1908b: 334.—Mass.; Conn.
virginica (Felt), 1907b: 115 (*Dasineura*).—N.Y.

Genus TROTTERIA Kieffer

Choristoneura Rübsaamen, 1892: 342 (preocc. Lederer, 1859). Type-species, *Cecidomyia obtusa* Loew (mon.).
Trotteria Kieffer, 1901: 561 (n. name for *Choristoneura* Rübsaamen). Type-species, *Cecidomyia obtusa* Loew (aut.).

argenti Felt, 1908b: 335.—N.Y.
caryae (Felt), 1907b: 110 (*Choristoneura*).—N.Y.
caudata Felt, 1908b: 335.—N.Y.
karnerensis Felt, 1908b: 335.—N.Y.
metallica Felt, 1908b: 335.—N.Y.
solidaginis Felt, 1908b: 335.—N.Y.
squamosa Felt, 1908b: 335.—N.Y.
subfuscata Felt, 1908b: 335.—N.Y.
tarsata Felt, 1908b: 335.—N.Y.

Tribe CONTARINIINI

REFERENCE: Felt, 1918b (rev.).

Genus DENTIFIBULA Felt

Dentifibula Felt, 1908b: 385, 389. Type-species, *Cecido myia viburni* Felt (orig. des.).

caryae (Felt), 1907b: 132 (*Contarinia*).—N.Y.
cocci Felt, 1908b: 389.—Ill.
viburni (Felt), 1907b: 132 (*Contarinia*).—N.Y.

Genus TOXOMYIA Felt

Toxomyia Felt, 1911b: 302. Type-species, *fungicola* Felt (orig. des.).

americana Felt, 1914d: 130.—N.Y.

Genus LOBOPTEROMYIA Felt

Lobopteromyia Felt, 1908b: 385, 389. Type-species, *Contarinia filicis* Felt (orig. des.).

abdominalis Felt, 1908b: 390.—N.Y.
apicalis Felt, 1908b: 390.—N.Y.
caricis Felt, 1908b: 390.—N.Y.
consobrina (Felt), 1907b: 161 (*Contarinia*).—N.Y.
filicis (Felt), 1907b: 131 (*Contarinia*).—N.Y.
foetedi Felt, 1908b: 390.—N.Y.
symplocarpi Felt, 1908b: 390.—N.Y.
tiliae (Felt), 1907b: 161 (*Contarinia*).—N.Y.
venae Felt, 1914b: 120 (as *venitalis*, p. 122).—N.Y. Not ?*Cecidomyia venae* Stebbins.

Genus ENDAPHIS Kieffer

Endaphis Kieffer, 1896d: 383. Type-species, *perfidus* Kieffer (mon.).

americana Felt, 1911a: 129.—Ariz.

Genus CONTARINIA Rondani

Cecidomyia, subg. **Contarinia** Rondani, 1860: 289. Type-species, *Tipula loti* De Geer (orig. des.).

agrimoniae Felt, 1908b: 302.—N.Y.
ampelophila Felt, 1907b: 132.—N.Y.
balsamifera (Felt), 1907b: 131 (*Mycodiplosis*).—N.Y.
canadensis Felt, 1908b: 394.—Ont. (unpublished); N.Y., Maine, Mass., Conn.
clematidis Felt, 1908b: 393.—N.Y. (unpublished); Mass.
coloradensis Felt, 1912e: 240.—Colo.
constricta Condrashoff, 1961: 126.—B.C.; ?nw. U.S.
cuniculator Condrashoff, 1961: 128.—B.C.; ?nw. U.S.
divaricata Felt, 1908b: 392.—N.Y.
flavolinea Felt, 1908b: 392.—N.Y.
gossypii Felt, 1908a: 210.—Barbados Is.; Fla., West Indies.
johnsoni Felt, 1909b: 15.—N.Y.
johnsoni Slingerland and Johnson, 1904: 72. Unavailable name; orig. genus not given.
juniperina Felt, 1939a: 159.—Mo.; Nebr., Kans., Ky.
maculosa Felt, 1908b: 393.—N.Y.
negundifolia Felt, 1908b: 394.—Ont.
obesa Felt, 1918b: 110.—N.Y.
oregonensis Foote, 1956: 54.—Oreg.; B.C., Wash.
perfoliata Felt, 1908b: 391.—N.Y.
pseudotsugae Condrashoff, 1961: 124.—B.C.; Mont.
pyrivora (Riley), 1886a: 287 (*Cecidomyia*).—Conn.; N.Y., N.J., also Europe.
rumicis (Loew), 1850b: 34 (*Cecidomyia*).—Europe; N.Y.
sambucifolia Felt, 1907b: 131.—N.Y.
setigera (Lintner), 1897: 168 (1897: 168) (*Diplosis*).—Mass.; N.Y.
sorghicola (Coquillett), 1899g: 82 (*Diplosis*).—Tex.; Kans. to Va., s. to N. Mex. and Fla., also Neotropical, Hawaii, Sudan, cent. India, ne. Australia.
spiraeina Felt, 1911d: 547.—Mass.; Maine.
trifolii Felt, 1907b: 131.—N.Y.
tritici (Kirby).—Not Nearctic.
truncata Felt, 1908b: 393.—N.Y.
viatica Felt, 1908b: 393.—N.Y.
virginianiae (Felt), 1906: 130 (*Cecidomyia*).—N.Y.; Man., Ont., Que., Maine to Conn. Larva only; adult descr. Felt, 1908b: 392.
viridiflava Felt, 1908b: 392.—N.Y.
washingtonensis Johnson, 1963: 94.—Wash.; B.C., Oreg.

Genus THECODIPLOSIS Kieffer

Thecodiplosis Kieffer, 1895e: cxciv. Type-species, *Cecidomyia brachyntera* Schwägrichen (orig. des.).

cockerelli Felt, 1918c: 381.—Colo.
cupressiananassa (Osten Sacken), 1878c: 3 (*Cecidomyia;* orig. as *cupressi ananassa* Riley, 1870b: 244).—Tenn.; La., Ala.
ananassa, emend.
dulichii Felt, 1912e: 241.—Mass.
hudsonici (Felt), 1908b: 393 (*Contarinia*).—N.Y.
liriodendri (Osten Sacken), 1862b: 202 (*Cecidomyia*).—D.C.; N.Y., Mass., Conn. Gall and larva only; adult descr. Felt, 1918b: 126.
piniradiatae Snow and Mills, 1900: 491 (*Diplosis;* as *pini-radiatae*).—Calif.
radiatae, emend.
piniresinosae Kearby and Benjamin, 1963: 414.—Wis.
quercifolia (Felt), 1908b: 391 (*Contarinia*).—Va.
zauschneriae Felt, 1912d: 152.—Calif.

Genus SITODIPLOSIS Kieffer

Sitodiplosis Kieffer, 1913c: 49. Type-species, *Cecidomyia mosellana* Géhin (orig. des.).

mosellana (Géhin), 1857: 21 (*Cecidomyia*).—France; wheat-growing regions of N. Amer. and Palaearctic Region.
amyotii Fitch, 1861: 773 (1865: 31) (*Cecidomyia*).—N.Y.

Genus PECTINODIPLOSIS Felt

Pectinodiplosis Felt, 1918b: 132. Type-species, *Contarinia erratica* Felt (orig. des.).

erratica (Felt), 1908b: 391 (*Contarinia*).—Unknown.

Genus ZEUXIDIPLOSIS Kieffer

Zeuxidiplosis Kieffer, 1904a: 349. Type-species, *Thecodiplosis giardiana* Kieffer (orig. des.)=*giardi* (Kieffer).

giardi (Kieffer), 1896d: 383 (*Diplosis*).—France; Calif. Introduced

Genus STENODIPLOSIS Reuter

Stenodiplosis Reuter, 1895: 9. Type-species, *geniculati* Reuter Kieffer, 1896c: 92).

geniculati Reuter, 1895: 10.—Finland; Ont.

Unplaced Species of Contariniini

brachynteroides Osten Sacken, 1862b: 198 (*Cecidomyia*).—D.C. Gall and larva only. ?*Thecodiplosis*.

pinirigidae Packard, 1878: 527 (*Diplosis;* as *pini-rigidae*).—Maine. ?*Thecodiplosis*.

rigidae, emend.

Tribe CECIDOMYIINI

REFERENCES: Felt, 1918b, 1921c (revs.).

Genus YOUNGOMYIA Felt

Youngomyia Felt, 1908b: 398. Type-species, *Dicrodiplosis podophyllae* Felt (orig. des.).

pennsylvanica Felt, 1912c: 106.—Pa.
podophylli (Felt), 1907b: 126 (*Dicrodiplosis*).—N.Y.
producta Felt, 1918b: 150.—N.Y.
quercina Felt, 1911d: 551.—Calif.
rubida Felt, 1908b: 399.—N.Y.
umbellicola (Osten Sacken), 1878c: 7 (*Cecidomyia;* orig. as *sambuci umbellicola* Osten Sacken, 1870: 52).—N.J.; Mo., Ill., N.Y. to R.I. Gall and larva only; adult descr. Felt, 1918b: 149.
vernoniae Felt, 1911d: 552.—Va.

Genus DICRODIPLOSIS Kieffer

Dicrodiplosis Kieffer, 1895e: cxciv. Type-species, *fasciata* Kieffer (orig. des.).

Dichrodiplosis, error or emend.

androgynes Felt, 1908b: 394.—N.Y.
annulata (Felt), 1907b: 113 (*Rhabdophaga*).—N.Y.
antennata Felt, 1912e: 243.—Maine.
borealis (Felt), 1907b: 113 (*Rhabdophaga*).—N.Y.
californica Felt, 1912e: 244.—Calif.
fulva Felt, 1918b: 153.—Mass.
gillettei Felt, 1911d: 549.—Colo.
helena Felt, 1912e: 245.—Mass.
insolens Felt, 1920: 288.—N.Y.
longicornis Felt, 1918b: 156.—N.Y.
populi Felt, 1908b: 394.—N.J.; Mass.
rubida Felt, 1918b: 158.—N.Y.
venitalis Felt, 1914b: 121.—N.Y.

Genus APHIDOLETES Kieffer

Aphidoletes Kieffer, 1904b: 385. Type-species, *abietis* Kieffer (Felt, 1911e: 53).

Phaenobremia Kieffer, 1912b: 1 (1912: x). Type-species, *Aphidoletes urticariae* Kieffer (orig. des.).

basalis Felt, 1908b: 397.—N.Y.
borealis Felt, 1908b: 397.—N.Y.
cucumeris (Lintner), 1888b: 725 (*Cecidomyia*).—Mass.; N.Y.
doutti (Pritchard), 1961b: 100 (*Phaenobremia*).—Calif. **N. comb.**
flavida Felt, 1908b: 397.—N.Y.
fulva Felt, 1908b: 397.—N.Y.; Ont.
hamamelidis (Felt), 1907b: 125 (*Bremia*).—N.Y.
marginata Felt, 1908b: 397.—N.Y.
marina Felt, 1908b: 397.—N.Y.
meridionalis Felt, 1908b: 397.—D.C.; Oreg., Calif., Colo., Wis. to Ont. and N.Y., s. to Iowa and Va.
recurvata Felt, 1908b: 397.—Mass.; N.Y.
rosivora (Coquillett), 1900e: 46 (*Diplosis*).—D.C.; N.Y., Mass., N.J.
thompsoni Möhn, 1954: 462.—Europe; N.B., N.S., Nfld. Introduced.

Genus BREMIA Rondani

Diplosis, subg. **Bremia** Rondani, 1860: 289. Type-species, *Cecidomyia decorata* Loew (orig. des.).

borealis Felt, 1914d: 130.—N.Y.
caricis (Felt), 1907b: 128 (also 1908b: 395) (*Mycodiplosis*).—N.Y.
filicis Felt, 1907b: 125.—N.Y.
montana Felt, 1914d: 131.—N.Y.
podophylli Felt, 1907b: 126.—N.Y.
sylvestris Felt, 1920: 289.—N.Y.
tristis Felt, 1914d: 131.—N.Y.

Genus CLEODIPLOSIS Felt

Cleodiplosis Felt, 1922c: 1. Type-species, *aleyrodici* Felt (orig. des.).

REFERENCE: Koebele, 1893: 38 (biol. *koebelei*, as unnamed sp.).

koebelei (Felt), 1932: 167 (*Silvestrina*).—Calif.

Genus THOMASINIANA Strand

Thomasia Rübsaamen, 1910: 288 (also 1911: 168) (preocc. Poche, 1908). Type-species, *Diplosis oculiperda* Rübsaamen (mon.).

Thomasiniana Strand, 1927: 66 (n. name for *Thomasia* Rübsaamen). Type-species, *Diplosis oculiperda* Rübsaamen (aut.).

californica (Felt), 1914d: 132 (*Thomasia*).—Calif.

Genus KALODIPLOSIS Felt

Kalodiplosis Felt, 1915a: 229. Type-species, *Dicrodiplosis multifila* Felt (orig. des.).

floridana Felt, 1915a: 230.—Fla.

Genus PERIDIPLOSIS Felt

Peridiplosis Felt, 1918b: 160. Type-species, *Cecidomyia quercina* Felt (orig. des.).

quercina (Felt), 1907b: 137 (*Cecidomyia*).—N.Y.; Ga.
quercina Felt, 1908b: 300 (*Dichrodiplosis*).—Ga.

Genus LOBODIPLOSIS Felt

Lobodiplosis Felt, 1908b: 397. Type-species, *Mycodiplosis acerina* Felt (orig. des.).

acerina (Felt), 1907b: 129 (*Mycodiplosis*).—N.Y.; Mass.
borealis Felt, 1920: 289.—N.Y.
cincta Felt, 1918b: 165.—N.Y.
quercina (Felt), 1907b: 130 (*Mycodiplosis*).—N.Y.; Mass.
speciosa Felt, 1913h: 143.—Mass.
triangularis Felt, 1918b: 163.—Mass.

Genus COQUILLETTOMYIA Felt

Coquillettomyia Felt, 1908b: 398. Type-species, *Mycodiplosis lobata* Felt (orig. des.).

bryanti Felt, 1913h: 144.—Mass.
dentata Felt, 1908b: 398.—N.Y.; Mass.
lobata (Felt), 1907b: 127 (*Mycodiplosis*).—N.Y.
texana Felt, 1908b: 398.—Tex.

Genus FELTIELLA Rübsaamen

Feltiella Rübsaamen, 1910: 285 (also 1911: 280). Type-species, *tetranychi* Rübsaamen (orig. des., as gen. n., sp. n.).

acerifolia (Felt), 1907b: 127 (*Mycodiplosis*).—N.Y.
americana Felt, 1916a: 33.—N.Y.
davisi Felt, 1915c: 406.—Ind.

emarginata (Felt), 1907b: 129 (*Mycodiplosis*).—N.Y.
ithacae Felt, 1926d: 141.—N.Y.
minuta (Felt), 1907b: 127 (*Mycodiplosis*).—N.Y.
pini (Felt), 1907b: 128 (*Mycodiplosis*).—N.Y.
spinosa (Felt), 1911d: 550 (*Mycodiplosis*).—Unknown.
venatoria Felt, 1917b: 195.—Ill.

Genus KARSCHOMYIA Felt

Karschomyia Felt, 1908b: 398 (as *Karshomyia;* emend. Felt, 1911e: 54). Type-species, *Mycodiplosis viburni* Felt (orig. des.).

viburni (Felt), 1907b: 130 (*Mycodiplosis*).—N.Y.

Genus CLINODIPLOSIS Kieffer

Clinodiplosis Kieffer, 1895d: cclxxx. Type-species, *Diplosis cilicrus* Kieffer (orig. des.).

araneosa Felt, 1912d: 154.—Md.; D.C.
caulicola (Coquillett), 1895h: 401 (*Diplosis*).—N.H.
examinis Felt, 1913a: 306.—N.Y.
pucciniae Pritchard, 1948b: 29.—Calif.

Genus MYCODIPLOSIS Rübsaamen

Mycodiplosis Rübsaamen, 1895a: 186. Type-species, *Cecidomyia coniophaga* Winnertz (orig. des.).

acarivora (Felt), 1907a: 242 (*Cecidomyia*).—Calif.
aestiva Felt, 1908b: 402.—N.Y.
alternata Felt, 1907b: 126.—N.Y.; Mass., Conn.
angulata (Felt), 1907b: 135 (*Cecidomyia*).—N.Y.
urticae Felt, 1907b: 136 (*Cecidomyia*).—N.Y.
aurata Felt, 1908b: 402.—N.Y.
captiva Felt, 1908b: 401.—N.Y.
carolina Felt, 1911d: 549.—N.C.
cerasifolia (Felt), 1908b: 302 (*Cecidomyia*).—N.J.; Mass.
cincta Felt, 1918b: 203.—N.Y.
conicola Foote, 1956: 54.—Calif.; Oreg.
contracta Felt, 1908b: 401.—N.Y.
coryli Felt, 1907b: 128.—N.Y.
corylifolia Felt, 1908b: 301.—N.Y.
coryloides Foote, 1956: 55.—Calif.; Oreg.
cucurbitae Felt, 1911d: 550.—Unknown.

cyanococci Felt, 1907b: 128.—N.Y.
fibulata Felt, 1908b: 401.—N.Y.
fungiperda Felt, 1915c: 407.—D.C. (unpublished).
holotricha Felt, 1908b: 401.—N.Y. (unpublished); Mass.
hudsoni Felt, 1907b: 129.—N.Y.
impatientis Felt, 1908b: 401.—N.Y.
intermedia Felt, 1920: 290.—N.Y.
lenis Felt, 1920: 290.—N.Y.
macgregori Felt, 1915b: 149.—S.C.
modesta Felt, 1908b: 402.—N.Y.
obscura Felt, 1908b: 402.—N.Y.
packardi Felt, 1918c: 382.—N.Y.
perplexa Felt, 1908b: 402.—N.Y.
populifolia Felt, 1908b: 400.—N.Y. (unpublished); N.H.
radicis Felt, 1936a: 232.—Ala.
reducta Felt, 1908b: 400.—N.Y.
robusta Felt, 1908b: 401.—N.Y.
rotundata Felt, 1908b: 401.—N.Y.
silvana Felt, 1908b: 402.—N.Y.
tenuitas Felt, 1908b: 401.—N.Y.
tsugae Felt, 1907b: 130.—N.Y.
variabilis Felt, 1908b: 402.—N.Y.

Genus ARTHROCNODAX Rübsaamen

Arthrocnodax Rübsaamen, 1895b: 189. Type-species, *vitis* Rübsaamen (Coquillett, 1910b: 510.).

acerinus (Felt), 1907b: 136 (*Cecidomyia*).—N.Y.
apiphilus Felt, 1908b: 301.—Calif.; Wash., also N.Y.
carolina Felt, 1913e: 488.—S.C.
cinctus (Felt), 1907b: 143 (*Cecidomyia*).—N.Y.
fenestra Felt, 1908b: 404.—N.Y.
filicis (Felt), 1907b: 136 (*Cecidomyia*).—N.Y.
fraxini (Felt), 1907b: 138 (*Cecidomyia*).—N.Y.
incisus (Felt), 1907b: 140 (*Cecidomyia*).—N.Y.
macrofilus (Felt), 1908b: 302 (*Cecidomyia*).—N. Mex.
obscurus Felt, 1908b: 404.—N.Y.
occidentalis Felt, 1912h: 402.—Calif.; B.C.
rhoinus Felt, 1908b: 404.—N.Y.
rufus Felt, 1908b: 403.—N.Y.
sambucifolius Felt, 1908b: 404.—N.Y.; Mass.
sylvestris (Felt), 1907b: 143 (*Cecidomyia*).—N.C.

Genus PRODIPLOSIS Felt

Prodiplosis Felt, 1908b: 403. Type-species, *Cecidomyia floricola* Felt (orig. des.).

fitchii Felt, 1912f: 288.—N.Y.
floricola (Felt), 1908b: 302 (*Cecidomyia*).—N.Y.

Genus GIARDOMYIA Felt

Giardomyia Felt, 1908b: 405. Type-species, *Cecidomyia photophila* Felt (orig. des.).

emarginata Felt, 1908b: 405.—N.Y.
hudsonica Felt, 1908b: 406.—N.Y.
menthae Felt, 1908b: 405.—N.Y.
montana Felt, 1908b: 406.—N.Y.
noveboracensis Felt, 1908b: 405.—N.Y.
photophila (Felt), 1907b: 134 (*Cecidomyia*).—N.Y.
rhododendri Felt, 1939b: 42.—N.Y.

Genus HYPERDIPLOSIS Felt

Hyperdiplosis Felt, 1908b: 405. Type-species, *Cecidomyia lobata* Felt (orig. des.).

bryanti Felt, 1913h: 146.—Mass.; Conn.
fungicola Felt, 1911d: 552.—D.C.
insolens Felt, 1920: 291.—N.Y.
lobata (Felt), 1907b: 136 (*Cecidomyia*).—N.Y.
meibomiifoliae (Beutenmüller), 1907b: 306 (*Cecidomyia*).—N.J.
phlox Greene, 1941a: 547.—Ohio.

Genus LESTODIPLOSIS Kieffer

Lestodiplosis Kieffer, 1894a: 84. Type-species, *Cecidomyia pictipennis* Perris (Kieffer, 1895d: cclxxx)=*septemguttata* Kieffer. Spelling, from Kieffer, 1895d (as 1894: 280), unnecessarily validated by I.C.Z.N., 1958a: 293.
Leptodiplosis Kieffer, 1894c: xxviii, error or emend.

apocyniflorae Felt, 1908b: 409.—N.Y.
asclepiae Felt, 1908b: 409.—N.Y.
asteris (Felt), 1907b: 142 (*Cecidomyia*).—N.Y.
basalis Felt, 1908b: 408.—N.Y.
carolinae (Felt), 1907b: 139 (*Cecidomyia*).—N.C.
cerasi Felt, 1908b: 407.—N.Y.

cincta Felt, 1908b: 408.—N.Y.
clematiflorae Felt, 1908b: 409. N.Y.
crataegifolia Felt, 1908b: 408.—N.Y. (unpublished); Mass.
eupatorii (Felt), 1907b: 140 (*Cecidomyia*).—N.Y.
flavomarginata (Felt), 1907b: 138 (*Cecidomyia*).—N.Y.
florida Felt, 1908b: 409.—Fla. (unpublished).
floridana Johannsen, 1945: 8.—Fla.
fraxinifolia Felt, 1908b: 408.—N.J.
globosa Felt, 1908b: 409.—N.J.
grassator (Fyles), 1883: 237 (*Diplosis*).—Que.; Ont.
hicoriae (Felt), 1907b: 137 (*Cecidomyia*).—N.Y.
juniperina (Felt), 1907b: 141 (*Cecidomyia*).—N.Y.
maculipennis Greene, 1941a: 550.—Ohio.
novangliae Felt, 1933: 114.—Mass.
platanifolia Felt, 1908b: 410.—N.Y.
populifolia Felt, 1908b: 408.—N.Y.
rudbeckiae (Beutenmüller), 1907a: 388 (*Cecidomyia*).—N.C.
rugosa (Felt), 1907b: 141 (*Cecidomyia*).—N.Y.
rumicis Felt, 1908b: 410.—N.Y.
satiata Felt, 1920: 292.—N.Y.
scrophulariae (Felt), 1908b: 303 (*Cecidomyia*).—N.Y.
septemmaculata (Walsh), 1864b: 630 (*Cecidomyia;* as *septem-maculata*).—Ill.
solidaginis Felt, 1908b: 409.—N.Y.
spiraeafolia Felt, 1908b: 410.—N.Y.
taxiconis Foote, 1956: 56.—Oreg.
triangularis (Felt), 1907b: 138 (*Cecidomyia*).—N.Y.
tsugae (Felt), 1907b: 139 (*Cecidomyia*).—N.Y.
verbenifolia Felt, 1908b: 408.—N.Y.
yuccae Felt, 1908b: 408.—Unknown.

Genus EPIDIPLOSIS Felt

Epidiplosis Felt, 1908b: 406. Type-species, *sayi* Felt (orig. des.).

sayi Felt, 1908b: 406.—N.Y.

Genus METADIPLOSIS Felt

Metadiplosis Felt, 1908b: 406. Type-species, *spinosa* Felt (orig. des.).

spinosa Felt, 1908b: 406.—N.Y.

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Genus OBOLODIPLOSIS Felt

Obolodiplosis Felt, 1908b: 410. Type-species, *Cecidomyia orbiculata* Felt (orig. des.)=*robiniae* (Haldeman).

robiniae (Haldeman), 1847: 193 (*Cecidomyia*).—Pa.; N.Y., Conn., Maine.

orbiculata Felt, 1907b: 133 (*Cecidomyia*).—N.Y.

Genus PARALLELODIPLOSIS Rübsaamen

Parallelodiplosis Rübsaamen, 1910: 287 (also 1911: 120). Type-species, *Diplosis galliperda* Löw (mon.).

acernea (Felt), 1907b: 143 (*Cecidomyia*).—N.Y.
carpinicola (Kieffer), 1913a: 214 (*Cecidomyia;* n. name for *carpini* Felt).—N.Y.

carpini Felt, 1907b: 135 (*Cecidomyia;* preocc. Löw, 1874).—N.Y.

caryae (Felt), 1907b: 141 (*Cecidomyia*).—N.Y.; Mass.
cattleyae (Molliard), 1903: 165 (*Cecidomyia*).—Brazil; Mass.

cattleyae Felt, 1908b: 412 (*Clinodiplosis*).—Mass. (unpublished).

cinctipes Felt, 1914f: 113.—Mass.
clarkeae Felt, 1911d: 553.—Mass.
corticis Felt, 1915c: 407.—Unknown.
coryli (Felt), 1907b: 142 (*Cecidomyia*).—N.Y.
extensa (Felt), 1908b: 412 (*Clinodiplosis*).—N.Y.
florida (Felt), 1908b: 411 (*Clinodiplosis*).—Fla.
montana (Felt), 1908b: 412 (*Clinodiplosis*).—N.Y.
pratensis (Felt), 1908b: 412 (*Clinodiplosis*).—N.Y.
rubisolita (Felt), 1908b: 412 (*Clinodiplosis*).—N.Y.; Conn.
rubroscuta (Felt), 1907b: 142 (*Cecidomyia*).—N.Y.
spirae (Felt), 1909a: 293 (*Clinodiplosis*).—Mass.; N.Y.
subtruncata (Felt), 1907b: 140 (*Cecidomyia*).—N.Y.
triangularis (Felt), 1908b: 411 (*Clinodiplosis*).—N.Y.

Genus PARADIPLOSIS Felt

Paradiplosis Felt, 1908b: 410. Type-species, *Cecidomyia obesa* Felt (orig. des.).

obesa (Felt), 1907b: 134 (*Cecidomyia*).—N.Y.
partheniicola (Cockerell), 1900a: 201 (*Diplosis*).—N. Mex.

Genus CECIDOMYIA Meigen

Itonida Meigen, 1800: 19. Type-species, *Tipula pini* De Geer (Coquillett, 1910b: 556). Suppressed by I.C.Z.N., (1963b: 339.).

Cecidomyia Meigen, 1803: 261. Type-species, *Tipula pini* De Geer (mon.).

Cecidomyia, subg. *Diplosis* Loew, 1850b: 20. Type-species, *Tipula pini* De Geer (Rondani, 1860: 289).

Retinodiplosis Kieffer, 1912b: 1 (1912: xi). Type-species, *Diplosis resinicola* Osten Sacken (orig. des.).

REFERENCE: Vockeroth, 1960 (tax.).

accola Vockeroth, 1960: 76.—Ont.

banksianae Vockeroth, 1960: 73.—Man.; Sask., Ont.

candidipes Foote (for *albitarsis* Felt, 1918).—N.Y.; Ont., Que., N.B., Conn. **N. name.**

albitarsis Felt, 1918c: 383 (*Retinodiplosis;* preocc. Meigen, 1830.—N.Y.

palustris (Felt), 1915c: 408 (*Retinodiplosis*).—Ala.

piniinopis Osten Sacken, 1862b: 196 (as *pini inopis*).—D.C.; Wash. to Conn., s. to Calif. and Va. Larva only; adult descr. Felt, 1912g: 368.

inopis, emend.

reeksi Vockeroth, 1960: 70.—Man.; Sask., Ont., Mich.

resinicola (Osten Sacken), 1871: 345 (*Diplosis*).—N.Y.; Mass., Conn.

resinicoloides Williams, 1909: 2.—Calif.

Genus DYODIPLOSIS Rübsaamen

Dyodiplosis Rübsaamen, 1910: 287. Type-species, *Hormomyia arenariae* Rübsaamen (mon.).

davisi Felt, 1921c: 208.—N.Y.

Genus HORMOMYIA Loew

Cecidomyia, subg. **Hormomyia** Loew, 1850b: 20, 31. Type-species, *crassipes* Loew (Coquillett, 1910b: 553).

alexanderi Felt, 1921c: 220.—N.Y.

americana Felt, 1907b: 125.—N.Y.

atlantica Felt, 1908b: 387.—N.J.

caudata Felt, 1916e: 176.—Tenn.

cincta Felt, 1921c: 216.—N.H.

fulva Felt, 1926a: 208.—Mass.

maxima Felt, 1921c: 216.—N.Y.
montana Felt, 1921c: 217.—Colo.
needhami Felt, 1907b: 160.—Ill.
palustris Felt, 1908b: 300.—N.Y.
pudica Felt, 1913h: 146.—N.H.

Genus TRISHORMOMYA Kieffer

Trishormomya Kieffer, 1912b: 2 (1912: xi). Type-species, *Hormomyia strobli* Kieffer (orig. des.).
Trishormomyia, error or emend.

bulla (Felt), 1914a: 286 (*Hormomyia*).—Ill.; Ont.
canadensis (Felt), 1908b: 388 (*Hormomyia*).—Mass.; N.Y., Maine.
clarkei (Felt), 1908b: 388 (*Hormomyia*).—Mass.; N.Y.
consobrina (Felt), 1908b: 299 (*Hormomyia*).—N.Y.
crataegifolia (Felt), 1907b: 160 (*Hormomyia*).—N.Y.; Mich., Ont., Mass.
dilatata Felt, 1921c: 226.—N.Y.
fenestra (Felt), 1915a: 231 (*Hormomyia*).—N.Y.
helianthi (Brodie), 1894: 44 (*Diplosis*).—Ont.
incisa Felt, 1921c: 226.—N.Y.
johnsoni (Felt), 1908b: 299 (*Hormomyia*).—Mass.
modesta (Felt), 1913h: 145 (*Hormomyia*).—Mass.
proteana (Felt), 1914f: 113 (*Hormomyia*).—Mass.
salicisverruca (Osten Sacken), 1878c: 7 (*Cecidomyia;* orig. as *salicis verruca* Walsh, 1864b: 606).—Ill.; Mass. Gall and larva only; adult descr. Felt, 1921c: 230.
verruca, emend.
saturni (Felt), 1914d: 133 (*Hormomyia*).—N.Y.
shawi (Felt), 1913h: 145 (*Hormomyia*).—N.H.

Genus ODONTODIPLOSIS Felt

Odontodiplosis Felt, 1908b: 404. Type-species, *Cecidomyia karnerensis* Felt (orig. des.).

americana Felt, 1908b: 404.—N.Y.
karnerensis (Felt), 1907b: 141 (*Cecidomyia*).—N.Y.
montana Felt, 1908b: 404.—N.Y.

Genus TRISOPSIS Kieffer

Trisopsis Kieffer, 1912d: 171. Type-species, *oleae* Kieffer (orig. des.).

hibisci Felt, 1935b: 76.—La.

Genus ADIPLOSIS Felt

Adiplosis Felt, 1908b: 405. Type-species, *Cecidomyia toxicodendri* Felt (orig. des.).

toxicodendri (Felt), 1907b: 137 (*Cecidomyia*).—N.Y.; Conn.

Genus MONARTHROPALPUS Rübsaamen

Monarthropalpus Rübsaamen, 1892: 381. Type-species, *Tipula flava* Schrank (mon.) ?=*buxi* (Laboulbène).

buxi (Laboulbène), 1873: 321 (*Cecidomyia*).—France; N.Y. to R.I., s. to Md. and Del., Europe. ?=*flava* (Schrank).

Genus ONODIPLOSIS Felt

Onodiplosis Felt, 1916e: 175. Type-species, *sarcobati* Felt (orig.des.).

sarcobati Felt, 1916e: 176.—Utah.

Genus CYSTODIPLOSIS Kieffer and Jörgensen

Cystodiplosis Kieffer and Jörgensen, 1910: 395. Type-species, *longipennis* Kieffer and Jörgensen (mon.).

eugeniae Felt, 1913c: 175.—Fla.

Unplaced Species of Cecidomyiini

agraria Felt, 1908b: 413 (*Cecidomyia*).—N.Y.
albotarsus Felt, 1907b: 132 (*Cecidomyia*).—N.Y.
americana Felt, 1908b: 413 (*Cecidomyia*).—N.Y.
antennata Felt, 1908b: 414 (*Cecidomyia*).—N.Y.
anthici Felt, 1913d: 278 (*Itonida*).—Ala.; Ark., Miss., Ala.
aphidivora Felt, 1912e: 245 (*Itonida*).—N.Y.
apicis Kieffer, 1913a: 213 (*Cecidomyia;* n. name for *apicalis* Felt).—N.Y.
apicalis Felt, 1908b: 413 (*Cecidomyia;* preocc. Walker, 1856).—N.Y.
apocyni Felt, 1908b: 414 (*Cecidomyia*).—N.Y.
aprilis Felt, 1912e: 247 (*Itonida*).—N.Y.
canadensis Felt, 1911d: 558 (*Itonida*).—Mass.
caryae Felt, 1907b: 124 (*Oligotrophus*).—N.Y.
abdominalis Felt, 1921c: 207 (*Itonida;* unjustified n. name for *caryae* Felt).—N.Y.
catalpae Comstock, 1881: 266 (*Diplosis*).—D.C.; N.Y., Conn.

cinctella Kieffer, 1913a: 214 (*Cecidomyia;* n. name for *cincta* Felt).—Unknown.

cincta Felt, 1911d: 558 (*Itonida;* preocc. in *Cecidomyia* by Felt, 1907, orig. *Cecidomyia,* now *Arthrocnodax*).—Unknown.

citrulli Felt, 1935a: 79 (*Itonida*).—Ariz.

claytoniae Felt, 1907b: 133 (*Cecidomyia*).—N.Y.

cucurbitae Felt, 1911d: 555 (*Itonida*).—Unknown.

cupressi Schweinitz, 1822: 92 (*Merulius,* a fungus).—Ga.; Mo., Ark., Fla.

taxodii Felt, 1911d: 556 (*Itonida*).—Fla.

taxodii Felt, 1916c: 415 (*Retinodiplosis*).—Mo.

emarginata Felt, 1907b: 134 (*Cecidomyia*).—N.Y.

excavata Felt, 1907b: 139 (*Cecidomyia*).—N.Y.

excavationis Felt, 1908b: 415, emend.

explicata Felt, 1908b: 413 (*Cecidomyia*).—N.Y.

flavoscuta Felt, 1907b: 137 (*Cecidomyia*).—N.Y.

foliora Russell and Hooker, 1908: 350 (*Cecidomyia*).—Mass.; Conn.

fragariae Felt, 1907b: 133 (*Cecidomyia*).—N.Y.

hartmaniae Felt, 1921c: 201 (*Itonida*).—N.Y.

hopkinsi Felt, 1911d: 554 (*Cecidomyia*).—Calif.

hudsoni Felt, 1907b: 135 (*Cecidomyia*).—N.Y.

infirma Felt, 1908b: 413 (*Cecidomyia*).—N.Y.

myricae Beutenmüller, 1907b: 306 (*Cecidomyia*).—N.J.

nixoni Felt, 1908b: 414 (*Cecidomyia*).—N.Y.

opuntiae Felt, 1910a: 10 (*Cecidomyia*).—N.Y.

paucifili Felt, 1908b: 413 (*Cecidomyia*).—N.Y.

pinifoliae Felt, 1936b: 7 (*Itonida*).—Conn.; N.Y.

piperitae Felt, 1908b: 303 (*Cecidomyia*).—N.Y.

pugionis Felt, 1911d: 557 (*Itonida*).—N.Y.

putrida Felt, 1912e: 246 (*Itonida*).—N.Y. (unpublished).

quercina Felt, 1907b: 137 (*Cecidomyia*).—N.Y.

ramuli Felt, 1907b: 164 (*Cecidomyia*).—N.Y.

recurvata Felt, 1907b: 134 (*Cecidomyia*).—N.Y.

reflexa Felt, 1913h: 146 (*Itonida*).—N.H.

reginae Felt, 1921c: 196 (*Itonida*).—N.W.T.

ruricola Felt, 1908b: 413 (*Cecidomyia*).—N.Y.

sanguinia Felt, 1908b: 413 (*Cecidomyia*).—N.Y.

setariae Felt, 1908b: 303 (*Cecidomyia*).—N.Y.

spiraeaflorae Felt, 1908b: 304 (*Cecidomyia*).—N.Y.

spiraeina Felt, 1911d: 555 (*Itonida*).—Mass.

tecomae Felt, 1906: 127 (*Bremia*).—N.Y.

terrestris Felt, 1908b: 413 (*Cecidomyia*).—N.Y.
texana Felt, 1921c: 204 (*Itonida*).—Tex.
tolhurstae Felt, 1908b: 414 (*Cecidomyia*).—N.Y.
tritici Felt, 1912f: 289 (*Itonida*).—Unknown.
triticicola Kieffer, 1913a: 220 (*Cecidomyia;* unjustified n. name for *tritici* Felt).—Unknown.
uliginosa Felt, 1914d: 133 (*Hormomyia*).—N.Y.
verbenae Beutenmüller, 1907b: 306 (*Cecidomyia*).—N.J., N.Y.
urtifolia Felt, 1908b: 414 (*Cecidomyia*).—Unknown.

Unplaced Genera of Cecidomyiidae

Cecidomyiaceltis Patton, 1897: 247 (as *Cecidomyia-celtis*). Type-species, *deserta* Patton (orig. des., as gen. n., sp. n.). All included species described from galls only, and unrecognized.

Lasiopteryx Stephens, 1829a: 53 (also 1829b: 239). Type-species, *Cecidomyia obfuscata* Meigen (Westwood, 1840: 126). Unrecognized.

Unplaced Species of Cecidomyiidae

Adults Known

annulipes Walsh, 1864b: 629 (*Cecidomyia*).—Ill.
atricornis Walsh, 1864b: 628 (*Cecidomyia*).—Ill.
atrocularis Walsh, 1864b: 626 (*Cecidomyia*).—Ill.
bigeloviae Cockerell, 1889c: 106 (*Cecidomyia*).—Colo.
caliptera Fitch, 1845b: 262 (*Cecidomyia*).—N.Y.
caryae Felt, 1907b: 143 (*Dirhiza*).—N.Y.
caryae Osten Sacken, 1862b: 191 (*Diplosis*).—D.C. *D. caryae* Osten Sacken of Felt, 1921c: 97, is an unnamed sp. of *Caryomyia*.
cerasiphila Felt, 1911d: 554 (*Cecidomyia*).—Unknown.
coloradella Cockerell, 1904: 155 (*Diplosis*).—Colo.
cossae Shimer, 1869: 395 (*Cecidomyia*).—Ill.
culmicola Morris *in* Gambel, 1849: 194 (*Cecidomyia*).—Pa.
decemmaculata Walsh, 1864b: 631 (*Cecidomyia;* as *decem-maculata*).—Ill.
erigeroni Brodie, 1894: 13 (*Diplosis;* as *eregeroni*).—Ont.
frater Cockerell, 1890a: 280 (*Cecidomyia*).—Colo.
fuscoanulata Felt, 1908b: 329 (*Baldratia*).—Unknown. ?=*Asteromyia asterifoliae* (Beutenmüller).

graminis Fitch, 1861: 832 (1865: 90) (*Cecidomyia;* n. name for *cerealis* Fitch).—Mass.

cerealis Fitch, 1845b: 263 (*Cecidomyia;* preocc. in *Cecidomyia* by Sauter, 1817, orig. *Tipula*, now *Porricondyla*).—Mass.

grossulariae Fitch, 1855: 880 (1856: 176) (*Cecidomyia*).—N.Y.

helena Felt, 1908b: 288 (*Choristoneura*).—N.Y. ?=*Asteromyia asterifoliae* (Beutenmüller).

inimica Fitch, 1861: 830 (1865: 88) (*Cecidomyia*).—N.Y.

lateralis Felt, 1914f: 109 (*Monardia*).—Mass.

maccus Loew *in* Osten Sacken, 1862b: 187 (*Diplosis*).—D.C.

meibomiae Beutenmüller, 1907a: 390 (*Cecidomyia*).—N.C., N.Y. Gall and larva only; adult descr. Beutenmüller, 1913a: 415.

monardi Brodie, 1894: 109 (*Diplosis*).—Ont.

negundinis Gillette, 1890: 392 (*Cecidomyia*).—Iowa.

nyssaecola Beutenmüller, 1907a: 387 (*Cecidomyia*).—N.Y.; Ill., Pa., N.J., Ky., Va.

orbitalis Walsh, 1864b: 623 (*Cecidomyia*).—Ill.

ornata Say, 1824a: 357 (1859a: 242) (*Cecidomyia*).—Pa.

parva Walker, 1848: 29 (*Lasioptera*).—Ont.

salicisbrassicoides Packard, 1869a: 377 (*Cecidomyia;* orig. as *salicis brassicoides* Walsh, 1864b: 577).—Ill.

brassicoides, emend.

salicisgnaphaloides Osten Sacken, 1878c: 4 (*Cecidomyia;* orig. as *salicis gnaphaloides* Walsh, 1864b: 583).—Ill.

gnaphaloides, emend.

salicisstrobiliscus Osten Sacken, 1878c: 4 (*Cecidomyia;* orig. as *salicis strobiliscus* Walsh, 1864b: 582).—Ill. Gall and cocoon only; adult descr. Walsh, 1866: 223.

strobiliscus, emend.

scutellata Say, 1823: 17 (1859b: 44) (*Campylomyza*).—Mo.; ?Ohio.

solidaginis Beutenmüller, 1907b: 305 (*Asphondylia*).—N.Y., N.J., N.C. ?=*Asphondylia monacha* Osten Sacken.

spongivora Walker, 1848: 30 (*Cecidomyia*).—Ont.

tergata Fitch, 1845b: 264 (*Cecidomyia*).—N.Y.

togata, error.

thoracica Fitch, 1845b: 264 (*Cecidomyia*).—N.Y.

thurstoni Brodie, 1894: 73 (*Diplosis*).—Ont.

tuberculata Felt, 1907b: 103 (*Lasioptera*).—N.Y. ?=*Asteromyia rubra* (Felt).

unguicula Beutenmüller, 1907a: 388 (*Cecidomyia*).—Ohio.

Adults Unknown

angelicae Beutenmüller, 1908: 74 (*Cecidomyia*).—N.J. Gall and larva only.

bifolia Stebbins, 1910: 49 (*Cecidomyia*).—Mass. Gall only.

bigeloviaebrassicoides Townsend, 1893i: 491 (*Cecidomyia;* as *bigeloviae-brassicoides*).—N. Mex. Gall only.
brassicoides, emend.

bigeloviaestrobiloides Townsend, 1894b: 176 (*Cecidomyia;* as *bigeloviae-strobiloides*).—N. Mex. Gall only.
strobiloides, emend.

boehmeriae Beutenmüller, 1908: 74 (*Cecidomyia*).—N.Y. Gall and larva only.

capsularis Patton, 1897: 248 (*Cecidomyiaceltis*).—Unknown. Gall only.
capsularis Patterson, error.

castaneae Stebbins, 1910: 17 (*Cecidomyia*).—Mass. Gall only.

celastri Stebbins, 1910: 41 (*Cecidomyia*).—Mass. Gall and larva only.

cerasiserotinae Osten Sacken, 1871: 346 (*Cecidomyia;* as *cerasi serotinae*).—N.Y. Gall and larva only.
serotinae, emend.

chinquapin Beutenmüller, 1907a: 389 (*Cecidomyia*).—N.C. Gall and larva only.

citrina Osten Sacken, 1878c: 6 (*Cecidomyia;* orig. as *tiliae citrina* Osten Sacken, 1870: 53).—N.Y. Gall and larva only.
citricola (error) Thompson, 1915: 58.

collinsoniae Beutenmüller, 1908: 73 (*Cecidomyia*).—N.Y. Gall and larva only.

collinsonifolia Beutenmüller, 1908: 74 (*Cecidomyia*).—N.Y. Gall and larva only.

crataegibedeguar Osten Sacken, 1878c: 6 (*Cecidomyia;* orig. as *crataegi bedeguar* Walsh, 1869: 79).—Ill. Gall and larva only.
bedeguar, emend.

crotalariae Stebbins, 1910: 40 (*Cecidomyia*).—Mass. Gall and larva only.

deserta Patton, 1897: 247 (*Cecidomyiaceltis*).—Conn. Gall only.
deserta Patterson, error.

erubescens Osten Sacken, 1862b: 200 (*Cecidomyia*).—D.C. Gall only.

eupatoriflorae Beutenmüller, 1907a: 391 (*Cecidomyia*).—N.C., N.Y. Gall and larva only.

euthamiae Stebbins, 1910: 53 (*Cecidomyia*).—Mass. Gall only.

fulva Beutenmüller, 1908: 75 (*Cecidomyia*).—N.Y. Gall and larva only.

gemmaria Stebbins, 1910: 53 (*Cecidomyia*).—Mass. Gall only.
hageni Aldrich, 1905: 162 (*Cecidomyia*).—Mass. Gall only.
helianthibulla Walsh, 1866: 228 (*Cecidomyia;* as *helianthi-bulla*).—Ill. Gall only.
bulla, emend.
inaequalis Stebbins, 1910: 48 (*Cecidomyia*).—Mass. Gall only.
irregularis Stebbins, 1910: 9 (*Cecidomyia*).—Mass. Gall only.
lappa Stebbins, 1910: 35 (*Cecidomyia*).—Mass. Gall only.
majalis Osten Sacken, 1878c: 6 (*Cecidomyia;* orig. as *quercus majulis* Osten Sacken, 1870: 53).—N.Y.; Ont., Maine, s. to D.C. Gall and larva only.
muscosa Stebbins, 1910: 35 (*Cecidomyia*).—Mass. Gall only.
niveipila Osten Sacken, 1862b: 199 (*Cecidomyia*).—D.C. Gall and larva only.
ocellaris Osten Sacken, 1862b: 199 (*Cecidomyia*).—D.C. Gall and larva only.
ocellata (error) Jarvis, 1907: 66.
oviformis Patton, 1897: 248 (*Cecidomyiaceltis*).—Unknown. Gall only.
oviformis Patterson, error.
palmeri Felt, 1925b:59 (*Cecidomyia*).—N. Mex. Gall only. ?*Lasioptera*.
pellex Osten Sacken, 1862b: 199 (*Cecidomyia*).—D.C. Gall and larva only.
peritomatis Cockerell, 1913a: 280 (*Cecidomyia*).—N. Mex. Gall and larva only.
poculum Osten Sacken, 1862b: 201 (*Cecidomyia*).—D.C. Gall and larva only.
potentillaecaulis Stebbins, 1910: 37 (*Cecidomyia*).—Mass. Gall only.
pubescens Patton, 1897: 248 (*Cecidomyiaceltis*).—Unknown. Gall only.
pubescens Patterson, error.
pudibunda Osten Sacken, 1862b: 202 (*Cecidomyia*).—D.C. Gall and larva only.
punicei Brodie, 1909: 159 (*Diplosis*).—Ont. Gall and larva only.
pustuloides Beutenmüller, 1907a: 390 (*Cecidomyia*).—N.C., N.J. Gall and larva only. ?*Cincticornia*.
q-oruca Walsh *in* Felt, 1925b: 61 (*Cecidomyia*).—Unknown. Gall and larva only.
oruca, emend.
racemi Stebbins, 1910: 39 (*Cecidomyia*).—Mass. Gall only.

recondita Osten Sacken, 1875e: 202 (*Asphondylia*).—N.Y. Gall and exuvium only.

reniformis Stebbins, 1910: 36 (*Cecidomyia*).—Mass. Gall only.

salicifoliae Osten Sacken, 1866: 220 (*Cecidomyia*).—Que. Gall and larva only.

saliciscoryloides Osten Sacken, 1878c: 7 (*Cecidomyia;* orig. as *salicis-coryloides* Walsh, 1864b: 588).—Ill. Gall and larva only.

coryloides, emend.

semenrumicis Patton, 1897: 248 (*Cecidomyiaceltis*).—Unknown. Gall only.

semenrumicis Patterson, error.

spiniformis Patton, 1897: 248 (*Cecidomyiaceltis*).—Unknown. Gall only.

spiniformis Patterson, error.

squamulicola Stebbins, 1910: 16 (*Cecidomyia*).—Mass. Gall only.

strobiligemma Stebbins, 1910: 53 (*Cecidomyia*).—Mass. Gall only.

symmetrica Osten Sacken, 1862b: 200 (*Cecidomyia*).—D.C. Gall and larva only. ?*Cincticornia*.

torreyi Felt, 1925b: 63 (*Cecidomyia*).—N. Mex. Gall only.

triadenii Beutenmüller, 1908: 74 (*Cecidomyia*).—N.J. Gall and larva only.

tuba Stebbins, 1910: 46 (*Cecidomyia*).—Mass. Gall and larva only.

tulipiferae Osten Sacken, 1862b: 202 (*Cecidomyia*).—D.C. Gall and larva only.

urnicola Osten Sacken, 1875e: 202 (*Cecidomyia*).—N.Y. Gall and larva only.

vaccinii Osten Sacken, 1862b: 196 (*Cecidomyia*).—D.C.; N.Y., Mass., Maine. Gall and larva only.

gaylussacii Felt, 1925b: 55 (*Cecidomyia*; unjustified n. name for *vaccinii* Osten Sacken).—D.C.

venae Stebbins, 1910: 39 (?*Cecidomyia*).—Mass. Gall only.

verbesinae Beutenmuller, 1907a: 391 (*Cecidomyia*).—N.C. Gall and larva only.

verrucicola Osten Sacken, 1875e: 201 (*Cecidomyia*).—Mass., N.Y. Gall only.

viticola Osten Sacken, 1862b: 202 (*Cecidomyia*).—D.C. Gall and larva only.

vitislituus Osten Sacken, 1878c: 7 (*Cecidomyia;* orig. as *vitis lituus* Walsh and Riley, 1870: 28).—Ill. Gall only.

lituus, emend.

Suborder BRACHYCERA

Superfamily TABANOIDEA

Family XYLOPHAGIDAE

(Coenomyiidae, Erinnidae)

By Maurice T. James

Adults of Xylophagidae frequent forested or wooded areas and feed on sap, nectar of flowers, or other liquid matter. Larvae are predators or scavengers, so far as known; they occur in soil rich in decaying vegetable matter (*Coenomyia*), under bark of trees (*Xylophagus*), or in decaying logs (*Rachicerus*).

REFERENCE: Leonard, 1930 (keys, in Rhagionidae).

Subfamily XYLOPHAGINAE

Genus COENOMYIA Latreille

Coenomyia Latreille, 1796: 159. Type-species, *Musca ferruginea* Scopoli (sub. mon., Latreille, 1802: 439).

ferruginea (Scopoli), 1763: 340 (*Musca*).—Europe; Nebr. to Que., s. to Fla.

pallida Say, 1824a: 369 (1859a: 251).—Unknown.

cinereibarbis Bigot, 1879a: 194.—Md.

Genus RACHICERUS Walker

Rachicerus Walker, 1854: 103. Type-species, *fulvicollis* Walker (mon.).

Rhachicerus, error or emend.

fulvicollis Walker, 1854: 104.—Ga. (Walker, 1848: 124, nomen nudum); Mass. to Ga.

ruficollis, error.

honestus Osten Sacken, 1877: 211.—Calif.

niger Leonard, 1930: 13.—Calif.

nitidus Johnson, 1903b: 22.—Pa.; Maine to Va.

obscuripennis Loew, 1863: 4 (Cent. 3, no. 6).—Ill.; Mich., s. to Kans. and Va.

Genus XYLOPHAGUS Meigen

Erinna Meigen, 1800: 21. Type-species, *Nemotelus cinctus* De Geer (Coquillett, 1910b: 539). Suppressed by I.C.Z.N., 1963b: 339.

Xylophagus Meigen, 1803: 266. Type-species, *Nemotelus cinctus* De Geer (mon.).

REFERENCES: Malloch, Greene, and McAtee, 1931 (keys); Curran, 1933b (keys).

Subgenus ANAXYLOPHAGUS Malloch

Xylophagus, subg. **Anaxylophagus** Malloch *in* Malloch, Greene, and McAtee, 1931: 216. Type-species, *nitidus* Adams (orig. des.).

nitidus Adams, 1904b: 435.—N.H.

Subgenus ARCHIMYIA Enderlein

Archimyia Enderlein, 1920: 281 (as genus). Type-species, *Xylophagus ater* Meigen (sub. mon., Enderlein, 1921c: 175).

decorus Williston, 1885d: 121.—Wash.; B.C. to N.H., s. to Oreg. and Va.

longicornis Loew, 1869c: 163 (Cent. 9, no. 62).—Mass.; Mich., Ohio, N.C.

politus Malloch *in* Malloch, Greene, and McAtee, 1931: 217.—Colo.; B.C.

reflectens Walker, 1848: 129.—N.Y.; Mont. to Que. and Va.

persequus Walker, 1850: 1.—N. Amer.

rufipes Loew, 1869c: 163 (Cent. 9, no. 63).—Mass. ?=*reflectens*.

Subgenus XYLOPHAGUS Meigen

abdominalis Loew, 1869c: 163 (Cent. 9, no. 64).—Tex.; Oreg. to Que., s. to Tex. and Ga.

fasciatus Walker, 1848: 128 (preocc. Say, 1829).—Ont.

gracilis Williston, 1885d: 121.—Wash., Oreg.; B.C. to Calif. and Colo.

lugens Loew, 1863a: 6 (Cent. 3, no. 8).—Ill.; Minn. to N. H. and N.C.

laceyi Curran, 1933b: 2.—N.Y. **N. syn.**

triangularis Say, 1823: 30 (1859b: 52).—Mo.

Subfamily ARTHROCERATINAE

Genus ARTHROCERAS Williston

Arthroceras Williston, 1886b: 107. Type-species, *pollinosum* Williston (Coquillett, 1910b: 510).

leptis (Osten Sacken), 1878c: 223 (*Arthropeas*).—N.H.; Mich., Ont., N.Y.

pollinosum Williston, 1886b: 108.—Wash.; Oreg., Idaho, Colo.
pruinosus Bigot, 1887d: 115 (*Leptis*).—Oreg.

Genus ARTHROPEAS Loew

Arthropeas Loew, 1850a: 304. Type-species, *siberica* Loew (mon.).

americana Loew, 1861b: 316 (Cent. 1, no. 16).—Wis.; Wis. to Mass. and Va.

jonesi Cresson, 1919: 176.—Calif.

magna Johnson, 1913b: 11.—Man.; Alta., Mont.

Genus GLUTOPS Burgess

Glutops Burgess, 1878: 321. Type-species, *singularis* Burgess (mon.).
REFERENCE: Wirth, 1954b (key).

punctatus Wirth, 1954b: 138.—Calif.; B.C., Wash., Oreg.

rossi Pechuman, 1945: 134.—B.C.; Calif., Mont.

singularis Burgess, 1878: 322.—Mass.; N.Y., N.H., Conn., Pa.

Genus BOLBOMYIA Loew

Bolbomyia Loew, 1850c: 39. Type-species, *nana* Loew (sub. mon., Loew, 1862b: 188; Cent. 2, no. 5).

Misgomyia Coquillett, 1908: 145. Type-species, *obscura* Coquillett (orig. des.)=*nana* Loew.
REFERENCE: Chillcott, 1961c (rev.).

macgillisi Chillcott, 1961c: 634.—B.C.; Alaska to Wash. and Idaho.

nana Loew, 1862b: 188 (Cent. 2, no. 5).—D.C.; Mich. to N.S., s. to Va.
obscura Coquillett, 1908: 146 (*Misgomyia*).—Va.
mitis Curran, 1931f: 249 (*Ptiolina*).—Que.

Family XYLOMYIDAE

By Maurice T. James

Xylomyid larvae are found under loose bark of trees; they are predaceous or saprophagous.

REFERENCE: Leonard, 1930 (rev., in Rhagionidae).

Genus SOLVA Walker

Solva Walker, 1859: 98. Type-species, *inamoena* Walker (mon.).
Solva, subg. *Phloophila* Hull, 1944d: 263. Type-species, *Subula pallipes* Loew (orig. des.).

REFERENCE: Steyskal, 1947a (rev.).

crepuscula Hull, 1944d: 263.—Miss.; Conn. to Va., Miss.
pallipes (Loew), 1863a: 6 (Cent. 3, no. 9) (*Subula*).—Ill., Wis.; Mont. to N.B., s. to Calif. and Miss.
pygmaea Hull, 1944d: 264.—Miss. **N. syn.**

Genus XYLOMYA Rondani

Subula Meigen, 1820: 15 (preocc. Schumacher, 1817). Type-species, *Xylophagus varius* Meigen (Rondani, 1856: 172). A manuscript name cited in specific synonymy.
Xylomya Rondani, 1861a: 11 (n. name for *Subula* Meigen). Type-species, *Xylophagus varius* Meigen (aut.).
Subulaomyia Williston, 1896a: 43 (as *Subula Omyia;* n. name for *Subula* Meigen, but deleted in Corrigenda, p. iv). Type-species, *Xylophagus varius* Meigen (aut.).

REFERENCE: Steyskal, 1947a (rev.).

americana (Wiedemann), 1821b: 1 (1821c: 51) (*Xylophagus*).—N. Amer.; Wyo. to Que., s. to Tex. and Miss., Mexico.
aterrima Johnson, 1903b: 24.—Ill., N.H.; N.B. to Va. and Ill.
fasciata (Say), 1829: 155 (1859b: 353) (*Xylophagus*).—Ind.
pallidifemur Malloch, 1917g: 343.—Ill.; Ill. to Okla., e. to Mass. and Ga.
parens (Williston), 1885d: 122 (*Subula*).—Wash.; B.C. to Calif., Utah.
farcus (error) Washburn, 1905: 85.
simillima Steyskal, 1947a: 183.—Mich.; Ill. to Pa., s. to Md. and Tenn.
tenthredinoides (Wulp), 1867: 132 (*Subula*).—Wis.; Minn. to Pa.

Family STRATIOMYIDAE

By Maurice T. James

The adults of Stratiomyidae, or "soldier flies," occur chiefly in wooded or forested areas, or in sedge or grass meadows in the neighborhood of water. Many species are attracted to flowers, particularly umbellifers. Larvae are terrestrial or (Stratiomyinae and, in part, Clitellariinae) aquatic.

REFERENCES: Malloch, 1917g (larvae); Johannsen, 1923b (larvae); Curran, 1927l (rev. Canadian spp.); Johannsen, 1935 (larvae).

Subfamily CHIROMYZINAE

Genus ALTERMETOPONIA Miller

Metoponia Macquart, 1847: 44 (1847: 28) (preocc. Duponchel, 1845). Type-species, *rubriceps* Macquart (mon.).

Altermetoponia Miller, 1945: 72 (n. name for *Metoponia* Macquart). Type-species, *Metoponia rubriceps* Macquart (aut.).

rubriceps (Macquart), 1847: 44 (1847: 28) (*Metoponia*).—Australia; Calif. A sod pest, introduced by commerce.

Subfamily BERIDINAE

REFERENCE: James, 1939c (rev.).

Genus ALLOGNOSTA Osten Sacken

Allognosta Osten Sacken, 1883a: 297. Type-species, *Beris fuscitarsis* Say (Coquillett, 1910b: 505).

brevicornis Johnson, 1923b: 71.—Vt.; Maine to N.Y.

fuscitarsis (Say), 1823: 29 (1859b: 52) (*Beris*).—Pa.; Nebr. to Que., s. to Okla. and Ga.

dorsalis Say, 1824a: 377 (1859a: 257) (*Sargus*).—Ky.

pallipes Wiedemann, 1830: 41 (*Sargus*).—Pa.

brevis Walker, 1848: 127 (*Beris*).—N.Y.

lata Walker, 1848: 127 (*Beris*).—N.Y.

obscuriventris (Loew), 1863b: 299 (Cent. 4, no. 45) (*Metoponia*).—D.C.; Minn. to Que., s. to Okla. and N.C.

similis (Loew), 1863b: 299 (Cent. 4, no. 44) (*Metoponia*).—N.Y.

Genus ACTINA Meigen

Actina Meigen, 1804: 116. Type-species, *Beris nitens* Latreille (Rondani, 1863: 87; 1864: 87).

Hemiberis Enderlein, 1921c: 209. Type-species, *Beris quadridentata* Walker (orig. des.) = *viridis* (Say).

Allactina Curran, 1924b: 24. Type-species, *Beris viridis* Say (orig. des.).

viridis (Say), 1824a: 368 (1859a: 251) (*Beris*).—Pa.; Alta. to Nfld., s. to Kans. and Ga., also Ariz.

quadridentata Walker, 1848: 127 (*Beris*).—Ont.

obscuripes Johnson, 1926c: 90 (as var.).—Nfld. ?Var.

Genus BERIS Latreille

Beris Latreille, 1802: 447. Type-species, *Stratiomys sexdentata* Fabricius (mon.)=*chalybeata* (Forster).

annulifera annulifera (Bigot), 1887a: 21 (*Oplacantha*).—Ga.; Alaska to Nfld., s. to Calif. and Ga.

ssp. **brunnipes** Johnson, 1926d: 109 (as sp.).—Labr. ?Full sp.

ssp. **luteipes** Johnson, 1926d: 109 (as sp.).—Wash. ?Full sp.

californica James, 1939c: 546.—Calif.; Wash. to Calif.

canadensis (Cresson), 1919: 174 (*Actina*).—Man.; Alta.

Genus EXODONTHA Rondani

Exodontha Rondani, 1856: 169. Type-species, *pedemontana* Rondani (orig. des.)=*dubia* (Zetterstedt).

Hexodonta, emend.

Scoliopelta Williston, 1885c: 152, 154. Type-species, *luteipes* Williston (mon.).

grandis (James), 1938c: 156 (*Scoliopelta*).—Oreg.

luteipes (Williston), 1885c: 154 (*Scoliopelta*).—Vt.; Idaho, N.H., Mass., Tenn.

Subfamily SARGINAE

Larvae are terrestrial scavengers in decaying fruits, bulbs, or other vegetable matter, or in excrement of cattle, horses, and other vertebrates.

REFERENCE: James, 1936g (rev.).

Genus SARGUS Fabricius

Sargus Fabricius, 1798: 549, 566. Type-species, *Musca cupraria* Linnaeus (Latreille, 1810: 442). Alleged preocc. by *Sargus* Klein, a pre-Linnaean name.

Geosargus Bezzi, 1907: 53 (unjustified n. name for *Sargus* Fabricius). Type-species, *Musca cupraria* Linnaeus (aut.).

Subgenus SARGUS Fabricius

bipunctatus (Scopoli), 1763: 341 (*Musca*).—Italy; Wash., Oreg., Europe.

perpulcher James, 1936g: 271 (*Geosargus*).—Wash.

cuprarius (Linnaeus), 1758: 598 (*Musca*).—Europe; B.C. to Que., s. to Calif., N. Mex., and D.C., n. Asia.

cuprinus, error.

nubeculosus, authors, not Zetterstedt.

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decorus decorus Say, 1824a: 376 (1859a: 257).—Pa., Fla.; Alaska to Que., s. to Calif. and Fla.
xanthopus Wiedemann, 1830: 40.—Pa.
debilis Walker, 1851b: 83.—U.S.
marginatus Wulp, 1867: 134.—Wis.
picticornis Bigot, 1887a: 27.—Wash.
puntifer Bigot, 1887a: 27.—Colo.
punctifer, emend.
pallipes Bigot, 1887a: 28 (preocc. Bigot, 1879).—Oreg.
bigoti Brunetti, 1923: 157 (n. name for *pallipes* Bigot).—Oreg.
ssp. **alaskensis** James, 1951: 343.—Alaska; B.C., Alta.
elegans Loew, 1866b: 7 (Cent. 7, no. 10).—N.Y.; Iowa to Que., s. to Tex. and Fla.
viridis Say, 1823: 87 (1859b:77).—U.S.; Alaska to Que., s. to Baja Calif., Tex., and Md.
nigribarbis Bigot, 1879a: 224.—Calif.
caerulea Bigot, 1887a: 29 (*Myochrysa*).—N. Amer. **N. syn.**

Subgenus PEDICELLINA James

Pedicellina James, 1952: 225 (as genus). Type-species, *Sargus notatus* Wiedemann (orig. des.).

lucens Loew, 1866b: 7 (Cent. 7, no. 11).—Cuba; Mich. to N.Y. and Fla., Mexico, Cent. Amer., West Indies.
clavis Williston, 1885d: 123 (*Macrosargus*).—Va., N.C.

Genus CEPHALOCHRYSA Kertész

Cephalochrysa Kertész, 1912: 99. Type-species, *Sargus hovas* Bigot (orig. des.).
Isosargus James, 1936g: 273. Type-species, *Chrysonotus nigricornis* Loew (orig. des.).

canadensis (Curran), 1927l: 197 (*Chrysochroma*).—Ont.; ?Okla.
nigricornis (Loew), 1866b: 9 (Cent. 7, no. 14) (*Chrysonotus*).—D.C.; Wis. to Que., s. to Kans. and S.C.
atriventris Graenicher, 1913: 176 (*Chrysochroma*).—Wis.
similis (James), 1936g: 274 (*Isosargus*).—La.; Ga.
texana (Melander), 1904: 19 (*Sargus*).—Tex.; Ga.

Genus PTECTICUS Loew

Ptecticus Loew, 1855a: 142. Type-species, *Sargus testaceus* Fabricius (orig. des.).
Plecticus, error.

Pedicella Bigot, 1856: 85. Type-species, *Sargus tenebrifer* Walker (aut.).

Macrosargus Bigot, 1879a: 187 (unjustified n. name for *Pedicella* Bigot). Type-species, *Sargus tenebrifer* Walker (Aldrich, 1933b: 165).

sackenii Williston, 1885d: 124.—Fla.; Wis. to Ont., s. to Ariz. and Fla., ?B.C.

trivittatus (Say), 1829: 159 (1859b: 355) (*Sargus*).—Ind.; Colo. to Wis. and Mass., s. to Tex. and Ga.

similis Williston, 1885d: 124.—Va., Ga.

var. **melanopus** James, 1941a: 106 (as ssp.).—Ohio.

Genus MICROCHRYSA Loew

Microchrysa Loew, 1855a: 146. Type-species, *Musca polita* Linnaeus (orig. des.).

flavicornis (Meigen), 1822: 112 (*Sargus*).—Europe; Wash. to Nfld., s. to Colo. and Pa.

polita (Linnaeus), 1758: 598 (*Musca*).—Europe; B.C. to N.S., s. to Calif. and Ga.

Genus Chloromyia Duncan

Chloromyia Duncan, 1837: 164. Type-species, *Musca formosa* Scopoli (Verrall, 1909: 188).

formosa (Scopoli), 1763: 399 (*Musca*).—Italy; ?N.Y., Europe. Immigrant, ?estab.

Genus MEROSARGUS Loew

Merosargus Loew, 1855a: 144. Type-species, *Sargus obscurus* Wiedemann (orig. des.).

beameri James, 1941a: 107.—Ariz.

caerulifrons (Johnson), 1900b: 325 (*Sargus*).—N.J.; Iowa to Conn., s. to Tex.

Subfamily CYPHOMYIINAE

Larvae, as far as known, are scavengers in decaying plant tissues.

REFERENCE: James, 1940 (rev. New World spp.).

Genus DICYPHOMA James

Dicyphoma James, 1937a: 151. Type-species, *Cyphomyia schaefferi* Coquillett (orig. des.).

schaefferi (Coquillett), 1904c: 32 (*Cyphomyia*).—Tex.; Kans. to Tex., Mexico and Panama. Larvae in *Opuntia* cactus.

Genus CYPHOMYIA Wiedemann

Cyphomyia Wiedemann, 1819: 54. Type-species, *auriflamma* Wiedemann (Brauer, 1882: 87; 1882: 31).

Rondania Jaennicke, 1867: 324 (1868: 16) (preocc. Robineau-Desvoidy, 1850; Bigot, 1854). Type-species, *obscura* Jaennicke (mon.).

Neorondania Osten Sacken, 1878c: 50 (n. name for *Rondania* Jaennicke). Type-species, *Rondania obscura* Jaennicke (aut.)

Gyneuryparia Enderlein, 1914b: 604. Type-species, *Cyphomyia pilosissima* Gerstäcker (orig. des.).

bicarinata Williston, 1900: 244.—Mexico; Ariz., N. Mex., Tex., Guatemala. Larvae in *Opuntia*.

marginata Loew, 1866a: 148 (Cent. 6, no. 31).—Cuba; Fla., P.R., Haiti.

Subfamily HERMETIINAE

The larvae are terrestrial scavengers. *Hermetia illucens* (Linnaeus) breeds in excrement, decaying vegetable matter, decaying and waste animal matter, wax in beehives, et cetera; sometimes the species is involved in human enteric myiasis. It has been shown to compete in excrement with the larva of the house fly, to the detriment of the latter.

REFERENCE: James, 1935b (rev.).

Genus HERMETIA Latreille

Hermetia Latreille, 1804: 192. Type-species, *Musca illucens* Linnaeus (mon.).

aurata aurata Bellardi, 1859: 27 (1861: 227).—Mexico; Utah to Kans., s. to Ariz. and Tex.

chrysopila Loew, 1872a: 56 (Cent. 10, no. 11).—Tex.

ssp. **eiseni** Townsend, 1895b: 594 (as sp.).—Baja Calif.; Calif., Ariz.

comstocki Williston, 1885d: 125.—Ariz.; N. Mex., Tex., Mexico.

concinna Williston, 1900: 241.—N. Mex., Ariz.; Calif., Mexico.

hunteri Coquillett, 1909: 212.—Tex.; Mexico (Chih., Baja Calif.).

illucens (Linnaeus), 1758: 589 (*Musca*).—S. Amer.; Calif. to Mass., s. throughout tropical Amer., Hawaii, s. Europe, Old World tropics. Spread by commerce.

mucens, error.

lativentris Bellardi, 1859: 27 (1861: 227).—Mexico; Ariz., N. Mex., and Tex. to Panama.
reinhardi James, 1935b: 166.—Tex.
sexmaculata Macquart, 1834a: 229.—P.R.; Tenn., Fla., Cuba, Brazil.
nucis James, 1935b: 166.—Cuba.

Subfamily CHRYSOCHLORINAE

Genus CHRYSOCHLORINA James

Chrysochlorina James, 1939d: 33. Type-species, *Sargus vespertilio* Fabricius (orig. des.).
Chrysochlora, authors, not Latreille.

REFERENCE: James, 1939d (rev.).

quadrilineata (Bigot), 1887a: 26 (*Chrysochlora*).—Cuba; Fla. (Key West).

Subfamily CLITELLARIINAE

The larvae are scavengers in decaying plant tissues (Clitellariini), or are aquatic (Oxycerini, Nemotelini); adults of aquatic genera commonly occur in wet grass or sedge meadows.

Tribe CLITELLARIINI

Genus ADOXOMYIA Bezzi

Adoxomyia Kertész, 1907a: 499. Nomen nudum.
Adoxomyia Bezzi, 1908: 75. Type-species, *Clitellaria dahlii* Meigen (orig. des.).
Euclitellaria Kertész, 1923: 96, 101. Type-species, *Clitellaria heminopla* Wiedemann (orig. des.). **N. syn.**
Clitellaria, authors, not Meigen.

REFERENCE: James, 1943b (rev.).

albopilosa (Cresson), 1919: 173 (*Aochletus*).—N. Mex.
appressa appressa James, 1935a: 63.—N. Mex.; Calif., Ariz.
ssp. **cibolae** James, 1950b: 71.—N. Mex.
argentata (Williston), 1885d: 127 (*Clitellaria*).—Calif.; Ariz., N. Mex.
claripennis James, 1935a: 62.—Ariz.
lata (Loew), 1872a: 55 (Cent. 10, no. 9) (*Clitellaria*).—Calif.; Wash., Oreg., Ariz.
nigra Bigot, 1879a: 204 (*Euparyphus*).—Calif.
nigropilosa Cresson, 1919: 174 (*Aochletus*).—Calif.

micheneri James, 1950b: 71.—Tex.
nigribarba James, 1943b: 168.—Oreg.; Calif.
rustica (Osten Sacken), 1877: 213 (*Clitellaria*).—Calif.; B.C. to Mont., s. to Calif. and Utah.
subulata (Loew), 1866a: 147 (Cent. 6, no. 29) (*Clitellaria*).—Va.; Ind. to N.J., s. to Tex. and N.C.
texana James, 1935a: 63.—Tex.; Okla., Ark.

Genus DIEURYNEURA James

Dieuryneura James, 1937a: 152. Type-species, *callosa* James (orig. des.) = *obscura* (Coquillett).

obscura (Coquillett), 1902g: 98 (*Aochletus*).—Calif., Ariz.; N. Mex. w. Tex., n. Mexico.
callosa James, 1937a: 153.—Ariz.

Genus BRACHYCARA Thomson

Brachycara Thomson, 1869: 460. Type-species, *ventralis* Thomson (mon.).
Euryneurasoma Johnson, 1913a: 51. Type-species, *slossonae* Johnson (orig. des.).
Neurota Curran, 1931a: 2. Type-species, *Sargus bicolor* Wiedemann (orig. des.; misident.) = *slossonae* (Johnson).

slossonae (Johnson), 1913a: 51 (*Euryneurasoma*).—Fla.; Bermuda, Cuba, P.R., Bahamas.
bicolor, authors, not Wiedemann.

Genus EURYNEURA Schiner

Euryneura Schiner, 1867a: 308. Type-species, *Stratiomys fascipennis* Fabricius (orig. des.).

propinqua Schiner, 1868: 57.—Colombia; Ariz., Mexico to Colombia.

Tribe OXYCERINI

This section was prepared with the aid of John A. Quist, Ph. D. thesis, Washington State University.

Genus OXYCERA Meigen

Hermione Meigen, 1800: 22. Type-species, *Musca hypoleon* Linnaeus (Coquillett, 1910b: 551) = *trilineata* (Linnaeus). Suppressed by I.C.Z.N., 1963b: 339.

Oxycera Meigen, 1803: 265. Type-species, *Musca trilineata* Linnaeus (Curtis, 1833: pl. 441).

REFERENCE: Malloch, 1917g (rev.).

albovittata Malloch, 1917g: 330.—Ill.; Minn. to Ont., s. to Mo. and Pa.
aldrichi Malloch, 1917g: 329.—Ind.
approximata Malloch, 1917g: 326.—Ill.; Mich., Ind., Ont., N.Y.
centralis Loew, 1863a: 8 (Cent. 3, no. 14).—Man. (Red River); Alaska, N.W.T.
maculata Olivier, 1812: 600.—Carolina; Iowa to Ont. and N.C., ?La.
picta Wulp, 1867: 133.—Wis.
variegata Olivier, 1812: 600.—Carolina; Iowa and Wis., e. to Pa. and Fla.
unifasciata Loew, 1863a: 9 (Cent. 3, no. 15).—Pa.

Genus EUPARYPHUS Gerstäcker

Euparyphus Gerstäcker, 1857: 314. Type-species, *Cyphomyia elegans* Wiedemann (mon.).

Subgenus EUPARYPHUS Gerstäcker

albipilosus Adams, 1903a: 30.—Colo., Ariz.; Wash. to N. Mex. and Ariz.
apicalis Coquillett, 1902g: 99.—Calif.
carbonarius Giglio-Tos, 1891a: 2; also 1892: 12 (1893: 109).—Mexico; N. Mex., Utah, Guatemala.
lagunae Cole, 1912b: 151.—Calif.
limbiventris Curran, 1927l: 217.—Man.; Alta.
limbrocutris Adams, 1903a: 31.—Wash.; Idaho, Utah.
mutabilis mutabilis Adams, 1903a: 29.—Wyo.; Mont. to Iowa, s. to Ariz.
ssp. **latelimbatus** Curran, 1927l: 219 (as sp.).—Alta; Sask., Man.
ssp. **vanduzeei** James, 1936f: 89 (as sp.).—Nev.
ornatus Williston, 1885d: 126.—Wash.; B.C., Calif.
pardalinus James, 1936f: 87.—Calif.; Utah.
sabroskyi James, 1936f: 88.—Kans.; Okla.
stigmaticalis Loew, 1866b: 10 (Cent. 7, no. 17).—D.C.; B.C. and Wash., Ont. to Ind. and D.C.
nigrostigma Curran, 1927l: 220.—Ont.
tricolor Osten Sacken, 1886a: 40.—Mexico; Ariz.

Subgenus AOCHLETUS Osten Sacken

Aochletus Osten Sacken, 1886a: 38 (as genus). Type-species, *cinctus* Osten Sacken (mon.).

brevicornis Loew, 1866b: 10 (Cent. 7, no. 16).—D.C.; Idaho to Ont., s. to Calif. and D.C.

brucensis Steyskal, 1951b: 273.—Ont.

cinctus (Osten Sacken), 1886a: 38 (*Aochletus*).—Mexico; Mont. and S. Dak., s. to Calif. and Ariz.

quadrimaculatus Cresson, 1919: 172.—Calif.

Genus CALOPARYPHUS James

Euparyphus, subg. **Caloparyphus** James, 1939e: 49. Type-species *Oxycera crotchi* Osten Sacken (orig. des.).

amplus (Coquillett), 1902g: 100 (*Euparyphus*).—Colo.; Calif. to N. Mex. and Colo.

atriventris (Coquillett), 1902g: 100 (*Euparyphus*).—Colo.; B.C. to Minn., s. to Colo. and Kans.

crotchi (Osten Sacken), 1877: 212 (*Oxycera*).—Calif.; B.C. to Colo., s. to Calif. and N. Mex.

septemmaculatus Adams, 1903a: 31 (*Euparyphus*).—Calif.

crucigerus crucigerus (Coquillett), 1902g: 99 (*Euparyphus*).—Colo.; Wash. to Calif. and Colo.

ssp. **nicolensis** (Curran), 1927l: 221 (*Euparyphus;* as sp.).—B.C.; Wash., Idaho, Alta.

ssp. **tahoensis** (Coquillett), 1902g: 98 (*Euparyphus;* as sp.).—Calif.; B.C. to Calif.

obliquus Hine, 1904b: 87 (*Euparyphus*).—B.C.

currani (James), 1939e: 52 (*Euparyphus*).—Man.

flaviventris (James), 1936f: 89 (*Euparyphus*).—Calif.; B.C., Oreg., Mont.

greylockensis (Johnson), 1912a: 5 (*Euparyphus*).—Mass.; Mich. to Que. and N.Y.

adaleonora Steyskal, 1941b: 123 (*Euparyphus*).—Mich.

major (Hine), 1901b: 112 (*Euparyphus*).—Colo.; Wash. to Alta., s. to Calif. and Kans.

octomaculatus Curran, 1927l: 222 (*Euparyphus*).—B.C.

mariposa (James), 1939e: 54 (*Euparyphus*).—Calif.; B.C.

pretiosus (Banks), 1920: 65 (*Euparyphus*).—B.C.

tetraspilus (Loew), 1866b: 9 (Cent. 7, no. 15) (*Euparyphus*).—N.Y.; S. Dak to N.S., s. to Kans. and Pa.

bellus Loew, 1866b: 11 (Cent. 7, no. 18) (*Euparyphus*).—Mass.

Tribe NEMOTELINI

Genus NEMOTELUS Geoffroy

Nemotelus Geoffroy, 1762: 450, 542. Type-species, *Musca pantherina* Linnaeus (I.C.Z.N., 1957a: 85). Conserved as of 1762 under Suspension of the Rules (I.C.Z.N., 1957a: 85).

Nematotelus, emend.

REFERENCE: James, 1936c (rev.).

Subgenus NEMOTELUS Geoffroy

abdominalis Adams, 1903b: 221.—Kans.; Man., N. Dak., Colo., Fla.

albirostris Macquart, 1850: 359 (1850: 55).—Va.; Ariz. to Fla., n. to Va.

wheeleri Melander, 1903b: 182.—Tex.

bellulus Melander, 1903b: 183.—Tex.; Fla.

bonnarius Johnson, 1912a: 4.—Sask.; B.C. to Minn.

bruesii Melander, 1903b: 179.—Tex.; Iowa.

immaculatus Johnson, 1895a: 304.—Fla.

kansensis kansensis Adams, 1903b: 221.—Kans.; Alta. to Iowa, s. to Tex.

plesius Curran, 1927l: 225.—Nebr.

ssp. **trinotatus** Melander, 1903b: 180 (as sp.).—Tex.; Okla., Mexico. **N. status.**

knowltoni James, 1936c: 89.—Utah; s. Calif. to s. Utah and w. Texas.

montanus James, 1936c: 90.—Colo.; Y.T. to Colo. and Calif.

pallipes Say, 1823: 29 (1859b: 52).—Pa.

quadrinotatus Johnson, 1913a: 50.—Fla.; Tex.

rufoabdominalis Cole, 1923a: 459.—Mexico; Calif., Ariz., N. Mex., Baja Calif.

Subgenus CAMPTOPELTA Williston

Camptopelta Williston, 1917: 23 (as genus). Type-species, *aldrichi* Williston (mon.). **N. syn.**

Nemotelinus Enderlein, 1936a: 79. Type-species, *Nemotelus nigrinus* Fallén (mon.) **N. syn.**

Nematolinus, error.

Nemotelus, subg. *Melanonemotelus* Hanson, 1958: 1356. Type-species, *Nemotelus nigrinus* Fallén (orig. des.). **N. syn.**

REFERENCE: Hanson, 1958 (rev.), 1961 (syn.).

albimarginatus James, 1936c: 86.—Utah; B.C. to S. Dak., s. to Utah and Calif.

aldrichi (Williston), 1917: 24 (*Camptopelta*).—N. Mex. **N. comb.**
lambda James, 1933a: 70.—N. Mex. **N. syn.**
arator Melander, 1903b: 179.—Calif.; Wash., Oreg.
beameri James, 1933a: 70.—Colo.; Mont. to Ill., s. to Ariz.
canadensis Loew, 1863a: 7 (Cent. 3, no. 12).—N.W.T.; s. Alaska to Minn., s. to n. Calif. and Colo.
centralis Hanson, 1958: 1369.—Minn.; S. Dak., Mich., Ohio., Ont.
communis Hanson, 1958: 1376.—Utah; Oreg. to Man. and Ind., s. to Ariz.
flavicornis Johnson, 1894: 272.—Jamaica; Fla.
glaber Loew, 1872a: 56 (Cent. 10, no. 10).—Tex.; Kans. to N.Y., s. to Miss. and Fla., Panama.
flavicornis James, 1932a: 7 (preocc. Johnson, 1894).—Kans.
fulvicornis James, 1936c: 87 (n. name for *flavicornis* James).—Kans.
halophilus Hanson, 1958: 1372.—Tex.; N. Mex., Kans.
jamesi Hanson, 1958: 1367.—Wash.; Wash. to Calif. and Nebr.
melanderi Banks, 1920: 65.—Md. (as Ind., error); Kans. to N.S., s to Tex. and Fla.
nigrinus Fallén, 1817b: 6.—Europe; s. Alaska to Que., s. to Calif., Ill., and R.I., mts. of n. Mexico.
carneus Walker, 1849: 521.—Ont.
crassus Loew, 1863a: 7 (Cent. 3, no. 10).—R.I.
unicolor Loew, 1863a: 7 (Cent. 3, no. 11).—Ill.
carbonarius Loew, 1869b: 5 (Cent. 8, no. 6).—Mass.
picinus Hanson, 1958: 1378.—Ill.; Minn. and Iowa, e. to Que.
politus Hanson, 1958: 1364.—Utah; Wash. to Mont., s. to Calif. and Colo.
simplex Snow, 1904: 341. Nomen nudum.
sabroskyi Hanson, 1958: 1375.—N.C.; N.J. to N.C.
slossonae Johnson, 1895a: 304.—Fla.
tenuistylus Hanson, 1958: 1379.—N. Mex.; Idaho to Kans., s. to Calif. and N. Mex., Mexico (Baja Calif.).
tristis Bigot, 1887a: 30.—Calif.
variabilis Hanson, 1958: 1368.—Fla.; Calif. to Fla., Mexico.

Genus AKRONIA Hine

Akronia Hine, 1901b: 113. Type-species, *frontosa* Hine (orig. des.).
frontosa Hine, 1901b: 113.—Ohio.

Subfamily STRATIOMYINAE

The larvae, so far as known, are aquatic, occurring in a variety of habitats including muddy bottoms, submerged or floating vegetation,

along shores both below and just above the waterline, in brackish water, and in hot springs.

REFERENCES: Hart, 1896 (biol.); Kuster, 1934 (biol.).

Tribe STRATIOMYINI

REFERENCE: James and Steyskal, 1952 (rev.).

Genus STRATIOMYS Geoffroy

Stratiomys Geoffroy, 1762: 475. Type-species, *Musca chamaeleon* Linnaeus (I.C.Z.N., 1957b: 123). Conserved as of 1762 under suspension of the Rules (I.C.Z.N., 1957b: 123).

Stratiomyia, emend.

adelpha Steyskal *in* James and Steyskal, 1952: 393.—Mich.; Wash. to Que., s. to Tex.

discalis, authors, not Loew.

badia Walker, 1849: 529.—N.H. (as New Holland, error; Walker, 1849: 1157); B.C. to Nfld., s. to Colo. and N.Y.

ischiaca Walker, 1849: 529.—U.S.

picipes Loew, 1866b: 13 (Cent. 7, no. 21).—Ont.

barbata Loew, 1866a: 133 (Cent. 6, no. 9).—Calif.; Alaska to Man., s. to Calif. and N. Mex.

calopus Bigot, 1887a: 23.—Colo.

atra Cole *in* Cole and Lovett, 1919: 223.—Oreg. ?Melanic var.

browni Curran, 1927l: 202.—Okla.; Kans. to Ohio, s. to Tex. and Miss.

beameri James, 1933a: 66.—Kans.

bruneri Johnson, 1895b: 233.—S. Dak.; N.W.T. to Mich., s. to Utah.

currani currani James, 1932a: 5.—Colo.; Sask. to Colo. and Calif.

ssp. **boharti** James, 1955c: 47.—Calif.; Oreg. Higher elevations.

discalis Loew, 1866a: 136 (Cent. 6, no. 14).—Ill.; Colo. to Wis. and Que.

media James, 1933a: 67.—Colo.

discaloides Curran, 1922i: 281.—B.C.; B.C. to Mont., Wyo. and Utah, s. to Calif.

floridensis Steyskal *in* James and Steyskal, 1952: 399.—Fla.

griseata Curran, 1923f: 74 (n. name for *velutina* Curran).—B.C.; B.C. and Alta., s. to Oreg. and Utah.

velutina Curran, 1922i: 283 (preocc. Bigot, 1877).—B.C.

hirsutissima James, 1932a: 1.—Colo.

hulli Steyskal *in* James and Steyskal, 1952: 394.—Miss.

jamesi Steyskal *in* James and Steyskal, 1952: 398.—Tex.; Kans., Mo., Ill.

laticeps Loew, 1866b: 12 (Cent. 7, no. 20).—Hudson Bay Territory; B.C. to Ont., s. to Calif. and Colo.

occidentis Banks, 1926: 42.—Utah.

occidentalis, emend. or error.

lativentris Loew, 1866a: 132 (Cent. 6, no. 8).—Barnston, Lake Superior; Mich., Que., Ont.

maculosa Loew, 1866b: 12 (Cent. 7, no. 19).—Calif.; B.C. to Utah and Calif.

insignis Loew, 1872a: 54 (Cent. 10, no. 7).—Calif.

dentata Bigot, 1879a: 210.—Calif.

lacerata Bigot, 1879a: 211.—Calif.

meigenii Wiedemann, 1830: 61.—Ga.; Wis. to Que., s. to Tex. and Fla.

robusta Walker, 1854: 37.—N. Amer.

angularis Loew, 1866a: 138 (Cent. 6, no. 16).—Pa.

marginalis Loew, 1866a: 138 (Cent. 6, no. 17).—Pa.

rubra James, 1933a: 68.—Kans.

quaternaria, authors, not Loew.

melastoma Loew, 1866a: 134 (Cent. 6, no. 10).—Calif.; B.C. to Colo. and Calif.

melanostoma, emend.

nevadae Bigot, 1887a: 24.—Nev.; B.C. to N. Dak. and Colo., s. to Calif.

nigriventris Loew, 1866a: 137 (Cent. 6, no. 15).—Nebr.; Nebr. to Tex.

norma Wiedemann, 1830: 62.—N. Amer.; S. Dak. to Que., s. to Kans. and Pa.

quadrigemina Loew, 1866a: 129 (Cent. 6, no. 4).—Conn.

normula normula Loew, 1866a: 130 (Cent. 6, no. 5).—N.Y.; B.C. to Que., s. to Colo. and S.C.

quaternaria Loew, 1866a: 135 (Cent. 6, no. 12).—Ill.

apicula Loew, 1866a: 136 (Cent. 6, no. 13).—Ill.

notata Loew, 1866a: 139 (Cent. 6, no. 18).—Nebr.

ssp. **angulicincta** James, 1932a: 3 (as sp.).—Colo.; Utah, N. Mex.

ssp. **senaria** Loew, 1866a: 132 (Cent. 6, no. 7) (as sp.).—Fla.

ssp. **unilimbata** Loew, 1866a: 131 (Cent. 6, no. 6) (as sp.).—Wis.; Alta. to Colo. and Mich.

jonesi James, 1932a: 4.—Colo.

ssp. **wyomingensis** James, 1932a: 3 (as sp.).—Wyo.; Mont., N. Dak.

nymphis Walker, 1849: 530.—Hudson Bay Territory. ?=*laticeps*.

obesa Loew, 1866a: 134 (Cent. 6, no. 11).—Ill.; Sask. to Que., s. to Nebr. and N.Y.

lativentris, authors, not Loew.

ohioensis Steyskal *in* James and Steyskal, 1952: 400.—Ohio; Mich., N.Y.

tularensis James, 1957b: 43.—Calif.

Genus HOPLITIMYIA James

Hoplitimyia James, 1934a: 443. Type-species, *Stratiomys constans* Loew (orig. des.).

Subgenus HOPLITIMYIA James

constans (Loew), 1872a: 55 (Cent. 10, no. 8) (*Stratiomys*).—Tex.; Ariz. to Kans. and Ark., ?Ind.

fasciata (Fabricius), 1787: 331 (*Stratiomys*).—French Guiana; ?Colo., Neotropical.

vespoides James, 1933a: 67 (*Stratiomys*).—?Colo. Colorado label probably refers to Colorado State University collection rather than to Colorado as a locality.

mutabilis (Fabricius), 1787: 331 (*Stratiomys*).—French Guiana; Ariz., Tex., tropical Amer. to Argentina.

Genus LABOSTIGMINA Enderlein

Labostigmina Enderlein, 1930b: 70. Type-species, *Odontomyia occipitalis* Johnson (orig. des.).

annamariae (Brimley), 1925: 76 (*Odontomyia*). —N.C.; Ala.

defecta James *in* James and Steyskal, 1952: 409.—La.

flavicornis (Olivier), 1812: 433 (*Odontomyia*).—N. Amer.; Kans. to Ont. and Maine, s. to Tex., and Fla.

flaviceps Macquart, 1834a: 245 (*Stratiomys*).—Pa.

coronata Guérin-Méneville, 1835: pl. 98, fig. 6 (*Stratiomys*).—Unknown.

pulchella Macquart, 1838a: 184 (1838: 180) (*Stratiomys*).—Ga.

vicina Macquart, 1838a: 185 (1838: 181) (*Stratiomys*).—Pa.

lasiophthalma Loew, 1866a: 142 (Cent. 6, no. 23) (*Odontomyia*).—N.Y.

fulvicornis (Curran), 1927l: 213 (*Odontomyia*).—Okla.; Tex.

gagatigaster Steyskal, 1949a: 173.—Mich.

hieroglyphica (Olivier), 1812: 434 (*Odontomyia*).—Carolina; Ill. to Maine and Ga.

fallax Johnson, 1895b: 257 (*Odontomyia*).—Ga.

hypomelas James *in* James and Steyskal, 1952: 407.—Tex.
johnsoni (Curran), 1925e: 255 (*Odontomyia*).—La.; Kans. to Pa., s. to Tex. and Ala.
megantica (Curran), 1925e: 254 (*Odontomyia*).—Que.; Mich., Ont.
micheneri James *in* James and Steyskal, 1952: 408.—Tenn.
novella Steyskal, 1938a: 1.—Tex.; Ariz.
obscura (Olivier), 1812: 433 (*Odontomyia*).—Carolina; Wis. to Va., s. to Tex. and Fla.
brevipennis Olivier, 1812: 434 (*Odontomyia*).—Carolina.
occipitalis (Johnson), 1895b: 268 (*Odontomyia*).—Pa., Va.; Mich. to N.J., s. to Tenn. and Ga.
rufipennis James *in* James and Steyskal, 1952: 410.—Tex.
similis (Johnson), 1895b: 267 (*Odontomyia*).—Colo.; Alta. to Utah and Colo.
texasiana (Johnson), 1895b: 259 (*Odontomyia*).—Tex.
viridis (Bellardi), 1859: 36 (1861: 236) (*Odontomyia*).—Mexico; S. Dak. to Ind., s. to Tex.
snowi Hart, 1896: 256 (*Odontomyia*).—Ill.

Tribe ODONTOMYIINI

REFERENCE: James, 1936d (rev.).

Genus ANOPLODONTA James

Anoplodonta James, 1936a: 35. Type-species, *Odontomyia nigrirostris* Loew (orig. des.).

nigrirostris (Loew), 1866a: 140 (Cent. 6, no. 19) (*Odontomyia*).—Wis.; Alta. to Mich., s. to Ariz., Tex., and Mexico.
nuda James, 1932b: 436 (*Odontomyia*).—Colo.

Genus HEDRIODISCUS Enderlein

Hedriodiscus Enderlein, 1914b: 608. Type-species, *Odontomyia brevifacies* Macquart (orig. des.).

bellulus (James), 1936d: 528 (*Odontomyia*).—Tex.
currani (James), 1932a: 6 (*Odontomyia;* as *truquii* var.).—Ariz.; Calif. to Tex., Mexico.
dorsalis (Fabricius), 1805: 82 (*Stratiomys*).—West Indies; Tex., Fla., Mexico, Cent. and S. Amer.
trivittatus trivittatus (Say), 1829: 160 (1859b: 356) (*Stratiomys*).—Mexico; Minn. s. to Calif. and Fla., Cent. Amer.
ssp. **leucogaster** (James), 1933a: 69 (*Odontomyia;* as sp.).—Tex.; Calif. to Tex., Mexico. ?Valid sp.

truquii (Bellardi), 1859: 34 (1861: 234) (*Odontomyia*).—Mexico; B.C. to Ont. and N.Y., s. to Calif.

megacephala Loew, 1866a: 140 (Cent. 6, no. 20) (*Odontomyia*).—Calif.

binotatus Loew, 1866a: 142 (Cent. 6, no. 22) (*Odontomyia*).—Ill.

bicolor Day, 1882: 78 (*Odontomyia*).—Calif.

innotatus Curran, 1927l: 210 (*Odontomyia;* as var.).—Man.

varipes (Loew), 1866a: 141 (Cent. 6, no. 21) (*Odontomyia*).— ?Carolina; Alta. to Ont., s. to Calif.

alberta Curran, 1922i: 279 (*Odontomyia*).—Alta.

vertebratus (Say), 1824a: 369 (1859a: 251) (*Odontomyia*).—Northwest Territory (U.S.); Alta. to Que., s. to Calif. and Ga.

willistoni Day, 1882: 78 (*Odontomyia*).—N.Y.

Genus ODONTOMYIA Meigen

Eulalia Meigen, 1800: 21. Type-species, *Musca hydroleon* Linnaeus (Coquillett, 1910b: 541). Suppressed by I.C.Z.N., 1963b: 339.

Odontomyia Meigen, 1803: 265. Type-species, *Musca hydroleon* Linnaeus (Westwood, 1840: 130).

Trichacrostylia Enderlein, 1914b: 607. Type-species, *Stratiomys angulata* Panzer (orig. des.).

Subgenus ODONTOMYIA Meigen

alticola James, 1932b: 437.—Colo.; Mont. to Nebr., s. to Calif. and N. Mex.

arcuata Loew, 1872a: 52 (Cent. 10, no. 4).—Calif.; Oreg. to Colo., s. to Calif. and N. Mex.

bermudensis Johnson, 1913d: 445.—Bermuda.

cincta Olivier, 1812: 432.—Carolina; Idaho to N.B., s. to Calif. and Fla.

extremis Day, 1882: 80.—Conn., Calif.

communis James, 1939b: 220.—Colo.; Wash. to Mich., s. to Calif. and Tex.

inaequalis Loew of James, 1936d: 544.

discolorata James, 1936d: 548.—Tex.; Mexico, ?Costa Rica.

evansi (James), 1957a: 15 (*Eulalia*).—Fla.

flava Day, 1882: 76.—Wyo.

hirtocculata James, 1936d: 540 (n. name for *pacifica* Curran).—Calif.

pacifica Curran, 1927l: 215 (preocc. Meigen, 1822).—Calif.

idahoensis James, 1932a: 6.—Idaho.

inaequalis Loew, 1866a: 143 (Cent. 6, no. 24).—Hudson Bay Territory; Oreg. to Man., s. to Calif., high mts. of w. Mexico.
confusa James, 1936d: 543.—Colo.
microstoma Loew, 1866a: 146 (Cent. 6, no. 28).—Mass.; Maine to Md., near coast.
occidentalis James, 1936d: 545.—Wyo.; Idaho to Colo., s. to Calif.
rufipes Loew, 1866a: 144 (Cent. 6, no. 25).—Cuba; Fla.
tumida Banks, 1926: 42.—Calif. (unpublished); Wash. to Mont., s. to Calif. and Kans.

Subgenus CATATASINA Enderlein

Catatasina Enderlein, 1914b: 608 (as genus). Type-species, *Stratiomys argentata* Fabricius (orig. des.).
Achlyomyia Pleske, 1922: 334. Type-species, *Musca microleon* Linnaeus (orig. des.).

colei James, 1936d: 532.—Calif.; s. Idaho.
hoodiana Bigot, 1887a: 25.—Oreg.; B.C. to Ohio, s. to Calif. and Kans.
interrupta Olivier, 1812: 433.—Carolina; Alta. to Que., s. to Kans. and Fla.
intermedia Wiedemann, 1830: 64 (*Stratiomys*).—N. Amer.
melantera James, 1939b: 220.—Ont.
nigerrima Loew of James, 1936d: 533.
nigerrima Loew, 1872a: 53 (Cent. 10, no. 6).—Middle States; Alta., Sask., Ont.
painteri James, 1936d: 530.—Kans.; Nebr., N.J.
pilosa Day, 1882: 76.—Calif.; Wash., Oreg., Utah, Ariz.
pyrrhostoma Bigot, 1887a: 25.—Oreg.
profuscata Steyskal, 1938a: 3.—Ont.; Mich., Ohio, N.J.
pubescens Day, 1882: 77.—Calif.; B.C. to Que., s. to Calif. and N.C.

Subgenus ODONTOMYIINA Enderlein

Odontomyiina Enderlein, 1930b: 70 (as genus). Type-species, *Stratiomys virgo* Wiedemann (orig. des.).

aldrichi Johnson, 1895b: 262.—Kans.; Nebr. to Tex., e. to Fla.
americana Day, 1882: 77.—Calif.
borealis James, 1936d: 537.—Ont.; Wis. to Que., s. to Kans. and Fla.
hydroleonoides Johnson, 1895b: 261.—Utah, Mich., Ill., Ont.; Oreg. to Nfld., s. to Kans. and Va.
pilimana Loew, 1866a: 146 (Cent. 6, no. 27).—Ill.; Oreg. to Ont., s. to n. Calif. and Va.

plebeja Loew, 1872a: 53 (Cent. 10, no. 5).—Conn.; S. Dak. to Mass., s. to Tex. and Ga.
plebia, error or emend.
virgo (Wiedemann), 1830: 69 (*Stratiomys*).—Ga.; B.C. to Que., s. to Calif. and Fla.
paron Walker, 1849: 536.—N.Y.
nigra Day, 1882: 75.—Kans.

Tribe MYXOSARGINI

REFERENCE: James, 1942b (rev.).

Genus MYXOSARGUS Brauer

Myxosargus Brauer, 1882: 77, 88 (1882: 21, 32). Type-species, *fasciatus* Brauer (orig. des.).

knowltoni Curran, 1929b: 2.—Utah; Idaho and Utah to Calif.
nigricornis Greene, 1918: 71 (as *nigricormis*).—D.C.; Okla. to Ind., e. to Md. and Fla.
pilosus James, 1942b: 59.—Ariz.; Ariz. to Panama.
texensis Curran, 1929b: 4.—Tex.; Okla.

Genus NOTHOMYIA Loew

Nothomyia Loew, 1869b: 4 (Cent. 8, no. 4, note). Type-species, *scutellata* Loew (Brauer, 1882: 88; 1882: 32).

calopus Loew, 1869b: 5 (Cent. 8, no. 5).—Cuba; Fla., P.R.
viridis Hine, 1911b: 301.—Ohio; P.R. Immigrant, ?estab.

Subfamily PACHYGASTRINAE

REFERENCE: Kraft and Cook, 1961 (rev).

Genus NEOPACHYGASTER Austen

Neopachygaster Austen, 1901: 245. Type-species, *Pachygaster meromelaena* Dufour (orig. des.).

maculicornis (Hine), 1902: 228 (*Pachygaster*).—Kans.; Sask., Mont. and Utah to N.Y., s. to Kans. and n. Miss.
occidentalis Kraft and Cook, 1961: 15.—Oreg.; B.C.
reniformis Hull, 1942b: 70.—Miss.; Wash. to Que., s. to Miss. and Ga.
vitrea Hull, 1930b: 103.—Iowa; Ill., Mich., N.Y., Pa.

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Genus EUPACHYGASTER Kertész

Eupachygaster Kertész, 1911: 31. Type-species, *Pachygaster tarsalis* Zetterstedt (orig. des.).

fusca Kraft and Cook, 1961: 20.—Md.; Ont., Ill., Pa., N.Y., D.C.
henshawi Malloch, 1917g: 338.—Ill.; N. Mex., Tex., Kans.
punctifera Malloch, 1915f: 316.—Ill.; Wash. to Mass., s. to Tex.

Genus PACHYGASTER Meigen

Pachygaster Meigen, 1803: 266. Type-species, *Nemotelus ater* Panzer (orig. des.).

characta Kraft and Cook, 1961: 23.—Tex.
montana Kraft and Cook, 1961: 23.—Ariz.; N. Mex.
pulchra Loew, 1863a: 10 (Cent. 3, no. 16).—D.C.; Kans. to Wis., e. to Md. and Va.

Genus ZABRACHIA Coquillett

Zabrachia Coquillett, 1901f: 585. Type-species, *polita* Coquillett (orig. des.).

albipila Kraft and Cook, 1961: 11.—Ariz.; Calif., Tex.
beameri Kraft and Cook, 1961: 10.—Calif.; Utah.
cornuta Kraft and Cook, 1961: 9.—Ariz.
hebicornuta Kraft and Cook, 1961: 10.—Calif.
knowltoni Kraft and Cook, 1961: 13.—Idaho.
lopha Kraft and Cook, 1961: 12.—Calif.
microcephala Kraft and Cook, 1961: 10.—Tex.
parva Kraft and Cook, 1961: 11.—Calif.
plicata Kraft and Cook, 1961: 12.—Idaho; B.C., Oreg., Calif., Colo., Ariz.
polita Coquillett, 1901f: 585.—N.Y.; B.C. to Que., s. to Calif. and Fla.

Genus BERKSHIRIA Johnson

Berkshiria Johnson, 1914b: 158. Type-species, *albistylum* Johnson (orig. des.).

Johnsonomyia Malloch, 1915f: 313 (preocc. Felt, 1908). Type-species, *aldrichi* Malloch (orig. des.)=*albistylum* Johnson.

albistylum Johnson, 1914b: 158.—Mass.; Kans. to s. Ont., s. to Ala.
aldrichi Malloch, 1915f: 313 (*Johnsonomyia*).—Ind.

Unplaced Species of Stratiomyidae

caloceps Bigot, 1879a: 217 (*Exochostoma*).—Colo.
canadensis Walker, 1854: 310 (*Stratiomys*).—Que.
diademata Bigot, 1887a: 23 (*Stratiomys*).—Ga., Colo.
lineolata Macquart, 1850: 352 (1850: 48) (*Stratiomys*).—Va.
magnicornis Cresson, 1919: 171 (*Zabrachia*).—N. Mex.
nigrifrons Walker, 1849: 531 (*Stratiomys*).—Hudson Bay.
pallipes Fabricius, 1781: 417 (*Stratiomys*).—S. Amer. (as N. Amer., error). Not Nearctic.
simplex Bigot, 1887a: 24 (*Stratiomys*).—Tex., Colo.

Family PELECORHYNCHIDAE

By Cornelius B. Philip

Originally described in the Tabanidae, *Bequaertomyia* was transferred to the "Coenomyiidae" by Steyskal (1953a) and is hereby assigned to the subfamily Bequaertomyiinae (**N. status**) of the family Pelecorhynchidae, a primitive Neotropical and Australian group of which it is the only North American representative. Nothing is known about the biology or habits of the American species.

Subfamily BEQUAERTOMYIINAE

Genus BEQUAERTOMYIA Brennan

Bequaertomyia Brennan, 1935: 376. Type-species, *anthracina* Brennan (mon.) = *jonesi* (Cresson).

jonesi (Cresson), 1919: 176 (*Arthropeas*).—Calif.; B.C., s. to Calif.
anthracina Brennan, 1935: 377.—Calif.

Family TABANIDAE

By Cornelius B. Philip

Biological data are available for only a small proportion of species of Tabanidae. Most of these data concern mature larvae collected in semi-aquatic environments and induced to pupate in the laboratory. Several are known, or are thought, to spend their earlier larval life under still or running water, or their entire immature life in moist terrestrial environments. The larvae are often predaceous and cannibalistic. Eggs have been observed in single or multi-layered masses, mostly on vegetation over or near water. Blood is required for egg maturation in most species. Some species are widespread; others are restricted to special habitats such as sea beaches, ricefields, desert

springs, brackish-water swamps, stream beds, special bogs, or northern muskeg swamps. Most species probably overwinter as larvae. Observations suggest that in the Southern States there may be two generations a year; in the north, probably one.

The opinions and/or distributional data provided by J. F. McAlpine, L. L. Pechuman, Alan Stone, and many others are gratefully acknowledged.

REFERENCES: Marchand, 1920 (immatures); Bromley, 1926 (anat.); Cameron, 1926 (biol.); Philip, 1947, 1950c (cat.); Bonhag, 1951 (anat.); Mackerras, 1954 (classif.).

Subfamily PANGONIINAE

REFERENCES: Brennan, 1935 (rev.); Philip, 1954b (rev.).

Tribe PANGONIINI

Genus Pangonius Latreille

macroglossus Westwood, 1835a: 449.—Unknown (as Ga., error). Not Nearctic.

Genus APATOLESTES Williston

Apatolestes Williston, 1885c: 12. Type-species, *comastes* Williston (mon.).

REFERENCE: Philip, 1954b (key).

actites Philip and Steffan, 1962: 41.—Calif. coast; w. Calif.
aitkeni Philip, 1941a: 191.—Ariz.; n. Mexico.
albipilosus Brennan, 1935: 371.—cent. Calif.; Oreg.
ater Brennan, 1935: 371.—s. Calif.
colei Philip, 1941a: 192.—s. Calif.
comastes Williston, 1885c: 12.—Calif.; B.C. to Mont., s. to Calif. and Ariz.
var. **fulvipes** Philip, 1960a: 364.—n. Calif.
var. **willistoni** Brennan, 1935: 373.—Calif.; B.C. to Mont., s. to Calif. and Ariz.
hinei Brennan, 1935: 374.—s. Calif.
parkeri Philip, 1941a: 193.—Ariz.; sw. Calif.
rossi Philip, 1950a: 451.—Calif.
villosulus (Bigot), 1892b: 684 (*Tabanus*).—Calif.; Ariz.
similis Brennan, 1935: 374.—Calif.

Genus BRENNANIA Philip

Apatolestes, subg. *Comops* Brennan, 1935: 375 (preocc. Aldrich, 1934). Type-species, *Pangonia hera* Osten Sacken (mon.).

Brennania Philip, 1941a: 196 (n. name for *Comops* Brennan). Type-species, *Pangonia hera* Osten Sacken (aut.).

hera (Osten Sacken), 1877: 214 (*Pangonia*).—Calif.; w. cent. Calif.
var. **fusca** Philip, 1954b: 19 (as ssp.).—Calif.; w. cent. Calif.

Genus PILIMAS Brennan

Pilimas Brennan *in* Philip, 1941d: 130. Type-species, *Diatomineura californica* Bigot (orig. des.).

abaureus (Philip), 1941d: 114 (*Stonemyia*).—Calif.; n. and cent. Calif.

californicus (Bigot), 1892b: 618 (*Diatomineura*).—Calif.; B.C. to Mont., s. to s. Utah and Calif.
dives Williston, 1887b: 130 (*Pangonia;* preocc. Macquart, 1857).—Calif.
jonesi Cresson, 1919: 175 (*Silvius*).—Calif.
var. **beameri** Philip, 1942a: 61 (as sp.).—Calif.

ruficornis (Bigot), 1892b: 615 (*Corizoneura*).—n. Calif.

Genus STONEMYIA Brennan

Stonemyia Brennan, 1935: 360. Type-species, *Pangonia tranquilla* Osten Sacken (orig. des.).

isabellina (Wiedemann), 1828: 112 (*Silvius*).—N. Amer.; N.Y., s. to Tenn. and Ga.
pigra Osten Sacken, 1875b: 367 (*Pangonia*).—Ky.

rasa (Loew), 1869b: 5 (Cent. 8, no. 7) (*Pangonia*).—Wis.; Wis. to N.B., s. to Ga.

tranquilla tranquilla (Osten Sacken), 1875b: 367 (*Pangonia*).—N.H.; Wis. to Que., s. to Ga.
ssp. **fera** (Williston), 1887b: 130 (*Pangonia;* as sp.).—Oreg.; B.C. and Alta. to Calif., also Maine, s. to Tenn.

velutina (Bigot), 1892b: 615 (*Corizoneura*).—Calif.; cent. Calif.
albomacula Stone, 1940: 60.—Calif.

Genus ASAPHOMYIA Stone

Asaphomyia Stone, 1953: 256. Type-species, *texensis* Stone (orig. des.).

texensis Stone, 1953: 256.—Tex.

Genus ESENBECKIA Rondani

Esenbeckia Rondani, 1863: 83, 95 (as *Esenbekia*, p. 83) (1864: 83). Type-species, *Silvius vulpes* Wiedemann (orig. des.).

delta (Hine), 1920: 313 (*Pangonia*).—Ariz.; Tex., n. Mexico.
incisuralis (Say), 1823: 31 (1859b: 53) (*Pangonia*).—Ark. (Territory); Ariz., e. to Kans., Okla., and Tex., n. Mexico.
incisa Wiedemann, 1828: 90 (*Pangonia*).—Ark.
latiflagrum Enderlein, 1925a: 291 (*Ricardoa*).—Tex.
var. **tinkhami** Philip, 1954b: 50 (as ssp.).—Tex.; Ariz., Colo.
micheneri Philip, 1954b: 48.—n. Mexico; Tex.

Tribe SCIONINI

Genus GONIOPS Aldrich

Goniops Aldrich, 1892b: 236. Type-species, *hippoboscoides* Aldrich (mon.)=*chrysocoma* (Osten Sacken).

chrysocoma (Osten Sacken), 1875b: 368 (*Pangonia*).—N.Y.; Ont. to Ark. and S.C.
hippoboscoides Aldrich, 1892b: 237.—Pa.

Subfamily CHRYSOPINAE

REFERENCE: Mackerras, 1955 (classif.).

Tribe BOUVIEROMYIINI

Genus MERYCOMYIA Hine

Merycomyia Hine, 1912: 515. Type-species, *geminata* Hine (orig. des.)=*whitneyi* (Johnson).

REFERENCE: Philip, 1954b (key).

brunnea Stone, 1953: 256.—Fla.
mixta Hine, 1912: 516.—Ga.
whitneyi (Johnson), 1904: 15 (*Tabanus*).—N.Y.; Ont. to Ind., Conn., and Fla.
geminata Hine, 1912: 515.—Conn.

Tribe CHRYSOPINI

Genus SILVIUS Meigen

Silvius Meigen, 1820: 27. Type-species, *Tabanus vituli* Fabricius (mon.).

REFERENCE: Philip, 1954b (key).

Subgenus SILVIUS Meigen

gigantulus (Loew), 1872a: 57 (Cent. 10, no. 12) (*Chrysops*).—Calif., B.C. to Calif., N. Mex., and Nebr.
trifolium Osten Sacken, 1875b: 395.—B.C. (Vancouver I.)
microcephalus Wehr, 1922a: 109 (=p. 3).—Colo.

Subgenus GRISEOSILVIUS Philip

Silvius, subg. **Griseosilvius** Philip, 1961b: 235. Type-species, *Chrysops quadrivittatus* Say (orig. des.).

abdominalis Philip, 1954b: 55.—sw. Calif.; Nev.
notatus (Bigot), 1892b: 623 (*Diachlorus*).—Calif.; Wash., Oreg.
laticallus Brennan, 1935: 353.—Oreg.
pollinosus pollinosus Williston, 1880: 244.—Kans.; S. Dak. to Ariz. and Tex.
ssp. **jeanae** Pechuman, 1960: 793.—Tex.; Calif.
quadrivittatus (Say), 1823: 33 (1859b: 54) (*Chrysops*).—Near the Rocky Mts.; Mont. to Ill., s. to Calif. and Tex.
var. **texanus** Pechuman, 1938b: 166.—Tex.; Okla., n. Mexico.
sayi Brennan, 1935: 357.—Tex.

Subgenus ZEUXIMYIA Philip

Silvius, subg. **Zeuximyia** Philip, 1941a: 186. Type-species, *philipi* Pechuman (orig. des.).

philipi Pechuman, 1938b: 165.—Oreg.; n. Calif.

Subgenus ASSIPALA Philip

Assipala Philip, 1941b: 4, 9 (as genus). Type-species, *Chrysops tanycerus* Osten Sacken (orig. des.). **N. status.**

REFERENCE: Philip, 1954b (key).

ceras (Townsend), 1897e: 38 (*Chrysops*).—N. Mex.; n. Mexico.

Genus CHRYSOPS Meigen

Chrysops Meigen, 1800: 23. Type-species, *Tabanus caecutiens* Linnaeus (sub. mon., Meigen, 1803: 267). Suppressed by I.C.Z.N., 1963b: 339.

Chrysops Meigen, 1803: 267. Type-species, *Tabanus caecutiens* Linnaeus (mon.).

Chrysops, subg. *Heterochrysops* Kröber, 1920: 50. Type-species, *flavipes* Meigen (Bequaert, 1924: 31).

REFERENCE: Philip, 1955 (keys).

Subgenus CHRYSOPS Meigen

abatus Philip, 1941d: 120.—Fla.; s. Miss., n. to N.C.
aberrans Philip, 1941d: 122.—Minn.; Minn. to N.B., s. to Kans. and N.J.
aestuans Wulp, 1867: 135.—Wis.; Alaska to N.S., s. to Calif., Okla., and Pa.
moerens Walker, 1848: 201 (preocc. Fabricius, 1787).—N.S.
var. **abaestuans** Philip, 1941d: 121 (as ssp.).—Kans.; Sask. to Que., s. to Idaho and Nebr.
var. **pseudoconfusus** Philip, 1959: 200.—S. Dak.
amazon amazon Daecke, 1905: 250.—N.J.; N.H. to N.J.
ssp. **hubbelli** Philip, 1955: 88.—Fla.
asbestos Philip, 1950a: 455.—Mont.; B.C. to Calif. and Wyo.
atlanticus Pechuman, 1949: 79.—Del.; Mass. to Fla.
beameri Brennan, 1935: 265.—Kans.; Kans. to Mass. and s. to Fla.
bishoppi Brennan, 1935: 266.—Calif.; Oreg.
var. **gilvus** Philip, 1959: 200.—Calif.
bistellatus Daecke, 1905: 249.—N.J.; N.J. to La. and Fla.
brimleyi Hine, 1904a: 55.—N.C.; N.J. to Miss. and Fla.
brunneus Hine, 1903c: 34.—Ohio; Ariz. to Ont., N.J., and Fla.
callidus Osten Sacken, 1875b: 379.—Ill.; B.C. to Maine, s. to Tex. and Fla.
callidula Philip, 1941d: 117 (unjustified n. name for *callidus* Osten Sacken, not *calidus* Walker).—Ill.
var. **confusus** Kröber, 1926: 284 (as *moerens* var.).—B.C.; Wash.
carbonarius Walker, 1848: 203.—N.S.; Alaska to Labr., s. to Calif. and Fla.
ater Macquart, 1850: 344 (1850: 40).—Nfld.
fugax Osten Sacken, 1875b: 375.—Maine.
niger Macquart of Walker, 1848: 202.
var. **nubiapex** Philip, 1955: 92 (as ssp.).—N.Y.; Ont., s. to Pa.
cincticornis cincticornis Walker, 1848: 201.—Unknown; Sask. to N.S., s. to Okla. and Ga.
celer Osten Sacken, 1875b: 376.—Mass.
ssp. **nigropterus** Fairchild, 1937a: 59 (as *celer* var.).—Fla.
clavicornis Brennan, 1935: 277.—Calif.; Nev.
var. **brennani** Philip, 1955: 94 (as ssp.).—Nev.; sw. Calif.
coloradensis Bigot, 1892b: 605.—Colo.; B.C. to Calif. and Colo.
coquillettii Hine, 1904d: 220.—Calif.; Utah.
var. **robustus** Brennan, 1935: 333 (as sp.).—Calif.
cuclux Whitney, 1879: 35.—N.H.; Wis. to N.S., s. to Ohio and N.C.
cursim Whitney, 1879: 36.—N.H.; N.H. to Miss. and Fla.

dacne Philip, 1955: 99.—Ga.; Ill. to Conn., s. to La. and Fla.
dawsoni Philip, 1959: 196.—Minn.; Man. and Minn. to Que.
delicatulus Osten Sacken, 1875b: 380.—N.H.; Mich. to Maine and Del.
dimmocki Hine, 1905: 393.—Mass.; Mich. to Mass., s. to La. and Fla.
discalis Williston, 1880: 245.—Wyo.; B.C. to Man., s. to Calif. and Nebr.
dissimilis Brennan, 1935: 288.—N. Mex.; Tex.
divisus Walker, 1848: 204.—Fla.; Ga.
atropos Osten Sacken, 1875b: 372.—Fla.
dorsovittatus Hine, 1907b: 229.—Ga., Fla.; Md. to Fla.
excitans Walker, 1850: 72.—Cape Breton I.; Alaska to Labr., s. to Calif. and N.J.
lumbalis Harris *in* Johnson, 1925c: 68. Nomen nudum.
facialis Townsend, 1897e: 39.—N. Mex.; Ariz., n. Mexico.
fascipennis Macquart, 1834a: 216.—Pa. Unrecognized.
flavidus Wiedemann, 1821b: 55 (1821c: 105).—Ga.; Mich. to Mass., s. to Tex. and Fla., Bahama Is., Cuba, Mexico.
pallida Macquart, 1838a: 166 (1838: 162).—Unknown.
canifrons Walker, 1848: 197.—Fla.
pallidus Bellardi, 1859: 73 (1861: 273) (preocc. Macquart, 1838).—Mexico.
var. **celatus** Pechuman, 1949: 82 (as ssp.).—N.J.; N.Y. to Fla. (coastal).
var. **reicherti** Fairchild, 1937a: 60 (as sp.).—Fla.; Tenn. and Va., s. to La. and Fla.
frigidus Osten Sacken, 1875b: 384.—N.Y.; B.C. to Labr., s. to Oreg., Colo., and N.J.
canadensis Kröber, 1926: 277.—Ont.
var. **xanthas** Philip, 1950a: 453 (as ssp.).—Mont.; Mont. to N.H. and Mass.
fuliginosus Wiedemann, 1821b: 59 (1821c: 109).—N. Amer.; N.S. to Fla.
plangens Wiedemann, 1828: 210.—Ga.
confusus Harris, 1835: 597. Nomen nudum.
fulvaster Osten Sacken, 1877: 221.—Colo.; Alta. to Minn., s. to Calif. and Okla.
fulvistigma Hine, 1904a: 55.—N.C.; La. to N.J. and Fla.
var. **dorsopunctus** Fairchild, 1937a: 59.—Fla.; La. to Fla.
furcatus Walker, 1848: 199.—Ont.; Alaska to Labr., s. to Calif. and Wis.
lupus Whitney, 1904: 205.—Colo.
var. **chagnoni** Philip, 1955: 106 (as ssp.).—Que.; Alaska and B.C. to Labr. and N.S.

geminatus Wiedemann, 1828: 205.—Unknown; Wis. to Que., s. to Okla. and Fla.
fallax Osten Sacken, 1875b: 392.—N.Y.
var. **impunctus** Kröber, 1926: 301.—Ont.; Mich. to Ont., s. to Tenn. and Ala.
hinei Daecke, 1907: 143.—N.J.; Mass. to Miss. and Fla.
hirsuticallus Philip, 1941d: 126.—Calif.; cent. Calif.
indus Osten Sacken, 1875b: 383.—N.Y.; Colo., e. to Que. and N.C.
pilumnus Kröber, 1926: 278.—Ont.
lateralis Wiedemann, 1828: 209.—Unknown; Ont. and N.S. to Md.
hilaris Osten Sacken, 1875b: 391.—N.H.
latifrons Brennan, 1935: 312.—Nev.; sw. Calif.
luteopennis Philip, 1936e: 159.—Minn.; Ohio, Mich.
macquarti Philip, 1961a: 161.—Md.; Nebr. and Minn. to Maine, s. to La. and Fla.
univittatus, authors, not Macquart.
mitis Osten Sacken, 1875b: 374.—Canada; Alaska to Labr., s. to Calif. and W. Va.
moechus Osten Sacken, 1875b: 387.—D.C.; Minn. to Que., s. to La. and Ga.
montanus Osten Sacken, 1875b: 382.—N.Y.; Man. to N.B., s. to e. Tex. and Fla.
var. **perplexus** Philip, 1955: 111 (as ssp.).—N.C.; N.C. to Fla.
niger Macquart, 1838a: 165 (1838: 161).—N. Amer.; Mont. to N.S., s. to Okla. and Fla.
var. **taylori** Philip, 1955: 112 (as ssp.).—Fla.; Ark., N.C.
nigribimbo Whitney, 1879: 36.—N.H.; N.H. to Fla.
nigripes Zetterstedt, 1838: 519.—N. Lapland; Alaska to Labr., s. to Idaho and Maine, n. Europe.
noctifer noctifer Osten Sacken, 1877: 220.—Calif.; Idaho and Oreg., s. to n. Mexico.
ssp. **pertinax** Williston, 1887b: 132 (as sp.).—Wash. Territory; Yukon, s. to Calif. and Colo.
nigriventris Bigot, 1892b: 604.—Wash. Territory.
obsoletus Wiedemann, 1821b: 58 (1821c: 108).—Ga.; Mass. to Fla. (coastal).
trinotata Macquart, 1838a: 165 (1838: 161).—Pa.
morosus Osten Sacken, 1875b: 389.—Md.
var. **lugens** Wiedemann, 1821b: 59 (1821c: 109) (as sp.).—Ga.; Conn. to Fla. (coastal).
ultimus Whitney, 1914: 345.—Fla.

pachycerus Williston, 1887b: 134.—Calif.; Utah and sw. Calif. to Tex.
dilatus Rowe and Knowlton, 1936: 256.—Utah.
var. **hungerfordi** Brennan, 1935: 306 (as sp.).—N. Mex.; sw. Calif. to Tex., n. Mexico.
parvulus Daecke, 1907: 142.—N.J.; Ark. to N.J. and Fla.
pechumani Philip, 1941d: 128.—Calif.; n. and cent. Calif.
pikei Whitney, 1904: 205.—Mo.; Nebr. to Ont., s. to Tex. and Fla.
proclivis Osten Sacken, 1877: 222.—Calif.; Y.T. to Alta., s. to Calif. and Colo.
var. **atricornis** Bigot, 1892b: 603 (as sp.).—Colo.; B.C. to Calif.
imfurcatus Philip, 1936e: 157 (as *proclivis* var.).—Wash.
provocans Walker, 1850: 73.—N.S. Unrecognized, ?=*carbonarius*.
pudicus Osten Sacken, 1875b: 381.—Mass.; Wis. to Mass., s. to Okla. and Fla.
sackeni Hine, 1903c: 42.—Ohio; Man. to Que., s. to Okla. and Fla.
separatus Hine, 1907b: 228.—N.C.; Okla. and La. to N.C.
sequax Williston, 1887b: 133.—Kans.; Colo. to Ohio., s. to Okla. and Ga.
var. **tau** Philip, 1955: 113 (as ssp.).—Ill.; Ohio, Ark.
shermani Hine, 1907b: 229.—N.C.; Wis. to N.B. and N.C.
sordidus Osten Sacken, 1875b: 376.—N.H.; Que. and Labr., s. to Mich. and N.Y.
striatus Osten Sacken, 1875b: 391.—?D.C.; N. Dak. to N. B., s. to La. and N.C.
surdus Osten Sacken, 1877: 223.—Calif.; B.C., Nev.
var. **piceus** Philip, 1936e: 157 (as *proclivis* var.).—Calif.; n. and cent. Calif.
tidwelli Philip and Jones, 1962: 67.—Fla.
univittatus Macquart, 1855: 56 (1855: 36).—Md.; Minn. to N.S., s. to Kans., La., and Fla.
wiedemanni Kröber, 1926: 267.—Que.
fraternus Kröber, 1926: 317.—Unknown.
upsilon Philip, 1950a: 458.—Ga.; N.C., La.
venus Philip, 1950a: 457.—Wis.; e. Man. to Que.
virgulatus Bellardi, 1859: 71 (1861: 271).—Mexico; sw. Calif. to Tex.
vittatus Wiedemann, 1821b: 56 (1821c: 106).—N. Amer.; Minn. to N.S., s. to Tex. and Fla.
areolatus Walker, 1848: 197.—N.Y.
lineatus Jaennicke, 1867: 334 (1868: 26).—Ill.
ornatus Kröber, 1926: 328.—Ont.
var. **floridanus** Johnson, 1913a: 52.—Fla.; Va. to Fla.
wileyae Philip, 1955: 96.—Calif.; Oreg. to Utah, s. to Calif., Mexico (Baja Calif.).

zinzalus Philip, 1942a: 62.—N.B.; N.S.
lapponicus Loew of Brennan, 1935: 378.

Subgenus LIOCHRYSOPS Philip

Chrysops, subg. **Liochrysops** Philip, 1955: 87. Type-species, *hyalinus* Shannon (orig. des.).

hyalinus Shannon, 1924c: 178 (n. name for *vitripennis* Shannon).—Md.; N.C., n. Fla.
vitripennis Shannon, 1916b: 69 (preocc. Meigen, 1820).—Md.
claripennis Kröber, 1926: 230 (n. name for *vitripennis* Shannon).—Md.

Genus NEOCHRYSOPS Walton

Neochrysops Walton *in* McAtee and Walton, 1918: 191. Type-species, *globosus* Walton (mon.).

globosus Walton *in* McAtee and Walton, 1918: 192.—Md.

Subfamily TABANINAE

REFERENCE: Stone, 1938 (rev.).

Tribe DIACHLORINI

REFERENCE: Mackerras, 1954 (classif.).

Genus DIACHLORUS Osten Sacken

Diabasis Macquart, 1834a: 207 (preocc. Hoffmansegg, 1817). Type-species, *Tabanus bicinctus* Fabricius (Coquillett, 1910b: 532).

Diachlorus Osten Sacken, 1876a: 475 (n. name for *Diabasis* Macquart). Type-species, *Tabanus bicinctus* Fabricius (aut.).

badius Kröber, 1928: 50.—Unknown (as Ga., probably in error). Not Nearctic.

ferrugatus (Fabricius), 1805: 111 (*Chrysops*).—Carolina; N.J. to La. and Fla., Mexico, Honduras.
americanus Palisot de Beauvois, 1819: 222 (*Tabanus;* preocc. Forster, 1771).—U.S.
ataenia Macquart, 1838a: 156 (1838: 152) (*Diabasis*).—Carolina.
approximans Walker, 1848: 198 (*Chrysops*).—Fla.

Genus STENOTABANUS Lutz

Stenotabanus Lutz, 1913a: 487. Type-species, *Tabanus taeniotes* Wiedemann (sub. mon., Lutz and Neiva, 1914: 73).

Subgenus STENOTABANUS Lutz

daedalus Stone, 1938: 32.—Fla.; Ga.
flavidus (Hine), 1904d: 236 (*Tabanus*).—Ariz., n. Mexico.
floridensis (Hine), 1912: 513 (*Tabanus*).—Fla.; ?Ga.
guttatulus (Townsend), 1893b: 134 (*Diachlorus*).—N. Mex.; Utah, sw. Calif., nw. Mexico.
cribellum, authors, not Osten Sacken.

Subgenus AEGIALOMYIA Philip

Aegialomyia Philip, 1941b: 10 (as genus). Type-species, *Tabanus psammophilus* Osten Sacken (orig. des.).

atlanticus (Johnson), 1913d: 445 (*Tabanus*).—Bermuda.
magnicallus (Stone), 1935: 19 (*Tabanus;* n. name for *nanus* Macquart).—Tex.; La., e. Mexico.
nanus Macquart, 1846: 170 (1846: 42) (*Tabanus;* preocc. Wiedemann, 1821).—Tex.
maritimus Townsend, 1898a: 167 (*Tabanus;* preocc. Scopoli, 1763).—Tex.
psammophilus (Osten Sacken), 1876a: 445 (*Tabanus*).—Fla.

Genus ANACIMAS Enderlein

Anacimas Enderlein, 1923: 545. Type-species, *limbellatus* Enderlein (orig. des.).

dodgei (Whitney), 1879: 37 (*Tabanus*).—Nebr.; Nebr. to Okla.
geropogon Philip, 1936b: 229.—N.C.; N.C. to Fla.
limbellatus Enderlein, 1923: 545.—U.S.; S.C. to Fla.

Genus MICROTABANUS Fairchild

Tabanus, subg. **Microtabanus** Fairchild, 1937b: 10. Type-species, *Tabanus pygmaeus* Williston (mon.).
pygmaeus (Williston), 1887b: 141 (*Tabanus*).—Fla.; N.Y. to Fla.

Genus CHLOROTABANUS Lutz

Chlorotabanus Lutz, 1909: 30. Type-species, *Tabanus mexicanus* Linnaeus (mon.).

REFERENCE: Philip and Fairchild, 1956 (key).

crepuscularis (Bequaert), 1926b: 234 (*Tabanus;* n. name for *flavus* Macquart).—U.S.; Ariz. to Fla., n. to N.J.
flavus Macquart, 1834a: 200 (*Tabanus;* preocc. Wiedemann, 1828).—U.S.
mexicanus, authors, not Linnaeus.
sulphureus, authors, not Palisot de Beauvois.

Genus BOLBODIMYIA Bigot

Bolbodimyia Bigot, 1892c: 162. Type-species, *bicolor* Bigot (mon.).
Snowiellus Hine, 1904d: 230. Type-species, *atratus* Hine (mon.).

REFERENCE: Stone, 1954 (key).

atrata (Hine), 1904d: 230 (*Snowiellus*).—Ariz.; Mexico.

Tribe HAEMATOPOTINI

Genus HAEMATOPOTA Meigen

Chrysozona Meigen, 1800: 23. Type-species, *Tabanus pluvialis* Linnaeus (Coquillett, 1910b: 524). Suppressed by I.C.Z.N., 1963b: 339.
Haematopota Meigen, 1803: 267. Type-species, *Tabanus pluvialis* Linnaeus (mon.).

americana Osten Sacken, 1875b: 395.—N.W.T.; Alaska to Labr., s. to Calif. and N. Mex.
champlaini (Philip), 1953: 248 (*Chrysozona*).—Pa.; R.I.
punctulata Macquart, 1838a: 167 (1838: 163).—Carolina; N.J. to Fla.
rara Johnson, 1912d: 182.—Pa.; N.H. to Va.
willistoni (Philip), 1953: 249 (*Chrysozona*).—Calif.

Tribe TABANINI

Genus ATYLOTUS Osten Sacken

Tabanus, subg. **Atylotus** Osten Sacken, 1876a: 426. Type-species, *bicolor* Wiedemann (Hine, 1900: 247).

bicolor (Wiedemann), 1821b: 46 (1821c: 96) (*Tabanus*).—N. Amer.; Alta. to Maine, s. to Wis. and D.C.
fulvescens Walker, 1848: 171 (*Tabanus*).—Mass. and Unknown.
ruficeps Macquart, 1855: 55 (1855: 35) (*Tabanus*).—Md.
duplex (Walker), 1854: 173 (*Tabanus;* n. name for *imitans* Walker, 1848: 173).—Ont.; Alta. to Que.
imitans Walker, 1848: 173 (*Tabanus;* preocc. Walker, 1848: 146).—Ont.

incisuralis (Macquart), 1847: 37 (1847: 21) (*Tabanus*).—Amer.; Alaska to Ont., s. to Calif. and Colo.

intermedius Walker, 1848: 173 (*Tabanus*).—Ont.

insuetus Osten Sacken, 1877: 219 (*Tabanus*).—Calif.

var. **utahensis** (Rowe and Knowlton), 1935: 242 (*Tabanus*; as sp.).—Utah.

ohioensis (Hine), 1901a: 28 (*Tabanus;* n. name for *pruinosus* Hine).—Ohio; Alta. to Pa.

pruinosus Hine, 1900: 248 (*Tabanus;* preocc. Bigot, 1892).—Ohio.

pemeticus (Johnson), 1921a: 11 (*Tabanus.*)—Maine; Minn. to Nfld., s. to Pa.

thoracicus (Hine), 1900: 248 (*Tabanus*).—N.Y.; ne. Calif. to N.S., s. to Del.

tingaureus (Philip), 1936a: 159 (*Tabanus;* as *insuetus* var.).—Mont.; Alaska to n. Calif.

Genus WHITNEYOMYIA Bequaert

Tabanus, subg. **Whitneyomyia** Bequaert, 1933b: 85. Type-species, *beatificus* Whitney (orig. des.).

beatifica (Whitney), 1914: 344 (*Tabanus*).—Fla.; Tex. to N.C. and Fla.

ater Palisot de Beauvois, 1811: 101 (*Tabanus*; preocc. Rossi, 1790).—S.C.

lugubris Macquart, 1838a: 149 (1838: 145) (*Tabanus;* preocc. Linnaeus, 1776).—Carolina.

stygius Enderlein, 1925a: 353 (*Snowiellus*).—Unknown.

var. **atricorpus** Philip, 1950b: 122 (as ssp.).—Fla.; Tex.

Genus LEUCOTABANUS Lutz

Leucotabanus Lutz, 1913a: 487. Type-species, *Tabanus leucaspis* Wiedemann (sub. mon., Lutz and Neiva, 1914: 71)= *exaestuans* (Linnaeus).

ambiguus Stone, 1938: 26.—Ariz.; Guatemala.

albiscutellatus Macquart of Hine, 1925: 34.

annulatus (Say), 1823: 32 (1859b: 53) (*Tabanus*).—Mo.; Kans. to Del., s. to Tex. and Fla.

argenteus Wiedemann *in* Philip, 1950b: 121 (*Tabanus*). Nomen nudum.

Genus TABANUS Linnaeus

Tabanus Linnaeus, 1758: 601. Type-species, *bovinus* Linnaeus (Latreille, 1810: 443).

Neotabanus Lutz, 1909: 30. Type-species, *Tabanus trilineatus* Latreille (Bequaert, 1924: 29).

Taeniotabanus Kröber, 1931b: 68. Type-species, *Tabanus dorsiger* Wiedemann (mon.).

Subgenus TABANUS Linnaeus

aar Philip, 1941c: 105.—Miss.; La. to Fla.

abactor Philip, 1936d: 153.—Tex.; Kans. to Tex.

abditus Philip, 1941c: 142.—Ariz.

abdominalis Fabricius, 1805: 96.—Carolina; Nebr. to Mass., s. to Tex. and Fla.

limbatinevris Macquart, 1847: 32 (1847: 16).—Unknown (as Tasmania, error).

acutus (Bigot), 1892b: 660 (*Atylotus*).—La.; La. to Fla.

aegrotus Osten Sacken, 1877: 219.—Calif.; B.C. to Mont. and Calif.

americanus Forster, 1771: 100.—Va., N.Y.; Ont. to Tex. and Fla.

plumbeus Drury, 1773: 2, of index (1770: 103, unnamed descr.).—N.Y., Va.

ruficornis Fabricius, 1775: 789.—Amer.

limbatus Palisot de Beauvois, 1806: 54.—U.S.

aranti Hays, 1961: 127.—Ala.; Ark., Va., Ga.

atratus Fabricius, 1775: 789.—Amer.; Wash. to Que., s. to N. Mex. and Fla.

americanus Drury, 1773: 2, of index (1770: 104, unnamed descr.) (preocc. Forster, 1771).—N.Y.

niger Palisot de Beauvois, 1806: 54.—Pa.

validus Wiedemann, 1828: 113.—Pa.

var. **fulvopilosus** Johnson, 1919c: 164.—Fla.; Mass. to Fla.

var. **nantuckensis** Hine, 1917: 271 (as sp.).—Mass.; N.H. to N.C.

birdiei Whitney, 1914: 343.—Fla.

bishoppi Stone, 1933: 77.—Fla.

boharti Philip, 1950b: 115.—Ariz.

pruinosus, authors, not Bigot.

calens Linnaeus, 1758: 601.—Amer.; Wis. to Conn., s. to Tex. and Fla.

giganteus DeGeer, 1776: 226.—Pa.

lineatus Fabricius, 1781: 455.—Amer.

pallidus Palisot de Beauvois, 1809: 100.—U.S.

bicolor Macquart, 1847: 37 (1847: 21) (preocc. Wiedemann, 1821).—S.C.

coesiofasciatus Macquart, 1855: 52 (1855: 32).—Md.

catenatus Walker, 1848: 148.—Mass.; Minn. to N.S., s. to N.C.
orion Osten Sacken, 1876a: 442.—Canada, Mass., Conn., N.Y.
cayensis Fairchild, 1935: 53.—Fla.
cheliopterus Rondani, 1850a: 192.—Carolina; Tex. to Fla., n. to Va.
subfronto Philip, 1936c: 100.—N.C.
var. **fronto** Osten Sacken, 1876a: 431 (as sp.).—Ga.; Va., Fla., Tex.
cingulatus Macquart, 1838a: 148 (1838: 144) (preocc. Thunberg, 1827).—Pa. Unrecognized.
coarctatus Stone, 1935: 13.—Fla.; Ga.
colombensis Macquart, 1846: 165 (1846: 37).—Colombia; s. Tex., Cent. Amer., n. S. Amer., Jamaica.
amplifrons Kröber, 1933: 354.—Venezuela.
commixtus Walker.—Not Nearctic.
cymatophorus Osten Sacken, 1876a: 444.—Ky.; Ill. to Md., s. to Tex. and Ga.
derivatus Walker, 1848: 151.—Unknown (as N. Amer., error). Not Nearctic.
dietrichi Pechuman, 1956: 39.—Ariz.
dorsifer Walker, 1860a: 273.—Mexico; Ariz. to Tex.
intensivus Townsend, 1897e: 93.—N. Mex.
hyalinipennis Hine, 1903a: 244.—Ariz.
dorsonotatus Macquart, 1847: 38 (1847: 22).—Carolina. Unrecognized.
eadsi Philip, 1962: 171.—Tex.
endymion Osten Sacken, 1878a: 556.—Ga.; La. to Fla. and N.C.
equalis Hine, 1923b: 205 (n. name for *uniformis* Hine).—Kans.; Kans. to Ill., s. to Tex. and Fla.
uniformis Hine, 1917: 270 (preocc. Ricardo, 1911).—Kans.
erythraeus (Bigot), 1892b: 661 (*Atylotus*).—Mexico; Ariz.
eurycerus Philip, 1937b: 66.—Ariz.
exilipalpis Stone, 1938: 54.—S.C.; Miss., Ala.
fairchildi Stone, 1938: 63.—N.Y.; Wis. to N.S., s. to Okla. and Fla.
ferrugineus Palisot de Beauvois, 1819: 221 (preocc. Strøm, 1768).—U.S. Unrecognized.
fulvicallus Philip, 1931: 106.—Minn.; Man. and Minn. to N.Y.
fulvulus Wiedemann, 1828: 153.—Amer.; Ill. to se. N.Y., s. to Okla., La., and Fla.
fulvofrater Walker, 1848: 181.—Ill.
mutatus Walker, 1850: 23.—U.S.
fumipennis Wiedemann, 1828: 119.—Ga.; S.C. to Fla.
rufus Palisot de Beauvois, 1809: 100 (preocc. Scopoli, 1763).—U.S.

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fuscicostatus Hine, 1906a: 24.—La.; Kans. to N.C., s. to Tex. and La.
fusconervosus Macquart, 1838a: 151 (1838: 147).—Unknown; Mass. to Fla.
confusus Walker, 1848: 147.—Ga.
recedens Walker, 1848: 147.—Fla.
fur Williston, 1887b: 139.—Fla.
gilanus Townsend, 1897e: 92.—N. Mex.; Ariz., Tex., Colo.
gladiator Stone, 1935: 12.—S.C.; Tenn. to Va., s. to Tex. and Fla.
gracilis Wiedemann, 1828: 156.—Ga.; N.J., s. to Miss. and Fla.
guttatus Wiedemann, 1821b: 23 (1821c: 73) (preocc. Donovan, 1815).—Unknown (as Amer., error; probably Georgian S.S.R.). Unrecognized, not Nearctic.
imitans Walker, 1848: 146.—Ga.; Tex. to N.C. and Fla.
fuscopunctatus Macquart, 1850: 338 (1850: 34).—Ga.
var. **excessus** Stone, 1938: 87.—Fla.; S.C., Ga.
var. **pechumani** Philip, 1960b: 171.—Fla.; Ga.
johnsoni Hine, 1907b: 225.—Fla.
kesseli Philip, 1950b: 117.—Mont.; B.C. and Calif., e. to Wis.
kisliuki Stone, 1940: 59.—Miss.; Miss. to s. Fla.
laticeps Hine, 1904d: 239.—Calif., Wash.; B.C., Oreg.
leucomelas Walker, 1848: 175.—Unknown (as Ga., error). Unrecognized, not Nearctic.
lineola Fabricius, 1794: 369.—N. Amer.; Wis. to Maine, s. to Tex. and Fla., Bahama Is.
var. **hinellus** Philip, 1960a: 366.—La.; Miss., Tex.
quinquemaculatus (error for *quinquevittatus*) Wiedemann of Hine, 1904e: 58.
longiusculus Hine, 1907b: 226.—N.C., Ga.; N.C. to Fla.
longus Osten Sacken, 1876a: 447.—Middle Atlantic States; Pa., s. to Tex. and Ga.
marginalis Fabricius, 1805: 99.—N. Amer.; Idaho to Man. and N.S., s. to Del.
nivosus Osten Sacken, 1876a: 445.—N.J.
melanocerus Wiedemann, 1828: 122.—Ky.; Ark. to Conn., s. to La. and Fla.
var. **lacustris** Stone, 1935: 13 (as sp.).—Fla.; Ga.
moderator Stone, 1938: 98.—Ga.; Ark., Miss., N.C., S.C.
molestus Say, 1823: 31 (1859b: 53).—Mo.; Wis. to N.J., s. to Tex. and Fla.
tenessensis Bigot, 1892b: 660 (*Atylotus*).—Tenn.
var. **mixis** Philip, 1950b: 241 (as ssp.).—Ga.; Ky. to Va., s. to Tex. and Fla.
monoensis Hine *in* Webb and Wells, 1924: 29.—Calif.; Oreg., Idaho.
morbosus Stone, 1938: 89.—Ariz.; n. Mexico.

mularis Stone, 1935: 15.—La.; Ill. and Md., s. to Tex. and Fla.
nebulosus Palisot de Beauvois, 1819: 222 (preocc. De Geer, 1776).—U.S. Unrecognized.
nefarius Hine, 1907b: 224.—La.; Tex.
nigrescens Palisot de Beauvois, 1809: 100.—U.S.; Wis. to Mass., s. to Tex. and Fla.
var. **atripennis** Stone, 1935: 15 (as ssp.).—Okla.; Kans. to Va., s. to Tex. and Fla.
nigripes Wiedemann, 1821b: 25 (1821c: 75).—Ga.; Ont., s. to Tex. and Fla.
coffeatus Macquart, 1847: 39 (1847: 23).—Pa.
winthemi Kröber, 1931a: 295.—Unknown (as S. Amer., error).
nigrovittatus Macquart, 1847: 40 (1847: 24).—N.S.; P.E.I. to Tex. (coastal).
simulans Walker, 1848: 182.—N.S.
vicarius Walker, 1848: 187.—N. Amer.
conterminus Walker, 1850: 24.—U.S.
allynii Marten, 1883: 110.—N.C.
floridanus Szilády, 1926a: 24.—Fla.
divisus Harris, 1833: 593. Nomen nudum.
var. **fulvilineis** Philip, 1957: 3 (as ssp.).—Miss.; Tex. to Fla., Bahama Is.
novaescotiae Macquart, 1847: 40 (1847: 24) (as *novae-scoeiae*).—N.S.; Minn. to N.S., s. to N.C.
actaeon Osten Sacken, 1876a: 443.—Mass.
orbicallus Philip, 1936a: 157.—Kans.; S. Dak. to Okla.
pallidescens Philip, 1936d: 150 (as *fulvulus* var.).—Miss.; Mo. to Md., s. to Okla., La., and Fla.
palpinus Palisot de Beauvois, 1819: 221.—U.S. Unrecognized, ?=*wiedemanni*.
petiolatus Hine, 1917: 270.—La.; Tex. to Fla., n. to N.J.
yulenus Philip, 1950b: 243.—La.
productus Hine, 1904d: 242.—Wyo.; Calif. to Mont. and N. Mex.
proximus Walker, 1848: 147.—Fla.; Ill. to Va., s. to Tex. and Fla.
benedictus Whitney, 1904: 206.—Mo.
pumilus Macquart, 1838a: 150 (1838: 146).—Carolina; Ont., s. to Tex. and Fla.
punctifer Osten Sacken, 1876a: 453.—Utah; B.C. to Kans., s. to Calif. and Tex.
quaesitus Stone, 1938: 54.—Tex.; La.
quinquevittatus Wiedemann, 1821b: 34 (1821c: 84).—Ga. (as Mexico, error); S. Dak. to N.S. and e. U.S. to Tex.
costalis Wiedemann, 1828: 173.—Ky.

manifestus Walker, 1850: 41.—Unknown (as ?S. Amer., error).

baltimorensis Macquart, 1855: 54 (1855: 34).—Md.

quirinus Philip, 1950b: 120.—Fla.; n. Fla.

reinwardtii Wiedemann, 1828: 130.—Pa.; Alta. to N.S., s. to Tex. and Ga.

erythrotelus Walker, 1850: 25.—Unknown.

rufofrater Walker, 1850: 26 (as *rufofrator*).—Ga.; Miss. to N.C. and Fla.

unicolor Macquart, 1847: 38 (1847: 22) (preocc. Wiedemann, 1828).—Carolina.

lateritius Rondani, 1863: 80 (1864: 80) (n. name for *unicolor* Macquart).—Carolina.

tener Osten Sacken, 1876a: 440.—Ga., Fla.

sackeni Fairchild, 1934: 141.—Ky.; Kans. to N.H. and Ga.

sagax Osten Sacken, 1876a: 452.—Ill.; Minn. to Maine, s. to La. and S.C.

baal Townsend, 1895a: 58 (*Atylotus*).—Va.

dawsoni Philip, 1931: 105.—Minn.

schwardti schwardti Philip, 1942b: 29 (as *vittiger* ssp.).—Tenn.; Ariz. to Mass. and Fla., Mexico.

ssp. **nippontucki** Philip, 1942b: 32 (as *vittiger* ssp.).—Calif.; Calif. to Tex.

similis Macquart, 1850: 335 (1850: 31).—Unknown (as Tasmania, error); B.C. to N.S., s. to Calif. and Ga.

scutellaris Walker, 1850: 27.—N. Amer.

sparus Whitney, 1879: 38.—N.H.; Wis. to N.H., s. to Okla. and Fla.

var. **milleri** Whitney, 1914: 344 (as sp.).—Fla.; Okla. to N.Y. and Fla.

stonei Philip, 1941c: 144.—Mont.; B.C. to Mont., s. to Calif. and Tex.

var. **jellisoni** Philip, 1941c: 146 (as ssp.).—Mont.; Mont. to Colo.

stygius Say, 1823: 33 (1859b: 54).—Ark. Territory; Minn. to Maine, s. to Tex. and Fla.

sublongus Stone, 1938: 74.—Md.; Okla. to N.Y. and N.C.

subniger Coquillett, 1906a: 48.—Ill.; Ont., N.J.

sulcifrons Macquart, 1855: 53 (1855: 33) (as *fulcifrons*).—Md.; Wis. to Maine, s. to Tex. and Fla.

variegatus Fabricius, 1805: 95 (preocc. De Geer, 1776).—N. Amer.

tectus Osten Sacken, 1876a: 436.—Pa.

exul Osten Sacken, 1878a: 558.—D.C., Md., Pa., N.J.

superjumentarius Whitney, 1879: 37.—N.H.; Ohio to N.H., s. to Ark. and Ga.

tetropsis Bigot, 1892b: 681.—Unknown (as Ga., error). Unrecognized, not Nearctic.
texanus Hine, 1907b: 228.—Tex.; La.
trijunctus Walker, 1854: 182.—Fla.; Ga., Miss., Ala., Bahama Is.
trimaculatus Palisot de Beauvois, 1806: 56.—N. Amer.; Minn. to Mass., s. to Tex. and Fla.
quinquelineatus Macquart, 1834a: 200.—Ga.
turbidus Wiedemann, 1828: 124.—Ky.; Ark. to N.C., s. to La. and Fla.
venustus Osten Sacken, 1876a: 444.—Tex.; Wis., s. to Kans. and Tex.
vittiger vittiger Thomson.—Not Nearctic.
ssp. **guatemalanus** Hine, 1906a: 24 (as sp.).—Guatemala; s. Fla., Cent. Amer., Antilles.
bellardii Szilády, 1926a: 23.—Cuba.
caymanicus Fairchild, 1942: 181 (as *vittiger* ssp.).—Cuba.
vivax Osten Sacken, 1876a: 446.—N.Y.; Wis. to Labr., s. to N.J.
arborealis Stone, 1935: 14.—Vt.
wiedemanni Osten Sacken, 1876a: 455.—Fla.; N.C. to Fla.
ater Palisot de Beauvois of Wiedemann, 1828: 136.
wilsoni Pechuman, 1962: 66.—Ark.; La.
zythicolor Philip, 1936d: 152.—N.C.; N.J. to La. and Fla.

Subgenus GLAUCOPS Szilády

Tabanus, subg. **Glaucops** Szilády, 1923: 17. Type-species, *Tabanus hirsutus* Villers (mon.). **N. status.**

fratellus Williston, 1887b: 140.—Wash. Territory; Alaska, s. to Oreg. and Mont.
haematopotides Bigot, 1892b: 624 (?*Diachlorus*).—Wash. Territory.

Genus HYBOMITRA Enderlein

Hybomitra Enderlein, 1922c: 347. Type-species, *solox* Enderlein (orig. des.) = *rhombica* (Osten Sacken).
Dasyommia Enderlein, 1922c: 346. Type-species, *Tabanus cinctus* Fabricius (orig. des.).
Tylostypia Enderlein, 1922c: 347. Type-species, *Tabanus astur* Erichson (orig. des.).
Sziladynus Enderlein, 1925b: 181. Type-species, *Tabanus aterrimus* Meigen (orig. des.).
Therioplectes, authors, not Zeller.

aasa Philip, 1954a: 28.—Oreg.; B.C. to Calif.
aatos Philip, 1941c: 148.—Wyo.; Colo., Utah, Ariz.

aequetincta (Becker), 1900: 8 (*Therioplectes*).—Siberia; Labr., Que., n. Eurasia.

flavipes Wiedemann, 1828: 137 (*Tabanus;* preocc. Gravenhorst, 1807).—Labr.

nigrotuberculatus Fairchild, 1934: 139 (*Tabanus;* n. name for *flavipes* Wiedemann).—Labr.

affinis (Kirby), 1837: 313 (*Tabanus*).—Canada; Alaska to Labr., s. to Ariz. and N.J.

triligatus Walker, 1854: 183 (*Tabanus*).—Arctic Amer.

arpadi (Szilády), 1923: 7 (*Tabanus*).—Russian Lapland and Amur District; Alaska to Labr., s. to Minn. and Maine, n. and e. Siberia.

gracilipalpis Hine, 1923a: 143 (*Tabanus*).—Alaska.

cristatus Curran, 1927f: 81 (*Tabanus*).—Alta.

astuta (Osten Sacken), 1876a: 471 (*Tabanus*).—N.H.; Alaska to Labr. and Ill.

atrobasis (McDunnough), 1921: 144 (*Tabanus*).—B.C.; B.C. to Oreg. and Wyo.

aurilimbus (Stone), 1938: 130 (*Tabanus*).—Maine; Minn. to Nfld., s. to N.J.

brennani (Stone), 1938: 157 (*Tabanus*).—N.H.; Que.

californica (Marten), 1882: 210 (*Tabanus*).—Calif.; B.C., Oreg., Idaho.

captonis (Marten), 1882: 211 (*Tabanus*).—Calif.; Y.T., s. to Calif. and Colo.

comastes Williston, 1887b: 137 (*Tabanus*).—Wash. Territory and Oreg.

cincta (Fabricius), 1794: 366 (*Tabanus*).—Va.; Man. to Maine, s. to Fla.

comes (Walker), 1849: 1152 (*Tabanus;* n. name for *inscitus* Walker).—Canada. Unrecognized, ?=*astuta*.

inscitus Walker, 1848: 172 (*Tabanus;* preocc. Walker, 1848: 161).—Canada.

criddlei (Brooks), 1946b: 234 (*Tabanus*).—Man.; Man. and Colo., e. to Ont.

daeckei (Hine), 1917: 269 (*Tabanus*).—N.J.; Maine to Ga.

difficilis (Wiedemann), 1828: 165 (*Tabanus*).—Unknown; Ohio to Vt., s. to Okla. and Fla.

carolinensis, authors, not Macquart.

epistates (Osten Sacken), 1878a: 555 (*Tabanus;* n. name for *socius* Osten Sacken).—N.W.T.; Alaska to N.S., s. to Oreg., Colo., and N.J., Manchuria.

socius Osten Sacken, 1876a: 467 (*Tabanus;* preocc. Walker, 1848).—N.W.T.

frenchii (Marten), 1883: 111 (*Therioplectes*).—Mont. Unrecognized.

frontalis (Walker), 1848: 172 (*Tabanus*).—N.S.; Alaska to Labr., s. to Utah and N.Y.

incisus Walker, 1850: 26 (*Tabanus*).—N.S.

septentrionalis Loew, 1858c: 592 (*Tabanus*).—Labr.

labradorensis Enderlein, 1925a: 363 (*Tylostypia*).—Labr.

canadensis Curran, 1927f: 82 (*Tabanus*).—Man.

frosti Pechuman, 1960: 794.—Ont.; N.S., Que., N.B., Maine, Pa.

fulvilateralis (Macquart), 1838a: 137 (1838: 133) (*Tabanus*).—Unknown (as Cayenne, error); B.C. to Man., s. to Calif. and N. Mex.

recedens Walker, 1854: 201 (*Tabanus;* preocc. Walker, 1848).—w. coast Amer.

haemaphorus Marten, 1882: 210 (*Tabanus*).—Calif.

hearlei (Philip), 1936a: 150 (*Tabanus*).—B.C.; B.C. to Labr.

hinei hinei (Johnson), 1904: 15 (*Tabanus;* n. name for *politus* Johnson).—N.J.; Wis. to Mass., s. to N.C.

politus Johnson, 1900b: 325 (*Therioplectes;* preocc. Walker, 1871).—N.J.

ssp. **wrighti** (Whitney), 1915: 380 (*Tabanus;* as sp.).—Fla.; Miss., Ga., N.C.

illota (Osten Sacken), 1876a: 469 (*Tabanus*).—N.W.T.; Alaska to Que., s. to Wash., Iowa, and Pa.

itasca (Philip), 1936a: 149 (*Tabanus*).—Minn.; Alaska and Sask. to Labr.

lanifera (McDunnough), 1922: 239 (*Tabanus*).—Alta.; Alaska to Alta., s. to Oreg. and Colo.

lasiophthalma (Macquart), 1838a: 147 (1838: 143) (*Tabanus*).—Carolina; Alaska to N.S., s. to Tex. and Fla.

punctipennis Macquart, 1847: 39 (1847: 23) (*Tabanus*); preocc. Macquart, 1838).—Pa.

notabilis Walker, 1848: 166 (*Tabanus*).—N.Y., ?Ga.

fretus Stone, 1938: 154 (*Tabanus*).—Conn.

guttiferus Harris *in* Johnson, 1925c: 70 (*Tabanus*). Nomen nudum.

laticallus (Philip), 1936a: 150 (*Tabanus*).—Minn.; n. Minn.

laticornis (Hine), 1904d: 239 (*Tabanus*).—Ariz.; N. Mex.

liorhina (Philip), 1936a: 151 (*Tabanus*).—B.C.; B.C. to Labr., s. to Minn.

longiglossa (Philip), 1931: 110 (*Tabanus*).—Minn.; Minn. to Nfld., s. to Mass.

melanorhina (Bigot), 1892b: 642 (*Therioplectes*).—Wash. Territory; B.C., s. to Calif. and Colo.

metabola (McDunnough), 1922: 239 (*Tabanus*).—Alta.; Alaska to Labr., s. to Colo. and N.Y.

microcephala (Osten Sacken), 1876a: 470 (*Tabanus*).—N.H.; Man. and Minn. to N.S., s. to N.C.

minuscula (Hine), 1907b: 226 (*Tabanus*).—Maine, N.Y., Mass., Ont.; Minn. to Labr., s. to W. Va.

nigricans (Wiedemann), 1828: 157 (*Tabanus*).—Unknown (Amer. bor. on a syntype); Okla. to N.C. and Ga.

patulus Walker, 1848: 175 (*Tabanus*).—Ga. **N. syn.**

oklahomensis Stone, 1933: 76 (*Tabanus*).—Okla. **N. syn.**

nuda (McDunnough), 1921: 143 (*Tabanus*).—Ont.; Alaska to N.B., s. to Wyo. and N.J.

opaca (Coquillett) *in* Baker, 1904: 21 (*Tabanus*).—Nev.; Alta. and Sask., s. to Calif. and Colo.

pediontis (McAlpine), 1961b: 907 (*Tabanus*).—Man.; s. Alta. to s. Man., s. to Utah and S. Dak. **N. comb.**

philipi (Stone), 1938: 133 (*Tabanus*).—Wash.; Calif., B.C.

polaris (Frey), 1915: 7 (*Tabanus*).—n. Siberia; Alaska, n. Eurasia.

boreus Stone, 1938: 147 (*Tabanus*).—Alaska. **N. syn.,** L. L. Pechuman *in litt.*

procyon (Osten Sacken), 1877: 216 (*Tabanus*).—Calif.; B.C. to Calif. and Wyo.

rhombica (Osten Sacken), 1876a: 472 (*Tabanus*).—Colo.; Alaska to Sask. and Wis., s. to Oreg. and Ariz.

centron Marten, 1882: 211 (*Tabanus*).—Colo.

solox Enderlein, 1922c: 347.—Colo.

var. **osburni** (Hine), 1904d: 241 (*Tabanus;* as sp.).—B.C., Alta., Mont., Wash., Alaska; Alaska, s. to Oreg. and Minn.

rupestris (McDunnough), 1921: 143 (*Tabanus*).—Mont.; B.C. to Oreg. and S. Dak.

sequax (Williston), 1887b: 137 (*Tabanus*).—Oreg.; B.C. to Utah and Mont.

leucophorus Bigot, 1892b: 640 (*Therioplectes*).—Oreg.

fuscipalpis Bigot, 1892b: 681 (*Tabanus*).—Wash. Territory.

sexfasciata (Hine), 1923a: 144 (*Tabanus*).—Alaska; Alaska to ne. Man., Europe.

sonomensis (Osten Sacken), 1877: 216 (*Tabanus*).—Calif.; Alaska to Calif. and Wis.

maculifer Bigot, 1892b: 641 (*Therioplectes*).—Wash. Territory.

var. **phaenops** (Osten Sacken), 1877: 217 (*Tabanus;* as sp.).—Calif.; B.C. to Calif. and Wyo.

susurra (Marten), 1883: 111 (*Therioplectes*).—Mont. Unrecognized.

tetrica (Marten), 1883: 111 (*Therioplectes*).—Mont.; B.C. to Ont., s. to Calif. and N. Mex.

var. **hirtula** (Bigot), 1892b: 641 (*Therioplectes;* as sp.).—Wash. Territory; B.C. to Calif. and S. Dak.

var. **rubrilata** (Philip), 1937b: 64 (*Tabanus*).—Colo.; s. Utah, Ariz., N. Mex.

laticornis Enderlein, 1925a: 363 (*Tylostypia;* preocc. Hine, 1904).—Colo.

trepida (McDunnough), 1921: 142 (*Tabanus*).—Ont.; Alaska to N.S., s. to Idaho, Ohio, and Pa.

trispila trispila (Wiedemann), 1828: 150 (*Tabanus*).—Ky.; coastal plain, N.Y. to S.C., w. Fla. and s. Miss.

ssp. **sodalis** (Williston), 1887b: 139 (*Tabanus;* as sp.).—N.H., Conn.; Wis. to Maine, s. to Ga., in mts.

aestivalis Harris *in* Johnson, 1925c: 70 (*Tabanus*). Nomen nudum.

typhus (Whitney), 1904: 206 (*Tabanus*).—N.H.; Alaska to Labr., s. to Mont. and Ga.

zonalis (Kirby), 1837: 314 (*Tabanus*).—Canada; N.W.T. to Labr., s. to Mont. and Pa.

tarandi Walker, 1848: 156 (*Tabanus*).—Hudson Bay Territory.

terraenovae Macquart, 1850: 339 (1850: 35) (*Tabanus*).—New World.

flavocinctus Bellardi, 1859: 61 (1861: 261) (*Tabanus*).—Mexico (probably error).

zygota (Philip), 1937a: 52 (*Tabanus*).—Oreg.; B.C.

Genus AGKISTROCERUS Philip

Dicladocera, subg. **Agkistrocerus** Philip, 1941b: 13. Type-species, *Tabanus megerlei* Wiedemann (orig. des.).

finitimus (Stone), 1938: 15 (*Dicladocera*).—Fla.; Tex., Miss., Ga.

megerlei (Wiedemann), 1828: 132 (*Tabanus*).—Unknown; Tex. to N.C. and Fla.

Genus HAMATABANUS Philip

Hamatabanus Philip, 1941b: 13. Type-species, *Tabanus scitus* Walker (orig. des.)=*carolinensis* (Macquart).

annularis (Hine), 1917: 269 (*Tabanus*).—Miss.; s. Miss., Fla.

carolinensis (Macquart), 1838a: 149 (1838: 145) (*Tabanus*).—Carolina; Wis. to Md., s. to Iowa and Fla.

scitus Walker, 1848: 181 (*Tabanus*).—Ga.

hirtioculatus Macquart, 1855: 53 (1855: 33) (*Tabanus*).—Md.

cerastes Osten Sacken, 1876a: 462 (*Tabanus*).—Ky., Wis.

sexfasciatus (Stone), 1935: 11 (*Dicladocera*).—Fla.

Unplaced Species of Tabaninae

vicinus Macquart, 1838a: 147 (1838: 143) (*Tabanus*).—Carolina. ?*Hybomitra*.

Family RHAGIONIDAE

(Leptidae)

By Maurice T. James

The adults and larvae of Rhagionidae are predaceous. Adults of *Symphoromyia* and *Suragina*, as far as known, suck blood of man and other vertebrates; some are vicious biters. Larvae of *Atherix* are aquatic; other larvae, as far as known, are terrestrial, either excavating ant-lion-like pits in dry sand (*Vermileo*) or living in wet peaty soil, rotting wood, soil under fallen leaves, soil mixed with rotting leaves, and other decaying plant materials, and similar places.

REFERENCE: Leonard, 1930 (rev.).

Subfamily VERMILEONINAE

Genus VERMILEO Macquart

Vermileo Macquart, 1834a: 428. Type-species, *degeerii* Macquart (mon.)=*vermileo* (Fabricius).

REFERENCE: Pechuman, 1938a (key).

comstocki Wheeler, 1918: 84.—Calif.

opacus (Coquillett) *in* Baker, 1904: 21 (*Phoneus*).—Nev.; Calif. to N. Mex. and Colo.

Subfamily RHAGIONINAE

Genus DIALYSIS Walker

Dialysis Walker, 1850: 4. Type-species, *dissimilis* Walker (mon.)=*elongata* (Say).

Triptotricha Loew, 1872a: 59 (Cent. 10, no. 15). Type-species, *lauta* Loew (present des.).

Agnotomyia Williston, 1886b: 106. Type-species, *Stygia elongata* Say (mon.).

Agnotemyia, error.

aldrichi Williston, 1895b: 265.—Idaho; Wash. to Calif.
discolor (Loew), 1874b: 379 (*Triptotricha*).—Calif.; B.C. to Calif.
dispar Bigot, 1879a: 197.—Calif.
disparilis Bergroth, 1889: 296.—B.C.; B.C. to Calif.
elongata (Say), 1823: 41 (1859b: 58) (*Stygia*).—Pa.; Que. to Ga.
dissimilis Walker, 1850: 4.—N. Amer.
fasciventris (Loew), 1874b: 380 (*Triptotricha*).—Pa.; Ill. to Pa., s. to Va.
kesseli Hardy, 1948b: 129.—Nev.
lauta (Loew), 1872a: 59 (Cent. 10, no. 15) (*Triptotricha.*)—Calif.
rufithorax (Say), 1823: 36 (1859b: 56) (*Leptis*).—Pa.; Mo. to N.J. and Fla.

Genus SYMPHOROMYIA Frauenfeld

Symphoromyia Frauenfeld, 1867: 496. Type-species, *Atherix melaena* Meigen (orig. des.).

REFERENCES: Aldrich, 1915d (rev.); Sommerman, 1962b (biol., immature stages).

algens Leonard, 1931: 1.—N.H.; Que.
atripes Bigot, 1887d: 111.—Oreg.; Alaska to Alta., s. to Calif. and Colo.
barbata Aldrich, 1915d: 120.—Calif.
cinerea Johnson, 1903b: 25.—N.J.; N.W.T., Calif., D.C.
cruenta Coquillett, 1894d: 55.—Calif.
currani Leonard, 1931: 2.—Conn.
fulvipes Bigot, 1887d: 110.—Oreg.; Alta., s. to Calif. and Colo., also Ky.
hirta Johnson, 1897: 120.—Pa.; Alta. to Pa., s. to N. Mex. and Ala.
flavipalpis Adams, 1904b: 439.—Colo., Utah.
inquisitor Aldrich, 1915d: 127.—Wash.; Idaho.
inurbana Aldrich, 1915d: 127.—Idaho; Wash. to Mont. and Nev.
johnsoni Coquillett, 1894d: 54.—Wash. and B.C.; Calif.
kincaidi Aldrich, 1915d: 129.—Wash.; B.C.
limata Coquillett, 1894d: 54.—Calif.
montana Aldrich, 1915d: 133.—Mont.; Wash. to n. Que. and N.H.
pachyceras Williston, 1886a: 287.—Calif.; Wash., Oreg., Mont., Ariz.
comata Bigot, 1887d: 111.—Calif.
pilosa Aldrich, 1915d: 135.—Calif.
plagens Williston, 1886a: 287.—Wash. and Oreg.; B.C. to Calif. and N. Mex.
latipalpis Bigot, 1887d: 108.—Wash.
picticornis Bigot, 1887d: 109.—Wash.

pleuralis Curran, 1930j: 40.—N.Y.
plumbea Aldrich, 1915d: 138.—Mont.; Wash., Colo.
pullata Coquillett, 1894d: 56.—Colo.
sackeni Aldrich, 1915d: 139.—Wash.; Wash. to Calif.
securifera Coquillett, 1904f: 171.—Calif.
trivittata Bigot, 1887d: 109.—Colo.; Calif.
fera Coquillett, 1894d: 56.—Colo.
trucis Coquillett, 1894d: 55.—Calif.
varicornis (Loew), 1872a: 58 (Cent. 10, no. 13) (*Atherix*).—Calif.
modesta Coquillett, 1894d: 54.—Calif.

Genus ATHERIX Meigen

Atherix Meigen, 1803: 271. Type-species, *Rhagio diadema* Fabricius (Coquillett, 1910b: 511; misident.)=*ibis* (Fabricius). Situation needs clarification by I.C.Z.N. Meigen misidentified *Rhagio diadema* Fabricius; designations by Latreille (1810: 443), of *Atherix maculata* Meigen and by Westwood (1840: 134), of *Leptis ibis* Fabricius both invalid, not originally included species.

A. ibis and *A. variegata* females gather together in masses and lay their eggs on their own bodies, which ultimately fall into water; larvae are aquatic and predaceous.

pachypus Bigot, 1887d: 117.—Wash.
variegata Walker, 1848: 218.—Ont.; N.W.T. to Que., s. to Calif. and Ga.

Genus SURAGINA Walker

Suragina Walker, 1859: 110. Type-species, *illucens* Walker (mon.).
REFERENCE: Malloch, 1932a (key).

concinna (Williston), 1901: 266 (*Atherix*).—Mexico; Tex.

Genus RHAGIO Fabricius

Rhagio Fabricius, 1775: 761. Type-species, *Musca scolopacea* Linnaeus (Latreille, 1810: 443).
Leptis Fabricius, 1805: 69 (unjustified n. name for *Rhagio* Fabricius). Type-species, *Musca scolopacea* Linnaeus (aut.).

albicornis (Say), 1823: 38 (1859b: 56) (*Leptis*).—Pa.; Pa. to Miss. and Fla.
boscii (Macquart), 1840: 30 (1841: 308) (*Leptis*).—Carolina.
brunneipennis Leonard, 1930: 92.—Calif.
californicus Leonard, 1930: 93.—Calif.

costatus (Loew), 1862b: 187 (Cent. 2, no. 4) (*Leptis*).—Calif.; Wash., Oreg.

limbatus Leonard, 1930: 96 (as var.).—Calif.

dimidiatus dimidiatus (Loew), 1863a: 10 (Cent. 3, no. 17) (*Leptis*).—Alaska; Alaska to Calif. and Nev.

flavoniger Coquillett *in* Baker, 1904: 20 (*Leptis*).—Nev. **N. syn.**

pleuralis Adams, 1904b: 441 (*Leptis*).—Wash. **N. syn.**

ssp. **albibarbis** (Bigot), 1887d: 114 (*Leptis;* as sp.).—Wash.; B.C., Oreg., Nev.

gracilis (Johnson), 1912a: 3 (*Leptis*).—Vt.; Maine to N.Y.

hoodianus (Bigot), 1887d: 115 (*Leptis*).—Oreg. ?=*maculifer*.

incisus (Loew), 1872a: 59 (Cent. 10, no. 16) (*Leptis*).—Calif.; Oreg., ?N.Y.

intermedius Walker, 1848: 212.—Ont.

maculifer maculifer (Bigot), 1887d: 113 (*Leptis*).—Wash.; B.C., Oreg.

ssp. **concavus** Leonard, 1930: 94 (as sp.).—Idaho; B.C. to Calif.

mystaceus (Macquart), 1840: 30 (1841: 308) (*Leptis*).—N. Amer.; Man. to Nfld., s. to Mo. and Fla.

ochraceus (Loew), 1862b: 187 (Cent. 2, no. 3) (*Leptis*).—N.Y.; Mass., Pa.

palpalis (Adams), 1904b: 442 (*Leptis*).—Wash.

plumbeus (Say), 1823: 39 (1859b: 56) (*Leptis*).—Pa.; Iowa to Ont., s. to N.C.

griseolus Wulp, 1867: 142 (*Leptis*).—Wis.

pollinosus Leonard, 1930: 116.—Calif.

punctipennis (Say), 1823: 34 (1859b: 55) (*Leptis*).—Pa.; Minn. to Que., s. to Fla.

filius Walker, 1848: 219 (*Atherix*).—N.Y., N.J.

terminalis (Loew), 1861b: 317 (Cent. 1, no. 20) (*Leptis*).—N.Y.; Wis., Va.

vertebratus (Say), 1823: 38 (1859b: 56) (*Leptis*).—Fla.; B.C. to N.B., s. to Calif. and Fla.

hirtus Loew, 1861b: 318 (Cent. 1, no. 21) (*Leptis*).—Ill.

scapularis Loew, 1861b: 318 (Cent. 1, no. 22) (*Leptis*).—Ill.

Genus CHRYSOPILUS Macquart

Chrysopilus Macquart, 1826b: 403 (1826: 82). Type-species, *Rhagio diadema* Fabricius (Westwood, 1840: 134).

Chrysopila, emend.

REFERENCE: Hardy, 1949 (rev.).

alaskaensis Hardy, 1949: 147.—Alaska.

andersoni Leonard, 1930: 131.—Pa.; Ill., Ind., Ohio.
angustifacies Hardy, 1949: 148.—Ariz.
anthracinus Bigot, 1887d: 105.—Calif.; Wash. to s. Calif.
arctiventris James, 1936e: 343.—Colo.; Wash. to Wyo., s. to Calif. and N. Mex.
basilaris (Say), 1823: 36 (1859b: 55) (*Leptis*).—Pa.; Mich. to N.H., s. to Tex. and Fla., ?Guatemala.
beameri Hardy, 1949: 151.—Ga.; Fla.
connexus Johnson, 1912b: 108.—N.C.; Fla.
davisi Johnson, 1912a: 4.—Ga.; N.C.
dilatus Cresson, 1919: 177.—Calif.
divisus Hardy, 1949: 152.—Ariz.
fasciatus fasciatus (Say), 1823: 37 (1859b: 56) (*Leptis*).—Pa.; N.H. to N.C.
par Walker, 1848: 215 (*Leptis*).—N. Amer.
ssp. **infuscatus** Leonard, 1930: 141 (as var.).—N.C.; Ind., La.
flavibarbis flavibarbis Adams, 1904b: 438.—Colo.; B.C. to Man., s. to Calif. and N. Mex., also Mass.
cameroni Curran, 1926d: 170.—Sask.
ssp. **aldrichi** James, 1936e: 343 (as sp.).—Colo.; Wash. to Alta., s. to c. Calif. and Colo., at high altitudes.
foedus Loew, 1861b: 317 (Cent. 1, no. 18).—Ill.; S. Dak. to Ind. and Kans.
georgianus Hardy, 1949: 154.—Ga.
griffithi Johnson, 1897: 119.—Va.; Fla.
humilis Loew, 1874b: 379.—Calif.; N. Mex., Colo., ?Ill.
kincaidi Hardy, 1949: 156.—Wash.
longipalpis Hardy, 1949: 157.—Wash.; B.C. to Calif.
lucifer Adams, 1904b: 437.—Wash.; B.C. and Alta., s. to n. Calif. and Utah.
modestus Loew, 1872a: 58 (Cent. 10, no. 14).—Tex.; Nebr. to N.Y., s. to Tex. and Va.
nudus Cresson, 1919: 176.—Calif.; Wash.
ornatus (Say), 1823: 34 (1859b: 54) (*Leptis*).—Pa.; Minn. to Ont., s. to Kans. and Fla.
servillei Guérin-Méneville, 1835: pl. 96, fig. 3 (*Leptis*).—Unknown.
pilosus Leonard, 1930: 152.—Ill.; Colo. and Nebr., e. to Ohio and Mich.
proximus (Walker), 1848: 214 (*Leptis*).—N.S.; S. Dak. to N.S., s. to Fla., ?Calif., ?Nev.
propinquus Walker, 1848: 215 (*Leptis*).—N.Y.
simillimus Walker, 1848: 215 (*Leptis*).—N.Y.

quadratus (Say), 1823: 35 (1859b: 55) (*Leptis*).—Pa., Mo.; B.C. to Nfld., s. to Calif. and Fla.
fumipennis Say, 1823: 37 (1859b: 56) (*Leptis*).—Pa.
reflexus Walker, 1848: 216 (*Leptis*).—Ohio, N.S.
dispar Wulp, 1867: 143.—Wis.
flavidus Bigot, 1887d: 104.—Canada. ?Valid sp.
limbipennis Bigot, 1887d: 106 (*Leptipalpus*).—Rocky Mts.
obscuripennis Bigot, 1887d: 107 (*Leptipalpus*; preocc. Loew, 1873).—Rocky Mts.
rotundipennis Loew, 1861b: 317 (Cent. 1, no. 19).—Ga.; Mass. to Fla. and Ala.
testaceipes Bigot, 1887d: 105.—Wash.; B.C. and Alta. to s. Calif. and N. Mex.
bellus Adams, 1904b: 438.—Calif.
thoracicus (Fabricius), 1805: 70 (*Leptis*).—Carolina; Ill. to Ont. and N.C.
tomentosus Bigot, 1887d: 104.—Wash., Colo.; Wash. to s. Calif. and Colo.
velutinus Loew, 1861b: 316 (Cent. 1, no. 17).—Ill.; Ky., Md., N.C., Fla.
xanthopus Hardy, 1949: 163.—Ariz.; N. Mex., Tex.

Genus PTIOLINA Zetterstedt

Ptiolina Zetterstedt, 1842: 226. Type-species, *Leptis obscura* Fallén (Frauenfeld, 1867: 497).

REFERENCE: Hardy and McGuire, 1947 (key).

alberta Leonard *in* Curran, 1931f: 250.—Alta.; Alaska.
augusta Curran, 1931f: 249.—Que.
edeta (Walker), 1849: 489 (*Spania*).—Ont.; Alaska, N.H.
fasciata Loew, 1869c: 164 (Cent. 9, no. 65).—Hudson Bay Territory; Alta., Colo.
grisea Curran, 1931f: 251.—N.H.
majuscula Loew, 1869c: 165 (Cent. 9, no. 66).—Hudson Bay Territory; Alaska.
mallochi Hardy and McGuire, 1947: 8 (n. name for *arctica* Malloch).—Alaska.
arctica Malloch, 1923i: 181 (preocc. Becker, 1921).—Alaska.
nigripilosa Hardy and McGuire, 1947: 9.—N.Y.
nitidifrons Hardy and McGuire, 1947: 10.—Alaska; N.H.
obsoleta Leonard *in* Curran, 1931f: 250.—Mich.
vicina Hardy and McGuire, 1947: 12.—Oreg.
zonata Hardy and McGuire, 1947: 13.—Wash.

Genus SPANIA Meigen

Spania Meigen, 1830: 335. Type-species, *nigra* Meigen (mon.).

nigra nigra Meigen—Not Nearctic.
ssp. **americana** Johnson, 1923b: 70 (as var.).—Maine.

Unplaced Species of Rhagionidae

vidua Walker, 1849: 1153 (*Atherix*).—Ont. Possibly a *Ptiolina*.

Family HILARIMORPHIDAE

By Maurice T. James

Opinions vary as to the systematic position of *Hilarimorpha*. The genus has been placed variously in the Rhagionidae, Bombyliidae, Empididae, and in a family by itself. The last course, which is adopted here, is favored by the phylogenetic studies of Hennig (1954).

Genus HILARIMORPHA Schiner

Hilarimorpha Schiner, 1860b: 54. Type-species, *singularis* Schiner (orig. des.).
Hilaromorpha, error or emend.

mikii Williston, 1888b: 100.—Ill.; Oreg., Colo.
obscura Bigot, 1887b: cxli (also 1889: 129).—Calif.
pusilla Johnson, 1923b: 70.—N.H.; Vt.

Superfamily ASILOIDEA

Family THEREVIDAE

By F. R. Cole

Adult therevids, or "stiletto flies", are occasionally seen on blossoms of shrubs or on foliage, but are probably more common on dry ground, or sandy beach or dune areas. The flight is often quick but usually of short duration. Because of a resemblance to Asilidae, adult therevids have been called "robber flies" dating back to the time of Schiner and Williston. No authentic observation exists of a true predatory habit, however, and the proboscis has fleshy labella, not at all suited for predation.

The observed larvae are predaceous and even cannibalistic; they may be found in sand or in decaying wood, especially alder branches. Larvae of *Thereva comata* Loew, kept in captivity at the University of

California, devour housefly maggots (MS note by A. Barnes); they are also known to feed on small earthworms. These larvae move like an eel or snake, not being able to creep. The group may have some economic importance, especially where they encounter root-feeding larvae of other insects.

REFERENCES: Collinge, 1909 (biol.); Hyslop, 1910 (biol.); Kröber, 1912 (rev.); Kröber, 1913 (rev. genera of world); Cole, 1923d (rev.).

Genus HENICOMYIA Coquillett

Henicomyia Coquillett, 1898h: 187. Type-species, *hubbardii* Coquillett (orig. des.).

hubbardii Coquillett, 1898h: 187.—Ariz.
varipes Kröber, 1912: 213.—Mexico; Colo.

Genus ATAENOGERA Kröber

Ataenogera Kröber, 1914: 31. Type-species, *abdominalis* Kröber (mon.).

Unnamed sp.—Calif., Costa Rica.

Genus NEBRITUS Coquillett

Nebritus Coquillett, 1894e: 98. Type-species, *pellucidus* Coquillett (mon.).

pellucidus Coquillett, 1894e: 98.—Calif.

Genus ZIONEA Hardy

Zionea Hardy, 1938b: 144. Type-species, *tanneri* Hardy (orig. des.).

tanneri Hardy, 1938b: 144.—Utah; Calif.

Genus OZODICEROMYIA Bigot

Ozodiceromyia Bigot, 1889: 321. Type-species, *mexicana* Bigot (orig. des.).

argentifera (Kröber), 1929: 418 (*Phycus*).—Mexico; Ariz.

Genus PHEROCERA Cole

Pherocera Cole, 1923d: 20. Type-species, *signatifrons* Cole (orig. des.).

albihalteralis Cole, 1923d: 22.—N. Mex.; Calif., Ariz.
flavipes Cole, 1923d: 22.—Ariz.; Calif., Utah.
signatifrons Cole, 1923d: 21.—N. Mex.; Calif., Ariz.

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Genus CHROMOLEPIDA Cole

Chromolepida Cole, 1923d: 23. Type-species, *Psilocephala pruinosa* Coquillett (orig. des.).

bella Cole, 1923d: 24.—Calif.; Nev., Idaho.
mexicana Cole, 1923a: 460.—Mexico; Ariz., N. Mex.

Genus FURCIFERA Kröber

Furcifera Kröber, 1911: 524. Type-species, *fascipennis* Kröber (Cole, 1960a: 165).
Epomyia Cole, 1923d: 26. Type-species, *Thereva pictipennis* Wiedemann (orig. des.).

REFERENCE: Cole, 1960a (rev.).

bella (Cole), 1923d: 32 (*Epomyia*).—Tex.
hardyi Cole, 1960a: 167 (n. name for *flavipes* Hardy).—Tex.
flavipes Hardy, 1943a: 26 (*Epomyia*; preocc. Kröber, 1928).—Tex.
pictipennis (Wiedemann), 1821b: 63 (1821c: 113) (*Thereva*).—Ga.; e. N. Amer. to Mich. and Tex.
erythrura Loew, 1869c: 172 (Cent. 9, no. 75) (*Psilocephala*).—Middle States.
rufiventris (Loew), 1869b: 12 (Cent. 8, no. 17) (*Psilocephala*).—Nebr.; e. N. Amer. to Nebr., Mont. and Man.
lacteipennis Kröber, 1914: 53 (*Psilocephala*).—Fla.
scutellaris (Loew), 1869c: 171 (Cent. 9, no. 74) (*Psilocephala*).—D.C.; N.Y., Conn., Va., N.C.

Genus PSILOCEPHALA Zetterstedt

Psilocephala Zetterstedt, 1838: 525. Type-species *Bibio imberbis* Fallén (Coquillett, 1910b: 597).

REFERENCES: Coquillett, 1893g (synopsis); Kröber, 1914 (key).

acuta Adams, 1903b: 222.—Kans.
albertensis Cole, 1925: 86.—Alta.; Canada.
aldrichii Coquillett, 1893g: 227.—Calif., Mont., Wyo., N.J.; B.C. to Man., s. to Calif. and Colo. N.J. syntype=*flavipennis*.
amplifrons Cole, 1925: 85 (n. name for *latifrons* Cole).—N.Y.; Calif., Ont., Que., N.H., Pa.
latifrons Cole, 1923d: 73 (preocc. Frey, 1921).—N.Y.
argentifrons Cole, 1923d: 56.—Pa.
arizonensis Cole, 1923d: 45.—Ariz.
aurantiaca Coquillett, 1904f: 177.—Calif.; Ariz., N. Mex.
baccata Coquillett, 1893g: 226.—Calif.

brunnea Kröber, 1914: 46.—Ariz.
bussi James *in* James and Huckett, 1952: 265.—Y.T.
canadensis Cole, 1923d: 57.—Ont.; Que.
cinerea Cole, 1923d: 65.—N. Mex.
coloradensis James, 1936e: 341.—Colo.; Ariz., Okla., Kans.
conspicua (Walker), 1848: 223 (*Thereva*).—N.S.
costalis Loew, 1869b: 11 (Cent. 8, no. 16).—Calif.; Wash., Nev., Idaho.
davisi Johnson, 1926b: 300.—N.C.
festina Coquillett, 1893g: 225.—Fla.; Ariz., Mexico.
flavipennis Cole, 1923d: 42.—Md.; R.I. to Va., also Miss.
frontalis Cole, 1923d: 40.—N.Y.; Wyo. to Que., s. to La. and N.J.
fuscipennis Cole, 1923d: 62.—Wash.
germana (Walker), 1848: 222 (*Thereva*).—Fla.
grandis Johnson, 1902a: 241.—Que.
haemorrhoidalis (Macquart), 1840: 26 (1841: 304) (*Thereva*; as *hoemorrhoidalis*).—Carolina; Mich. to N.Y., s. to Tex. and Ala.
johnsoni Coquillett, 1893g: 228.—Fla.
lateralis Adams, 1904b: 444.—Ariz.; Calif., Colo.
levigata Loew, 1876: 319.—Calif.
limata Coquillett, 1894e: 99.—Wash., Colo.; B.C., Calif.
marcida Coquillett, 1893g: 228.—Calif.; Ariz.
melampodia Loew, 1869b: 9 (Cent. 8, no. 12).—Ill.; Mass., N.C.
montiradicis James, 1949: 10.—Colo.
montivaga Coquillett, 1893g: 226.—Calif.
morata Coquillett, 1893g: 225.—N.J., Fla.; N.Y.
munda Loew, 1869b: 9 (Cent. 8, no. 13).—Wis.; Y.T. to Que., s. to Calif., Colo., and Pa.
melanoprocta Loew, 1869b: 11 (Cent. 8, no. 15).—Maine, Hudson's Bay Territory.
nigrimana Kröber, 1912: 238.—Colo.
nigrina Kröber, 1914: 53.—Colo.
notata (Wiedemann), 1821b: 64 (1821c: 114) (*Thereva*).—Ga.; Fla.
obscura Coquillett, 1893g: 229.—Jamaica; Fla., West Indies.
occipitalis Adams, 1904b: 443.—Ariz.; Calif.
pallida Kröber, 1914: 45.—Tex.
pavida Coquillett, 1893g: 226.—Calif.; Colo.
pilosa Kröber, 1914: 47.—Ariz.
placida Coquillett, 1894e: 99.—Fla.
platancala Loew, 1876: 321.—Tex.; Ariz., Colo., Kans., Pa.
pollinosa Cole, 1923d: 72.—Calif.
senilis (Fabricius), 1805: 68 (*Bibio*).—N. and S. Amer.; Ga. and Brazil.

signatipennis Cole, 1923d: 47.—Oreg.; Calif., Idaho.
slossonae Coquillett, 1893g: 227 (as *slossoni*).—N.H.
squamosa Hardy, 1943a: 24.—Fla.
subnotata Johnson, 1926b: 299.—Fla.
subrufa Cole, 1923d: 68.—Ariz.
tergisa (Say), 1823: 39 (1859b: 57) (*Thereva*).—Fla.
tergissa, emend.
corusca Wiedemann, 1828: 232 (*Thereva*).—Fla.
variegata variegata Loew, 1869c: 170 (Cent. 9, no. 73).—Canada; Mich., Ont., N.Y.
ssp. **flavipilosa** Cole, 1923d: 62.—Calif.
ssp. **occidentalis** Cole, 1923d: 61.—Oreg.
vicina (Walker), 1848: 222 (*Thereva*).—N.S.

Genus DIALINEURA Rondani

Dialineura Rondani, 1856: 155. Type-species, *Musca anilis* Linnaeus (orig. des.).

melanophleba (Loew), 1876: 317 (*Thereva*).—Calif.; Nev.
willistoni Cole (for *crassicornis* Williston).—Calif.; Wash., Oreg. **N. name.**
crassicornis Williston, 1886a: 293 (*Thereva*; preocc. Bellardi, 1861).—Calif.

Genus TABUDA Walker

Tabuda Walker, 1852: 197. Type-species, *fulvipes* Walker (mon.).

borealis Cole, 1923d: 82.—Sask.
fulvipes Walker, 1852: 197.—Unknown; Mass., N.J., N.C., Ga.

Genus METAPHRAGMA Coquillett

Metaphragma Coquillett, 1894e: 97. Type-species, *Xestomyza planiceps* Loew (mon.).

planiceps (Loew), 1872a: 75 (Cent. 10, no. 38) (*Xestomyza*).—Calif.; Wash. to Wyo., s. to n. Calif. and Colo.

Genus THEREVA LATREILLE

Thereva Latreille, 1796: 167. Type-species, *Musca plebeja* Linnaeus (sub. mon., Latreille, 1802: 441).

REFERENCES: Coquillett, 1893f (synopsis); Kröber, 1914 (key).

albiceps Loew, 1869c: 166 (Cent. 9, no. 69).—Canada; N. Dak., Minn.
albifrons Say, 1829: 156 (1859b: 353).—Ind., Mass.
albopilosa Kröber, 1912: 256.—Colo.

anomala Adams, 1904b: 444.—Ariz.; Mexico.
aurofasciata Kröber, 1912: 263.—Colo.; Wis.
bakeri Cole, 1923d: 124.—Calif.
bella Kröber, 1914: 64.—Mass.; Conn., R.I., N.J.
bimaculata Cole, 1923d: 98.—N.C.; Va.
borealis Cole, 1923d: 126.—Mich.
brunnea Cole, 1923d: 108.—B.C.; Wash., Idaho.
californica Kröber, 1912: 259.—Calif.
candidata Loew, 1869b: 8 (Cent. 8, no. 10).—Wis.; Man. to N.S., s. to Ohio and Va.
cinerascens Cole, 1923d: 97.—Oreg.; B.C.
cingulata Kröber, 1912: 267.—Colo.; Mont., Wyo.
cockerelli Cole, 1923d: 99.—Colo.; Alta., Sask., Man., Mich.
comata Loew, 1869b: 7 (Cent. 8, no. 9).—Calif.; Wash.
concavifrons Kröber, 1914: 70.—N. Mex.
diversa Coquillett, 1894e: 100.—Colo.; Mont., ?Fla.
duplicis Coquillett, 1893f: 199.—S. Dak.; Mont., Sask., Man.
egressa Coquillett, 1894e: 99.—Colo.; Calif.
flavicauda Coquillett *in* Baker, 1904: 23.—Nev.; Calif.
flavicincta Loew, 1869c: 168 (Cent. 9, no. 70.)—Wis. and N.H.; Mich., Ont., Mass.
gilvipes Loew, 1869c: 168 (Cent. 9, no. 71).—Mass.
flavipilosa Cole, 1923d: 125.—Calif.
flavohirta Kröber, 1914: 70.—Colo.
foxi Cole, 1923d: 112.—Wash.
frontalis Say, 1824a: 370 (1859a: 252).—Northwest Territory (U.S.); B.C. and Wash. to Que. and N.Y., s. to Ill.
fucata Loew, 1872a: 74 (Cent. 10, no. 37).—Calif.; Oreg., Utah, Wyo., Colo.
fucatoides Bromley, 1937b: 99.—Utah.
hirticeps Loew, 1874b: 382.—Calif.
johnsoni Coquillett, 1893f: 200.—Wash.; Oreg., Calif.
macdunnoughi Cole, 1925: 87.—Alta.
melanoneura Loew, 1872a: 74 (Cent. 10, no. 36).—Calif.; N. Mex., Colo.
metallica Kröber, 1914: 68.—N. Mex.
nanella Cole, 1960b: 118 (n. name for *nana* Cole).—Calif.; Colo.
pygmaea Cole, 1923d: 89 (preocc. Fallén, 1820).—Calif.
nana Cole, 1959: 148 (n. name for *pygmaea* Cole, but preocc. Fallén, 1820.—Calif.
nebulosa Kröber, 1912: 264.—Calif.; Wash.
neomexicana Cole, 1923d: 117.—N. Mex.
nigrimana Kröber, 1914: 65 (as *bella* var.).—Mass.
nigripilosa Cole, 1923d: 110.—B.C.

nitoris Coquillett, 1894e: 101.—Mo.
nivea Kröber, 1914: 64.—N. Mex.
niveipennis Kröber, 1914: 66.—Calif.
novella Coquillett, 1893f: 200.—Calif.; Colo.
otiosa Coquillett, 1893f: 199.—Calif.
pacifica Cole, 1923d: 103.—Calif.
pseudoculata Cole, 1923d: 121.—Utah; Wash., Idaho, Mont., Colo.
semitaria Coquillett, 1893f: 198.—Calif.; Idaho, Ariz.
senex Walker, 1848: 224.—N.S.
strigipes Loew, 1869c: 169 (Cent. 9, no. 72).—Man.; Colo., N.Y., Vt., N.H.
ustulata Kröber, 1912: 265.—Que.
utahensis Hardy, 1938b: 145.—Utah.
vanduzeei Cole, 1923d: 105.—Calif.
vialis Osten Sacken, 1877: 274.—Calif.; B.C., Oreg., Man.
xanthobasis James, 1949: 12.—Colo.

Unplaced Species of Therevidae

nervosa Walker, 1848: 223 (*Thereva*).—Ga. ?*Tabuda*.
nigra Say, 1823: 40 (1859b: 57) (*Thereva*).—Pa. ?=*Psilocephala haemorrhoidalis*.
ruficornis Macquart, 1840: 25 (1841: 303) (*Thereva*).—Carolina.
varia Walker, 1848: 221 (*Thereva*).—Fla.

Family SCENOPINIDAE

(Omphralidae)

By D. Elmo Hardy

The habits of scenopinids are not definitely known, but apparently the larvae are all predators upon a variety of insects; those of the "window flies" *Scenopinus fenestralis* (Linnaeus) and *glabrifrons* Meigen prey especially on stored food pests, household pests, bark beetles, powder post beetles, et cetera. The North American species have been greatly confused, and are being reclassified by L. P. Kelsey on the basis of genitalic characters.

REFERENCES: Cresson, 1907b (rev.); Kröber, 1937 (rev.); Hardy, 1944b (rev.).

Genus METATRICHIA Coquillett

Metatrichia Coquillett, 1900c: 500. Type-species, *Scenopinus bulbosa* Osten Sacken (orig. des.).

bulbosa (Osten Sacken), 1877: 275 (*Scenopinus*).—Mo.; w. U.S.

Genus BREVITRICHIA Hardy

Brevitrichia Hardy, 1944b: 32. Type-species, *Pseudatrichia griseola* Coquillett (orig. des.).

griseola (Coquillett), 1900c: 501 (*Pseudatrichia*).—N. Mex.; w. U.S.
helenae (James), 1938b: 22 (*Pseudatrichia*).—Colo.; Utah, Wyo., N. Mex.

Genus PSEUDATRICHIA Osten Sacken

Atrichia Schrank of Loew, 1866b: 42 (Cent. 7, no. 76).
Pseudatrichia Osten Sacken, 1877: 276. Type-species, *Atrichia longurio* Loew (mon.).

albocincta Van Duzee, 1926d: 164.—Calif.
parva Hardy, 1944b: 36.—Ariz.
unicolor Coquillett, 1900c: 500.—N. Mex.

Genus BELOSTA Hardy

Belosta Hardy, 1944b: 37. Type-species, *albipilosa* Hardy (orig. des.).

albipilosa Hardy, 1944b: 38.—Idaho; nw. U.S.
flaviceps (Coquillett), 1902g: 102 (*Pseudatrichia*).—Ariz.
pilosa (Coquillett), 1902g: 102 (*Pseudatrichia*).—Ariz.

Genus OMPHRALOSOMA Kröber

Omphralosoma Kröber, 1937: 214, 219. Type-species, *Scenopinus squamosa* Villeneuve (orig. des.).

albifasciatum Hardy, 1944b: 41.—Calif.

Genus SCENOPINUS Latreille

Omphrale Meigen, 1800: 29. Type-species, *Musca senilis* Fabricius (sub. mon., Hendel, 1908b: 58)=*fenestralis* (Linnaeus). Suppressed by I.C.Z.N., 1963b: 339.
Scenopinus Latreille, 1802: 463. Type-species, *Musca fenestralis* Linnaeus (mon.).

Subgenus PAROMPHRALE Kröber

Paromphrale Kröber, 1937: 214, 222 (as genus). Type-species, *Scenopinus glabrifrons* Meigen (orig. des.).

glabrifrons Meigen, 1824: 114.—Europe; entire N. Amer., widespread over much of world by commerce.

Subgenus SCENOPINUS Latreille

beameri beameri (Hardy), 1944b: 43 (*Omphrale*).—Calif.; Nev.
ssp. **fuscus** (Hardy), 1944b: 43 (*Omphrale;* as var.).—Calif.
cavifrons (Kröber), 1937: 231 (*Omphrale*).—?Ont. (Joinville, Algonquin).
electus Adams, 1904b: 445.—Ariz.
fenestralis (Linnaeus), 1758: 597 (*Musca*).—Europe; entire N. Amer., widespread over much of world by commerce.
pallipes Say, 1823: 100 (1859b: 86).—Pa.
kuiterti (Hardy), 1944b: 46 (*Omphrale*).—Ariz.
mirabilis Adams, 1904b: 445.—Ariz.; N. Mex.
nubilipes Say, 1829: 170 (1859b: 363).—Ind.
ramaleyi James, 1938b: 22.—Colo.; Wyo.
valgus (Hardy), 1944b: 50 (*Omphrale*).—Calif.
whittakeri (James), 1955c: 47 (*Omphrale*).—Wash.

Family APIOCERIDAE

By Mont A. Cazier

Apiocerid flies apparently are restricted to arid or semiarid regions and are not common in collections. The adults hover and make a loud noise in flight. Partial biologies of only two species are known. English (1947) described portions of the life history and immature stages of *Apiocera maritima* Hardy in Australia, the larvae of which occur in beach sand on the seacoast. The author is publishing the partial biology of a new species of *Apiocera* from Arizona whose eggs are laid in loose sandy soil near the base of various plant species in dry desert environments. Nothing is known about larval habits or the natural food of either the larvae or adults of any of the species. Additional new North American species are in collections and considerable taxonomic work remains to be done, especially on the internal genitalic structures.

REFERENCE: Cazier, 1941 (rev.).

Subfamily APIOCERINAE

Genus APIOCERA Westwood

Apiocera Westwood, 1835a: 448. Type-species, *fuscicollis* Westwood (Coquillett, 1910b: 508).

aldrichi Painter, 1938: 193.—Ariz.; Calif.
alleni Cazier, 1941: 606.—Calif.
augur Osten Sacken, 1887a: 212.—Mexico; N. Mex., Tex.

beameri Painter, 1938: 198.—Calif.
bilineata Painter, 1932b: 351.—N. Mex.; Ariz., Tex., Mexico.
caloris Painter, 1938: 194.—Ariz.; Calif.
convergens Painter, 1938: 196.—Calif.
exta Cazier, 1941:609.—Calif.
haruspex Osten Sacken, 1877: 283.—Calif.; B.C. to Wyo., s. to Calif. and Ariz.
hispida Cazier, 1941: 605.—Calif.
infinita Cazier, 1941: 613.—Calif.
interrupta Painter, 1938: 192.—Calif.
intonsa Cazier, 1941: 610.—Ariz.; Calif.
martinorum Painter, 1938: 197.—Oreg.; Idaho.
melanura Cazier, 1941: 611.—Ariz.
mexicana Cazier, 1954: 8.—Mexico; Tex.
notata Painter, 1938: 199.—Calif.
parkeri Cazier, 1941: 607.—Calif.; Ariz., Nev.
pearcei Cazier, 1941: 603.—Calif.; Nev.
trimaculata Painter, 1938: 195.—Calif.

Genus RHAPHIOMIDAS Osten Sacken

Rhaphiomidas Osten Sacken, 1877: 281. Type-species, *episcopus* Osten Sacken (orig. des.).
Apomidas Coquillett, 1892d: 315. Type-species, *trochilus* Coquillett (orig. des.).

REFERENCE: Cazier, 1954 (key).

abdominalis Cazier, 1941: 624.—Calif.
acton Coquillett, 1891a: 85.—Calif.
aitkeni Cazier, 1941: 623.—Calif.
maculatus Cazier, 1941: 628.—Calif.
maehleri Cazier, 1941: 627.—Calif.
painteri Cazier, 1941: 622.—N. Mex.
parkeri Cazier, 1941: 625.—Calif.
terminatus Cazier, 1941: 622.—Calif.
trochilus (Coquillett), 1892d: 315 (*Apomidas*).—Calif.

Family MYDIDAE

(Mydaidae, Mydasidae)

By C. H. Curran

Mydas flies are moderately to very large, elongated flies, usually resembling wasps. Little is known of the biology, though Walsh (1864c) reared *Mydas tibialis* Wiedemann from a hollow in a decaying

sycamore tree in Illinois; Malloch (1917g) reared *Mydas clavatus* (Drury) from a rotten stump in Illinois, and Genung (1959) found *Mydas maculiventris* Westwood to be an important larval predator of phytophagous scarab beetle larvae in Florida.

The revision of the North American Mydidae by Johnson (1926a) still stands as the best available for the genus *Mydas*, although Hardy (1943b, 1944a, and 1950) has brought several other genera up to date.

[It has been pointed out to us by L. W. Grensted that the name most likely was derived from King Midas, whose ass-ears would resemble the mydid antennae, and that the correct root of the genus is Myd-, resulting in the formation of the family name Mydidae.—Eds.]

REFERENCE: Séguy, 1928 (generic key).

Genus HETEROMYDAS Hardy

Heteromydas Hardy, 1944a: 227. Type-species, *bicolor* Hardy (orig. des.).

bicolor Hardy, 1944a: 227.—Calif.

Genus MYDAS Fabricius

Mydas Fabricius, 1794: 252. Type-species, *Musca clavata* Drury (Latreille, 1810: 443).

Midas, emend.

Lampromydas Séguy, 1928: 144. Type-species, *belus* Séguy (mon.) = *tricinctus* Bellardi, **n. syn.**

audax Osten Sacken, 1874b: 186.—Ky.; Pa., Va.

boonei Curran, 1953b: 1.—Ariz.

brunneus Johnson, 1926a: 136.—Ark.

carbonifer Osten Sacken, 1874b: 186.—N.Y.; Mich., N.C., Miss., Ga., Fla.

chrysites Osten Sacken, 1886a: 72 (*Midas*).—Mexico; Ariz.

clavatus (Drury), 1773: 2, of index (1770: 103, unnamed descr.) (*Musca*).—N. Amer.; U.S., Ont.

filata Fabricius, 1775: 757 (*Bibio*).—Amer.

asiloides De Geer, 1776: 204 (*Nemotelus*).—N. Amer.

cleptes Osten Sacken, 1886a: 72 (*Midas*).—Mexico; Ariz., Tex.

fulvifrons Illiger, 1801: 207 (as 206) (*Midas*).—Ga.; Tex., Okla., Ohio, N.J., Tenn., Fla.

chrysostoma Osten Sacken, 1874b: 187.—Tex.

lividus Curran, 1953b: 2.—Ariz.; Fla.

luteipennis Loew, 1866b: 14 (Cent. 7, no. 23) (*Midas*).—Tex. (as N. Mex., error); Ariz., N. Mex.

maculiventris Westwood, 1835a: 281 (*Midas*).—Ga.; se. U.S.
incisus Macquart, 1838b: 11 (1839: 127) (*Midas*).—Carolina.
pachygaster Westwood, 1841: 53 (*Midas*).—Ga.
parvulus Westwood, 1841: 53 (*Midas*).—N. Amer.
militaris Gerstäcker, 1868: 99 (n. name for *vittatus* Macquart).—Mexico; Ariz.
vittatus Macquart, 1850: 364 (1850: 60) (preocc. Wiedemann, 1828).—Mexico.
pertenuis Johnson, 1926a: 137.—Ariz.
simplex Loew, 1866b: 15 (Cent. 7, no. 25) (*Midas*).—Tex. (as N. Mex., error); La.
tibialis Wiedemann, 1831: 42 (*Midas*).—Md.; Mich. to Pa., s. to Ill. and Va.
fulvipes Walsh, 1864c: 306 (*Midas*).—Ill.
ventralis Gerstäcker, 1868: 102 (*Midas*; n. name for *rufiventris* Loew).—Calif.; Ariz., Mexico.
rufiventris Loew, 1866b: 14 (Cent. 7, no. 22) (*Midas*; preocc. Macquart, 1850).—Calif.
abdominalis Adams, 1904b: 434.—Ariz.
xanthopterus Loew, 1866b: 14 (Cent. 7, no. 24) (*Midas*).—Tex. (as N. Mex., error); Ariz., N. Mex., Colo.

Genus NEMOMYDAS Curran

Nemomydas Curran, 1934a: 165. Type-species, *Leptomydas pantherinus* Gerstäcker (orig. des.).

REFERENCES: Hardy, 1950 (rev.); Steyskal, 1956b (table).

bifidus Hardy, 1950: 22.—Calif.
brachyrhynchus (Osten Sacken), 1886a: 69 (*Leptomydas*).—Mexico; Calif., Tex.
desideratus (Johnson), 1912c: 151 (*Leptomydas*).—Ga.
intonsus intonsus Hardy, 1950: 27.—Calif.
ssp. **fumosus** Hardy, 1950: 29 (as var.).—Calif.
jonesii (Johnson), 1926a: 143 (*Leptomydas*).—Fla.; Ga.
lara Steyskal, 1956b: 3.—Fla.
melanopogon Steyskal, 1956b: 2.—Fla.
pantherinus (Gerstäcker), 1868: 85 (*Leptomydas*).—Calif.; B.C. to Idaho., s. to Calif. and Colo.
solitarius (Johnson), 1926a: 142 (*Leptomydas*).—Colo.
tenuipes (Loew), 1872a: 61 (Cent. 10, no. 20) (*Midas*).—Calif.
venosus (Loew), 1866b: 15 (Cent. 7, no. 26) (*Midas*).—Tex. (as N. Mex., error); Ariz., N. Mex., Colo., Kans., Fla.

Genus PSEUDONOMONEURA Bequaert

Pseudonomoneura Bequaert, 1961: 13. Type-species, *Leptomydas hirtus* Coquillett (orig. des.).

Nomoneura, authors, not Bezzi.

REFERENCE: Hardy, 1950 (rev.).

californica (Hardy), 1950: 11 (*Nomoneura*).—Calif. **N. comb.**

hirta (Coquillett) *in* Baker, 1904: 39 (*Leptomydas*).—Calif.

concinnus Coquillett *in* Baker, 1904: 39 (*Leptomydas*).—Calif.

micheneri (James), 1938a: 63 (*Nomoneura*).—Calif. **N. comb.**

tinkhami (Hardy), 1950: 18 (*Nomoneura*).—Calif.; Ariz. **N. comb.**

Genus OPOMYDAS Curran

Opomydas Curran, 1934a: 165. Type-species, *Ectyphus limbatus* Williston (orig. des.).

limbatus (Williston), 1886a: 292 (*Ectyphus*).—Ariz.; Calif., Utah, ?Fla.

townsendi (Williston), 1898: 58 (*Ectyphus*).—N. Mex.

Genus PHYLLOMYDAS Bigot

Phyllomydas Bigot, 1880b: xlvi. Type-species, *phyllocerus* Bigot (mon.).

REFERENCE: Hardy, 1943b (rev.).

bruesii Johnson, 1926a: 140.—Tex.

currani Hardy, 1943b: 51.—Ariz.; N. Mex.

phyllocerus Bigot, 1880b: xlvii.—Rocky Mts.; Calif., N. Mex., Colo., Tex., Kans.

scitulus (Williston), 1886a: 291 (*Mydas*).—Ariz.

Family ASILIDAE

By Charles H. Martin and J. Wilcox

The adult "robber flies" are predaceous, feeding on other insects and occasionally on their own kind. In some areas they are serious pests of honey bees. Most asilids are found in definite ecological niches and often they are endemic to very restricted areas. Many genera are confined to the West or the extreme Southwest, and others have evolved most of their species there. Special habitat preferences are found in *Laphria* (forests), Leptogastrinae (mostly on grass), *Nannocyrtopogon* (on bare soil, rocks, stumps or logs), *Cophura*, *Eucyrtopogon*, *Heteropogon* and *Nicocles* (on tips of dead branches waiting for prey to fly by).

Oviposition habits vary and are correlated with the ovipositor structure of the females; some species lay eggs in soil, scattered on the ground, or in or on bark of trees or on plants. Larval habits are not well known and most larvae are assumed to be carnivorous like the adults, having been reported from grasshopper eggs, white grubs and other coleopterous larvae and pupae, but Melin (1923) concludes that many groups are vegetarian. Larvae have been found most often in the soil or in stumps and fallen trees. The complete life history probably usually requires from one to three years. Most species emerge as adults in a definite, usually short, period of the season. Adults also usually appear only during a certain time of the day. Some species of *Cyrtopogon* have a characteristic mating dance.

REFERENCES: Harris, 1862, Perris, 1870, Riley, 1878 (larval habits); Back, 1909 (rev. Dasypogoninae and Leptogastrinae); Malloch, 1917g (biol., immature stages); Davis, 1919 (biol. of *Promachus vertebratus*); Melin, 1923 (biol., immature stages Swedish asilids); Bromley, 1934a (key to subfamilies, genera, spp. of Tex.); E. G. Reinhard, 1938 (oviposition); Ritcher, 1940 (larval habits); Bromley, 1946 (key to subfamilies, genera, spp. of ne. U.S.); Martin, 1957 (rev. Leptogastrinae); Hull, 1962 (generic classif. with keys, figs. and spp. check list for Asilidae of the World).

Subfamily LEPTOGASTRINAE

REFERENCE: Martin, 1957 (rev.).

Genus APACHEKOLOS Martin

Apachekolos Martin, 1957: 352. Type-species, *Leptogaster scapularis* Bigot (orig. des.).

confusio Martin, 1957: 354.—Ariz.
crinita Martin, 1957: 354.—N. Mex.; Ariz.
scapularis (Bigot), 1878: 444 (*Leptogaster*).—Calif.; Tex.
tenuipes (Loew), 1862b: 192 (Cent. 2, no. 14) (*Leptogaster*).—D.C.; Okla. to Del., s. to Tex. and Fla.
weslacensis (Bromley), 1951: 3 (*Leptogaster*).—Tex.

Genus BEAMEROMYIA Martin

Beameromyia Martin, 1957: 355. Type-species, *Leptogaster pictipes* Loew (orig. des.).

bifida (Hardy), 1942a: 59 (*Leptogaster*).—Ariz.; Calif.
chrysops Martin, 1957: 356.—Fla.; Ala., Ga.
disfascia Martin, 1957: 357.—N.J.; Ohio, N.Y., Mass., Va.
floridensis (Johnson), 1913a: 60 (*Leptogaster*).—Fla.; Va.
kawiensis Martin, 1957: 358.—Kans.

lacinia Martin, 1957: 358.—Ariz.; Calif.
lunula Martin, 1957: 359.—Ariz.
macula Martin, 1957: 360.—Ariz.; Mexico.
monticola Martin, 1957: 360.—Ariz.
occidentis (Hardy), 1942a: 61 (*Leptogaster*).—Ariz.; N. Mex.
pictipes (Loew), 1862b: 189 (Cent. 2, no. 7) (*Leptogaster*).—Ill.; narrow belt from Kans. to Md.
varipes Loew, 1862b: 189 (Cent. 2, no. 8) (*Leptogaster*).—D.C.
prairiensis Martin, 1957: 361.—Kans.
punicea Martin, 1957: 362.—Ariz.
silvacola Martin, 1957: 362.—N. Mex.; Ariz.
vulgaris Martin, 1957: 363.—D.C.; Ind. to N.J., s. to Ala. and Fla.

Genus LEPTOGASTER Meigen

Leptogaster Meigen, 1803: 269. Type-species, *Asilus tipuloides* Fabricius (mon.)=*cylindrica* (De Geer).
Gonypes Latreille, 1805: 309. Type-species, *Asilus tipuloides* Fabricius (mon.)=*cylindrica* (De Geer).

aegra Martin, 1957: 381.—N.C.; S.C.
altacola Martin, 1957: 373.—Ariz.
arborcola Martin, 1957: 368.—Ariz.
arenicola James, 1937b: 13.—Colo.; Nebr.
arida Cole *in* Cole and Lovett, 1919: 229.—Oreg.; Wash., Calif.
atridorsalis Back, 1909: 159.—Pa.; Ind. to s. Pa., s. to N.C.
brevicornis Loew, 1872a: 62 (Cent. 10, no. 23).—Tex.; Kans. to Md., s. to Tex. and Fla.
californica Martin, 1957: 373.—Calif.
carolinensis Schiner, 1866a: 696 (n. name for *nitida* Macquart, 1838).—Carolina.
nitida Macquart, 1838b: 155 (1839: 271) (*Gonypes;* preocc. Macquart, 1826).—Carolina.
coloradensis James, 1937b: 14.—Colo.; S. Dak., Nebr., Kans.
cultaventris Martin, 1957: 375.—Calif.; Wash., Oreg.
eudicrana Loew, 1874a: 353.—Tex.; Ariz., Nev., N. Mex., Colo.
flavipes Loew, 1862b: 193 (Cent. 2, no. 15).—Nebr.; Minn. to Maine, s. to Kans. and Ga.
favillaceus Loew, 1862b: 191 (Cent. 2, no. 12).—Conn.
flavicornis Wulp, 1867: 136.—Wis.
loewi Banks, 1914b: 133.—Va., N.Y.
fornicata Martin, 1957: 377.—Idaho.
hesperis Martin, 1957: 378.—Ariz.; N. Mex.

hirtipes Coquillett, 1904f: 178.—Colo.; Ariz., N. Mex.
incisuralis Loew, 1862b: 190 (Cent. 2, no. 11).—Ill.; Minn. to N.Y., s. to Tex. and Ga.
ochraceus Schiner, 1867b: 359.—Pa.
lanata Martin, 1957: 382.—Utah; Idaho, Ariz., Tex.
lerneri Curran, 1953a: 1.—Bahama Is.; Fla.
murina Loew, 1862b: 190 (Cent. 2, no. 9).—Nebr.; S. Dak. to Mich., s. to Tex. and Ark.
nitoris Martin, 1957: 379.—Wash.; Oreg., Calif., Nev.
obscuripennis Johnson, 1895a: 304.—Fla.; N.C., S.C.
obscuripes Loew, 1862b: 191 (Cent. 2, no. 13).—Cuba; Tex., Fla.
panda Martin, 1957: 372.—Kans.
parvoclava Martin, 1957: 371.—N. Mex.
patula Martin, 1957: 380.—Ariz.
salvia Martin, 1957: 380.—Idaho; Oreg.
schaefferi Back, 1909: 170.—Tex.
texana Bromley, 1934a: 88.—Tex.
virgata Coquillett, 1904f: 177.—Tex.; Okla., N.Y., Pa., Md., Ga.

Genus LEPTOPTEROMYIA Williston

Leptopteromyia Williston, 1907: 2. Type-species, *gracilis* Williston (sub. mon., Williston, 1908: fig. 77–35).

americana Hardy, 1947a: 74.—Tex.

Genus PSILONYX Aldrich

Psilonyx Aldrich, 1923c: 5. Type-species, *Leptogaster annulatus* Say (orig. des.).

annulatus (Say), 1823: 75 (1859b: 68) (*Leptogaster*).—Pa.; Ohio to Mass., s. to Okla. and Ga.
histrio Wiedemann, 1828: 535 (*Leptogaster*).—Pa.

Genus TIPULOGASTER Cockerell

Tipulogaster Cockerell, 1913b: 214. Type-species, *Leptogaster badia* Loew (orig. des.)=*glabrata* (Wiedemann).

glabrata (Wiedemann), 1828: 534 (*Leptogaster*).—Unknown; Nebr. to Que., s. to Tex. and Fla.
badia Loew, 1862b: 188 (Cent. 2, no. 6) (*Leptogaster*).—Ill. **N. syn.**
testaceus Loew, 1862b: 190 (Cent. 2, no. 10) (*Leptogaster*).—N.Y. **N. syn.**

Subfamily DASYPOGONINAE

REFERENCE: Back, 1909 (rev. N. Amer. genera and spp.).

Genus ABLAUTUS Loew

Ablautus Loew, 1866b: 37 (Cent. 7, no. 63). Type-species, *trifarius* Loew (mon.).

Ablautatus, emend.

REFERENCE: Wilcox, 1935a (key).

californicus Wilcox, 1935a: 226.—Calif.
coquilletti Wilcox, 1935a: 226.—Calif.
flavipes Coquillett, 1904f: 178.—Calif.; Ariz., N. Mex.
mimus Osten Sacken, 1877: 290 (*Ablautatus*).—Calif.; Ariz., N. Mex., Utah.
squamipes Cole, 1924b: 11.—Ariz. **N. syn.**
nigronotum Wilcox, 1935a: 224.—Oreg.; Calif., Colo.
rubens Coquillett, 1904f: 178.—Wash.
rufotibialis Back, 1909: 182.—Tex.; N. Mex.
trifarius Loew, 1866b: 36 (Cent. 7, no. 63).—Calif.
vanduzeei Wilcox, 1935a: 225.—Calif.

Genus ARCHILESTRIS Loew

Archilestes Schiner, 1866a: 672 (preocc. Selys, 1862). Type-species, *Dasypogon capnopterus* Wiedemann (Schiner, 1868: 168).

Archilestris Loew, 1874a: 377 (n. name for *Archilestes* Schiner). Type-species, *Dasypogon capnopterus* Wiedemann (aut.).

magnifica (Walker), 1854: 427 (*Dasypogon*).—Mexico; Ariz.

Genus BACKOMYIA Wilcox and Martin

Backomyia Wilcox and Martin, 1957b: 1. Type-species, *Eucyrtopogon limpidipennis* Wilcox (orig. des.).

REFERENCE: Wilcox and Martin, 1957b (key).

anomala Wilcox and Martin, 1957b: 3.—Calif.
hannai Wilcox and Martin, 1957b: 4.—Calif.
limpidipennis (Wilcox), 1936d: 204 (*Eucyrtopogon*).—N. Mex.
schlingeri Wilcox and Martin, 1957b: 5.—Calif.

Genus BLEPHAREPIUM Rondani

Blepharepium Rondani, 1848: 89. Type-species, *luridum* Rondani (mon.).

Planetolestes Lynch Arribálzaga, 1879: 147. Type-species, *Laphria coarctata* Perty (mon.).

secabile (Walker), 1860a: 276 (*Dasypogon*).—Mexico; Ariz.

Genus BROMLEYUS Hardy

Bromleyus Hardy, 1944a: 226. Type-species, *flavidorsus* Hardy (orig. des.).

flavidorsus Hardy, 1944a: 226.—Ariz.

Genus CALLINICUS Loew

Callinicus Loew, 1872a: 71 (Cent. 10, no. 32). Type-species, *calcaneus* Loew (mon.).

Chrysoceria Williston, 1907: 1. Type-species, *Laparus pictitarsis* Bigot (mon.).

REFERENCE: Wilcox, 1936c (key).

calcaneus Loew, 1872a: 70 (Cent. 10, no. 32).—Calif.
bilimbatum Bigot, 1878: 411 (*Dasypogon*).—Calif.
pictitarsis (Bigot), 1878: 417 (?*Laparus*).—Calif.; Ariz., Utah.
pollenius (Cole) *in* Cole and Lovett, 1919: 237 (*Chrysoceria*).—Oreg.; Wash. to Wyo., s. to Calif.
vittatus Wilcox, 1936c: 209.—Calif.

Genus CERATURGUS Wiedemann

Ceraturgus Wiedemann, 1824: 12. Type-species, *Dasypogon aurulentus* Fabricius (mon.).

Ceraturgopsis Johnson, 1903d: 111. Type-species, *Dasypogon cornutus* Wiedemann (orig. des.; misident.)=n. sp. in press.

REFERENCE: Brimley, 1924 (key).

aurulentus (Fabricius), 1805: 166 (*Dasypogon*).—N.Y.; N.J., Pa.
cornutus (Wiedemann), 1828: 382 (*Dasypogon*).—Unknown; Fla.
cruciatus (Say), 1823: 52 (1859b: 66) (*Dasypogon*).—Ark.; S. Dak. to Mass., s. to Ark. and Fla.
fasciatus Walker, 1849: 367.—N.Y.
elizabethae Brimley, 1924: 8.—N.C.
mabelae Brimley, 1924: 11.—N.C.
mitchelli Brimley, 1924: 9.—N.C.
nigripes Williston, 1886a: 287.—Ga.; N.C.
oklahomensis (Bromley), 1934b: 225 (*Ceraturgopsis*).—Okla.
similis Johnson, 1912c: 152.—Mass.; Vt.

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Genus COLEOMYIA Wilcox and Martin

Coleomyia Wilcox and Martin, 1935: 205. Type-species, *Metapogon setiger* Cole (orig. des.).

REFERENCE: Martin, 1953 (key).

alticola James, 1941b: 37.—Colo.; N. Mex.
crumborum Martin, 1953: 25.—Calif.
hinei Wilcox and Martin, 1935: 207.—Oreg.; Idaho.
rainieri Wilcox and Martin, 1935: 211.—Wash.
rubida Martin, 1953: 27.—Oreg.
sculleni Wilcox and Martin, 1935: 209.—Oreg.
setigera (Cole) *in* Cole and Lovett, 1919: 235 (*Metapogon*).—Oreg.; Wash., Calif.

Genus COMANTELLA Curran

Comantella Curran, 1923g: 93. Type-species, *Cyrtopogon maculosus* Coquillett (orig. des.; misident.)=*fallei* (Back). See Melander, 1923c: 207.

REFERENCE: James, 1937c (key).

cristata (Coquillett), 1893b: 33 (*Blacodes*).—Calif.
fallei (Back), 1909: 378 (*Cophura*).—Colo.
pacifica Curran, 1926g: 311.—B.C.; Wash.
rotgeri James, 1937c: 61.—Colo.; Alta., N. Mex.

Genus COPHURA Osten Sacken

Blax Loew, 1872a: 65 (Cent. 10, no. 24) (preocc. Koch, 1840). Type-species, *bellus* Loew (mon.).
Blacodes Loew, 1874a: 377 (n. name for *Blax* Loew, but preocc. Dejean, 1859). Type-species, *Blax bellus* Loew (aut.).
Cophura Osten Sacken, 1887a: 181. Type-species, *sodalis* Osten Sacken (mon.).
Loewiella Williston, 1896a: 57 (n. name for *Blacodes* Loew, but preocc. Meunier, 1894). Type-species, *Blax bellus* Loew (aut.).
Buckellia Curran, 1925d: 156. Type-species, *Cophura albosetosa* Hine (orig. des.).

REFERENCES: Pritchard, 1943 (rev.); Wilcox, 1959 (rev. *clausa* group).

albosetosa Hine, 1908: 202.—B.C.; Wash., Oreg.
cyrtopogona Cole *in* Cole and Lovett, 1919: 236.—Oreg.
ameles Pritchard, 1943: 298.—N. Mex.
arizonensis (Schaeffer), 1916: 65 (*Lasiopogon*).—Ariz.
drakei Pritchard, 1935: 6 (*Buckellia*).—Ariz.

bella (Loew), 1872a: 63 (Cent. 10, no. 24) (*Blax*).—Tex.; Ariz., N. Mex.
brevicornis (Williston), 1883a: 22 (*Taracticus*).—Wash.; Wash. to Nebr., s. to Calif. and Colo.
melanochaeta Melander, 1923c: 210.—Idaho. **N. syn.**
caca Pritchard, 1943: 306.—N. Mex.
clausa (Coquillett), 1893b: 34 (*Blacodes*).—Calif.
daphne Pritchard, 1943: 290.—Mexico; Ariz.
dora Pritchard, 1943: 296.—Nebr.; Ariz.
fur (Williston), 1885a: 53 (*Aphamartania*).—Ariz.
getzendaneri Wilcox, 1959: 123.—Calif.; Ariz., Mexico (Baja Calif.).
hennei Wilcox and Martin, 1945: 11.—Calif.
hesperia (Pritchard), 1935: 7 (*Buckellia*).—Ariz.
vera Pritchard, 1935: 8 (*Buckellia*).—Ariz. **N. syn.**
painteri Pritchard, 1943: 293.—Ariz.
pollinosa Curran, 1930f: 10.—Ariz.; N. Mex., Colo., Okla., Tex.
lutzi Curran, 1931b: 7.—Colo. **N. syn.**
wilcoxi Pritchard, 1935: 8 (*Buckellia*).—Okla. **N. syn.**
pulchella Williston, 1901: 314.—Mexico; Utah.
scitula (Williston), 1883a: 19 (?*Nicocles*).—Wash.; Oreg.
sculleni Wilcox, 1937: 39.—Ariz.; N. Mex.
sodalis Osten Sacken, 1887a: 181.—Mexico; Ariz.
stylosa Curran, 1931b: 7.—Okla.; Colo., Kans., Tex.
texana Bromley, 1934a: 92.—Tex.; Okla.
tolandi Wilcox, 1959: 125.—Calif.; Ariz.
trunca (Coquillett), 1893b: 34 (*Blacodes*).—Calif.
highlandica Cole, 1916b: 63.—Calif.
vitripennis (Curran), 1927f: 85 (*Buckellia*).—B.C.; Mont.

Genus CYRTOPOGON Loew

Dasypogon, subg. **Cyrtopogon** Loew, 1847c: 516. Type-species, *Asilus ruficornis* Fabricius (Rondani, 1856: 157).
Euarmostus Walker, 1851b: 102. Type-species, *bimacula* Walker (mon.).
Enarmostus, error.

REFERENCE: Wilcox and Martin, 1936a (rev.).

ablautoides Melander, 1923a: 111.—Wash.
albifacies Johnson, 1942: 1.—Utah.
albifrons Wilcox and Martin, 1936a: 83.—Idaho; Oreg.
albovarians Curran, 1924j: 279.—Alta.
aldrichi Wilcox and Martin, 1936a: 51.—Calif.
alleni Back, 1909: 261.—N.H.; Que. and N.B. to Mass., also N.C.

anomalus Cole *in* Cole and Lovett, 1919: 231.—Oreg.; B.C., Wash., Idaho.
auratus Cole *in* Cole and Lovett, 1919: 230.—Oreg.; Wash., Alta., Idaho, Utah, Wyo.
albitarsis Curran, 1922i: 278.—Alta.
aurifex Osten Sacken, 1877: 301.—Calif.; B.C., Wash., Oreg.
auripilosus Wilcox and Martin, 1936a: 30.—Wash.; Oreg.
banksi Wilcox and Martin, 1936a: 79.—Wash.; Y.T. and B.C. to Wyo., s. to Calif. and Colo.
basingeri Wilcox and Martin, 1936a: 49.—Calif.
beameri Wilcox and Martin, 1936a: 84.—Ariz.
bigelowi Curran, 1924j: 277.—Ont.; Que.
bimacula (Walker), 1851b: 102 (*Euarmostus*).—N. Amer.; B.C. to Hudson Bay, s. to Wash. and N. Mex., also N.H.
melanopleurus Loew, 1866b: 35 (Cent. 7, no. 61).—N.H.
caesius Melander, 1923a: 112.—Wash.; Oreg., Wyo.
callipedilus callipedilus Loew, 1874a: 358.—Calif.
ssp. **nigritarsus** Wilcox and Martin, 1936a: 39.—Calif.
chagnoni Curran, 1939c: 1.—Que.
curtipennis Wilcox and Martin, 1936a: 74.—Calif.
curtistylus Curran, 1923g: 133.—Utah; Idaho to Mont., s. to Calif.
cymbalista Osten Sacken, 1877: 297.—Calif.; Nev.
dasyllis Williston, 1893c: 66.—Colo.; Alaska to Alta., s. to Oreg. and Idaho.
dasylloides Williston, 1883a: 11.—Wash.; Oreg., Calif., Idaho, N.Y.
dubius Williston, 1883a: 13.—Oreg.; Wash.
tacomae Melander, 1923a: 116.—Wash.
evidens Osten Sacken, 1877: 306.—Calif.; Wash., Oreg.
falto (Walker) ,1849: 355 (*Dasypogon*).—N.S.; Alta. to N.S., s. to Ill. and Fla.
chrysopogon Loew, 1866b: 34 (Cent. 7, no. 59). Mass.
fumipennis Wilcox and Martin, 1936a: 71.—Wash.; B.C., Idaho.
glarealis Melander, 1923a: 113.—Wash.; Oreg., Calif., Idaho, Mont., Wyo.
idahoensis Wilcox and Martin, 1936a: 82.—Idaho; Utah.
infuscatus Cole *in* Cole and Lovett, 1919: 233.—Oreg.; B.C., Wash., Calif., Idaho.
inversus Curran, 1923g: 172.—B.C.; Wash., Oreg., Wyo., Colo.
jemezi Wilcox and Martin, 1936a: 47.—N. Mex.; Ariz.
laphriformis Curran, 1923a: 59.—N.H.
leptotarsus Curran, 1923g: 186.—Ont.
leucozona Loew, 1874a: 364.—Calif.; B.C. to Colo., s. to Oreg. and N. Mex.

lineotarsus Curran, 1923g: 187.—Alta.; Mont.
longimanus Loew, 1874a: 360.—Calif.
lutatius (Walker), 1849: 357 (*Dasypogon*).—N.S.; Mich. to N.S., s. to Pa.
lyratus Osten Sacken, 1878c: 232.—N.Y.; Maine, N.H., N.C.
maculipennis (Macquart), 1834a: 298 (*Dasypogon*).—Europe; Ont.
marginalis Loew, 1866b: 35 (Cent. 7, no. 60).—Mass.; Ont. to N.H., s. to N.C.
montanus montanus Loew, 1874a: 362.—Calif.; B.C. to Alta., s. to Oreg. and N. Mex.
latericaudus Curran, 1923g: 170 (as var.).—Alta. ?Var.
ssp. **wilcoxi** James, 1942a: 124–126.—Colo.
nitidus Cole, 1924b: 10.—Wash.
nugator Osten Sacken, 1877: 307.—Calif.; B.C., Wash., Oreg., Idaho, N. Mex.
perspicax Cole *in* Cole and Lovett, 1919: 233.—Oreg.; Calif.
planitarsus Wilcox and Martin, 1936a: 61.—Oreg.
platycauda Curran, 1924i: 251.—Man.
plausor Osten Sacken, 1877: 297.—N. Mex.; Idaho, Utah, Colo., Nebr.
praepes Williston, 1883a: 12.—Wash.; Oreg., Calif.
predator Curran, 1923g: 188.—B.C.; Wash., Idaho.
princeps Osten Sacken, 1877: 302.—Calif.; Wash., Oreg.
cretaceus Osten Sacken, 1877: 302.—Calif.
profusus Osten Sacken, 1877: 305.—N. Mex.; Colo., Kans.
pulcher Back, 1909: 274.—Colo.; Utah, Ariz.
rainieri Wilcox and Martin, 1936a: 77.—Wash.; Oreg.
rattus Osten Sacken, 1877: 308.—Calif.; Oreg.
rejectus Osten Sacken, 1877: 307.—Calif.; Wash., Oreg., Idaho.
positivus Osten Sacken, 1877: 307.—Calif.
rufotarsus Back, 1909: 275.—Mont.; Oreg., Utah, Colo.
sansoni Curran, 1923g: 138.—Alta.
semitarius semitarius Melander, 1923a: 115.—Wash.; Oreg.
ssp. **californicus** Wilcox and Martin, 1936a: 37.—Calif.
stenofrons Wilcox and Martin, 1936a: 52.—N. Mex.; Ariz.
sudator Osten Sacken, 1877: 307.—Calif.; B.C., Wash., Oreg., Idaho.
swezeyi Wilcox and Martin, 1936a: 64.—Utah; Wash.
tenuis Bromley, 1924: 126.—Maine.
thompsoni Cole *in* Cole and Lovett, 1921: 255.—Oreg.
tibialis Coquillett, 1904f: 183.—Ariz.; N. Mex.
vanduzeei Wilcox and Martin, 1936a: 76.—Calif.; Wash., Oreg.
vandykei Wilcox and Martin, 1936a: 27.—Calif.
varans Curran, 1923g: 141.—Que.; Ont.
vulneratus Melander, 1923a: 118.—Ont.

willistoni Curran, 1922i: 277.—B.C.; B.C. to Alta., s. to Calif. and Wyo.

Genus DICOLONUS Loew

Dicolonus Loew, 1866b: 32 (Cent. 7, no. 56). Type-species, *simplex* Loew (mon.).

simplex Loew, 1866b: 32 (Cent. 7, no. 56).—Calif.
sparsipilosum Back, 1909: 247.—Mont.; Calif., Colo.

Genus DIOCTRIA Meigen

Dioctria Meigen, 1803: 270. Type-species, *Asilus oelandicus* Linnaeus (Latreille, 1810: 443).

REFERENCE: Wilcox and Martin, 1941 (rev.).

Subgenus BOHARTIA Hull

Bohartia Hull, 1958a: 317 (as genus). Type-species, *bromleyi* Hull (orig. des.). **N. status.**

bromleyi (Hull), 1958a: 318 (*Bohartia*).—Nev.

Subgenus DIOCTRIA Meigen

baumhaueri Meigen, 1820: 245.—Europe; Mich., N.Y., Conn., Mass.
henshawi Johnson, 1918: 103 (n. name for *flavipes* Banks).—Wash.
flavipes Banks, 1917b: 119 (preocc. Meigen, 1804).—Wash.
pleuralis Banks, 1917b: 118.—Calif.
pusio Osten Sacken, 1877: 288.—Calif.; Wash., Oreg., Colo.
seminole Bromley, 1924: 125.—Fla.
vera Back, 1909: 256.—Calif.
vertebrata Cole *in* Cole and Lovett, 1919: 230.—Oreg.; Wash.

Subgenus EUDIOCTRIA Wilcox and Martin

Dioctria, subg. **Eudioctria** Wilcox and Martin, 1941: 8. Type-species, *albius* Walker (orig. des.).

albius Walker, 1849: 301.—N.Y.; Wis. to Que., s. to Pa.
aurifacies Wilcox and Martin, 1941: 11 (as form).—Wis.
xanthopennis Wilcox and Martin, 1941: 12 (as form).—Wis.
beameri Wilcox and Martin, 1941: 13.—Calif.
brevis Banks, 1917b: 117.—N.Y.; Ohio to Mass., s. to Tenn. and N.C.
doanei Melander, 1923c: 214.—Calif.
media Banks, 1917b: 118.—Calif.; Wash., Oreg.
monrovia Wilcox and Martin, 1941: 15.—Calif.

nitida Williston, 1883a: 8.—Wash.; B.C., Oreg., Calif.
denuda Wilcox and Martin, 1941: 17 (as form).—Calif.
parvula Coquillett, 1893c: 80.—Calif.
propinqua Bromley, 1924: 125.—Mass.; N.Y., Que., N.S.
sackeni Williston, 1883a: 8.—Wash.; B.C., Oreg., Idaho.
rivalis Melander, 1923c: 215 (as form).—Idaho.
tibialis Banks, 1917b: 118 (as *longicornis* var.).—Va.; Pa., N.J., Md.
longicornis Banks, 1917b: 118 (preocc. Meigen, 1820).—Va.
banksi Johnson, 1918: 103 (n. name for *longicornis* Banks).—Va.

Subgenus METADIOCTRIA Wilcox and Martin

Dioctria, subg. **Metadioctria** Wilcox and Martin, 1941: 19. Type-species, *rubida* Coquillett (orig. des.).

resplendens Loew, 1872a: 62 (Cent. 10, no. 21).—Calif.
rubida Coquillett, 1893c: 80.—Calif.
nigripilosa Wilcox and Martin, 1941: 19 (as form).—Calif.
atripes Wilcox and Martin, 1941: 20 (as form).—Calif.

Subgenus NANNODIOCTRIA Wilcox and Martin

Dioctria, subg. *Neodioctria* Wilcox and Martin, 1941: 7 (preocc. Ricardo, 1912). Type-species, *albicornis* Wilcox and Martin (orig. des.).

Dioctria, subg. **Nannodioctria** Wilcox and Martin, 1942: 35 (n. name for *Neodioctria* Wilcox and Martin). Type-species, *albicornis* Wilcox and Martin (aut.).

albicornis Wilcox and Martin, 1941: 7.—Calif.

Genus DIOGMITES Loew

Diogmites Loew, 1866b: 21 (Cent. 7, no. 36). Type-species, *platypterus* Loew (Coquillett, 1910b: 533).

Deromyia, authors, not Philippi.

REFERENCE: Bromley, 1936 (key).

angustipennis Loew, 1866b: 23 (Cent. 7, no. 41).—Kans.; Colo., Ill.
basalis (Walker), 1851b: 95 (*Dasypogon*).—Atlantic States; Ill. to N.H., s. to N.J.
umbrinus Loew, 1866b: 24 (Cent. 7, no. 43).—N.Y.
bilineatus Loew, 1866b: 23 (Cent. 7, no. 40).—Cuba; ?Fla.
coloradensis (James), 1933b: 2 (*Deromyia*).—Colo.; Ariz.
contortus Bromley, 1936: 235.—Ariz.; Calif.
crudelis Bromley, 1936: 233.—N.C.; S.C., Fla.
discolor Loew, 1866b: 21 (Cent. 7, no. 37).—Pa.; Pa. to Mass., s. to Md. and Del.

esuriens Bromley, 1936: 230.—Fla.; S.C., Ga.
fragilis Bromley, 1936: 235.—Tex.
grossus Bromley, 1936: 236.—Colo.; Idaho to Colo., s. to Calif. and N. Mex.
herennius (Walker), 1849: 339 (*Dasypogon*).—Ohio. ?=*basalis*.
misellus Loew, 1866b: 22 (Cent. 7, no. 39).—D.C.; Ill. to Mass., s. to Tex. and Fla.
missouriensis Bromley, 1951: 13.—Mo.; Miss., Ohio.
neoternatus (Bromley), 1931: 433 (*Deromyia*).—Kans.; Colo. to Ind., s. to Tex. and S.C.
perplexus (Back), 1909: 360 (*Deromyia*).—N. Mex.
platypterus Loew, 1866b: 20 (Cent. 7, no. 36).—Ill.; Nebr. to Ill., s. to La. and Miss.
pritchardi Bromley, 1936: 237.—Okla.; Tex.
properans Bromley, 1936: 232.—Ala.; Miss., Fla., Ga.
pulcher (Back), 1909: 361 (*Deromyia*).—Calif.
rufescens (Macquart), 1834a: 295 (*Dasypogon*).—Pa. ?=*discolor*.
sallei (Bellardi).—Not Nearctic.
salutans Bromley, 1936: 233.—N.C.; Miss. to Va., s. to Fla.
symmachus Loew, 1872a: 66 (Cent. 10, no. 26).—Tex.
ternatus Loew, 1866b: 22 (Cent. 7, no. 38).—Cuba; La.
texanus Bromley, 1934a: 91.—Tex.
unicolor Hull, 1958b: 106.—Ariz.

Genus DIZONIAS Loew

Dizonias Loew, 1866b: 29 (Cent. 7, no. 53). Type-species, *phoenicurus* Loew (Coquillett, 1910b: 534)=*tristis* (Walker).

bicinctus Loew, 1866b: 30 (Cent. 7, no. 54).—N. Mex.
lucasi (Bellardi).—Not Nearctic.
pilatei Johnson, 1903d: 112.—Ga.
tristis (Walker), 1851b: 93 (*Dasypogon*).—Amer.; N. Mex. to Fla., s. to Mexico (Tam.).
albifasciatus Back, 1904: 292 (*Ospriocerus*).—Fla.

Genus ECHTHOPODA Loew

Echthopoda Loew, 1866b: 16 (Cent. 7, no. 27). Type-species, *pubera* Loew (mon.).

carolinensis Bromley, 1951: 9.—N.C.
formosa Loew, 1872a: 62 (Cent. 10, no. 22).—Pa.; Mass., Va., N.C.
pubera Loew, 1866b: 15 (Cent. 7, no. 27).—Nebr.; Wash. to S. Dak., s. to Wyo. and Nebr.

Genus EUCYRTOPOGON Curran

Eucyrtopogon Curran, 1923g: 95. Type-species, *Cyrtopogon nebulo* Osten Sacken (orig. des.).

REFERENCE: Curran, 1923g (key).

albibarbus Curran, 1923g: 117.—Sask.
calcaratus Curran, 1923g: 119.—Alta.; B.C.
comantis Curran, 1923g: 116.—B.C.
diversipilosis Curran, 1923g: 118.—B.C.; Alta.
kelloggi Wilcox, 1936d: 205.—N. Mex.
maculosus (Coquillett), 1904f: 184 (*Cyrtopogon*).—Wash.
nebulo (Osten Sacken), 1877: 309 (*Cyrtopogon*).—Calif.; B.C.
nigripes (Jones), 1907a: 279 (*Heteropogon*).—Nebr.
punctipennis (Melander), 1923a: 114 (*Cyrtopogon*).—Idaho; Wash.
spiniger Curran, 1923g: 117.—B.C.
varipennis (Coquillett), 1904f: 184 (*Cyrtopogon*).—Wash.; B.C.

Genus HADROKOLOS Martin

Hadrokolos Martin, 1959a: 3. Type-species, *Holopogon texanus* Bromley (orig. des.).

cazieri Martin, 1959a: 3.—Tex.
pritchardi Martin, 1959a: 4.—Okla.
texanus (Bromley), 1934a: 89 (*Holopogon*).—Tex.; Okla.

Genus HAPLOPOGON Engel

Haplopogon Engel, 1930: 409. Type-species, *nudus* Engel (orig. des.).

REFERENCE: Martin, 1955b (key).

bullatus (Bromley), 1934a: 89 (*Holcocephala*).—Tex.
erinus Pritchard, 1941: 351.—Ariz.
latus (Coquillett), 1904c: 33 (*Holopogon*).—Tex.
lautus, error.
triangulatus Martin, 1955b: 316.—Tex.

Genus HETEROPOGON Loew

Dasypogon, subg. **Heteropogon** Loew, 1847c: 488. Type-species, *manicatus* Meigen (Back, 1909: 318).

Anisopogon Loew, 1874a: 377 (unjustified n. name for *Heteropogon* Loew). Type-species, *Dasypogon manicatus* Meigen (aut.).

REFERENCE: Wilcox, 1941 (key).

arizonensis Wilcox, 1941: 55.—Ariz.; Utah.
currani Pritchard, 1935: 3.—Okla.
duncani Wilcox, 1941: 54.—Ariz.
lautus Loew, 1872a: 72 (Cent. 10, no. 34).—Tex.
ludius (Coquillett), 1893a: 20 (*Anisopogon*).—Calif.
macerinus (Walker), 1849: 356 (*Dasypogon*).—N.J.; N.Y., Pa., Ky.
gibbus Loew, 1866b: 33 (Cent. 7, no. 58).—Pa.
maculinervis James, 1937b: 12.—Colo.; Ariz., Utah, Mont.
patruelis (Coquillett), 1893a: 21 (*Anisopogon*).—Tex.; Ariz.
paurosomus Pritchard, 1935: 4.—Ariz.
phoenicurus Loew, 1872a: 71 (Cent. 10, no. 33).—Tex.
rejectus Williston, 1901: 307.—Mexico; Ariz.
rubidus (Coquillett), 1893a: 21 (*Anisopogon*).—Calif.
rubrifasciatus Bromley, 1931: 432.—N.C.
senilis (Bigot), 1878: 423 (*Anisopogon*).—Calif.; Oreg.
spatulatus Pritchard, 1935: 5.—Ariz.
vespoides (Bigot), 1878: 423 (*Anisopogon*).—Calif.
wilcoxi James, 1934b: 84.—Colo.; Ariz., N. Mex., Wyo., Ill.

Genus HODOPHYLAX James

Hodophylax James, 1933b: 1. Type-species, *aridus* James (orig. des.).

REFERENCE: Wilcox, 1961 (rev.).

aridus James, 1933b: 2.—Colo.; Ariz., N. Mex., Tex., Kans.
mcgregori Bromley, 1934a: 88 (*Ablautus*).—Tex.
basingeri Pritchard, 1938c: 130.—Calif.; Ariz.
halli Wilcox, 1961: 115.—Calif.
tolandi Wilcox, 1961: 114.—Ariz.; N. Mex.

Genus HOLCOCEPHALA Jaennicke

Discocephala Macquart, 1838b: 50 (1839: 166) (preocc. Laporte, 1832). Type-species, *rufiventris* Macquart (Coquillett, 1910b: 534) = *abdominalis* (Say).

Holcocephala Jaennicke, 1867: 359 (1868: 51) (n. name for *Discocephala* Macquart). Type-species, *Discocephala rufiventris* Macquart (aut.) = *abdominalis* (Say.).

REFERENCE: Pritchard, 1938a (key).

abdominalis (Say), 1823: 50 (1859b: 64) (*Dasyopogon*).—Pa.; U.S. e. of Rocky Mts.
rufiventris Macquart, 1838b: 50 (1839: 166) (*Discocephala*).—Carolina.

aeta Walker, 1849: 362 (*Dasypogon*).—Fla.
laticeps Wulp, 1867: 137 (*Dasypogon*).—Wis.
calva (Loew), 1872a: 73 (Cent. 10, no. 35) (*Discocephala*).—Tex.; Kans. to N.Y., s. to Tex. and Fla.
fusca Bromley, 1951: 10.—Tex.; Ohio, Tenn.

Genus HOLOPOGON Loew

Dasypogon, subg. **Holopogon** Loew, 1847c: 473. Type-species, *nigripennis* Meigen (Coquillett, 1910b: 552).

REFERENCE: Martin, 1959a (rev.).

Subgenus DASYHOLOPOGON Martin

Holopogon, subg. **Dasyholopogon** Martin, 1959a: 34. Type-species, *umbrinus* Back (orig. des.).

caesariatus Martin, 1959a: 35.—Idaho; Oreg., Utah.
crinitus Martin, 1959a: 37.—Calif.
umbrinus Back, 1909: 317.—Calif.

Subgenus HOLOPOGON Loew

acropennis Martin, 1959a: 13.—N. Mex.; Ariz., Colo.
albipilosus Curran, 1923j: 207.—B.C.; B.C. to Man., s. to Nev. and Wyo.
atrifrons Cole, 1924b: 8.—Calif.
atripennis Back, 1909: 312.—N. Mex.; Ariz., Colo.
currani Martin, 1959a: 17.—Ariz.; N. Mex., Nev.
guttulus (Wiedemann), 1821c: 228 (*Dasypogon*).—Ga.; Tex., Pa., and N.J., s. to Fla.
philadelphicus Schiner, 1867b: 360.—Pa.
mingusae Martin, 1959a: 21.—Ariz.
oriens Martin, 1959a: 22.—N.C.; Minn. to Conn., s. to Tenn. and S.C.
phaeonotus Loew, 1874a: 366.—Tex.; Wis. to Mass., s. to Tex. and Fla.
tibialis Curran, 1923j: 207.—Ont.
seniculus Loew, 1866b: 36 (Cent. 7, no. 62).—Nebr.; Nev. to Sask., s. to Utah and Colo.
snowi Back, 1909: 316.—Kans.; Okla., Tex.
stellatus Martin, 1959a: 28.—Calif.; B.C., Wash., Oreg., Nev.
vockerothi Martin, 1959a: 31.—Ont.; Man. to N.Y., s. to Ill.
wilcoxi Martin, 1959a: 33.—Ariz.

Genus ITOLIA Wilcox

Itolia Wilcox, 1936d: 201. Type-species, *maculata* Wilcox (orig. des.).

REFERENCE: Wilcox, 1949 (key).

atripes Wilcox, 1949: 193.—Ariz.; Calif.
maculata Wilcox, 1936d: 202.—Ariz.
timberlakei Wilcox, 1949: 192.—Calif.

Genus LAPHYSTIA Loew

Laphystia Loew, 1847c: 538. Type-species, *sabulicola* Loew (mon.).
Laphyctis Loew, 1858d: 338. Type-species, *Stichopogon gigantellus* Loew (mon.).
Asicya Lynch Arribálzaga, 1880: 224. Type-species, *fasciata* Lynch Arribálzaga (mon.).

REFERENCE: Wilcox, 1960 (rev.).

albiceps (Macquart), 1846: 197 (1846: 69) (*Dasypogon*).—Tex.
annulata Hull, 1957a: 72.—Ariz.
interrupta Hull, 1957a: 73 (as ssp.).—Ariz.
bromleyi Wilcox, 1960: 331.—Okla.; Ark.
brookmani Wilcox, 1960: 332.—Calif.
canadensis Curran, 1927f: 87.—Man.; Mont. and Man. to Iowa, s. to Wyo. and Kans.
cazieri Wilcox, 1960: 334.—Calif.
confusa Curran, 1927f: 86.—Okla.; Wyo., Tex.
duncani Wilcox, 1960: 334.—Ariz.; Calif.
flavipes Coquillett, 1904f: 180.—Mont.; Mont. to Man., s. to Colo. and N.C.
howlandi Wilcox, 1960: 335.—Calif.
jamesi Wilcox, 1960: 336.—Calif.
laguna Wilcox, 1960: 336.—Tex.
lanhami James, 1941b: 35.—Colo.; N. Mex.
limatula Coquillett, 1904f: 180.—N. Mex.; Ariz.
litoralis Curran, 1931b: 16.—N.Y.; N.Y. to Fla.
martini Wilcox, 1960: 338.—Calif.
notata (Bigot), 1878: 433 (*Trichis*).—N. Amer.; Kans., Miss.
ochreifrons Curran, 1931b: 16.—Ky.; La., Miss., Ga., Fla.
opaca Coquillett, 1904f: 180.—Tex.; La.
rubra Hull, 1957a: 74.—Ariz.
rufiventris Curran, 1931b: 17.—Wyo.; Colo.
rufofasciata Curran, 1931b: 13.—Wyo.; Colo.
sexfasciata (Say), 1823: 50 (1859b: 64) (*Dasypogon*).—Mo.; Nebr., Kans.
subfasciata, error.

sillersi Hull, 1963: 202.—Ariz.
snowi Wilcox, 1960: 343.—Kans.
texensis Curran, 1931b: 14.—Tex.; La.
tolandi Wilcox, 1960: 344.—Nev.; Utah.
torpida Hull, 1957a: 70.—Calif.
utahensis Wilcox, 1960: 345.—Utah; Ariz.
varipes Curran, 1931b: 15.—Okla.; N. Mex., Tex., Kans.

Genus LASIOPOGON Loew

Dasypogon, subg. **Lasiopogon** Loew, 1847c: 508. Type-species, *pilosellus* Loew (Hull, 1962: 115). Designation by Rondani, 1856: 156, of *Dasypogon hirtellus* Meigen invalid because it was originally included as species inquirenda.

Daulopogon Loew, 1874a: 377 (unjustified n. name for *Lasiopogon* Loew). Type-species, *Dasypogon pilosellus* Loew (aut.).

Alexiopogon Curran, 1934a: 183.—Type-species, *Daulopogon terricola* Johnson (orig. des.).

REFERENCE: Cole and Wilcox, 1938 (key).

actius Melander, 1923b: 138.—Wash.; Oreg.
albidus Cole and Wilcox, 1938: 21.—Wash.
aldrichii Melander, 1923b: 139.—Idaho; Wash., Oreg., Alta., Utah.
arenicola (Osten Sacken), 1877: 310 (*Daulopogon*).—Calif.
aridus Cole and Wilcox, 1938: 25.—N. Mex.
atripennis Cole and Wilcox, 1938: 27.—Oreg.
bivittatus Loew, 1866b: 33 (Cent. 7, no. 57).—Calif.; Wash., Oreg.
californicus Cole and Wilcox, 1938: 31.—Calif.; Nev.
canus Cole and Wilcox, 1938: 32.—Alaska.
carolinensis Cole and Wilcox, 1938: 34.—N.C.; Ind., Ohio, S.C.
chaetosus Cole and Wilcox, 1938: 36.—Wash.; Oreg.
cinereus Cole *in* Cole and Lovett, 1919: 229.—Oreg.; Wash. to Alta., s. to Calif. and Wyo.
currani Cole and Wilcox, 1938: 40.—Mass.; N.Y. to N.H., s. to Ga.
delicatulus Melander, 1923b: 140.—Wash.
dimicki Cole and Wilcox, 1938: 44.—Oreg.
drabicola Cole, 1916b: 65.—Calif.
fumipennis Melander, 1923b: 141.—Wash.; B.C., Oreg., Calif., Colo.
coloradensis Cole and Wilcox, 1938: 49 (as var.).—Colo.
olympia Cole and Wilcox, 1938: 49 (as var.).—Wash., B.C.
gabrieli Cole and Wilcox, 1938: 49.—Calif.
hinei Cole and Wilcox, 1938: 51.—Alaska.
littoris Cole, 1924b: 8.—Calif.

martinensis Cole and Wilcox, 1938: 54.—Wash.
monticola Melander, 1923b: 142.—Wash.; B.C., Oreg., Idaho.
oklahomensis Cole and Wilcox, 1938: 57.—Okla.
opaculus (Loew), 1874a: 367 (*Daulopogon*).—Ill.; Ohio, Md., N.C.
pacificus Cole and Wilcox, 1938: 61.—Oreg.; B.C., Wash.
pugeti Cole and Wilcox, 1938: 62.—Wash.; Oreg.
quadrivittatus Jones, 1907a: 278.—Nebr.; Alta., Mont., N. Dak.
ripicola Melander, 1923b: 143.—Wash.; Oreg., Idaho.
shermani Cole and Wilcox, 1938: 67.—S.C.; N.C.
slossonae Cole and Wilcox, 1938: 70.—N.H.; N.J., Va.
terricola (Johnson), 1900b: 326 (*Daulopogon*).—Mass.; Alta. to N.J., s. to N. Dak. and Va.
testaceus Cole and Wilcox, 1938: 72.—Calif.
tetragrammus (Loew), 1874a: 368 (*Daulopogon*).—Canada; Que., N.Y., N.H., Mass., Conn.
trivittatus Melander, 1923b: 144.—Mont.
willametti Cole and Wilcox, 1938: 77.—Oreg.; Wash.
yukonensis Cole and Wilcox, 1938: 79.—Y.T.
zonatus Cole and Wilcox, 1938: 80.—Calif.

Genus LESTOMYIA Williston

Lestomyia Williston, 1883a: 19. Type-species, *Clavator sabulonum* Osten Sacken (orig. des.).
Clavator, authors, not Philippi.

REFERENCE: Curran, 1942a (key).

atripes Wilcox, 1937: 37.—N. Mex.; Ariz.
fraudigera Williston, 1883a: 21.—Calif.
montis Cole, 1916b: 67.—Calif.
sabulona (Osten Sacken), 1877: 292 (*Clavator*).—Calif.
redlandae Cole, 1916b: 64.—Calif.
strigipes Curran, 1931b: 3.—Wyo.
unicolor Curran, 1942a: 57.—Ariz.

Genus METAPOGON Coquillett

Metapogon Coquillett, 1904f: 181. Type-species, *gilvipes* Coquillett (orig. des.).

REFERENCE: Melander, 1923c (key).

albulus Melander, 1923c: 211.—Wash.; Idaho.
gibber (Williston), 1883a: 14 (?*Cyrtopogon*).—Calif.
gilvipes Coquillett, 1904f: 182.—Calif.
pictus Cole, 1916b: 65.—Calif.
punctipennis Coquillett, 1904f: 182.—N. Mex.; Ariz.

Genus MICROSTYLUM Macquart

Microstylum Macquart, 1838b: 26 (1839: 142). Type-species, *Dasypogon venosus* Wiedemann (Back, 1909: 213).
Megapollyon Walker, 1854: 452. Type-species, *Microstylum acutirostre* Loew (Coquillett, 1910b: 566).
Megapollion, error.

galactodes Loew, 1866b: 25 (Cent. 7, no. 44).—N. Mex.; Ariz. Kans., Tex.
morosum Loew, 1872a: 67 (Cent. 10, no. 27).—Tex.; Ariz.
pollens Osten Sacken, 1878c: 230 (note 100).—Tex.

Genus MYELAPHUS Bigot

Myelaphus Bigot, 1882b: xci. Type-species, *melas* Bigot (orig. des.).

lobicornis (Osten Sacken), 1877: 287 (*Ceraturgus*).—Idaho; Calif., Nev.
melas Bigot, 1882b: xci.—Calif.
rufus Williston, 1883a: 7.—Calif.

Genus NANNOCYRTOPOGON Wilcox and Martin

Nannocyrtopogon Wilcox and Martin, 1936b: 449. Type-species, *Cyrtopogon cerussatus* Osten Sacken (orig. des.).

REFERENCE: Wilcox and Martin, 1957a (key).

antennatus Wilcox and Martin, 1957a: 378.—Calif.
aristatus James, 1942a: 126.—Colo.; Utah.
arnaudi Wilcox and Martin, 1957a: 379.—Calif.
atripes Wilcox and Martin, 1936b: 456.—Idaho; Wash., Oreg., Calif.
bruneri Wilcox and Martin, 1957a: 380.—Calif.
cerussatus (Osten Sacken), 1877: 308 (*Cyrtopogon*).—Calif.
crumbi Wilcox and Martin, 1957a: 380.—Ariz.
deserti Wilcox and Martin, 1957a: 380.—Calif.
howlandi Wilcox and Martin, 1957a: 382.—Calif.
inyoi Wilcox and Martin, 1957a: 384.—Calif.
irvinei Wilcox and Martin, 1957a: 384.—Calif.
j-beameri Wilcox and Martin, 1957a: 385.—Calif.
lestomyiformis Wilcox and Martin, 1936b: 454.—Calif.
mingusi Wilcox and Martin, 1957a: 386.—Ariz.; Utah.
minutus Wilcox and Martin, 1936b: 455.—Calif.
monrovia Wilcox and Martin, 1936b: 453.—Calif.
neoculatus Wilcox and Martin, 1957a: 386.—Calif.
nevadensis Wilcox and Martin, 1957a: 387.—Nev.
nigricolor (Coquillett), 1904f: 183 (*Cyrtopogon*).—Calif.
nitidus Wilcox and Martin, 1957a: 388.—Calif.

oculatus Wilcox and Martin, 1936b: 452.—Calif.
richardsoni Wilcox and Martin, 1957a: 389.—Calif.
sequoia Wilcox and Martin, 1957a: 389.—Calif.
stonei Wilcox and Martin, 1957a: 389.—Calif.
timberlakei Wilcox and Martin, 1957a: 390.—Calif.
tolandi Wilcox and Martin, 1957a: 391.—Calif.
vanduzeei Wilcox and Martin, 1936b: 451.—Calif.
vandykei Wilcox and Martin, 1957a: 391.—Calif.

Genus NICOCLES Jaennicke

Pygostolus Loew, 1866b: 16 (Cent. 7, no. 28) (preocc. Haliday, 1833). Type-species, *argentifer* Loew (Coquillett, 1910b: 598)= *politus* (Say).

Nicocles Jaennicke, 1867: 355 (1868: 47). Type-species, *analis* Jaennicke (mon.).

REFERENCE: Wilcox, 1946 (key).

abdominalis Williston, 1883a: 17.—Calif.
aemulator (Loew), 1872a: 66 (Cent. 10, no. 25) (*Pygostolus*).—Calif.
argentatus Coquillett, 1893d: 119.—Calif.
bromleyi Hardy, 1943a: 28.—Ariz.
canadensis Curran, 1923j: 208.—B.C.; Wash., Oreg.
dives (Loew), 1866b: 17 (Cent. 7, no. 29) (*Pygostolus*).—Calif.; Wash., Oreg.
engelhardti Wilcox, 1946: 163.—S.C.; N.C.
lomae Cole, 1916b: 67.—Calif.
pictus (Loew), 1866b: 17 (Cent. 7, no. 30) (*Pygostolus*).—D.C.; N.J., Ala., Ga., Fla.
amastris Walker, 1849: 362 (*Dasypogon*).—Ga.
politus (Say), 1823: 52 (1859b: 65) (*Dasypogon*).—Pa.; N.Y. and Mass., s. to Fla.
argentifer Loew, 1866b: 16 (Cent. 7, no. 28) (*Pygostolus*).—D.C.
pollinosus Wilcox, 1946: 164.—Mont.; B.C., Calif.
reinhardi Bromley, 1934a: 91.—Tex.
rufus Williston, 1883a: 18.—Wash.; Oreg., Calif.
utahensis Banks, 1920: 66.—Utah; Wash., Oreg., Alta.
punctipennis Melander, 1923c: 217.—Wash.

Genus OMNIABLAUTUS Pritchard

Omniablautus Pritchard, 1935: 1. Type-species, *arenosus* Pritchard (orig. des.).

arenosus Pritchard, 1935: 1.—N. Mex.

Genus ORRHODOPS Hull

Orrhodops Hull, 1958a: 324. Type-species, *Damalis americanus* Curran (orig. des.).

americanus (Curran), 1930h: 5 (*Damalis*).—Ariz.

Genus OSPRIOCERUS Loew

Ospriocerus Loew, 1866b: 29 (Cent. 7, no. 51). Type-species, *Dasypogon aeacus* Wiedemann (Back, 1909: 184)= *abdominalis* (Say).

abdominalis (Say), 1824a: 375 (1859a: 255) (*Asilus*).—Northwest Territory (U.S.); Wash. to Nebr., s. to Calif. and Tex., also Pa.

aeacus Wiedemann, 1828: 390 (*Dasypogon;* n. name for *abdominalis* Say, when preocc. in *Dasypogon*).—Pa.

aeacides Loew, 1866b: 29 (Cent. 7, no. 51).—Calif.

ventralis Coquillett, 1898e: 37.—Ariz. **N. syn.**

aeacidinus (Williston), 1886a: 289 (*Stenopogon*).—Kans.; Mont., Colo., Nebr., Tex. **N. comb.**

arizonensis (Bromley), 1937a: 305 (*Stenopogon*).—N. Mex.; Ariz. **N. comb.**

ebyi (Bromley), 1937a: 305 (*Stenopogon*).—Tex. **N. comb.**

eutrophus Loew, 1874a: 355.—Tex.; Kans.

latipennis (Loew), 1866b: 28 (Cent. 7, no. 49) (*Stenopogon*).—N. Mex.; S. Dak. to N. Mex. and Tex. **N. comb.**

consanguineus Loew, 1866b: 27 (Cent. 7, no. 48) (*Stenopogon*).—Nebr. **N. syn., n. comb.**

longulus (Loew), 1866b: 28 (Cent. 7, no. 50) (*Stenopogon*).—N. Mex.; Ariz., Tex. **N. comb.**

minos Osten Sacken, 1877: 291.—Colo.; Ariz., N. Mex.

nitens (Coquillett), 1904c: 34 (*Stenopogon*).—Tex.

monki Bromley, 1934b: 225.—Tex.

parksi Bromley, 1934a: 89.—Tex.

rhadamanthus Loew, 1866b: 29 (Cent. 7, no. 52).—N. Mex.; Kans., Tex.

tenebrosus (Coquillett), 1904c: 33 (*Stenopogon*).—Tex.; N. Mex. **N. comb.**

Genus PARATARACTICUS Cole

Parataracticus Cole, 1924b: 11. Type-species, *rubidus* Cole (orig. des.).

niger Martin, 1955a: 118.—s. Calif.

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rubidus Cole, 1924b: 12.—cent. Calif.
wyliei Martin, 1955a: 116.—s. Calif.

Genus PERASIS Hermann

Perasis Hermann, 1905: 37. Type-species, *sareptana* Hermann (orig. des., as gen. n., sp. n.).
Triclis, authors, not Loew.

argentifacies (Williston), 1901: 310 (*Triclis*).—Mexico; Ariz.

Genus PLESIOMMA Macquart

Plesiomma Macquart, 1838b: 54 (1839: 170). Type-species, *testacea* Macquart (Back, 1909: 306).

unicolor Loew, 1866b: 20 (Cent. 7, no. 35).—N. Mex.; Tex.

Genus PSILOCURUS Loew

Psilocurus Loew, 1874a: 373. Type-species, *nudiusculus* Loew (mon.).
Orthoneuromyia Williston, 1893c: 67. Type-species, *modesta* Williston (mon.).

REFERENCE: Curran, 1931b (key).

birdi birdi Curran, 1931b: 9.—Okla.; Miss.
ssp. **pallustris** Hull, 1961: 104.—Miss.
modestus (Williston), 1893c: 68 (*Orthoneuromyia*).—S. Dak.; Kans., Tex.
nudiusculus Loew, 1874a: 370.—Tex.; La., Miss.
puellus Bromley, 1934a: 92.—Tex.
pygmaeus Hull, 1961: 101.—Tex.
reinhardi Bromley, 1951: 16.—Tex.
tibialis Hull, 1961: 102.—Tex.

Genus PYCNOPOGON Loew

Dasypogon, subg. **Pycnopogon** Loew, 1847c: 526. Type-species, *mixtus* Loew (Rondani, 1856: 157).

REFERENCE: Wilcox, 1941 (key).

cirrhatus Osten Sacken, 1877: 293.—Calif.; Wash., Nebr.
johnsoni (Back), 1904: 293 (*Anisopogon*).—Colo.; Ariz., N. Mex., Tex.

Genus SAROPOGON Loew

Dasypogon, subg. **Saropogon** Loew, 1847c: 439. Type-species, *luctuosus* Wiedemann (Coquillett, 1910b: 603).

REFERENCE: Curran, 1931b (key).

abbreviatus Johnson, 1903d: 113.—Tex.
bicolor Johnson, 1903d: 113.—Tex.
albifrons Back, 1904: 291.—Ariz.; Calif.
birdi Curran, 1931b: 2.—Okla.
combustus Loew, 1874a: 373.—Tex.; Colo., Nebr., Kans., Okla.
adustus Loew, 1874a: 375.—Tex.
coquilletti Back, 1909: 348.—N. Mex.; Ariz.
dispar Coquillett, 1902d: 139.—Tex.; Okla.
fletcheri Bromley, 1934a: 91.—Tex.
hyalinus Coquillett, 1904f: 185.—Calif.
hypomelas (Loew), 1866b: 24 (Cent. 7, no. 42) (*Diogmites*).—N. Mex.; Tex.
laparoides Bromley, 1951: 14.—Tex.
luteus Coquillett, 1904f: 185.—Calif.
rufus Back, 1904: 290.—Calif.
pritchardi Bromley, 1934a: 90.—Tex.; Okla.
purus Curran, 1930h: 3.—Ariz.
semiustus Coquillett, 1904f: 186.—Calif.
senex Osten Sacken, 1887a: 179.—Mexico; Ariz.
aridus Curran, 1930h: 3.—Ariz. **N. syn.**
solus Bromley, 1951: 15.—Tex.

Genus STENOPOGON Loew

Dasypogon, subg. **Stenopogon** Loew, 1847c: 453. Type-species, *Asilus sabaudus* Fabricius (Coquillett, 1904f: 179).
Gonioscelis Schiner, 1866a: 670. Type-species, *Dasypogon hispidus* Wiedemann (orig. des.).
Scleropogon Loew, 1866b: 26 (Cent. 7, no. 45). Type-species, *picticornis* Loew (mon.).

REFERENCE: Bromley, 1937a (key).

albibasis Bigot, 1878: 422.—Calif.
andersoni Bromley, 1937a: 302.—Calif.
boharti Bromley, 1951: 6.—Ariz.; Calif.
bradleyi Bromley, 1937a: 309.—Calif.
breviusculoides Bromley, 1937a: 299.—Calif.
breviusculus Loew, 1872a: 68 (Cent. 10, no. 28).—Calif.
californiae (Walker), 1849: 322 (*Dasypogon*).—Calif.
californioides Bromley, 1937a: 304.—Calif.
cazieri Brookman, 1941: 78.—Calif.
cinerascens Back, 1909: 208.—Tex.
coyote Bromley, 1931: 429.—Wyo.; Alta., Colo., Ariz., N. Mex.
dispar Bromley, 1937a: 306.—Ariz.
duncani Bromley, 1937a: 307.—N. Mex.; Calif., Ariz.,

engelhardti Bromley, 1937a: 301.—Calif.
felis Bromley, 1931: 429.—Calif.
floridensis Bromley, 1951: 6.—Fla.
gratus Loew, 1872a: 69 (Cent. 10, no. 31).—Calif.
univittatus Loew, 1872a: 69 (Cent. 10, no. 29).—Calif.
helvolus (Loew), 1874a: 355 (*Scleropogon*).—Tex.; Nebr., Kans.
huachucanus Hardy, 1942a: 57.—Ariz.
indistinctus Bromley, 1937a: 308.—Ariz.; Okla.
inquinatus Loew, 1866b: 27 (Cent. 7, no. 47).—Nebr.; B.C. to Minn., s. to Calif. and Ariz.
modestus Loew, 1866b: 26 (Cent. 7, no. 46).—Minn.
morosus Loew, 1874a: 356.—Minn.
jubatoides Bromley, 1937a: 297.—Calif.
jubatus Coquillett *in* Baker, 1904: 38.—Calif.
kelloggi Wilcox *in* Bromley, 1937a: 307.—N. Mex.; Ariz.
martini Bromley, 1937a: 303.—Idaho; Calif., Mont., Colo., Kans.
mexicanus Cole, 1923a: 463.—Mexico; ?Ariz.
neglectus Bromley, 1931: 430.—Wyo.; Wash. to Wyo., s. to Oreg. and Utah.
neojubatus Wilcox and Martin, 1945: 10.—Calif.
nigritulus Coquillett, 1904f: 179.—Calif.
nigriverticellus Bromley, 1937a: 298.—Calif.
obscuriventris Loew, 1872a: 69 (Cent. 10, no. 30).—Calif.
picticornis (Loew), 1866b: 26 (Cent. 7, no. 45) (*Scleropogon*).—Calif.
propinquus Bromley, 1937a: 298.—Oreg.; Calif.
pumilis Coquillett, 1904c: 33.—Tex.; Kans.
rufibarbis Bromley, 1931: 431.—Calif.; Wash., Oreg., Utah.
rufibarboides Bromley, 1937a: 301.—Calif.
similis (Jones), 1907a: 274 (*Scleropogon*).—Nebr.
subulatus (Wiedemann), 1828: 375 (*Dasypogon*).—Ga.; N.C.
texanus Bromley, 1931: 431.—Tex.
timberlakei Bromley, 1937a: 302.—Calif.
tinkhami Bromley, 1951: 7.—Tex.
uhleri Banks, 1920: 66.—Colo.
utahensis Bromley, 1951: 8.—Utah.
wilcoxi Bromley, 1937a: 300.—Calif.

Genus STICHOPOGON Loew

Dasypogon, subg. **Stichopogon** Loew, 1847c: 499. Type-species, *elegantulus* Wiedemann (Back, 1909: 332).
Neopogon Bezzi, 1910: 147. Type-species, *Dasypogon trifasciatus* Say (orig. des.).

REFERENCE: Wilcox, 1936d (key).

abdominalis Back, 1909: 332.—Fla.
arenicola Wilcox, 1936d: 207.—Ariz.
argenteus (Say), 1823: 51 (1859b: 65) (*Dasypogon*).—Pa.; Colo. to Pa., s. to Md.
catulus Osten Sacken, 1887a: 170.—Mexico; Ariz.
colei Bromley, 1934a: 90.—Tex.
coquilletti (Bezzi), 1910: 151 (*Neopogon*).—Calif.
fragilis Back, 1909: 334.—N. Mex.; Ariz.
pritchardi Bromley, 1951: 8.—Kans.; Colo., Okla., Tex.
salinus (Melander), 1923c: 216 (*Neopogon*).—Utah.
trifasciatus (Say), 1823: 51 (1859b: 64) (*Dasypogon*).—Pa.; U.S.
plagiata Walker, 1848: 223 (*Thereva*).—Mass.
gelascens Walker, 1860a: 277 (*Dasypogon*).—Mass.
snowii Bezzi, 1910: 149.—Kans.

Genus TARACTICUS Loew

Taracticus Loew, 1872a: 64 (Cent. 10, no. 24). Type-species, *Dioctria octopunctata* Say (mon.).
Dioctrodes Coquillett, 1904f: 181. Type-species, *flavipes* Coquillett (orig. des.)=*octopunctatus* (Say).

REFERENCE: Pritchard, 1938b (key).

dimidiatus (Macquart), 1847: 51 (1847: 35) (*Dasypogon*).—Mexico. **N. comb.** Not n. of Mexico; record by Back, 1909: 236 (in *Ceraturgus*) incorrect.
octopunctatus (Say), 1823: 49 (1859b: 63) (*Dioctria*).—U.S.; S. Dak. to N.H., s. to Mo. and Fla.
flavipes Coquillett, 1904f: 181 (*Dioctrodes*).—Mo.
rufipes Jones, 1907a: 276 (*Dioctria*).—Nebr.
paulus Pritchard, 1938b: 189.—Calif.
ruficaudus Curran, 1930h: 4.—Ariz.

Genus TOWNSENDIA Williston

Townsendia Williston, 1895d: 107. Type-species, *minuta* Williston (mon.).

minuta Williston, 1895d: 108.—Mexico; N. Mex.
nigra Back, 1909: 175.—N.J.; Tex., La., Ky., Ga.
pulcherrima Back, 1909: 177.—Tex.

Genus WILCOXIA James

Wilcoxia James, 1941b: 38. Type-species, *cinerea* James (orig. des.).

cinerea James, 1941b: 39.—Colo.

Genus WILLISTONINA Back

Willistonina Back, 1909: 337. Type-species, *Habropogon bilineatus* Williston (orig. des.).

bilineata bilineata (Williston), 1883a: 11 (*?Habropogon*).—Calif.; Wash., Oreg.

ssp. **nigrofemorata** Wilcox, 1935b: 33.—Calif.; B.C., Oreg., Mont.

Genus ZABROPS Hull

Zabrops Hull, 1957b: 90. Type-species, *Triclis tagax* Williston (orig. des.).

flavipilis (Jones), 1907a: 275 (*Triclis*).—Nebr.
tagax (Williston), 1883a: 9 (*Triclis*).—Calif.

Subfamily LAPHRIINAE

Genus ANDRENOSOMA Rondani

Andrenosoma Rondani, 1856: 160. Type-species, *Asilus ater* Linnaeus (orig. des.).

Elaeotoma Costa, 1963: 49. Type-species, *adustiventris* Costa (mon.)=*albibarbe* (Meigen).

Pilica Curran, 1931b: 20. Type-species, *Laphria formidolosa* Walker (orig. des.).

Nusa, authors, in part, not Walker.

REFERENCE: McAtee, 1919b (key).

cruentum (McAtee), 1919b: 244 (*Nusa*).—Fla.
fulvicauda (Say), 1823: 53 (1859b: 66) (*Laphria*).—Mo.; Calif. to Ont., s. to Tex. and Fla., Neotropical.
lutea McAtee, 1919b: 246 (*Nusa*; as var.).—Colo.
rubidum (Williston), 1901: 318 (*Nusa*).—Mexico; Tex.
sicarium (McAtee), 1919b: 246 (*Nusa*).—Tex.

Genus ATOMOSIA Macquart

Atomosia Macquart, 1838b: 73 (1839: 189). Type-species, *incisuralis* Macquart (Coquillett, 1910b: 512)=*puella* (Wiedemann).

REFERENCES: Curran, 1930h, 1935a (keys).

echemon (Walker), 1849: 386 (*Laphria*).—Ohio. ?=*puella*.
glabrata (Say), 1823: 53 (1859b: 66) (*Laphria*).—U.S.; Ohio, Pa., Tex.

melanopogon Hermann, 1912: 144.—Tex.; Ariz., Colo., Iowa.
mucida Osten Sacken, 1887a: 184.—Mexico; Tex.
mucidoides Bromley, 1951: 19.—Tex.
puella (Wiedemann), 1828: 531 (*Laphria*).—Unknown.; Ohio to Pa., s. to Tex. and Fla.
pusilla Macquart, 1838b: 76 (1839: 192).—N. Amer.; Mo., Pa.
rufipes Macquart, 1847: 55 (1847: 39).—Pa.; Tex., Fla.
soror Bigot, 1878: 236.—Mexico. **N. syn.**
sayii Johnson, 1903d: 113.—Pa.; Tex., Fla.

Genus ATOMOSIELLA Wilcox

Atomosiella Wilcox, 1937: 40. Type-species, *Atomosia antennata* Banks (orig. des.).

antennata (Banks), 1920: 66 (*Atomosia*).—Ariz.; Calif., N. Mex.

Genus ATONIOMYIA Hermann

Atonia Williston, 1889c: 257 (preocc. Gistl, 1847). Type-species, *mikii* Williston (Williston, 1901: 316).
Atoniomyia Hermann, 1912: 81 (n. name for *Atonia* Williston). Type-species, *Atonia mikii* Williston (aut.).
Neatonia Bromley, 1935b: 130. Unavailable name (no type des.).

brevistylata (Williston), 1901: 316 (*Atonia*).—Mexico; Ariz.
duncani (Wilcox), 1937: 42 (*Atonia*).—Ariz.

Genus CEROTAINIA Schiner

Cerotainia Schiner, 1866a: 673. Type-species, *Laphria xanthoptera* Wiedemann (orig. des.).

REFERENCE: Curran, 1930h, 1934d (keys).

albipilosa Curran, 1930h: 13.—N.C.; N.Y., Va.
atrata Jones, 1907a: 280.—Nebr.
macrocera (Say), 1823: 73 (1859b: 67) (*Laphria*).—Pa.; Ohio, N.J. to Fla.

Genus CEROTAINIOPS Curran

Cerotainiops Curran, 1930f: 11.—Type-species, *rufiventris* Curran (orig. des.)=*abdominalis* (Brown).
Nusa, authors, in part, not Walker.

REFERENCE: Martin, 1959b (key).

abdominalis (Brown), 1897: 103 (*Nusa*).—N. Mex.; Calif., Ariz., Kans., Okla., Tex.
similis Brown, 1897: 103 (*Nusa*).—N. Mex.
atripes McAtee, 1919b: 247 (*Nusa*; as var.).—N. Mex.
rufiventris Curran, 1930f: 11.—Ariz.
kernae Martin, 1959b: 52.—Calif.
lucyae Martin, 1959b: 50.—Tex.
mcclayi Martin, 1959b: 51.—Calif.
omus Pritchard, 1942: 22.—Calif.
wilcoxi Pritchard, 1942: 23.—Ariz.; Calif.
abdominalis, authors, not Brown.

Genus DASYLECHIA Williston

Dasylechia Williston, 1907: 1. Type-species, *Hyperechia atrox* Williston (mon.).

atrox (Williston), 1883a: 28 (*Hyperechia*).—Pa.; Utah to Mich., s. to N.J.

Genus LAMPRIA Macquart

Lampria Macquart, 1838b: 60 (1839: 176). Type-species, *Laphria clavipes* Fabricius (Coquillett, 1910b: 557).

bicolor (Wiedemann), 1828: 522 (*Laphria*).—Unknown; Ind. to Conn., s. to Tex. and Fla.
saniosa Say, 1829: 158 (1859b: 355) (*Laphria*).—Ind.
megacera Macquart, 1834a: 284 (*Laphria*).—Pa.
antaea Walker, 1849: 379 (*Laphria*).—Fla.
corallogaster (Bigot), 1878: 226 (*Laphria*).—N. Amer.
rubriventris (Macquart), 1834a: 284 (*Laphria*).—Pa.; Ga., Tex.

Genus LAPHRIA Meigen

Lapria Meigen, 1800: 25. Type-species, *Asilus gibbosus* Linnaeus (Coquillett, 1910b: 557). Suppressed by I.C.Z.N., 1963b: 339.

Laphria Meigen, 1803: 270. Type-species, *Asilus gibbosus* Linnaeus (Latreille, 1810: 443).

Ropalocera Meigen, 1820: 301. Type-species, *Laphria nigripennis* Meigen (mon.).

Bombomima Enderlein, 1914c: 253. Type-species, *Laphria fulvithorax* Fabricius (orig. des.) = *thoracica* Fabricius.

Dasyllis, authors, not Loew.

References: Banks, 1917a (key); McAtee, 1919a (key).

aeata Walker, 1849: 381.—Hudson Bay; Alta.
affinis Macquart, 1855: 74 (1855: 54).—Md.; N.J., Ala., Ga.
aimatis McAtee, 1919a: 160.—Calif.; Colo.
aktis McAtee, 1919a: 152.—Pa.; Ohio, Va., N.C.
altitudinum Bromley, 1924: 126.—Maine; N.H., N.Y.
apila (Bromley), 1951: 22 (*Bombomima*).—Ala.; Ga., Tenn.
asackeni Wilcox (for *sackeni* Wilcox).—Calif.; Alaska, B.C., Oreg., Idaho, Mont. **N. name.**
sackeni Wilcox, 1936b: 8 (preocc. Banks, 1917).—Calif.
astur Osten Sacken, 1877: 285.—Calif.; Wash., Oreg.
californica Banks, 1917a: 54 (*Dasyllis*).—Calif.
asturina (Bromley), 1951: 22 (*Bombomima*).—B.C.; Alaska, Wash., Oreg., Calif.
astur, authors, not Osten Sacken.
canis Williston, 1883a: 31.—Conn.; Ohio, Pa., N.Y., Md., Va.
dispar Banks, 1911a: 130 (preocc. Coquillett, 1898).—N.Y.
disparella Banks, 1913: 52 (n. name for *dispar* Banks).—N.Y.
carbonaria Snow, 1896: 181 (n. name for *anthrax* Williston).—Calif.; N. Mex.
anthrax Williston, 1883a: 29 (preocc. Meigen, 1804).—Calif.
carolinensis Schiner, 1867b: 380.—Carolina.
champlainii (Walton), 1910: 243 (*Dasyllis*).—Pa.; Conn.
cinerea (Back), 1904: 289 (*Dasyllis*).—N.C.; N.Y.
columbica Walker *in* Lord, 1866: 338.—B.C.; Wash., Oreg.
coquillettii McAtee, 1919a: 257.—Calif.
divisor (Banks), 1917a: 54 (*Dasyllis*).—N.C.; Wis., Ill., Maine, Pa.
engelhardti (Bromley), 1931: 434 (*Bombomima*).—Colo.; Ariz., N. Mex.
fattigi (Bromley), 1951: 23 (*Bombomima*).—Ga.
felis (Osten Sacken), 1877: 286 (*Lampria*).—Calif.; B.C., Wash., Oreg., Utah, Wyo., Colo.
xanthippe Williston, 1883a: 31.—Oreg.
atripes McAtee, 1919a: 161 (as var.).—Colo.
crocea McAtee, 1919a: 162 (as var.).—Wash.
varipes McAtee, 1919a: 162 (as var.).—Colo.
fernaldi (Back), 1904: 290 (*Dasyllis*).—Colo.; Wash., Oreg. Utah.
ferox Williston, 1883a: 29.—Wash.; B.C., Mont.
flavescens Macquart, 1838b: 69 (1839: 185).—Carolina and Pyrenees.
flavicollis Say, 1824a: 374 (1859a: 255).—Northwest Territory (U.S.); Iowa to Que., s. to Tex. and Fla.
melanopogon Wiedemann, 1828: 520.—Ky.
flavipila Macquart, 1834a: 282.—U.S.

franciscana Bigot, 1878: 225.—Calif.; B.C., Wash.
georgina Wiedemann, 1821c: 235.—Ga.
gilva (Linnaeus), 1758: 605 (*Asilus*).—Europe; Wash. and Oreg. to Mass.
bilineata Walker, 1849: 1156.—Ont.
grossa (Fabricius), 1775: 791 (*Asilus*).—Amer.; Pa., Ga., Fla.
tergissa Say, 1823: 74 (1859b: 67).—Pa.
analis Macquart, 1838b: 68 (1839: 184).—N. Amer.
flavibarbis Harris, 1862: 604.—Unknown.
huron (Bromley), 1929: 159 (*Bombomima*).—Ont.; N.B., N.Y.
index McAtee, 1919a: 164.—Pa.; e. Canada, N.H., N.Y., N.J., Va.
insignis (Banks), 1917a: 54 (*Dasyllis*).—Labr.; Calif.
ithypyga McAtee, 1919a: 165.—Pa.; Md.
janus McAtee, 1919a: 153.—N.H.; B.C. and Wash. to Maine, s. to Colo. and N.Y.
lasipes Wiedemann, 1828: 502.—Ky.
lata Macquart, 1850: 379 (1850: 75) (n. name for *analis* Macquart, 1846).—Tex.; La.
analis Macquart, 1846: 206 (1846: 78) (*Mallophora*; preocc. Macquart, 1838).—Tex.
macquarti (Banks), 1917a: 54 (*Dasyllis*).—Tex.
melanogaster Wiedemann, 1821c: 236.—Mexico; Tex., Ga.
milvina Bromley, 1929: 160.—B.C.; Oreg.
nigella (Bromley), 1934a: 93 (*Bombomima*).—Tex.
partitor (Banks), 1917a: 54 (*Dasyllis*).—B.C.; Wash., Oreg.
posticata Say, 1824a: 374 (1859a: 255).—Northwest Territory (U.S.); Wis., Ont., Que., N.Y.
brunnea Bromley, 1929: 159 (*Bombomima*; as var.).—Ont. ?Var.
scutellaris Bromley, 1929: 159 (*Bombomima*; as var.).—Ont.
rapax Osten Sacken, 1877: 286.—Calif.; Wash., Oreg.
royalensis (Bromley), 1950b: 2 (*Bombomima*).—Mich.
sackeni (Banks), 1917a: 54 (*Dasyllis*).—Calif.; Oreg.
sacrator Walker, 1849: 382.—N.S.; Wis. to Que., s. to Conn.
sadales Walker, 1849: 378.—N.Y.; B.C. to N.H., s. to Calif.
pubescens Williston, 1883a: 32.—Wash.
saffrana Fabricius, 1805: 160.—Carolina; Va, N.C., Ga., Fla.
scorpio McAtee, 1919a: 163.—N.H.; N.Y., Vt.
semitecta (Coquillett), 1910a: 124 (*Dasyllis*).—Man.
sericea Say, 1823: 74 (1859b: 67).—U.S.; Ill., Atlantic Seaboard States.
sicula McAtee, 1919a: 165.—Md.; Ill., Ohio, Pa., Va.
terraenovae Macquart, 1838b: 69 (1839: 185).—Nfld.

thoracica Fabricius, 1805: 158.—N. Amer.; e. of the Rocky Mts.
fulvithorax Fabricius, 1805: 373 (unjustified n. name for *thoracica* Fabricius).—N. Amer.
alcanor Walker, 1849: 383.—Mass.
trux McAtee, 1919a: 158.—Calif.
audax McAtee, 1919a: 158 (as var.).—Calif.
unicolor Williston, 1883a: 26 (*Dasyllis*).—Wash.
ventralis Williston, 1885a: 55.—Calif.; Wash.
virginica (Banks), 1917a: 53(*Dasyllis*).—Va.
vivax Williston, 1883a: 30.—Wash.; B.C., Colo.
anthemon McAtee, 1919a: 156 (as ssp.).—N. Mex.
vorax (Bromley), 1929: 158 (*Bombomima*).—Kans.; Nebr.
vultur Osten Sacken, 1877: 286.—Calif.; Wash., Oreg.
winnemana McAtee, 1919a: 168.—Md.; Canada, Pa., Va.

Genus ORTHOGONIS Hermann

Orthogonis Hermann, 1914: 132. Type-species, *Laphria scapularis* Wiedemann (Hull, 1962: 330.).

stygia (Bromley), 1931: 433 (*Laphria*).—N.C.; Miss., Fla.

Genus POGONOSOMA Rondani

Pogonosoma Rondani, 1856: 160. Type-species, *Asilus maroccanus* Fabricius (orig. des.).

dorsatum (Say), 1824b: pl. 6 (1859a: 13) (*Laphria*).—Pa.; Wash., Idaho, Conn., N.J., Va., S.C., and Fla.
melanoptera Wiedemann, 1828: 514 (*Laphria*).—Carolina (unpublished).
ridingsi Cresson, 1920c: 214.—Colo.; Calif.

Subfamily ASILINAE

Genus ASILUS Linnaeus

Asilus Linnaeus, 1758: 605. Type-species, *crabroniformis* Linnaeus (Latreille, 1810: 443). The only North American species that is known to be congeneric with the genotype of *Asilus* is *sericeus* Say. Many species formerly assigned to *Asilus* have been moved to other genera, leaving most of the following species tentatively awaiting generic reassignment.

REFERENCE: Hine, 1909 (key to spp. in *Asilus* and allied genera).

albicomus Hine, 1909: 150.—Mont.
angustipennis Hine, 1909: 152.—N.C.; Md., Va.
astutus Williston, 1893c: 70.—Calif.
auriannulatus (Hine), 1906b: 29 (*Stilpnogaster*).—B.C.; Wash., Calif.
auricomus Hine, 1909: 148.—Ohio; Ill., Conn., N.J., Pa.
autumnalis Banks, 1914b: 131.—Va.
blantoni Bromley, 1940: 19.—Fla.
californicus Hine, 1909: 164.—Calif.
carolinae Martin and Wilcox (for *annulipes* Macquart).—Carolina. **N. name.**
annulipes Macquart, 1838b: 149 (1839: 265) (preocc. Brullé, 1832).—Carolina.
citus Hine, 1918b: 321.—Ariz.
comosus Hine, 1918b: 319.—Calif.
compositus Hine, 1918b: 321.—Calif.
delicatulus Hine, 1918b: 320.—N. Mex.
erythocnemius Hine, 1909: 163.—Mass.; Mont. to Mass., s. to Wyo. and Md.
fattigi Bromley, 1940: 19.—Ga.
floridensis Bromley, 1940: 18.—Fla.
formosus Hine, 1918b: 321.—Kans.
frosti Bromley, 1950a: 238.—Fla.; S.C.
fulviventris Schaeffer, 1916: 69.—Ariz.
gilvipes Hine, 1918b: 319.—Colo.; N. Mex.
gracilis Wiedemann, 1828: 445.—Ga.; Tex., N.C., Fla.
auratus Johnson, 1895a: 305.—Fla.
hubbelli Bromley, 1950b: 3.—Fla.
hypopygialis Schaeffer, 1916: 68.—Utah.
knulli Bromley, 1940: 17.—Ariz.
latipennis Hine, 1909: 152.—N.Y.; Mass.
lecythus Walker, 1849: 451.—N.S.; Ohio to N.S., s. to N.C.
femoralis Macquart, 1847: 61 (1847: 45) (preocc. Zeller, 1840).—Pa.
lepidus Hine, 1909: 150.—Colo.; N. Mex.
mesae (Tucker), 1907: 92 (*Tolmerus*).—Colo.; Wyo., Kans.
montanus Hine, 1909: 149.—Calif.; B.C.
mydas Brauer, 1885: 387.—Mexico; Ariz., N. Mex.
midas, emend.
piceus Hine, 1909: 149.—Mass.
platyceras Hine, 1922a: 7.—Wash.
schuhi Bromley, 1940: 17.—Oreg. **N. syn.**
rubicundus Hine, 1909: 162.—Kans.; Ill.
sackeni Banks, 1920: 67.—Calif.; Oreg.

sericeus Say, 1823: 48 (1859b: 63).—Pa.; Kans., Ind., Conn., Mass., N.J.

herminius Walker, 1849: 410.—Mass.

vescus Hine, 1918b: 320.—Calif.

virginicus Banks *in* McAtee and Banks, 1920: 31.—Va.; Md.

willistoni Hine, 1909: 150 (n. name for *angustifrons* Williston).—Wash.; B.C.

angustifrons Williston, 1893c: 71 (preocc. Loew, 1849).—Wash.

Genus ECCRITOSIA Schiner

Eccritosia Schiner, 1866a: 674. Type-species, *Asilus barbatus* Fabricius (orig. des.).

REFERENCE: Curran, 1934d (key).

amphinome (Walker), 1849: 387 (*Asilus*).—Mexico; Tex.

zamon (Townsend), 1895b: 600 (*Proctacanthus*).—Mexico (Baja Calif.); Ariz.

Genus EFFERIA Coquillett

Efferia Coquillett, 1893e: 175. Type-species, *candida* Coquillett (Coquillett, 1910b: 536).

Nerax Hull, 1962: 476. Type-species, *Asilus aestuans* Linnaeus (orig. des.).

Erax, authors, not Scopoli.

REFERENCES: Hine, 1919 (keys to groups and spp. under generic name *Erax*); Martin, 1961, 1962b (syn.).

aestuans (Linnaeus), 1763: 413 (*Asilus*).—Pa.; entire e. N. Amer. to Wyo. and Tex. **N. comb.**

niger Wiedemann, 1821c: 196 (*Asilus*).—Ga. **N. comb**

bastardi Macquart, 1838b: 117 (1839: 233) (*Erax*).—N. Amer. **N. comb.**

incisuralis Macquart, 1838b: 117 (1839: 233) (*Erax*).—Pa. **N. comb.**

tibialis Macquart, 1838b: 118 (1839: 234) (*Erax*).—Pa. **N. comb.**

affinis (Bellardi).—Not Nearctic. **N. comb.**

albibarbis (Macquart), 1838b: 118 (1839: 234) (*Erax*).—N. Amer.; U.S., coast to coast, s. to Guatemala.

furax Williston, 1885a: 67 (*Erax*).—Wash.

barbatus, authors, not Fabricius (*Erax*).

anacapai (Wilcox and Martin), 1945: 13 (*Erax*).—Calif. **N. comb.**

anomala (Bellardi).—Not Nearctic. **N. comb.**

apicalis (Wiedemann), 1821c: 191 (*Asilus*).—N. Amer.; Tex., N.C., Ga., Fla. **N. comb.**

vicinus Macquart, 1846: 213 (1846: 85) (*Erax*).—Tex. **N. comb.**

argentifrons (Hine), 1911c: 308 (*Erax*).—Kans. **N. comb.**

argyrosoma (Hine), 1911c: 310 (*Erax*).—N. Mex. **N. comb.**

arida (Williston), 1893d: 254 (*Erax*).—Calif. **N. comb.**

armata (Hine), 1918a: 4 (*Erax*).—Tex. **N. comb.**

aurimystacea (Hine), 1919: 122 (*Erax*).—Kans. **N. comb.**

auripila (Hine), 1916: 22 (*Erax*).—Tex. **N. comb.**

belfragei (Hine), 1919: 121 (*Erax*).—Tex. **N. comb.**

benedicti (Bromley), 1940: 15 (*Erax*).—Ariz. **N. comb.**

bexarensis (Bromley), 1934a: 94 (*Erax*).—Tex. **N. comb.**

bicaudata (Hine), 1919: 138 (*Erax*).—Colo. **N. comb.**

bicolor (Bellardi), 1861: 47 (1864: 147) (*Erax*).—Mexico; Ariz., N. Mex., Tex., Miss. **N. comb.**

californica (Schaeffer), 1916: 67 (*Erax*).—Calif.; Wash., Oreg., Nev., Mont. **N. comb.**

cana (Hine), 1916: 22 (*Erax*).—Calif. **N. comb.**

candida Coquillett, 1893e: 176.—Calif.; Ariz., N. Mex., Kans.

cannella (Bromley), 1934a: 95 (*Erax*).—Ariz. **N. comb.**

clementi (Wilcox and Martin), 1945: 14 (*Erax*).—Calif. **N. comb.**

coquillettii (Hine), 1919: 149 (*Erax*).—Calif.; Ariz. **N. comb.**

costalis (Williston), 1885a: 64 (*Erax*).—Unknown; Mont., Wyo., Colo. **N. comb.**

cressoni (Hine), 1919: 134 (*Erax*).—N. Mex.; Tex. **N. comb.**

cuervana (Hardy), 1943a: 27 (*Erax*).—N. Mex. **N. comb.**

dubia (Williston), 1885a: 64 (*Erax*).—Wash.; Ariz., Wyo. Name in key; "*Erax* n. sp.," p. 68, may be the descr. **N. comb.**

femorata (Macquart), 1838b: 115 (1839: 231) (*Erax*).—Carolina; La., Fla. **N. comb.**

grandis (Hine), 1919: 111 (*Erax*).—Tex. **N. comb.**

harveyi (Hine), 1919: 115 (*Erax*).—B.C. **N. comb.**

helenae (Bromley), 1951: 30 (*Erax*).—Colo. **N. comb.**

inflata (Hine), 1911c: 310 (*Erax*).—Calif. **N. comb.**

interrupta (Macquart), 1834a: 310 (*Asilus*).—Ga.; entire U.S., also Mexico. **N. comb.**

lateralis Macquart, 1838b: 116 (1839: 232) (*Erax*).—Pa. **N. comb.**

ambiguus Macquart, 1846: 212 (1846: 84) (*Erax*).—Tex., Mexico. **N. comb.**

jubata (Williston), 1885a: 66 (*Erax*).—N. Mex.; Ariz., Colo. **N. comb.**

kansensis (Hine), 1919: 122 (*Erax*).—Kans. **N. comb.**

knowltoni (Bromley), 1937b: 104 (*Erax*).—Utah. **N. comb.**
latruncula (Williston), 1885a: 67 (*Erax*).—Ariz.; Mont. **N. comb.**
leucocoma (Williston), 1885a: 69 (*Erax*).—Kans.; Tex. **N. comb.**
macrolabis (Wiedemann), 1828: 458 (*Asilus*).—Ky. **N. comb.**
mesquite (Bromley), 1951: 27 (*Erax*).—Tex. **N. comb.**
mexicana (Hine), 1919: 123 (*Erax*).—Mexico; Tex. **N. comb.**
monki (Bromley), 1951: 28 (*Erax*).—Tex. **N. comb.**
nemoralis (Hine), 1911c: 311 (*Erax*).—La.; Tex., Va. **N. comb.**
pallidula (Hine), 1911c: 309 (*Erax*).—N. Mex.; Colo. **N. comb.**
pernicis Coquillett, 1893e: 175.—Calif.; Ariz.
pilosa (Hine), 1919: 150 (*Erax*).—Tex. **N. comb.**
plena (Hine), 1916: 21 (*Erax*).—Kans.; Okla. **N. comb.**
pogonias (Wiedemann), 1821c: 198 (*Asilus*; n. name for *barbatus* Fabricius when preocc. in *Asilus*).—N. Amer.; s. U.S. e. of Rocky Mts.
barbatus Fabricius, 1805: 169 (*Dasypogon;* preocc. Fabricius, 1787).—N. Amer.
rufibarbis Macquart, 1838b: 116 (1839: 232) (*Erax*).—N. Amer.
completus Macquart, 1838b: 117 (1839: 233) (*Erax*).—N. Amer.
dascyllus Walker, 1849: 401 (*Asilus*).—Mass.
virginianus Wulp, 1882b: 109 (*Proctacanthus*).—Va.
rava Coquillett, 1893e: 176.—Tex.
aestuans, authors, not Linnaeus.
prairiensis (Bromley), 1934a: 95 (*Erax*).—Tex. **N. comb.**
prattii (Hine), 1919: 117 (*Erax*).—Tex. **N. comb.**
producta (Hine), 1919: 136 (*Erax*).—Calif. **N. comb.**
rapax (Osten Sacken), 1887a: 201 (*Erax*).—Mexico; Ariz., N. Mex. **N. comb.**
slossonae (Hine), 1919: 121 (*Erax*).—Fla. **N. comb.**
snowi (Hine), 1919: 116 (*Erax*).—Kans.; Colo., N. Mex., Tex. **N. comb.**
spiniventris (Hine), 1919: 135 (*Erax*).—Ariz. **N. comb.**
staminea (Williston), 1885a: 68 (*Erax*).—Mont.; Wyo. **N. comb.**
stramineus, emend.
subarida (Bromley), 1940: 14 (*Erax*).—Ariz. **N. comb.**
subcuprea (Schaeffer), 1916: 66 (*Erax*).—Ariz.; Nev., Mont., Colo., N. Mex. **N. comb.**
subpilosa (Schaeffer), 1916: 67 (*Erax*).—Utah; Calif., Nev., N. Mex. **N. comb.**
tabescens (Banks) *in* Hine 1919: 126 (*Erax*).—Fla. **N. comb.**
tagax (Williston), 1885a: 65 (*Erax*).—Ariz. **N. comb.**
similis Williston, 1885a: 68 (*Erax*).—Ariz. **N. comb.**

tanneri (Bromley), 1937b: 105 (*Erax*).—Colo. **N. comb.**
texana (Banks) *in* Hine 1919: 151 (*Erax*).—Tex. **N. comb.**
tricella (Bromley), 1951: 32 (*Erax*).—Ariz.; N. Mex. **N. comb.**
truncata (Hine), 1911c: 309 (*Erax*).—Ariz. **N. comb.**
tuberculata (Coquillett), 1904c: 34 (*Erax*).—Calif.; Tex. **N. comb.**
utahensis (Bromley), 1937b: 103 (*Erax*).—Utah. **N. comb.**
varipes (Williston), 1885a: 71 (*Erax*).—Ariz.; N. Mex., Kans. **N. comb.**
vertebrata (Bromley), 1940: 14 (*Erax*).—Calif. **N. comb.**
wilcoxi (Bromley), 1940: 16 (*Erax*).—Tex. **N. comb.**
willistoni (Hine), 1919: 110 (*Erax*).—Ariz.; Colo. **N. comb.**
zonata (Hine), 1919: 112 (*Erax*).—Ariz.; Calif., N. Mex. **N. comb.**

Genus MACHIMUS Loew

Machimus Loew, 1849: 1. Type-species, *Asilus chrysitis* Meigen (Coquillett, 1910b: 564).

avidus (Wulp), 1869: 82 (*Asilus*).—Wis.
griseus Hine, 1906b: 29.—Colo.
occidentalis (Hine), 1909: 147 (*Asilus*).—B.C.; Wash., Oreg., Nev., Calif.
tenebrosus (Williston).—Not Nearctic.

Genus MALLOPHORA Macquart

Mallophora Macquart, 1834a: 300. Type-species, *Asilus bomboides* Wiedemann (Coquillett, 1910b: 565).
Megaphorus Bigot, 1857b: 542. Type-species, *Mallophora heteroptera* Macquart (mon.). ?=*Mallophorina*.

REFERENCES: Curran, 1930f, 1931b (keys).

ardens Macquart, 1834a: 302.—N. Amer.
belzebul Schiner, 1867b: 385.—Brazil; Tex.
bomboides (Wiedemann), 1821c: 203 (*Asilus*).—Ga.; Fla.
bromleyi Curran, 1930f: 13.—Tex.; Ariz.
chrysomela Bromley, 1925: 193.—Miss.; Ga.
fautricoides Curran, 1930f: 13.—Calif.; Ariz., Colo.
fulva Banks, 1911a: 130.—Ariz.
fulviventris Macquart, 1850: 381 (1850: 77).—Mexico; Tex.
heteroptera Macquart, 1838b: 90 (1839: 206).—Pa.; Ky. ?=*Mallophorina laphroides*.
minuta Macquart, 1834a: 302.—Pa.; Fla.
nigra Williston, 1885a: 58.—Minn.; Fla.
orcina (Wiedemann), 1828: 477 (*Asilus*).—Ga.; Ariz., D.C., Va., Fla.

perpusilla (Walker), 1851b: 123 (*Trupanea*).—U.S.
rex Bromley, 1925: 192.—Miss.; N.C., Fla.

Genus MALLOPHORINA Curran

Mallophorina Curran, 1934a: 183. Type-species, *Mallophora guildiana* Williston (orig. des.).

REFERENCES: Curran, 1930f, 1931b (keys, in *Mallophora*).

acra (Curran), 1931b: 21 (*Mallophora*).—Okla.
clausicella (Macquart), 1850: 383 (1850: 79) (*Mallophora*).—Va.; Colo., N. Mex., Pa., N.J., Fla.
intermedia Tucker, 1907: 92 (*Mallophora*; as var.).—Colo.
frustra Pritchard, 1935: 11.—Ariz.
guildiana (Williston), 1885a: 60 (*Mallophora*).—Kans.; Mont., N.C.
laphroides (Wiedemann), 1828: 483 (*Asilus*).—Ky.; Fla.
megachile (Coquillett), 1893d: 118 (*Mallophora*).—Calif.
pallida (Johnson), 1958: 41 (*Mallophora*).—Utah.
prudens Pritchard, 1935: 10.—Ariz.
pulchra Pritchard, 1935: 11.—N. Mex.

Genus NEGASILUS Curran

Negasilus Curran, 1934a: 184. Type-species, *belli* Curran (orig. des.).

belli Curran, 1934a: 184.—Nev.; Oreg., Colo.

Genus NEOITAMUS Osten Sacken

Itamus Loew, 1849: 84 (preocc. Schmidt-Goebel, 1846).—Type-species, *Asilus cyanurus* Loew (Coquillett, 1910b: 556).
Neoitamus Osten Sacken, 1878c: 82 (n. name for *Itamus* Loew). Type-species, *Asilus cyanurus* Loew (aut.).

affinis (Williston), 1893c: 73 (*Asilus*).—Wash.; Calif.
auceps (Wulp), 1869: 84 (*Asilus*).—Wis. Unrecognized.
brevicomus (Hine), 1909: 155 (*Asilus*).—B.C.; Calif.
coquillettii (Hine), 1909: 154 (*Asilus*).—Calif.
flavofemoratus (Hine), 1909: 153 (*Asilus;* n. name for *flavipes* Williston).—Pa.; Canada, Ill. to Mass., s. to N.C.
flavipes Williston, 1893c: 72 (*Asilus*; preocc. Meigen, 1820).—Pa.
hardyi Bromley, 1938: 61.—Utah.
orphne (Walker), 1849: 456 (*Asilus*).—N.Y.; Colo., Ill., Wis., Maine, N.H., Conn., N.C.
distinctus Williston, 1893c: 73 (*Asilus*).—N.H., Conn.
terminalis (Hine), 1909: 155 (*Asilus*).—Calif.

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Genus NIGRASILUS Hine

Nigrasilus Hine, 1908: 203. Type-species, *nitidifacies* Hine (mon.).

nitidifacies Hine, 1908: 204.—B.C.; Wash., Oreg.

Genus OMMATIUS Wiedemann

Ommatius Wiedemann, 1821c: 213. Type-species, *Asilus marginellus* Fabricius (Coquillett, 1910b: 579).

REFERENCE: Wilcox, 1936a (key).

baboquivari Wilcox, 1936a: 174.—Ariz.
beameri Wilcox, 1936a: 174.—Ariz.
bromleyi Pritchard, 1935: 9.—Ariz.
gemma Brimley, 1928: 205.—N.C.; Okla., Ark., Miss., Va., Fla.
maculatus Banks, 1911a: 128.—Ariz.
parvulus Schaeffer, 1916: 69.—Ariz.
pretiosus Banks, 1911a: 129.—Ariz.
tibialis Say, 1823: 49 (1859b: 63).—Pa.; Kans. to Conn., s. to Tex. and Fla.

Genus PHILONICUS Loew

Philonicus Loew, 1849: 144. Type-species, *Asilus albiceps* Meigen (mon.).

arizonensis (Williston), 1893c: 76 (*Stenoprosopus*).—Ariz.; N. Mex.
fuscatus (Hine), 1909: 168 (*Asilus*; n. name for *obscurus* Hine).—Ky., N.J., D.C., N.C.; Pa. to Mass., s. to Ky. and N.C.
obscurus Hine, 1907a: 117 (preocc. Meigen, 1820).—Ky., N.J., D.C., N.C.
limpidipennis (Hine), 1909: 167 (*Asilus*).—Colo.; Ariz.
arizonensis Williston of Hine, 1909: 167 (*Asilus*).
persimilis (Banks), 1920: 67 (*Asilus*).—Calif.
rufipennis Hine, 1907a: 117.—Kans.; Ariz., N. Mex., Okla., Ill.
truquii (Bellardi), 1861: 52 (1864: 152) (*Asilus*).—Mexico; Ariz.

Genus PROCTACANTHELLA Bromley

Proctacanthella Bromley, 1934a: 96. Type-species, *Asilus cacopilogus* Hine (orig. des.).

cacopiloga (Hine), 1909: 165 (*Asilus*).—Tex.; Nebr., Kans., Okla., Ill., N.J.
exquisita (Osten Sacken), 1887a: 206 (*Proctacanthus*).—Mexico; Ariz., Colo., Okla. **N. comb.**
jamesi Pritchard, 1935: 13.—Okla.

leucopogon (Williston), 1893c: 75 (*Asilus*).—S. Dak.; Ariz., Kans., Nebr.
robusta Bromley, 1951: 26.—Tex.
wilcoxi Bromley, 1935a: 5.—Tex.

Genus PROCTACANTHUS Macquart

Proctacanthus Macquart, 1838b: 120 (1839: 236). Type-species, *philadelphicus* Macquart (Coquillett, 1910b: 595).
Proctacantha, emend.

REFERENCES: Hine, 1911a, Curran, 1934d (keys).

brevipennis (Wiedemann), 1828: 431 (*Asilus*).—Ky. Unrecognized.
coquillettii Hine, 1911a: 160.—Calif.
distinctus (Wiedemann), 1828: 432 (*Asilus*).—Ga.
duryi Hine, 1911a: 160.—Ohio; Kans., Ky.
fulviventris Macquart, 1850: 392 (1850: 88).—Fla.
gracilis Bromley, 1928: 15.—Ga.; Fla.
heros (Wiedemann), 1828: 427 (*Asilus*).—Ky.; Miss. to Ky.
hinei Bromley, 1928: 13.—N. Mex.; Ohio, Ky., Fla.
rufus Williston of Hine, 1911a: 157.
longus (Wiedemann), 1821c: 183 (*Asilus*).—Ga.; Fla., Tex.
micans Schiner, 1867b: 397.—N. Amer.; Ariz., N. Mex., Colo.
milbertii Macquart, 1838b: 124 (1839: 240).—N. Amer.; U.S., coast to coast.
agrion Jaennicke, 1867: 365 (1868: 57) (*Asilus*).—Ill. ?Valid sp.
missouriensis Riley, 1870c: 122 (*Asilus*).—Mo.
nearno Martin, 1962a: 187.—Ariz.; Calif., Utah, N. Mex., Tex.
arno Townsend of Hine, 1911a: 161.
nigriventris Macquart, 1838b: 124 (1839: 240).—Pa., Carolina; N.J.
nigrofemoratus Hine, 1911a: 161.—Mexico; ?Tex.
occidentalis Hine, 1911a: 159.—Calif.; Idaho.
philadelphicus Macquart, 1838b: 123 (1839: 239).—Pa.; Conn., Mass., N.J., Md., Va.
rodecki James, 1933b: 2.—Colo.; Kans.
rufus Williston, 1885a: 74.—N.C.; Ohio, Mass., N.J., Ky., Fla.
rufiventris Macquart of Hine, 1911a: 158.

Genus PROMACHINA Bromley

Promachina Bromley, 1934a: 96. Type-species, *Promachus trapezoidalis* Bellardi (orig. des.).

pilosa Wilcox, 1937: 43.—Ariz.
trapezoidalis (Bellardi), 1861: 28 (1864: 128) (*Promachus*).—Mexico; Tex.

Genus PROMACHUS Loew

Trupanea Macquart, 1838b: 91 (1839: 207) (preocc. Guettard, 1762). Type-species, *Asilus maculatus* Fabricius (orig. des.).

Promachus Loew, 1848: 390. Type-species, *Asilus maculatus* Fabricius (Coquillett, 1910b: 595).

REFERENCE: Hine, 1911a (key).

albifacies Williston, 1885a: 63.—Ariz.; Calif., Colo., N. Mex.
aldrichii Hine, 1911a: 171.—Utah; Idaho.
atrox Bromley, 1940: 13.—Ariz.
bastardii (Macquart), 1838b: 104 (1839: 220) (*Trupanea*).—N. Amer.; Kans. to Mass., s. to Tex. and Ga.
ultimus Walker, 1851b: 136 (*Asilus*).—N. Amer.
laevinus Walker, 1849: 392 (*Asilus*).—Mass.
rubiginis Walker, 1852: 123 (*Trupanea*).—N. Amer.
philadelphicus Schiner, 1867b: 389.—Pa.
dimidiatus Curran, 1927f: 87.—Man.
fitchii Osten Sacken, 1878c: 234 (n. name for *apivora* Fitch).—Nebr.; Kans., Mo., Tex., Conn., Fla.
apivora Fitch, 1864: 63 (*Trupanea;* preocc. Walker, 1860).—Nebr.
giganteus Hine, 1911a: 172.—Tex.
hinei Bromley, 1931: 435.—Ohio; Tex., Iowa, Ind.
rufipes Fabricius of Hine, 1911a: 166.
magnus Bellardi, 1861: 26 (1864: 126).—Mexico; Tex.
minusculus Hine, 1911a: 171.—N. Mex.; Tex.
nigripes Hine, 1911a: 170.—N. Mex.
nigropilosus Schaeffer, 1916: 68.—Calif.
oklahomensis Pritchard, 1935: 12.—Okla.; Nebr., Kans., Ind.
painteri Bromley, 1934a: 93.—Tex.
princeps Williston, 1885a: 62.—Wash.; Oreg., Calif.
quadratus (Wiedemann), 1821c: 201 (*Asilus*).—Ga.; La., Fla.
rufipes (Fabricius), 1775: 794 (*Asilus*).—Amer.; Iowa to D.C., s. to Miss. and Fla.
sackeni Hine, 1911a: 166.—Ariz.
texanus Bromley, 1934a: 94.—Tex.
truquii Bellardi, 1861: 30 (1864: 130).—Mexico; Ariz.
vertebratus (Say), 1823: 47 (1859b: 62) (*Asilus*).—Mo.; Colo., Kans., Wis., Ill., Ohio.

Genus REGASILUS Curran

Regasilus Curran, 1931b: 24. Type-species, *strigarius* Curran (orig. des.).

blantoni Bromley, 1951: 35.—Nev.

Genus TOLMERUS Loew

Tolmerus Loew, 1849: 94. Type-species, *Asilus pyragrus* Zeller (Coquillett, 1910b: 615).

antimachus (Walker), 1849: 454 (*Asilus*).—N.Y.; Kans., Mo., Ind., Ohio, Va.
callidus Williston, 1893c: 75.—Wash.; B.C., Oreg.
delusus Tucker, 1907: 92 (as *annulipes* var.).—Kans., Colo.; Mont.
johnsoni (Hine), 1909: 159 (*Asilus*).—Pa.
maneei (Hine), 1909: 158 (*Asilus*).—N.C.; Fla.
notatus (Wiedemann), 1828: 451 (*Asilus*).—Ga.; Kans. to Maine, s. to D.C., also Ga.
alethes Walker, 1849: 454 (*Asilus*).—N.Y.
novaescotiae (Macquart), 1847: 62 (1847: 46) (*Asilus*).—N.S.; N.S. to N.C.
paropus (Walker), 1849: 455 (*Asilus*).—N.Y.; Canada, Wyo. to N.H., s. to N. Mex. and Conn.
prospectus Tucker, 1907: 94.—Colo.
prairiensis Tucker, 1907: 93.—Kans.; Colo., N. Mex., Tex.
sadyates (Walker), 1849: 453 (*Asilus*).—Ohio; Ind. to Mass., s. to N.C.
sadytes, error.
tibialis Macquart, 1834a: 313 (*Asilus;* preocc. Fabricius, 1793).—Pa.
snowii (Hine), 1909: 160 (*Asilus;* n. name for *annulatus* Williston).—S. Dak., Kans., N.H., Mass., Conn.; e. N. Amer.
annulatus Williston, 1893c: 70 (*Asilus;* preocc. Fabricius, 1775).—S. Dak., Kans., N.H., Mass., Conn.

Unplaced Species of Asilidae

apicalis Walker, 1854: 497 (*Discocephala*).—w. coast of Amer.
appendiculatus Bigot, 1878: 438 (?*Holopogon*).—Calif.
longicella Macquart, 1850: 399 (1850: 95) (*Asilus*).— N. Amer.
niger Macquart, 1838b: 25 (1839: 141) (*Ceraturgus*).—N. Amer.
nitidiventris Bigot, 1878: 437 (*Holopogon*).—Calif.
ochraceus Wulp, 1870: 213 (*Stenopogon*).—N. Amer.
quadrinotatus Bigot, 1878: 412 (*Dasypogon*).—Calif.
rubiginosus Bigot, 1878: 419 (*Seilopogon*).—N. Amer.

Family NEMESTRINIDAE

By Joseph C. Bequaert

Nemestrinids are medium to large size "tanglewing flies," not commonly seen, and then usually hovering and darting with char-

acteristic loud buzz in open fields. Two species, *Neorhynchocephalus sackenii* (Williston) and *Trichopsidea clausa* (Osten Sacken), are sometimes very effective internal parasites of grasshoppers in the Western States (Prescott, 1960, biol., immature stages).

REFERENCE: Bequaert, 1934 (rev.), 1947 (cat.).

Subfamily HIRMONEURINAE

Genus HIRMONEURA Meigen

Hirmoneura Meigen, 1820: 132. Type-species, *obscura* Wiedemann (mon.).
Hermoneura, emend.

Subgenus NEOHIRMONEURA Bequaert

Hirmoneura, subg. **Neohirmoneura** Bequaert, 1920: 306. Type-species, *flavipes* Williston (orig. des.).

bradleyi Bequaert, 1920: 301.—Tex.
flavipes Williston, 1886a: 292.—U.S.; Ariz.

Subgenus HYRMOPHLAEBA Rondani

Hyrmophlaeba Rondani, 1863: 51 (1864: 51) (as genus). Type-species, *Hirmoneura brevirostris* Macquart (orig. des.).
Hirmophloeba, error.
Hyrmophloeba, error.

texana texana Cockerell, 1908a: 253.—Tex.; Ariz., Mexico, Panama.
ssp. **arizonensis** Bequaert, 1934: 180 (as var.).—Ariz.

Subfamily NEMESTRININAE

Genus NEORHYNCHOCEPHALUS Lichtwardt

Neorhynchocephalus Lichtwardt, 1909: 512. Type-species, *Rhynchocephalus volaticus* Williston (Bequaert, 1930: 287).
Rhynchocephalus, subg. *Nemestrinopsis* Cockerell, 1910b: 285. Type-species, *volaticus* Williston (orig. des.).

sackenii (Williston), 1880: 243 (*Rhynchocephalus*).—Wash.; Wash. to Iowa, s. to Calif. and Ga., also Mich., Mexico.
subnitens Cockerell, 1908a: 250 (*Rhynchocephalus*).—Kans.
volaticus (Williston), 1883b: 71 (*Rhynchocephalus*).—Fla.; Ariz. to Mo. and Fla., Mexico, Cent. Amer.
maculatus Curran, 1931d: 69 (*Rhynchocephalus*).—Kans.
flavus Curran, 1931d: 70 (*Rhynchocephalus*).—Kans.

Subfamily TRICHOPSIDEINAE

Genus TRICHOPSIDEA Westwood

Trichopsidea Westwood, 1839: 151. Type-species, *oestracea* Westwood (mon.).

Subgenus PARASYMMICTUS Bigot

Parasymmictus Bigot, 1879c: lxvii (as genus). Type-species, *Hirmoneura clausa* Osten Sacken (orig. des.).

Parasymmyctus, error.

clausa (Osten Sacken), 1877: 225 (*Hirmoneura*).—Tex.; B.C. to Man. and Kans., s. to Calif. and Fla.

Family ACROCERIDAE

(Cyrtidae)

By Evert I. Schlinger

Adult acrocerids are commonly known as small-headed flies. All known species are solitary internal parasites of true spiders (Araneae). Eggs are deposited in large numbers (up to 5,000 per female) away from the host, and the first-instar larva is a planidium. The mature larva pupates free from its host. Adult longevity varies from 1 to 6 weeks, and mating takes place in flight.

REFERENCES: Cole, 1919 (rev.); Curran, 1934a (key to genera); Clausen, 1940 (biol.); Sabrosky, 1948a (rev.).

Subfamily PANOPINAE

Genus OCNAEA Erichson

Ocnaea Erichson, 1840: 155. Type-species, *micans* Erichson (Coquillett, 1910b: 577).

Pialeoidea Westwood, 1876: 514. Type-species, *Cyrtus magnus* Walker (mon.).

Pialoidea, error.

REFERENCES: Aldrich, 1932b (key); Jenks, 1938 (biol.).

auripilosa Johnson, 1923c: 50.—Ariz.
coerulea Cole, 1919: 26.—Tex.; Ariz.
gloriosa (Sabrosky), 1943b: 176 (*Pialeoidea*).—Tex.
helluo Osten Sacken, 1877: 278.—Tex.; N.C.
loewi Cole, 1919: 26.—Tex.
magna (Walker), 1849: 511 (*Cyrtus*).—Ga.

sequoia Sabrosky, 1948a: 386.—Calif.
smithi Sabrosky, 1948a: 385.—s. Calif.
smithi Jenks (ex Cole), 1938: 820–828. Nomen nudum.
xuthogaster Schlinger, 1961: 8.—n. Calif.

Genus LASIA Wiedemann

Lasia Wiedemann, 1824: 11. Type-species, *splendens* Wiedemann (mon.).

REFERENCE: Bequaert, 1931 (rev.).

klettii Osten Sacken, 1875a: 805.—Ariz.; N. Mex., Mexico (Son., Chih.).
purpurata Bequaert, 1933a: 1.—Okla.; Ark., Tex.

Genus EULONCHUS Gerstäcker

Eulonchus Gerstäcker, 1856: 359. Type-species, *smaragdinus* Gerstäcker (mon.).

A number of species and subspecies now being described show the western distribution of the genus to be B.C. to Mont., s. to Baja Calif. and Ariz.

REFERENCES: Sabrosky, 1948a (key); Schlinger, 1960b (partial key, biol.).

halli Schlinger, 1960b: 418.—s. Calif.; Mexico (Baja Calif.).
marginatus Osten Sacken, 1877: 277.—n. Calif.
marialiciae Brimley, 1925: 77.—N.C.
sapphirinus Osten Sacken, 1877: 276.—n. Calif.
smaragdinus smaragdinus Gerstäcker, 1856: 360.—Calif.; n. Calif. to Mexico (Baja Calif.).
ssp. **pilosus** Schlinger, 1960b: 418.—s. Calif.
tristis Loew, 1872a: 60 (Cent. 10, no. 19).—Calif.; n. Calif.

Genus PTERODONTIA Gray

Pterodontia Gray *in* Griffith and Pidgeon, 1832: 779. Type-species, *flavipes* Gray (mon.).
Nothra Westwood, 1876: 514. Type-species, *bicolor* Westwood (mon.).

REFERENCES: King, 1916 (biol.); Sabrosky, 1948a (key).

flavipes Gray *in* Griffith and Pidgeon, 1832: 779.—Ga.; Oreg. to Que. and N.B., s. to Calif. and Md.
flavoscutellata Steyskal, 1941c: 140.—Mich.
obesus Harris, 1835: 596 (*Cyrtus*). Nomen nudum.
johnsoni Cole, 1919: 42.—Wash.; Oreg., Calif., Idaho.

misella Osten Sacken, 1877: 277.—Oreg.; B.C. to Mont., s. to Calif. and Utah.
americana Bigot, 1889: 320 (*Nothra*).—Wash.
notomaculata Sabrosky, 1948a: 393.—Calif.; Oreg., Idaho.
vix Townsend, 1895b: 607.—s. Calif.
westwoodi Sabrosky, 1948a: 392 (n. name for *analis* Westwood).—Ga.; N.Y., Mass., Conn., also Costa Rica.
analis Westwood, 1848: 97 (preocc. Macquart, 1846).—Ga.

Subfamily ACROCERINAE

Genus OPSEBIUS Costa

Opsebius Costa, 1856: 20. Type-species, *perspicillatus* Costa (mon.).

REFERENCES: Sabrosky, 1948a (key); Schlinger, 1952 (biol.).

diligens Osten Sacken, 1877: 278.—B.C.; B.C. to Calif., Ariz., and Mexico (Durango).
paucus Osten Sacken, 1877: 279.—Calif.
hyalinus Cole, 1919: 47 (as var.).—Calif.
gagatinus Loew, 1866a: 150 (Cent. 6, no. 34).—Pa.
sulphuripes Loew, 1869c: 166 (Cent. 9, no. 68).—N.Y.; Minn. to Que., s. to Tex. and Fla.
pterodontinus Osten Sacken, 1883b: 299.—Tex. **N. syn.**
agelenae Melander, 1902b: 180.—Tex.

Genus ACROCERA Meigen

Acrocera Meigen, 1803: 266. Type-species, *Syrphus globulus* Panzer (mon.)=*orbiculus* (Fabricius).
Paracrocera Mik, 1886: 276. Type-species, *Acrocera tumida* Erichson (Coquillett, 1910b: 583)=*orbicula* (Fabricius).

REFERENCE: Sabrosky, 1948a (rev.).

arizonensis Cole, 1919: 51 (as *bakeri* var.).—Ariz.; Mexico (Son.).
bakeri Coquillett *in* Baker, 1904: 23.—Nev.; Calif., Ariz.
bimaculata Loew, 1866a: 149 (Cent. 6, no. 33).—D.C.; Mich. to Que., s. to Nebr. and N.C.
bulla Westwood, 1848: 98.—N.Y.; B.C. to Calif., and Wis. to Mass., also Tex. and Ga.
convexa Cole, 1919: 53.—Calif.; B.C. to Mich., s. to Calif. and Colo.
fasciata Wiedemann, 1830: 16.—Ga.; Alta. to Que., s. to Iowa and N.C.
hungerfordi (in part) Sabrosky, 1944: 406. Pa. males only.
flaveola Sabrosky, 1944: 411.—N.Y.; Alta., Iowa. Mich., Ont.
fumipennis Westwood, 1848: 98.—Ga.

melanderi Cole, 1919: 55 (as *bulla* var.).—Mont.; Wash. and Alta. to Maine, s. to Calif., Tex., and Ga.
steyskali Sabrosky, 1944: 401.—Mich. **N. syn.**
melanogaster Schlinger, 1961: 10.—Ariz.
nigrina Westwood, 1848: 97.—Ga.
obsoleta Wulp, 1867: 139.—Wis.
orbicula (Fabricius), 1787: 340 (*Syrphus*).—Europe; N.W.T. to Ont. and Pa., s. to Calif. and Ark.
hubbardi Cole, 1919: 58.—Ariz. **N. syn.**
hungerfordi Sabrosky, 1944: 406.—Mich. Females only. **N. syn.**
stansburyi Johnson, 1923c: 49.—Utah.
subfasciata Westwood, 1848: 98.—N.Y.; Wash. to Calif., S. Dak., and Ill. to Mass.
liturata Williston, 1886a: 294.—Wash. **N. syn.**
unguiculata Westwood, 1848: 98.—Ga.; Iowa, Ill., Mich., ?Calif.

Genus OGCODES Latreille

Ogcodes Latreille, 1796: 154. Type-species, *Musca gibbosa* Linnaeus (sub. mon., Latreille, 1802: 432).
Oncodes, emend.
Henops Meigen, 1803: 266 (preocc. Illiger, 1798). Type-species, *Musca gibbosa* Linnaeus (mon.).

References: Kaston, 1937 (biol.); Schlinger, 1960a (rev., biol.); Lamore, 1960 (biol.; immature stages).

Subgenus OGCODES Latreille

adaptatus Schlinger, 1960a: 297.—Calif.; Alaska to N.W.T., s. to Calif. and Colo.
boharti Schlinger, 1960a: 305.—Ariz.
borealis Cole, 1919: 68.—Que.; B.C. to Que., s. to Calif., Mich., and N.J.
canadensis Schlinger, 1960a: 307.—Ont.
colei Sabrosky, 1948a: 423.—Ariz.; Calif.
dispar (Macquart), 1855: 87 (1855: 67) (*Henops*).—Md.; Minn. to Que., s. to Tex. and N.C., also Costa Rica.
vittatus Johnson, 1923c: 50.—N.J.
eugonatus Loew, 1872a: 60 (Cent. 10, no. 18) (*Oncodes*).—Tex.; B.C. to Que. and Maine, s. to Calif., Tex., and N.C., also s. Mexico.
marginatus Cole, 1919: 67 (preocc. Meigen, 1822).—Wyo.
albicinctus Cole, 1923c: 47 (n. name for *marginatus* Cole).—Wyo.

floridensis Sabrosky, 1948a: 421.—Fla.
hennigi Schlinger, 1960a: 305.—N.Y.
melampus Loew, 1872a: 60 (Cent. 10, no. 17) (*Oncodes*).—Calif.; Alaska to Calif. and Nev., also Minn.
niger Cole, 1919: 65.—Utah.
pallidipennis Loew, 1866a: 149 (Cent. 6, no. 32) (*Oncodes*).—Pa.; Alta. to N.B., s. to Mexico, Miss., and Va., also Costa Rica.
costatus Loew, 1869c:165 (Cent. 9, no. 67) (*Oncodes*).—Mass.
incultus Osten Sacken, 1877: 279 (*Oncodes*).—N.H.
humeralis Osten Sacken, 1887a: 164 (*Oncodes*).—Mexico (Son.).
aedon Townsend, 1895b: 608 (*Oncodes*).—Mexico (Baja Calif.).
fasciatus Harris, 1835: 596 (*Cyrtus*). Nomen nudum.
rufoabdominalis Cole, 1919: 68.—Utah.
sabroskyi Schlinger, 1960a: 307.—Ga.
shewelli Sabrosky, 1948a: 422.—Ont.; N.Y.
vittisternum Sabrosky, 1948a: 420.—Oreg.; Wash.

Subgenus NEOGCODES Schlinger

Ogcodes, subg. **Neogcodes** Schlinger, 1960a: 309. Type-species, *albiventris* Johnson (orig. des.).

albiventris Johnson, 1904: 18 (*Oncodes*).—Ont.; B.C., Calif., Mich.

Family BOMBYLIIDAE

By Reginald H. and Elizabeth M. Painter

Adult Bombyliidae, or bee flies, are nectar and pollen feeders, a few apparently being specific to certain flowers. The species of one Nearctic genus (*Oestranthrax*) have vestigial mouth parts. Bee flies frequently rest on bare spaces on the ground, on rocks, or on fragments of dead wood or leaves. The species are far more common in sandy areas and in the southwestern United States than elsewhere.

In most recorded life histories, bombyliid larvae are endo- or ectoparasites of larvae of other Endopterygota or predaceous on the egg pods of Acrididae.

Distribution records are primarily from the author's collection and identifications, the latter often based on a comparison with types wherever available. Distribution records of older authors have been accepted only where they agree with recent records. Say's species and those of other earlier writers whose types were not available have

generally been accepted on the basis of identification by Osten Sacken and Coquillett. Acknowledgment is made to Jack Hall, Mr. and Mrs. D. E. Johnson, and Norman Marston for the use of unpublished distribution records, and to the Bache Fund grants Nos. 334 and 453, and National Science grant 10664 for financial assistance.

The limits of variation and distribution of some species and species groups appear open to question on the basis of available information. Such species are found in *Anthrax, Aphoebantus,* and *Villa.* In *Villa,* this is particularly true of the *alternata-agrippina-molitor-sabina, catulina-webberi-eumenes-morio,* and *syrtis-consul* groups and the species related to these groups. Some names in these groups which have been considered synonyms have been left as valid species in this catalog, with only the type locality recorded, until further studies on adequate materials can be made. The new names proposed herein should be attributed to the senior author.

REFERENCES: Coquillett, 1894a, Becker, 1913, Cockerell, 1914c, Bezzi, 1924b, Engel, 1932–1937, Maughan, 1935, Hesse, 1938–1956 (all tax.); Graenicher, 1910c, Malloch, 1915h, 1917g, Brooks, 1952 (all biol.); Painter and Painter, 1962 (redescr. types).

BOMBYLIIDAE HOMOEOPHTHALMAE

Subfamily BOMBYLIINAE

Genus BOMBYLIUS Linnaeus

Bombylius Linnaeus, 1758: 606. Type-species, *major* Linnaeus (Latreille, 1810: 443).

Larvae are found in nests of solitary bees.

REFERENCES: Johnson, 1907c (rev.); Painter, 1940 (notes, key e. spp.).

albicapillus albicapillus Loew, 1872a: 78 (Cent. 10, no. 42).—Calif.; Wash. to Alta. and Mont., s. to Calif. and Utah, also N.W.T.

atricapillus, error.

ssp. **diegoensis** Painter, 1933: 16 (as var.).—Calif.; Ariz.

atriceps atriceps Loew, 1863b: 301 (Cent. 4, no. 49).—Fla., Va.; Minn. to Conn., s. to Okla. and Ga.

ssp. **fulvibasoides** Painter *in* Painter and Painter, 1962: 8.—N.Y.; Wis. to Vt., s. to Okla. and N.J.

fulvibasis, authors, not Macquart.

aurifer aurifer Osten Sacken, 1877: 249.—Calif.; Wash. to Sask. and Mont., s. to Calif. and Colo.

ssp. **pendens** Cole *in* Cole and Lovett, 1919: 226.—Oreg.; Wash., Idaho, Utah, Colo.

austini Painter, 1933: 16.—Tex.
cachinnans Osten Sacken, 1877: 250.—Calif.
cinerivus Painter *in* Painter and Painter, 1962: 5 (n. name for *cinereus* Bigot).—Calif.
cinereus Bigot, 1892a: 364 (preocc. Olivier, 1789.)—Calif.
comanche Painter *in* Painter and Painter, 1962: 11.—Tex.; S. Dak., s. to Colo., Tex., and Ark.
io, authors, not Williston.
duncani Painter, 1940: 275.—Ariz.; Calif.
eboreus Painter, 1940: 270.—N. Mex..
facialis Cresson, 1919: 187.—Ariz.; Calif., Utah, Colo., N. Mex.
flavipilosus Cole, 1923a: 308.—Mexico (Baja Calif.); Ariz., N. Mex.
fraudulentus Johnson, 1907c: 99.—Mass.; Conn., N.Y., N.J., Ga.
incanus Johnson, 1907c: 97.—Mass.; N.Y., N.J.
philadelphicus, authors, not Macquart.
lancifer Osten Sacken, 1877: 251.—Calif.; B.C., s. to Calif. and N. Mex.
lassenensis Johnson and Johnson (for *pallescens* Johnson and Maughan).—Calif. **N. name**.
pallescens Johnson and Maughan, 1953: 20 (preocc. Hesse, 1938).—Calif.
maculifer Walker, 1852: 200.—Unknown; Md., N.C., S.C., Ga.
azaleae Shannon, 1916b: 71.—Md.
major Linnaeus, 1758: 606.—Europe; B.C. to Maine, s. to Calif. and Ga.
aequalis Fabricius, 1781: 473.—N. Amer.
fratellus Wiedemann, 1828: 583.—Ga.
vicinus Macquart, 1840: 98 (1841: 376).—Pa.
albipectus Macquart, 1855: 102 (1855: 82).—Md.
medorae Painter, 1940: 273.—Kans.; Tex.
metopium Osten Sacken, 1877: 249.—Calif.; Oreg., Idaho, Utah.
mexicanus Wiedemann, 1821c: 166.—Ga. (Painter and Painter, 1962: 15); Minn. to N.Y., s. to Miss. and Fla.
philadelphicus Macquart, 1840: 99 (1841: 377).—Pa.
fulvibasis Macquart, 1855: 102 (1855: 82).—Md.
flavibasis, error.
pulchellus Loew, 1863b: 300 (Cent. 4, no. 47).—Ill.; Alta. to Maine, s. to Kans. and N.J.
pygmaeus pygmaeus Fabricius, 1781: 474.—N. Amer.; Alta. to Maine, s. to Ill. and Ga.
ssp. **canadensis** Curran, 1933b: 2 (as sp.).—Que.; Mont., Colo., Wis., Mich., N.Y.
ravus Loew, 1863b: 301 (Cent. 4, no. 50).—Mexico; Colo., Tex.
silvus Cole *in* Cole and Lovett, 1919: 225.—Oreg.

subvarius Johnson, 1907c: 98.—N.J., Pa.
texanus Painter, 1933: 17.—Tex.; Kans., Okla.
validus Loew, 1863b: 300 (Cent. 4, no. 48).—Ill., Va.; Minn., Mich.
varius Fabricius, 1805: 132.—N. Amer.; Mo. to N.H., s. to Ga.

Genus PARABOMBYLIUS Williston

Parabombylius Williston, 1907: 1. Type-species, *Thlipsogaster ater* Coquillett (Coquillett, 1910b: 583)=*coquilletti* (Williston).

REFERENCES: Painter, 1926a (key and notes), 1940 (notes); Curran, 1930b (key).

albopenicillatus (Bigot), 1892a: 363 (*Bombylius*).—Mexico; Tex., Ark.
coquilletti (Williston), 1899: 331 (*Bombylius*; n. name for *ater* Coquillett).—La.; Kans., Tex., Ark.
ater Coquillett, 1894a: 108 (*Thlipsogaster;* preocc. in *Bombylius* by Scopoli, 1763).—La.
dolorosus (Williston), 1901: 286 (*Bombylius*).—Mexico; Ariz., Tex.
maculosus Painter, 1926a: 78.—Ariz.
nigrofemoratus Painter, 1940: 278 (n. name for *vittatus* Curran).—Ariz.
vittatus Curran, 1930b: 7 (preocc. Painter, 1926).—Ariz.
pulcher Painter, 1926a: 76.—Tex.
subflavus Painter, 1926a: 76.—Ariz.
syndesmus (Coquillett), 1894a: 108 (*Thlipsogaster*).—Calif.; Ariz., Tex.
vittatus Painter, 1926a: 77.—N. Mex.

Genus SYSTOECHUS Loew

Systoechus Loew, 1855b: 34. Type-species, *Bombylius sulphureus* Mikan (Coquillett, 1910b: 611).

REFERENCES: Berg, 1940, Parker and Wakeland, 1957 (biol., predator on grasshopper egg pods); Painter, 1962 (rev., biol.).

candidulus Loew, 1863b: 302 (Cent. 4, no. 51).—Wis.; Oreg. to Mich., s. to Ariz. and Ala.
fumipennis Painter, 1962: 257.—Wyo.; Wash., Utah, Colo.
oreas Osten Sacken, 1877: 254.—Calif.; B.C. to Mont., s. to Calif. and N. Mex.
solitus (Walker), 1849: 288 (*Bombylius*).—Fla.; N.J., S.C., Ga., Ala., Miss., La.
vulgaris Loew, 1863b: 302 (Cent. 4, no. 52).—Nebr.; Oreg. to Alta. and Mass., s. to Ariz., Tex., and N.J.

Genus ANASTOECHUS Osten Sacken

Anastoechus Osten Sacken, 1877: 251. Type-species, *barbatus* Osten Sacken (mon.).

REFERENCES: Parker and Wakeland, 1957 (biol., predator on grasshopper egg pods); Painter, 1962 (rev., biol.).

barbatus Osten Sacken, 1877: 252.—Calif., Wyo., Colo., Mass.; Y.T., N.W.T., Alta. to Mass., s. to Oreg., Calif., Tex., and Md.

nitidulus, authors, not Fabricius.

hessei Hall, 1958: 195 (n. name for *deserticola* Hall).—Ariz.; Calif., Tex.

deserticola Hall, 1956: 200 (preocc. Hesse, 1938).—Ariz.

melanohalteralis Tucker, 1907: 91.—Colo.; Alta. to S. Dak., s. to Calif. and Tex.

fulvipennis Tucker, 1907: 91 (as var.).—Colo.

Genus HETEROSTYLUM Macquart

Heterostylum Macquart, 1848a: 195 (1848: 35). Type-species, *flavum* Macquart (orig. des.).

Comastes Osten Sacken, 1877: 256. Type-species, *robustus* Osten Sacken (mon.).

The larvae are parasitic on Megachilidae.

REFERENCES: Painter, 1930a (rev.), 1940 (notes); Bohart, Stephen, and Eppley, 1960 (biol.).

Subgenus HETEROSTYLUM Macquart

croceum Painter, 1930a: 6.—Kans.; Colo., N. Mex., Tex.

deani Painter, 1930a: 5.—Kans.; Colo.

engelhardti Painter, 1930a: 7.—Tex.; Ariz.

laticeps (Bigot), 1892a: 363 (*Bombylius*).—Calif.

robustum (Osten Sacken), 1877: 257 (*Comastes*).—Tex.; Oreg. and Calif. to Ga.

sackeni (Williston), 1893d: 255 (*Comastes*).—Calif.; Ariz.

Subgenus TRIPLOECHUS Edwards

Triploechus Edwards, 1936: 31 (as genus). Type-species, *Bombylius heteroneurus* Macquart (orig. des.).

Triplasius, authors, not Loew.

REFERENCE: Paramonov, 1947 (rev.).

novum (Williston), 1893d: 254 (*Triplasius*).—Calif.; Ariz.

recurvus Coquillett, 1920g: 100 (*Bombylius*).—Calif.

vierecki Cresson, 1919: 186.—N. Mex.; Ariz.

Genus LORDOTUS Loew

Lordotus Loew, 1863b: 303 (Cent. 4, no. 53). Type-species, *gibbus* Loew (mon.).

REFERENCES: Painter, 1940 (key); Hall, 1954a (rev.).; Johnson and Johnson, 1959b (notes).

abdominalis Johnson and Johnson, 1959b: 10.—Ariz.
albidus Hall, 1954a: 19.—Calif.; Nev., Ariz.
apiculus Coquillett, 1887c: 116.—Colo.; Oreg. to Wyo., s. to Calif. and Tex.
arizonensis Johnson and Johnson, 1959b: 19.—Ariz.; N. Mex.
bipartitus Painter, 1940: 284.—N. Mex.; Oreg., Calif., Ariz., Tex.
bucerus Coquillett, 1894a: 110.—Calif.; Ariz.
cingulatus cingulatus Johnson and Johnson, 1959b: 21.—Calif.; Ariz.
ssp. **rufotibialis** Johnson and Johnson, 1959b: 23.—Ariz.
diversus diversus Coquillett, 1891b: 198.—Calif.; Oreg., Ariz., N. Mex., Tex., Mexico (Baja Calif.).
ssp. **diplasus** Hall, 1954a: 17.—Calif.; Ariz.
divisus Cresson, 1919: 186.—N. Mex.; Calif., Ariz., Tex., Mexico (Baja Calif.).
niger Cresson, 1923: 367.—N. Mex.
ermae Hall, 1952: 49.—Calif.
gibbus gibbus Loew, 1863b: 303 (Cent. 4, no. 53).—Mexico; Oreg. to Alta., s. to Calif. and Mexico.
flavus Jaennicke, 1867: 346 (1868: 38) (*Adelidea*).—Mexico.
ssp. **striatus** Painter, 1940: 287.—N. Mex.; Oreg. to Idaho, s. to Calif. and Tex.
hurdi Hall, 1957: 145.—Calif.
junceus Coquillett, 1891b: 198.—Calif.; Ariz., N. Mex., Mexico.
lutescens Johnson and Johnson, 1959b: 15.—N. Mex.
miscellus miscellus Coquillett, 1887c: 116.—Calif.; Nev., Utah, Ariz.
ssp. **melanosus** Johnson and Johnson, 1959b: 24.—Utah; Nev.
perplexus Johnson and Johnson, 1959b: 16.—Ariz.; Calif.
planus Osten Sacken, 1877: 258.—Calif.
puellus Williston, 1893c: 64.—Calif.
pulchrissimus pulchrissimus Williston, 1893c: 64.—Nev.; Wash. to Wyo. and Kans., s. to Mexico (Baja Calif.).
pulcherrimus, emend.
carus Cresson, 1923: 366.—Calif.
ssp. **luteolus** Hall, 1954a: 26.—Calif.; Nev., Ariz., Tex.
sororculus sororculus Williston, 1893d: 255.—Calif.; Nev., Ariz., Tex.
ssp. **nigriventris** Johnson and Johnson, 1959b: 17.—Utah.
zonus Coquillett, 1887c: 116.—Calif.; Idaho, Nev., Ariz.

Genus GEMINARIA Coquillett

Geminaria Coquillett, 1894a: 109. Type-species, *Lordotus canalis* Coquillett (orig. des.).

REFERENCE: Painter, 1940 (key).

canalis (Coquillett), 1887c: 115 (*Lordotus*).—Calif.; Ariz.
pellucida Coquillett, 1894a: 109.—Calif.

Genus SPARNOPOLIUS Loew

Sparnopolius Loew, 1855b: 43. Type-species, *Bombylius fulvus* Wiedemann (Coquillett, 1910b: 606)=*lherminierii* (Macquart).

The larvae are parasites of Scarabaeidae.

REFERENCE: Painter, 1940 (key).

anomalus Painter, 1940: 281.—Colo.
brevicornis Loew, 1872a: 79 (Cent. 10, no. 43).—Tex.; N. Mex.
coloradensis Grote, 1867: 445.—Colo.; Utah, N. Mex.
cumatilis Grote, 1867: 445.—Colo.
lherminierii (Macquart), 1840: 103 (1841: 381) (*Bombylius*).—Carolina; Mont. to Maine, s. to Tex. and Ga.
fulvus Wiedemann, 1821c: 172 (*Bombylius;* preocc. Meigen, 1820).—N. Amer.
brevirostris Macquart, 1840: 103 (1841: 381) (*Bombylius;* preocc. Olivier, 1789).—Carolina.
fuscipes Bigot, 1892a: 369 (*Dischistus*).—N. Amer.

Genus CONOPHORUS Meigen

Conophorus Meigen, 1803: 268. Type-species, *Bombylius maurus* Mikan (mon.)=*virescens* (Fabricius).
Ploas Latreille, 1804: 190. Type-species, *hirticornis* Latreille (sub. mon., Latreille, 1805: 300)=*virescens* (Fabricius).
Calopelta Greene, 1921b: 23. Type-species, *fallax* Greene (mon.).

REFERENCE: Priddy, 1958 (rev.).

amabilis (Osten Sacken), 1877: 261 (*Ploas*).—Calif.; Wash., s. to Calif. and Colo.
atratulus (Loew), 1872a: 79 (Cent. 10, no. 44) (*Ploas*).—Calif.; Oreg., Utah, Mexico (Baja Calif.).
auratus Priddy, 1954: 55.—Calif. (as Wyo., error); Oreg.
chinooki Priddy, 1954: 53.—Wash.; Oreg., Idaho.
collini Priddy, 1958: 31.—Calif.

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columbiensis Priddy, 1954: 54.—B.C.; Wash., Mont.
cristatus Painter, 1940: 294.—Calif.
fallax (Greene), 1921b: 23 (*Calopelta*).—Colo.; B.C. to Sask., s. to Calif. and N. Mex.
fenestratus (Osten Sacken), 1877: 260 (*Ploas*).—Calif.; Oreg., Idaho, Utah.
hiltoni Priddy, 1958: 24.—Calif.
limbatus (Loew), 1869b: 31 (Cent. 8, no. 51) (*Ploas*).—N. Mex.; Tex.
melanoceratus Bigot, 1892a: 361.—Calif.; Oreg., Utah.
nigripennis (Loew), 1872a: 80 (Cent. 10, no. 45) (*Ploas*).—Calif.; B.C. to Calif. and N. Mex.
obesulus (Loew), 1872a: 80 (Cent. 10, no. 46) (*Ploas*).—Calif.; B.C. to Calif. and Colo.
painteri Priddy, 1958: 12.—Utah; Idaho, Colo., Calif., N. Mex.
pictipennis (Macquart), 1840: 107 (1841: 385) (*Ploas*).—Carolina.
rufulus (Osten Sacken), 1877: 261 (*Ploas*).—Calif.; Wash., Oreg.
sackenii Johnson and Maughan, 1953: 22.—Calif.; B.C. to Sask., s. to Calif. and Colo.
serratus (Coquillett), 1894a: 102 (*Ploas*).—Calif.; Wash.

Genus ALDRICHIA Coquillett

Aldrichia Coquillett, 1894a: 93. Type-species, *ehrmanii* Coquillett (mon.).

auripuncta Painter, 1940: 294.—Ohio.
ehrmanii Coquillett, 1894a: 94.—Pa.; Mich. to N.Y., s. to Kans. and Ohio.
ehrmanni, error or emend.

Subfamily CYTHEREINAE

The Palaearctic species are predators in egg pods of Acrididae.

Genus PANTARBES Osten Sacken

Pantarbes Osten Sacken, 1877: 254. Type-species, *capito* Osten Sacken (mon.).

REFERENCE: Painter, 1940 (key).

capito Osten Sacken, 1877: 256.—Calif.; Wyo.
pusio Osten Sacken, 1887a: 153.—Mexico; Oreg. to Wyo., s. to Calif. and Mexico.
willistoni Osten Sacken, 1887a: 153.—Ariz.; Calif., Tex.

Subfamily PLATYPYGINAE

(Cyrtosiinae)

Cyrtomorpha sp. is predaceous on egg pods of Acrididae in Australia.

REFERENCE: Melander, 1950b (key).

Genus PLATYPYGUS Loew

Platypygus Loew, 1844a: 127. Type-species, *chrysanthemi* Loew (mon.).

americanus Melander, 1950b: 140.—Calif.

Subfamily MYTHICOMYIINAE

(Glabellulinae)

REFERENCE: Melander, 1950b (key).

Genus GLABELLULA Bezzi

Platygaster Zetterstedt, 1838: 574 (preocc. Latreille, 1809). Type-species, *arctica* Zetterstedt (mon.).

Glabellula Bezzi, 1902: 191 (n. name for *Platygaster* Zetterstedt). Type-species, *Platygaster arctica* Zetterstedt (aut.).

Pachyneres Greene, 1924b: 62. Type-species, *crassicornis* Greene (mon.).

Reared from decaying wood.

REFERENCES: Melander, 1946b, 1950b (keys).

crassicornis (Greene), 1924b: 62 (*Pachyneres*).—D.C.; Idaho, Man., Pa.

fasciata Melander, 1950b: 143.—Wash.

metatarsalis Melander, 1950b: 143.—Calif.

nanella Melander, 1950b: 144.—Calif.

pumila Melander, 1950b: 144.—Calif.

rotundipennis Melander, 1950b: 145.—Calif.

Genus EMPIDIDEICUS Becker

Empidideicus Becker, 1907d: 97. Type-species, *carthaginensis* Becker (mon.).

REFERENCES: Melander, 1946b, 1950b (revs.).

flavifrons Melander, 1950b: 141.—Calif.

humeralis Melander, 1946b: 455.—Calif.; Ariz.

propleuralis Melander, 1946b: 458.—Calif.
scutellaris Melander, 1946b: 456.—Calif.

Genus MYTHICOMYIA Coquillett

Mythicomyia Coquillett, 1893h: 208. Type-species, *rileyi* Coquillett (mon.).

REFERENCES: Cresson, 1915c (key); Melander, 1902a, 1961 (revs.).

acuta Melander, 1961: 179.—Calif.
agilis Melander, 1961: 180.—s. Calif.
angusta Melander, 1961: 180.—s. Calif.
annulata Melander, 1961: 181.—s. Calif.; Mexico (Baja Calif.), Ariz.
anomala Melander, 1961: 182.—s. Calif.
antecessor Melander, 1961: 182.—s. Calif.
apricata Melander, 1961: 183.—s. Calif.; Wash., Utah, Ariz.
armata Cresson, 1915c: 455.—N. Mex.; Wash., Idaho, Calif., Ariz., Mexico.
armipes Cresson, 1915c: 454.—N. Mex.
atra Cresson, 1915c: 456.—N. Mex.; Calif., Idaho, Utah, Ariz., Tex., Mexico.
atrita Melander, 1961: 186.—N. Mex.
aureola Melander, 1961: 187.—Calif.; Ariz.
var. **flavida** Melander, 1961: 187.—Ariz.; s. Calif.
aurifera Melander, 1961: 187.—s. Calif.
bibosa Melander, 1961: 188.—s. Calif.
bilychnis Melander, 1961: 189.—s. Calif.
bivulneris Melander, 1961: 190.—s. Calif.
bucinator Melander, 1961: 190.—s. Calif.
cala Melander, 1961: 190.—s. Calif.
var. **bella** Melander, 1961: 191.—s. Calif.
californica Greene, 1924b: 61.—Calif.; Oreg., Nev.
caligula Melander, 1961: 192.—s. Calif.
callima Melander, 1961: 193.—s. Calif.
calva Melander, 1961: 194.—s. Calif.; Wash.
carptura Melander, 1961: 194.—s. Calif.; Wash., Oreg.
collina Melander, 1961: 195.—s. Calif.
var. **actites** Melander, 1961: 196.—Calif.
comma Melander, 1961: 196.—N. Mex.
comparata Melander, 1961: 197.—s. Calif.
compta Melander, 1961: 197.—s. Calif.
concinna Melander, 1961: 198.—s. Calif.
concrescens Melander, 1961: 198.—s. Calif.

cressoni Melander, 1961: 199.—s. Calif.; Utah, N. Mex.
rileyi, authors, not Coquillett.
cristata Melander, 1961: 199.—Wash.
crocina Melander, 1961: 200.—Calif.
var. **aspilota** Melander, 1961: 200.—Calif.
cylla Melander, 1961: 201.—s. Calif.
diadela Melander, 1961: 201.—Calif.
dipura Melander, 1961: 202.—s. Calif.
diropeda Melander, 1961: 202.—s. Calif.
enoria Melander, 1961: 203.—s. Calif.
eremica Melander, 1961: 204.—s. Calif.
fasciolata Melander, 1961: 204.—s. Calif.
flavipes Cresson, 1915c: 452.—Tex.; Calif., Utah, Ariz., N. Mex., Mexico.
flaviventris Melander, 1961: 205.—s. Calif.; Wash.
formosa Melander, 1961: 206.—Ariz.; Calif.
frontalia Melander, 1961: 206.—s. Calif.; Ariz.
fulgida Melander, 1961: 207.—s. Calif.; Ariz.
galbea Melander, 1961: 208.—s. Calif.
gausa Melander, 1961: 208.—s. Calif.; Mexico (Baja Calif.).
gibba Melander, 1961: 209.—Ariz.; s. Calif., Mexico.
gibbera Melander, 1961: 210.—s. Calif.
gracilis Melander, 1961: 210.—Calif.
habra Melander, 1961: 211.—Ariz.
hamata Melander, 1961: 211.—Calif.
hiata Melander, 1961: 212.—s. Calif.
hoplites Melander, 1961: 212.—s. Calif.
hormatha Melander, 1961: 213.—s. Calif.; Utah.
hybos Melander, 1961: 214.—s. Calif.
illustris Melander, 1961: 215.—Ariz.; Mexico.
imbellis Melander, 1961: 215.—s. Calif.
indicata Melander, 1961: 216.—Calif.
insignis Melander, 1961: 216.—s. Calif.
intermedia Melander, 1961: 217.—s. Calif.; Utah, Ariz.
introrsa Melander, 1961: 218.—s. Calif.; N. Mex.
irrupta Melander, 1961: 218.—s. Calif.; Wash., Ariz., N. Mex., Mexico.
laticlavia Melander, 1961: 220.—s. Calif.; Ariz.
lenticularis Melander, 1961: 220.—Calif.
levigata Melander, 1961: 221.—s. Calif.
liticen Melander, 1961: 221.—s. Calif.
longimana Melander, 1961: 222.—s. Calif.
marginata Melander, 1961: 222.—s. Calif.; Ariz.

minima Melander, 1961: 223.—s. Calif.
var. **lucens** Melander, 1961: 224.—s. Calif.
ministra Melander, 1961: 224.—s. Calif.
minor Melander, 1961: 224.—Mexico; s. Calif.
minuscula Melander, 1961: 225.—s. Calif.
minuta Greene, 1924b: 62.—N. Mex.
mira Melander, 1961: 226.—Calif.
mirifica Melander, 1961: 226.—s. Calif.
mitrata Melander, 1961: 227.—Calif.
modesta Melander, 1961: 227.—Mexico (Son.); s. Calif.
mulsea Melander, 1961: 228.—s. Calif.; N. Mex.
murina Melander, 1961: 229.—s. Calif.
mutabilis Melander, 1961: 229.—s. Calif.; Nev., Ariz.
napaea Melander, 1961: 230.—Calif.
nigricans Melander, 1961: 231.—s. Calif.
nitida Melander, 1961: 231.—s. Calif.
nitidula Melander, 1961: 231.—s. Calif.
ocreata Melander, 1961: 232.—sw. Ariz.; s. Calif.
oporina Melander, 1961: 232.—s. Calif.
optata Melander, 1961: 233.—s. Calif.
var. **diloga** Melander, 1961: 234.—s. Calif.
orchestes Melander, 1961: 234.—s. Calif.
ornata Melander, 1961: 234.—s. Calif.
ornatula Melander, 1961: 235.—Oreg.; Wash., Calif., Ariz., Mexico.
ostenta Melander, 1961: 236.—s. Calif.
parma Melander, 1961: 236.—s. Calif.
penicula Melander, 1961: 237.—Ariz.
petena Melander, 1961: 237.—s. Calif.
petes Melander, 1961: 238.—Ariz.; Calif., Utah.
petiolata Melander, 1961: 238.—Calif.
phacodes Melander, 1961: 239.—Calif.
phalerata Melander, 1961: 239.—Wash.
pharetra Melander, 1961: 239.—Calif.
picta Melander, 1961: 240.—s. Calif.; Oreg., Idaho.
pictipes Coquillett, 1902g: 102.—Ariz.; N. Mex.
platycheira Melander, 1961: 241.—Oreg.
polygena Melander, 1961: 242.—Utah; s. Calif.
potrix Melander, 1961: 242.—s. Calif.; Wash., Oreg., Ariz.
pravipes Melander, 1961: 243.—Calif.; Wash., Ariz., Mexico.
pruinosa Melander, 1961: 244.—s. Calif.; Mexico.
pulla Melander, 1961: 245.—Nev.
pusilla Melander, 1961: 245.—s. Calif.
rhaeba Melander, 1961: 246.—Calif.; Idaho, Mont., Ariz., Mexico.

rileyi Coquillett, 1893h: 209.—Calif.; Wash. to Idaho, s. to Calif. and N. Mex., Mexico.
robiginosa Melander, 1961: 249.—Calif.
salpinx Melander, 1961: 249.—s. Calif.
scapulata Melander, 1961: 250.—s. Calif.; N. Mex.
scutellata Coquillett, 1902g: 102.—Ariz.; Calif., Utah, N. Mex., Mexico (Baja Calif.)
sorbens Melander, 1961: 252.—s. Calif.
sugens Melander, 1961: 252.—Oreg.; Calif.
tagax Melander, 1961: 253.—s. Calif.
tenthes Melander, 1961: 253.—s. Calif.; Mexico.
tibialis Coquillett, 1895m: 409.—Calif.; N. Mex.
trifaria Melander, 1961: 254.—s. Calif.; Nev., Utah, Ariz.
triformis Melander, 1961: 255.—s. Calif.; Idaho, Mexico.
var. **chitona** Melander, 1961: 256.—s. Calif.
var. **monacha** Melander, 1961: 256.—s. Calif.
tristis Melander, 1961: 257.—Calif.
tubicen Melander, 1961: 257.—Mexico (Baja Calif.); Ariz.
tumescens Melander, 1961: 258.—s. Calif.
uncata Melander, 1961: 258.—Calif.
vestis Melander, 1961: 259.—Utah.
vilis Melander, 1961: 259.—s. Calif.
virgata Melander, 1961: 260.—s. Calif.
virgo Melander, 1961: 260.—Utah; s. Calif.
vulnerata Melander, 1961: 261.—Calif.

Subfamily PHTHIRIINAE

Genus PHTHIRIA Meigen

Phthiria Meigen, 1803: 268. Type-species, *Bombylius pulicarius* Mikan (mon.).
Neacreotrichus Cockerell, 1917: 377. Type-species, *Acreotrichus atratus* Coquillett (orig. des.).

REFERENCES: Coquillett, 1894a (key); Painter and Painter, 1962 (partial keys).

Subgenus PHTHIRIA Meigen

americana (Coquillett), 1895l: 273 (*Acreotrichus*).—Wash.; Oreg., Calif.
cingulata Loew, 1846b: 383.—Mexico; Ariz., Calif.
diversa Coquillett, 1894a: 103.—Calif.
egerminans Loew, 1872a: 80 (Cent. 10, no. 47).—Calif.
floralis Coquillett, 1894a: 103.—Calif.; Utah.

humilis Osten Sacken, 1877: 264.—Calif.; Ariz., Tex., Utah.
maculipennis (Cole), 1923b: 24 (*Acreotrichus*).—Calif.
melanoscuta Coquillett, 1904f: 172.—N. Mex.; Ariz.
picturata Coquillett, 1904f: 175.—N. Mex.; Ariz.
similis Coquillett, 1894a: 103.—Calif.; Nev., Utah.

Subgenus POECILOGNATHUS Jaennicke

Poecilognathus Jaennicke, 1867: 350 (1868: 42) (as genus). Type-species, *thlipsomyzoides* Jaennicke (mon.).

aldrichi Johnson, 1903e: 184.—Idaho; S. Dak., N. Mex., Tex.
alterans Williston, 1901: 291.—Mexico; Ariz.
amplicella Coquillett, 1904f: 175.—Tex.
badia Coquillett, 1904f: 174.—Tex.; Honduras.
bicolor Coquillett, 1904f: 176.—N. Mex.
borealis Johnson, 1910a: 229.—Maine.
coquilletti Johnson, 1902a: 240.—N.J.; Ill., Mich., Mass.
cyanoceps Johnson, 1903e: 184.—Mass.; Minn., Ill., Mich., N.Y.
flaveola Coquillett, 1904f: 175.—N. Mex., Calif.
fulvida Coquillett, 1904f: 172.—Mexico; Ariz.
inornata Coquillett, 1904f: 174.—Tex.
loewi Painter (for *notata* Loew).—Calif.; Calif. to Utah, s. to Tex. **N. name.**
notata Loew, 1863a: 11 (Cent. 3, no. 19) (preocc. Bigot, 1862).—Calif.
marginata Coquillett, 1904f: 173.—N. Mex.
nubeculosa Coquillett, 1904f: 173.—N. Mex.
psi Cresson, 1919: 186.—Calif.
punctipennis Walker, 1849: 294.—Ga.; S. Dak. to Ill., s. to Ariz. and Ga.
scolopax Osten Sacken, 1877: 263.—Colo.; Calif., Ariz., N. Mex.
sulphurea Loew, 1863a: 11 (Cent. 3, no. 18).—N.J.; Oreg. to Mass., s. to Ariz. and Fla.
thlipsomyzoides (Jaennicke), 1867: 351 (1868: 43) (*Poecilognathus*).—Mexico; Ariz., N. Mex., Colo., Tex.
unimaculata Coquillett, 1904c: 32.—N. Mex., Tex.; Ariz.
vittiventris Coquillett, 1904f: 173.—N. Mex.; Ariz., Utah.

Genus DESMATOMYIA Williston

Desmatomyia Williston, 1895c: 268. Type-species, *anomala* Williston (mon.).

anomala Williston, 1895c: 268.—Colo.; Ariz.

Genus APOLYSIS Loew

Apolysis Loew, 1860c: 86 (also 1860d: 269; 1860: 197). Type-species, *humilis* Loew (mon.).

REFERENCE: Melander, 1946b (key).

aperta Melander, 1946b: 459.—Calif.
disjuncta Melander, 1946b: 459.—Calif.
druias Melander, 1946b: 460.—Calif.; Ariz.
glauca Melander, 1946b: 461.—Calif.
minutissima Melander, 1946b: 461.—Calif.
mohavea Melander, 1946b: 462.—Calif.
petiolata Melander, 1946b: 462.—Calif.; Ariz.
timberlakei Melander, 1946b: 463.—Calif.

Genus OLIGODRANES Loew

Oligodranes Loew, 1844a: 160. Type-species, *obscuripennis* Loew (Becker, 1913: 484).
Rhabdopselaphus Bigot, 1886b: ciii. Type-species, *mus* Bigot (mon.).
Pseudogeron Cresson, 1915b: 201. Type-species, *mitis* Cresson (orig. des.).

REFERENCE: Melander, 1946b (key).

acrostichalis acrostichalis Melander, 1946b: 471.—Calif.
ssp. **matutinus** Melander, 1946b: 471 (as var.).—Calif.
analis Melander, 1946b: 471.—Calif.
anthonomus Melander, 1946b: 472.—Calif.
ater (Cresson), 1915b: 204 (*Pseudogeron*).—N. Mex.
bicolor Melander, 1946b: 473.—Calif.
bifarius Melander, 1946b: 473.—Calif.
bilineatus Melander, 1946b: 474.—Calif.
bivittatus (Cresson), 1915b: 206 (*Pseudogeron*).—Tex.
capax (Coquillett), 1892c: 126 (*Geron*).—Calif.
chalybeus Melander, 1946b: 474.—Oreg.
cincturus (Coquillett), 1894a: 111 (*Geron*).—Calif.; Oreg., Utah.
cinereus Melander, 1946b: 475.—Calif.
cockerelli Melander, 1946b: 476.—N. Mex.
colei Melander, 1946b: 476.—Calif.
comosus Melander, 1946b: 477.—Calif.
dissimilis Melander, 1946b: 478.—Calif.
distinctus Melander, 1946b: 478.—Calif.
divisus Melander, 1946b: 479.—Calif.
dolorosus Melander, 1946b: 480.—Calif.
eremitis Melander, 1946b: 480.—Calif.
fasciolus (Coquillett), 1892c: 125 (*Geron*).—Calif.; Wyo.

formosus (Cresson), 1915b: 205 (*Pseudogeron*).—N. Mex.
instabilis Melander, 1946b: 481.—Calif.
knabi (Cresson), 1915b: 206 (*Pseudogeron*).—N. Mex.; Utah.
lasius Melander, 1946b: 482.—Calif.
longirostris Melander, 1946b: 483.—Calif.
loricatus Melander, 1946b: 483.—Calif.
lugens Melander, 1946b: 484.—Calif.
maculatus Melander, 1946b: 484.—Calif.
marginalis (Cresson), 1915b: 207 (*Pseudogeron*).—N. Mex.
mitis (Cresson), 1915b: 205 (*Pseudogeron*).—N. Mex.; Utah.
montanus Melander, 1946b: 485.—Calif.
mus (Bigot), 1886b: civ (*Rhabdopselaphus*).—Calif.
neuter Melander, 1946b: 486.—Calif.
obscurus (Cresson), 1915b: 204 (*Pseudogeron*).—N. Mex.; Oreg., Utah, Tex.
palpalis Melander, 1946b: 486.—Wash.; Calif., Mont.
panneus Melander, 1946b: 487.—Calif.
parkeri Melander, 1946b: 487.—Ariz.
polius Melander, 1946b: 488.—Calif.; Ariz.
pulcher Melander, 1946b: 489.—Calif.
pullatus Melander, 1946b: 490.—Calif.
quinquenotatus (Johnson), 1903e: 185 (*Phthiria*).—Colo.; Idaho.
retrorsus Melander, 1946b: 490.—Calif.
scapularis Melander, 1946b: 491.—Calif.
scapulatus Melander, 1946b: 492.—Calif.
setosus (Cresson), 1915b: 203 (*Pseudogeron*).—Calif.; N. Mex.
sigma (Coquillett), 1902g: 101 (*Geron*).—Colo., N.C., Ala.; Oreg., Utah, Calif., N.Y.
sipho Melander, 1946b: 492.—Calif.
speculifer Melander, 1946b: 493.—Calif.
togatus Melander, 1946b: 494.—Calif.
trifidus Melander, 1946b: 495.—Calif.
trochilus (Coquillett), 1894a: 111 (*Geron*).—Calif.; Ariz.

Genus GERON Meigen

Geron Meigen, 1820: 223. Type-species, *gibbosus* Meigen (Rondani, 1856: 165) = *gibbosus* (Olivier).

The larvae are parasites in various Pyralidae in India and Europe.

REFERENCE: Painter, 1932a (monog.).

Subgenus GERON Meigen

albarius Painter, 1932a: 159.—Tex.; Wyo., Colo., Kans., Ariz.
albidipennis Loew, 1869c: 174 (Cent. 9, no. 78).—Calif.

arenicola Painter, 1932a: 160.—Kans.; Minn., Nebr., N.Y., Mass.
argutus Painter, 1932a: 158.—Kans.; Oreg. to Wyo. and Kans., s. to Calif. and Tex.
digitarius Cresson, 1919: 184.—N. Mex.; Ariz., Colo.
grandis Painter, 1932a: 150.—Tex.; Ariz., N. Mex.
holosericeus Walker, 1849: 295.—Ga.; Kans. to N.J., s. to Ariz. and Ga.
versicolor Painter, 1932a: 156.—Kans.
johnsoni Painter, 1932a: 155.—Mass.; N.Y.
litoralis Painter, 1932a: 146.—Honduras; Tex.
nigripes Painter, 1932a: 152.—Calif.; Oreg.
niveus Cresson, 1919: 185.—Calif.; N. Mex.
parvidus Painter, 1932a: 155.—Calif.
robustus Cresson, 1919: 185 (as *digitarius* var.).—Md.
subauratus Loew, 1863b: 304 (Cent. 4, no. 55).—Pa.; Ohio to Mass., s. to N.C.
vitripennis Loew, 1869c: 173 (Cent. 9, no. 77).—Middle States; Ill. to N.J., s. to Tex. and Ga.
winburni Painter, 1932a: 157.—Calif.

Subgenus EMPIDIGERON Painter

Geron, subg. **Empidigeron** Painter, 1932a: 143. Type-species, *snowi* Painter (orig. des.).

aequalis Painter, 1932a: 162.—Calif.
aridus Painter, 1932a: 163.—Ariz.; Colo., N. Mex.
calvus Loew, 1863b: 303 (Cent. 4, no. 54).—N.Y.; N.H., Mass., Pa., N.J.
macropterus Loew, 1869c: 172 (Cent. 9, no. 76).—N.Y.
hybus Coquillett, 1894a: 112.—Calif.
nudus Painter, 1932a: 163.—N. Mex.; Colo.
snowi Painter, 1932a: 164.—N. Mex.; Ariz., Colo.

Subfamily HETEROTROPINAE

REFERENCE: Melander, 1950b (key).

Genus HETEROTROPUS Loew

Heterotropus Loew, 1873c: 182. Type-species, *albidipennis* Loew (mon.).

senex Melander, 1950b: 150.—Ariz.

Genus CAENOTUS Cole

Caenotus Cole, 1923d: 14. Type-species, *inornatus* Cole (orig. des.).

REFERENCE: Melander, 1950b (key).

canus Melander, 1950b: 149.—Calif.
hospes Melander, 1950b: 149.—Ariz.
inornatus Cole, 1923d: 16.—N. Mex.
minutus Cole, 1923d: 15.—N. Mex.

Genus PRORATES Melander

Prorates Melander, 1906: 372. Type-species, *claripennis* Melander (mon.).

claripennis Melander, 1906: 373.—N. Mex.; Calif.

Genus APYSTOMYIA Melander

Apystomyia Melander, 1950b: 146. Type-species, *elinguis* Melander (orig. des.).

elinguis Melander, 1950b: 147.—Calif.

Subfamily SYSTROPODINAE

REFERENCE: Enderlein, 1926b (key).

Genus SYSTROPUS Wiedemann

Systropus Wiedemann, 1820b: 18. Type-species, *macilentus* Wiedemann (mon.).

Cephenus Berthold, 1827: 506 (unjustified n. name for *Systropus* Wiedemann). Type-species, *Systropus macilentus* Wiedemann (aut.).

The larvae are parasitic on Eucleidae (Limacodidae), Lepidoptera.

REFERENCE: Townsend, 1901 (key).

ammophiloides Townsend, 1901: 159.—N. Mex.; Ariz.
angulatus (Karsch), 1880: 657 (*Cephenus*).—Tex.; Va., N.C., S.C., Ga., Ala.
arizonicus Banks, 1909: 18.—Ariz.
macer Loew, 1863b: 305 (Cent. 4, no. 56).—Wis., Pa.; Wis. to Mass., s. to Tex. and Ga.
infuscatus Karsch, 1880: 657 (*Cephenus*).—Tex.
imbecillus Karsch, 1880: 658 (*Cephenus*).—Ga.

Genus DOLICHOMYIA Wiedemann

Dolichomyia Wiedemann, 1830: 642. Type-species, *nigra* Wiedemann (mon.).

gracilis Williston, 1894: 41.—Colo.; Ariz.

Subfamily TOXOPHORINAE

REFERENCE: d'Andretta and Carrera, 1950 (key).

Genus TOXOPHORA Meigen

Toxophora Meigen, 1803: 270. Type-species, *Asilus maculatus* Rossi (sub. mon., Meigen, 1804: 273).

The larvae are parasitic on Aculeate Hymenoptera, especially *Eumenes* and *Odynerus*.

REFERENCE: Coquillett, 1891b (key).

americana Guérin-Méneville, 1835: pl. 95, fig. 1.—N. Amer. Unrecognized.

amphitea Walker, 1849: 298.—Fla.; Mo. to Md., s. to Tex. and Fla.

leucopyga Wiedemann, 1828: 361.—Unknown; La., Ala., Fla., Ga., N.C.

fulva Gray *in* Griffith and Pidgeon, 1832: 779.—Unknown.

maxima Coquillett, 1886c: 222.—Calif.; Oreg., Ariz., N. Mex., Tex., Okla., Kans.

pellucida Coquillett, 1886c: 222.—Calif.; Oreg. to Alta., s. to Calif., Tex., and Kans.

vasta Coquillett, 1891b: 199.—Calif.; Ariz., Colo.

virgata Osten Sacken, 1877: 266.—Tex., Ga.; Calif., Ariz., N. Mex., Utah, Colo., Okla.

Genus LEPIDOPHORA Westwood

Lepidophora Westwood, 1835a: 447. Type-species, *Ploas aegeriiformis* Gray (mon.) = *lepidocera* (Wiedemann).

REFERENCES: Painter, 1925, Paramonov, 1949 (revs.).

lepidocera (Wiedemann), 1828: 360 (*Toxophora*).—Unknown; Iowa, s. to Tex. and La., Ohio, S.C. to Fla.

aegeriiformis Gray *in* Griffith and Pidgeon, 1832: 779, pl. 126, fig. 6 (*Ploas*; as *aegeriformis*, p. 779).—Ga. (Westwood, 1835a: 447).

appendiculata Macquart, 1846: 246 (1846: 118) (*Toxophora*).—Tex.

lutea Painter *in* Painter and Painter, 1962: 51.—N.J.; Minn. to Ont. and Maine, s. to Mo., La., and Fla.
lepidocera, authors, not Wiedemann.

vetusta Walker, 1857: 145.—Mexico (as Valley of the Amazon, error; Painter and Painter, 1962: 52); Tex., Mexico, Cent. Amer.

Subfamily CYLLENIINAE

REFERENCE: Hall, 1957 (partial key).

Genus ECLIMUS Loew

Eclimus Loew, 1844a: 154. Type-species, *perspicillaris* Loew (Coquillett, 1910b: 536).

Thevenemyia Bigot, 1875b: clxxiv. Type-species, *californica* Bigot (mon.).

Thevenetimyia, emend.

Epibates Osten Sacken, 1877: 268. Type-species, *funestus* Osten Sacken (Coquillett, 1910b: 538).

REFERENCE: Osten Sacken, 1877 (key).

californicus (Bigot), 1875b: clxxv (*Thevenemyia*).—Calif.

celer Cole *in* Cole and Lovett, 1919: 224.—Oreg.; Wash., Calif.

funestus (Osten Sacken), 1877: 271 (*Epibates*).—N.H.; Mont., Utah, Que., Tex., Ill.

harrisi (Osten Sacken), 1877: 273 (*Epibates*).—Unknown (probably n. U.S.); N.H.

laniger Cresson, 1919: 182.—Calif.; Wash., Utah.

leechi Hall, 1954b: 147.—Calif.

lotus Williston, 1893c: 66.—Calif.; Wash., Oreg.
auratus Williston, 1893c: 66.—Wash.

luctifer (Osten Sacken), 1877: 271 (*Epibates*).—B.C.; Wash., Oreg., Calif.
lucifer, error.
auripilus Bigot, 1892a: 372 (*Amictus*; preocc. Osten Sacken, 1887).—Wash. Territory.

magnus (Osten Sacken), 1877: 272 (*Epibates*).—B.C.; B.C. to Mont., s. to Calif. and Utah.
melanopogon Bigot, 1892a: 370 (*Thevenetimyia*).—Wash. Territory.

marginatus (Osten Sacken), 1877: 272 (*Epibates*).—Calif.; Oreg.

melanosus Williston, 1893c: 65.—Calif.

muricatus (Osten Sacken), 1877: 272 (*Epibates*).—Calif.; Oreg., Idaho, Utah, Colo.
niger (Macquart), 1834a: 390 (*Apatomyza*).—Ga.; Miss.
aegiale Walker, 1849: 296 (*Cyllenia*).—Ga.
ostensackenii (Burgess), 1878: 323 (*Epibates*).—Colo.; Calif., Ariz., Utah.
sodalis Williston, 1893c: 65.—Wash.; Oreg., Calif., Ariz., Wyo.
yosemite Cresson, 1919: 183.—Calif.; Oreg.

Genus AMPHICOSMUS Coquillett

Amphicosmus Coquillett, 1891c: 219. Type-species, *elegans* Coquillett (mon.).

REFERENCE: Hall, 1957 (key).

arizonensis Johnson and Johnson, 1960: 67.—Ariz.
elegans Coquillett, 1891c: 220.—Calif.
vanduzeei Cole, 1923b: 22.—Calif.

Genus METACOSMUS Coquillett

Metacosmus Coquillett, 1891c: 220. Type-species, *exilis* Coquillet (mon.).

REFERENCE: Melander, 1950b (key).

exilis Coquillett, 1891c: 221.—Calif.
mancipennis Coquillett, 1910c: 41.—Pa.; Mass., N.J.
nitidus Cole, 1923b: 23.—Calif.

Genus PARACOSMUS Osten Sacken

Allocotus Loew, 1872a: 82 (Cent. 10, no. 48) (preocc. Mayr, 1864). Type-species, *edwardsii* Loew (mon.).
Paracosmus Osten Sacken, 1877: 262 (n. name for *Allocotus* Loew). Type-species, *Allocotus edwardsii* Loew (aut.).

REFERENCE: Melander, 1950b (key).

edwardsii (Loew), 1872a: 81 (Cent. 10, no. 48) (*Allocotus*).—Calif.; Utah.
insolens Coquillett, 1891c: 221.—Calif.
morrisoni Osten Sacken, 1887a: 155.—Mexico; Calif., Ariz., Tex.
rubicundus Melander, 1950b: 155.—Mexico; Calif., Ariz.
similis Hall, 1957: 143.—Calif.

BOMBYLIIDAE TOMOPHTHALMAE

Subfamily LOMATIINAE

REFERENCES: Röder, 1886, Melander, 1950a (keys).

Genus OGCODOCERA Macquart

Ogcodocera Macquart, 1840: 83 (1841: 361). Type-species, *dimidiata* Macquart (mon.)=*leucoprocta* (Wiedemann).

Oncodocera, emend.

Anisotamia, authors, not Macquart.

REFERENCES: Röder, 1886, Paramonov, 1930 (keys).

analis Williston, 1901: 283 (*Oncodocera*).—Mexico; s. Ariz.

leucoprocta (Wiedemann), 1828: 330 (*Mulio*).—Unknown; Iowa and Mich. to Que. and Mass., s. to Kans., Ark., and Ga.

dimidiata Macquart, 1840: 84 (1841: 362).—N. Amer.

leucotelus Walker, 1852: 175 (*Anthrax*).—Unknown.

valida (Wiedemann), 1830: 636 (*Anthrax*).—Mexico; Ariz.

eximia Macquart, 1850: 419 (1850: 115) (*Anisotamia*).—Mexico.

Genus EPACMUS Osten Sacken

Leptochilus Loew, 1872a: 78 (Cent. 10, no. 40) (preocc. Saussure, 1852). Type-species, *modestus* Loew (mon.).

Epacmus Osten Sacken, 1887a: 142 (n. name for *Leptochilus* Loew). Type-species, *Leptochilus modestus* Loew (aut.).

REFERENCE: Melander, 1950a (key).

cirratus Melander, 1950a: 6.—N. Mex.

clunalis Melander, 1950a: 8.—Wash.

connectens Melander, 1950a: 10.—Ariz.; Calif.

labiosus Melander, 1950a: 11.—Utah.

litus (Coquillett), 1886a: 84 (*Aphoebantus*).—Calif.; Ariz.

modestus (Loew), 1872a: 77 (Cent. 10, no. 40) (*Leptochilus*).—Tex.; N. Mex.

morsicans Melander, 1950a: 11.—Ariz.

nebritus Coquillett, 1894a: 104.—Calif.; Ariz.

nitidus Cole *in* Cole and Lovett, 1921: 249.—Oreg.

pallidus Cresson, 1919: 181.—Tex.; Utah.

ponderosus Melander, 1950a: 13.—Ariz.

pulvereus Melander, 1950a: 13.—Ariz.

tomentosus Melander, 1950a: 14.—Ariz.; Calif.

Genus APHOEBANTUS Loew

Aphoebantus Loew, 1872a: 77 (Cent. 10, no. 39). Type-species, *cervinus* Loew (mon.).

Triodites Osten Sacken, 1877: 245. Type-species, *mus* Osten Sacken (mon.).

Predators on egg pods of Acrididae; parasites of *Tiphia* in India.

REFERENCES: Coquillett, 1894a, Melander, 1950a (keys).

abnormis Coquillett, 1891d: 14 (1891: 262).—Calif.
inermis, error.
altercinctus Melander, 1950a: 21.—Ariz.
arenicola Melander, 1950a: 22.—Tex.; Ariz., N. Mex.
balteatus Melander, 1950a: 23.—Ariz.
bisulcus Osten Sacken, 1887a: 148.—Mexico; Ariz.
borealis Cole *in* Cole and Lovett, 1921: 251. Oreg.; Calif.
brevistylus Coquillett, 1891d: 16 (1891: 264).—Calif.
capax Coquillett, 1891d: 13(1891: 261).—Calif.
carbonarius Osten Sacken, 1887a: 149.—Mexico; Wash., Calif., Ariz., Kans.
catenarius Melander, 1950a: 24.—Ariz.
catulus Coquillett, 1894a: 107.—Calif.
cervinus Loew, 1872a: 76 (Cent. 10, no. 39).—Tex.; Kans., Okla.
concinnus (Coquillett), 1892b: 10 (*Epacmus*).—Calif.
contiguus contiguus Melander, 1950a: 25.—Utah.
ssp. **separatus** Melander, 1950a: 25 (as var.).—Ariz.; Calif.
conurus Osten Sacken, 1887a: 148.—Calif.; Oreg., Ariz.
cyclops Osten Sacken, 1887a: 146.—Mexico; Ariz.
denudatus Melander, 1950a: 27.—Ariz.
desertus Coquillett, 1891d: 13 (1891: 261).—Calif.
eremicola Melander, 1950a: 28.—Calif.; Ariz.
fumidus Coquillett, 1891d: 15 (1891: 263).—Calif.
fumosus (Coquillett), 1892b: 11 (*Epacmus*).—Calif.; Ariz.
fucatus Coquillett, 1894a: 108.—Calif.
gluteatus Melander, 1950a: 29.—Ariz.
halteratus Melander, 1950a: 30.—Calif.
hians Melander, 1950a: 30.—Ariz.
hirsutus Coquillett, 1886a: 85.—Calif.; Oreg., Ariz.
interruptus Coquillett, 1891d: 11 (1891: 259).—Calif.; Oreg., Tex.
inversus Melander, 1950a: 32.—Utah.
leviculus Coquillett, 1894a: 107.—Calif.; Wyo., Colo., N. Mex., Tex.
maculatus Melander, 1950a: 33.—Ariz.
marcidus Coquillett, 1891d: 10 (1891: 258).—Calif.
squamosus (in part) Coquillett, 1891d: 15 (1891: 263). Male only.

marginatus Cole, 1923a: 310.—Mexico (Baja Calif.); Ariz., Tex.
micropyga Melander, 1950a: 34.—Ariz.; Mexico.
mixtus Coquillett, 1891d: 11 (1891: 259).—Calif.
mormon Melander, 1950a: 35.—Utah; Ariz.
mus mus (Osten Sacken), 1877: 246 (*Triodites*).—Utah; Calif.
ssp. **barbatus** Melander, 1950a: 36 (as var.).—Ariz.
obtectus Melander, 1950a: 36.—Mexico; Ariz., Calif.
parkeri Melander, 1950a: 37.—Ariz.; Utah.
pavidus Coquillett, 1886a: 87 (as *cervinus* var.).—Calif.
pellucidus (Coquillett), 1892b: 10 (*Epacmus*).—Calif.
peodes Osten Sacken, 1887a: 149.—Mexico; Oreg., Calif., Ariz.
rattus Osten Sacken, 1887a: 147.—Tex.
scalaris Melander, 1950a: 39.—Calif.; Ariz.
schlingeri Hall, 1957: 147.—Calif.
scriptus Coquillett, 1891d: 12 (1891: 260).—Calif. (unpublished).
sperryorum Melander, 1950a: 40.—Calif.
squamosus Coquillett, 1891d: 15 (1891: 263).—Calif. Female only; male=*marcidus*.
tardus Coquillett, 1891d: 10 (1891: 258).—Calif.
timberlakei Melander, 1950a: 42.—Calif.
transitus (Coquillett), 1886a: 83 (*Leptochilus*).—Calif.
ursula Melander, 1950a: 42.—Calif.
varius Coquillett, 1891d: 8 (1891: 256).—Calif.
vasatus Melander, 1950a: 44.—Calif.
vittatus Coquillett, 1886a: 86.—Calif.
vulpecula Coquillett, 1894a: 107.—Calif.; Ariz., Utah.

Genus DESMATONEURA Williston

Desmatoneura Williston, 1895c: 267. Type-species, *argentifrons* Williston (mon.).

argentifrons Williston, 1895c: 267.—N. Mex.; Calif., Utah, Ariz., Tex., Kans.

Genus EXEPACMUS Coquillett

Exepacmus Coquillett, 1894a: 101. Type-species, *johnsoni* Coquillett (mon.).

johnsoni Coquillett, 1894a: 101.—Calif.
nasalis Melander, 1950b: 152.—Calif.

Genus EUCESSIA Coquillett

Eucessia Coquillett, 1886a: 82. Type-species, *rubens* Coquillett (mon.).

rubens Coquillett, 1886a: 82.—Calif.

Subfamily ANTHRACINAE

Genus ANTHRAX Scopoli

Anthrax Scopoli, 1763: 358. Type-species, *Musca morio* Linnaeus (mon.; misident.)=*anthrax* (Schrank). See Aldrich, 1926e: 12.

Spogostylum Macquart, 1840: 53 (1841: 331). Type-species, *mystaceum* Macquart (mon.).

Spongostylum, emend.

Argyromoeba Schiner, 1860b: 51. Type-species, *Anthrax tripunctata* Wiedemann (Coquillett, 1910b: 510).

Argyramoeba, emend.

The larvae are parasites of Aculeate Hymenoptera and *Cicindela*, or predators on egg pods of Acrididae (in Palaearctic Region.)

REFERENCE: Curran, 1927f (key).

albofasciatus Macquart, 1840: 67 (1841: 345) (n. name for *analis* Macquart).—Ga.; Alta., Que., Tex., Fla.

analis Macquart, 1834a: 407 (preocc. Say, 1823).—Ga.

albosparsus (Bigot), 1892a: 348 (*Argyromoeba*).—Colo.

analis Say, 1823: 45 (1859b: 60).—Ga.; Mont., Ont., Ariz., Fla.

antecedens Walker, 1852: 193.—U.S.

argentatus (Cole) *in* Cole and Lovett, 1919: 227 (*Spogostylum*).—Oreg.; Wash., Idaho, Calif., Utah.

argyropygus Wiedemann, 1828: 313, 591 (as *argyropya*, p. 313).—Unknown; Ont., Va., Tenn., Fla., Ariz.

contigua Loew, 1869b: 30 (Cent. 8, no. 50) (*Argyromoeba*).—Va.

aterrimus (Bigot), 1892a: 349 (*Argyromoeba*).—Md. (unpublished); Ind., Ky., La., Va., S.C., Fla.

slossonae Johnson, 1913a: 55 (*Spogostylum*).—Ky. **N. syn.**

cedens Walker, 1852: 190.—U.S.

cephus Fabricius.—Not Nearctic.

cintalapa Cole, 1957: 200.—Mexico; Calif., Utah, Nebr., Tex.

cybele (Coquillett), 1894a: 96 (*Argyromoeba*).—Calif.; Ariz., Tex., Okla.

daphne (Osten Sacken), 1886a: 104 (*Argyromoeba*).—Mexico; Oreg., Calif., N. Mex., Colo.

delila (Loew), 1869b: 28 (Cent. 8, no. 45) (*Argyromoeba*).—Calif.
fur (Osten Sacken), 1877: 244 (*Argyromoeba*).—Tex.; Nebr., Kans., Okla., Ark.
georgicus Macquart, 1834a: 406.—Ga.
grossbecki (Johnson), 1913a: 55 (*Spogostylum*).—Fla.; Ga.
irroratus Say, 1823: 46 (1859b: 61).—Rocky Mts.; Alaska to Que., s. to Calif. and Fla.
oedipus, authors, not Fabricius.
latelimbatus (Bigot), 1892a: 351 (*Hemipenthes*).—Carolina.
limatulus Say, 1829: 157 (1859b: 354).—Ind.; Del., Mo., Ark., Tex., Fla.
obsoleta Loew, 1869b: 29 (Cent. 8, no. 47) (*Argyromoeba*).—Mo.
melanopogon (Bigot), 1892a: 348 (*Argyromoeba*).—Wash. (as N. Amer.).
nidicola Cole, 1952: 126.—Calif.
occidentalis (Johnson), 1913a: 56 (*Spogostylum*).—Wash., Colo.
pauper (Loew), 1869b: 29 (Cent. 8, no. 48) (*Argyromoeba*).—Ill.; Nebr., Ont., Tex., Va.
plesius Curran, 1927f: 84.—B.C.; Calif., Wyo., Colo.
pluricellus Williston, 1901: 277.—Mexico; Ariz.
pleuricellus, error.
capucina Fabricius of Rau, 1940: 594.
pluto Wiedemann, 1828: 261.—Ky.
seriepunctatus (Osten Sacken), 1886a: 103 (*Argyromoeba*).—Mexico; Ariz.
stellans (Loew), 1869b: 28 (Cent. 8, no. 46) (*Argyromoeba*).—Oreg.
tigrinus (De Geer), 1776: 206 (*Nemotelus*).—Pa.; Calif. to Ont., s. to Kans. and Fla., Neotropical.
simson Fabricius, 1805: 119.—S. Amer.
scriptus Say, 1823: 43 (1859b: 59).—Pa.
varicolor (Bigot), 1892a: 347 (*Argyromoeba*).—N. Amer. (as Columbia).
varius Fabricius.—Not Nearctic.
vierecki (Cresson), 1919: 180 (*Spogostylum*).—N. Mex.; Calif., Ariz., Tex.

Genus DICRANOCLISTA Bezzi

Coquillettia Williston, 1896a: 65 (preocc. Uhler, 1890). Type-species, *Spogostylum vandykei* Coquillett (sub. mon., Aldrich, 1905: 221).
Dicranoclista Bezzi, 1924b: 178. Type-species, *simpsoni* Bezzi (orig. des.).

fasciata Johnson and Johnson, 1960: 70.—Ariz.; Utah.
vandykei (Coquillett), 1894a: 94 (*Spogostylum*).—Calif.; Wash., Oreg., Utah, Tex.

Subfamily EXOPROSOPINAE

REFERENCE: Painter and Hall, 1960 (key).

Genus VILLA Lioy

Villa Lioy, 1864a: 732. Type-species, *Anthrax concinnus* Meigen (Coquillett, 1910b: 619)=*abbadon* (Fabricius).
Anthrax, group *Hyalanthrax* Osten Sacken, 1887a: 134. Type-species, *faustinus* Osten Sacken (Coquillett, 1910b: 553).
Anthrax, authors, not Scopoli.

The larvae are external or internal parasites of various Diptera, Lepidoptera, and Hymenoptera, especially Ichneumonidae, Tiphiidae, Tenthredinidae, Eumenidae, *Bembex*, *Anthophora*, *Megachile*, and *Andrena*. Also parasites of Noctuidae and Tenebrionidae and predators in egg pods of grasshoppers.

Species have been assigned to subgenera wherever possible; those left unplaced include (1) species intermediate between two subgenera, (2) species unknown to us, and (3) species that may require new subgenera for their reception. The latter should be named only after thorough restudy of most of the species in this large group. Some of these subgenera have been considered genera by some authors, especially for Palaearctic and Ethiopian species (Bezzi, 1924b; Hesse, 1938–1956; Engel, 1933–1937).

REFERENCES: Coquillett, 1887a, 1892a, 1894a (keys to spp.); Painter and Hall, 1960 (key to subg.).

Subgenus VILLA Lioy

adusta (Loew), 1869b: 26 (Cent. 8, no. 41) (*Anthrax*).—Cuba; Fla.
aenea (Coquillett), 1887a: 165 (*Anthrax*).—Calif.; Ariz., N. Mex., Utah, Tex., Kans.
agrippina (Osten Sacken), 1887a: 139 (*Anthrax*).—Mexico; Wash., Calif., Utah, Colo., Ariz., N. Mex.
alternata alternata (Say), 1823: 45 (1859b: 61) (*Anthrax*).—Mo., Pa.
bastardi Macquart, 1840: 60 (1841: 338) (*Anthrax*).—N. Amer.
consanguinea Macquart, 1840: 69 (1841: 347) (*Anthrax*).—Pa.
albipectus Macquart, 1848a: 194 (1848: 34) (*Anthrax*).—N. Amer.

ssp. **nigropecta** Cresson, 1916c: 443 (as var.).—N. Mex.; Utah, Kans., Minn.

chromolepida Cole, 1923b: 21.—Calif.

compressa Painter, 1926b: 211.—Tex.

connexa (Macquart), 1855: 96 (1855: 76) (*Anthrax*).—Md.

consessor (Coquillett), 1887a: 165 (*Anthrax*).—Calif.; B.C., Utah, Colo., Kans., Ariz., N. Mex.

faustina (Osten Sacken), 1887a: 136 (*Anthrax*).—Mexico; Oreg., Calif., Colo., Ariz.

flavocostalis Painter, 1926b: 210.—Tex.; Colo.

fulviana fulviana (Say), 1824a: 372 (1859a: 253) (*Anthrax*).—Northwest Territory (U.S.); Wash. to N.S., s. to Calif., N. Mex., and Iowa.

ssp. **nigricauda** (Loew), 1869b: 24 (Cent. 8, no. 38) (*Anthrax;* as sp.).—Mass.; Minn. to Maine, also Colo.

fumicosta Painter *in* Painter and Painter, 1962: 106.—Fla.; Ohio, Tex., Ga., Fla., Mexico.

fauna, authors, not Fabricius.

gracilis (Macquart), 1840: 76 (1841: 354) (*Anthrax*).—Pa. Unrecognized.

handfordi Curran, 1935b: 1.—Man.

harveyi (Hine), 1904b: 88 (*Anthrax*).—B.C.; Wash., Wyo., Colo.

hypomelas (Macquart), 1840: 76 (1841: 354) (*Anthrax*).—N. Amer.; Alta. to Maine, s. to S. Dak. and N.C.

lateralis lateralis (Say), 1823: 42 (1859b: 59) (*Anthrax*).—Md., Pa.; B.C. to Maine, s. to Calif. and Fla., Mexico.

ssp. **arenicola** (Johnson), 1908a: 15 (*Anthrax*).—N.J., Mass.; Wash., Nev., Utah, Wyo.

ssp. **atra** Painter, 1926b: 209 (as var.).—N.J.; Minn. to Ont., s. to N. Mex. and Ga., also Oreg.

ssp. **johnsoni** Painter, 1926b: 207 (as var.).—N.Y., Pa., N.J., N.C.; N.Y. to N.C.

gracilis Macquart of Johnson, 1908a: 15 (*Anthrax*).

ssp. **nigra** Cresson, 1916c: 442 (as var.).—N.Y.; Minn. to Mass., s. to Colo. and Ga.

ssp. **semifulvipes** Painter *in* Painter and Painter, 1962: 108 (n. name for *fulvipes* Coquillett).—Ariz.; Wash. to Mich., s. to Calif., Tex., and Va.

fulvipes Coquillett, 1887a: 166 (*Anthrax;* as *alternata* var.; preocc. Loew, 1860).—Ariz.

livia (Osten Sacken), 1887a: 139 (*Anthrax*).—Mexico; Ariz., Tex.

molitor (Loew), 1869b: 26 (Cent. 8, no. 42) (*Anthrax*).—Calif.

moneta (Osten Sacken), 1887a: 138 (*Anthrax*).—Mexico (n. Son.); s. Ariz.

mucorea (Loew), 1869b: 27 (Cent. 8, no. 43) (*Anthrax*).—Nebr.; Alta., Wyo., Colo., Ariz.

muscaria (Coquillett), 1892a: 178 (*Anthrax*).—Calif.; Alta., Colo., Kans.

nebulo (Coquillett), 1887a: 165 (*Anthrax*).—Wash. Territory.

pretiosa (Coquillett), 1887a: 168 (*Anthrax;* as *molitor* var.).—Calif.; Alta., Utah.

sabina (Osten Sacken), 1887a: 137 (*Anthrax*).—Mexico (n. Son.); s. Ariz.

salebrosa Painter, 1926b: 211.—Tex.; Wash., Alta., Colo., Iowa.

scrobiculata (Loew), 1869b: 24 (Cent. 8, no. 39) (*Anthrax*).—Ill.

shawii (Johnson), 1908a: 14 (*Anthrax*).—N.H.; Mass., N.Y., N.J., Del.

squamigera (Coquillett), 1892a: 181 (*Anthrax*).—Calif.

stenozona (Loew), 1869b: 25 (Cent. 8, no. 40) (*Anthrax*).—Ill.

supina (Coquillett), 1887a: 169 (*Anthrax*).—Calif.; Ariz., Utah.

vacans (Coquillett), 1887a: 168 (*Anthrax;* as *molitor* var.).—Wash. Territory.

vestita (Walker), 1849: 258 (*Anthrax*).—N.S.

Subgenus HEMIPENTHES Loew

Hemipenthes Loew, 1869b: 28 (Cent. 8, no. 44) (as genus). Type-species, *Musca morio* Linnaeus (Coquillett, 1910b: 550).

Isopenthes Osten Sacken, 1886a: 96. Type-species, *jaennickeana* Osten Sacken (Coquillett, 1910b: 556)=*sinuosa* (Wiedemann) ssp.

REFERENCE: Coquillett, 1894a (key); Painter and Painter, 1962 (key, *celer* group).

bigradata (Loew), 1869b: 23 (Cent. 8, no. 37) (*Anthrax*).—Cuba; Calif., N. Mex.

castanipes (Bigot), 1892a: 350 (*Hemipenthes*).—N. Amer.

catulina (Coquillett), 1894a: 100 (*Anthrax*).—Wash., Calif.; Wash. to Mont., Calif. to N. Mex., Minn. and Ill. to N.Y. and N.J.

celer (Wiedemann), 1828: 310 (*Anthrax*).—Ky.

chimaera (Osten Sacken), 1887a: 131 (*Anthrax*).—Mexico; s. Ariz.

comanche Painter *in* Painter and Painter, 1962: 96.—N. Mex.; Calif. to Nebr. and N. Mex.

chimaera, authors, not Osten Sacken.

curta (Loew), 1869b: 22 (Cent. 8, no. 35) (*Anthrax*).—Calif.; Ariz., N. Mex., Tex., Mexico.

edwardsii (Coquillett), 1894f: 102 (*Anthrax*).—B.C., Calif.

eumenes (Osten Sacken), 1887a: 131 (*Anthrax*).—Mexico; Wash. to Alta. and Mont., s. to Calif. and N. Mex.

floridana (Macquart), 1850: 416 (1850: 112) (*Anthrax*).—Fla.; Ga.

incisiva Painter *in* Painter and Painter, 1962: 112 (n. name for *incisa* Walker).—N. Amer.; Mexico. Possibly not Nearctic.

incisa Walker, 1852: 187 (*Anthrax;* preocc. Macquart, 1847).—N. Amer.

inops (Coquillett), 1887a: 169 (*Anthrax*).—Calif.; Wash., Oreg., Utah, Ariz., Colo.

lepidota (Osten Sacken), 1887a: 130 (*Anthrax*).—Mexico; Alta. to Calif., Mexico, and La.

mobile (Coquillett), 1894a: 100 (*Anthrax*).—Calif.

morio (Linnaeus), 1758: 590 (*Musca*).—Europe; Wash. to Maine, s. to Calif., N. Mex., and Mo., Holarctic.

morioides Say, 1823: 42 (1859b: 58) (*Anthrax*).—Mo.

pima Painter *in* Painter and Painter, 1962: 92.—Ariz.; N. Mex., Tex., Mexico.

pullata (Coquillett), 1894a: 98 (*Anthrax*).—Calif.; Ariz.

sagata (Loew), 1869b: 21 (Cent. 8, no. 34) (*Anthrax*).—Mexico; Ariz., Tex., Mo., Miss.

orbitalis Williston, 1901: 281 (*Anthrax*).—Mexico.

scylla (Osten Sacken), 1887a: 132 (*Anthrax*).—Mexico; Ariz., Tex.

succincta Coquillett, 1894a: 96 (*Argyromoeba*).—Ariz. **N. syn.**

seminigra (Loew), 1869b: 27 (Cent. 8, no. 44) (*Hemipenthes*).—Sask.; Utah.

sinuosa sinuosa (Wiedemann), 1821c: 244 (*Anthrax*).—Ga.; S. Dak. to Vt., s. to Tex. and Ga.

nycthemerus Macquart, 1840: 67 (1841: 345) (*Anthrax*).—Ga.

concisa Macquart, 1840: 68 (1841: 346) (*Anthrax*).—Carolina.

assimilis Macquart, 1846: 242 (1846: 114) (*Anthrax*).—Tex.

gideon, authors, not Fabricius.

ssp. **blanchardiana** (Jaennicke), 1867: 341 (1868: 33) (*Exoprosopa;* as sp.).—Mexico; Calif., Ariz., Tex.

ssp. **jaennickeana** (Osten Sacken), 1886a: 97 (*Isopenthes*; as sp.).—Mexico; Oreg. to Mont., s. to Calif., Mexico, and w. Tex.

webberi Johnson, 1919b: 11.—Mass.; Wyo., Ky., Ont., Que., Vt., Conn.

wilcoxi Painter, 1933: 15.—Wash.; Calif.

yaqui Painter *in* Painter and Painter, 1962: 94.—Ariz.; Mexico (Son.).

Subgenus THYRIDANTHRAX Osten Sacken

Anthrax, group **Thyridanthrax** Osten Sacken, 1886a: 123. Type-species, *selene* Osten Sacken (Coquillett, 1910b: 615).

The larvae are predators on egg pods of Acrididae in Palaearctic Region.

atrata (Coquillett), 1887a: 171 (*Anthrax*).—Calif.; Wash., Oreg., Nev.
bifenestrata (Bigot), 1892a: 356 (*Anthrax*).—Calif. ?=*nugator*.
fenestratoides (Coquillett), 1892a: 185 (*Anthrax*).—Calif.; Oreg. to Kans., s. to Calif., also Mass.
macula Cole *in* Cole and Lovett, 1919: 226 (*Anthrax*).—Oreg. **N. syn.**
melasoma (Wulp), 1882a: 74 (*Anthrax*).—Ariz.; Oreg., Utah.
nugator (Coquillett), 1887a: 178 (*Anthrax*).—Calif.; Oreg., Utah.
pallida (Coquillett), 1887a: 179 (*Anthrax;* as *nugator* var.).—Ariz., Calif.; Utah.
pertusa (Loew), 1869b: 18 (Cent. 8, no. 28) (*Anthrax*).—N. Mex.; Calif., Ariz., Colo.
selene (Osten Sacken), 1886a: 122 (*Anthrax*).—Mexico; s. Calif., Ariz.
otiosa Coquillett, 1887a: 182 (*Anthrax*).—Ariz.
utahensis Maughan, 1935: 51.—Utah; Tex.

Subgenus CHRYSANTHRAX Osten Sacken

Anthrax, group **Chrysanthrax** Osten Sacken, 1886a: 121. Type-species, *fulvohirta* Wiedemann (Coquillett, 1910b: 523) =*cypris* (Meigen).

adumbrata (Coquillett), 1887a: 176 (*Anthrax*).—Calif.
alta (Tucker), 1907: 89 (*Anthrax*).—Colo.; N. Mex.
arenosa (Coquillett), 1892a: 187 (*Anthrax*).—N. Mex.
arizonensis (Coquillett), 1887a: 182 (*Anthrax*).—Ariz.
cinefacta (Coquillett), 1892a: 180 (*Anthrax*).—Calif.
crocina (Coquillett), 1892a: 183 (*Anthrax*).—Calif.; Nev.
cypris (Meigen), 1820: 158 (*Anthrax*).—Unknown (as Europe, error); Iowa to Mass., s. to Tex. and Fla.
fulvohirta Wiedemann, 1821b: 99 (1821c: 149) (*Anthrax*).—Ga.
conifacies Macquart, 1850: 416 (1850: 112) (*Anthrax*).—Va.
dispar (Coquillett), 1887a: 177 (*Anthrax*).—Fla.; Minn. to Ont., s. to Ariz. and Fla.
edititia (Say), 1829: 156 (1859b: 353) (*Anthrax*).—Unknown; Oreg. to Mich., s. to Calif., Tex., and Ohio.
impiger Coquillett, 1887a: 177 (*Anthrax*).—Ariz.

sabulosa Coquillett, 1892a: 186 (*Anthrax*).—Calif., N. Mex. **N. syn.**

eudora (Coquillett), 1887a: 169 (*Anthrax*).—Calif.; Ariz., N. Mex., Utah.

hircina (Coquillett), 1892a: 182 (*Anthrax*).—Calif.

junctura (Coquillett), 1887a: 163 (*Anthrax*).—Calif.; Ariz., N. Mex.

lepidotoides Johnson, 1919b: 12.—N.J.

lepidota, authors, not Osten Sacken.

mira (Coquillett), 1887a: 179 (*Anthrax*).—Calif.; Calif. to Colo., OkJa., and Tex., also Fla.

nebulosa (Coquillett), 1894a: 99 (*Anthrax*).—Calif.; Oreg., Utah.

pallidula (Coquillett), 1894a: 99 (*Anthrax*).—Calif.

scitula (Coquillett), 1887a: 172 (*Anthrax*).—Calif.

tantilla (Coquillett), 1892a: 184 (*Anthrax*).—Calif.

turbata (Coquillett), 1887a: 168 (*Anthrax*).—Calif.; Colo., Nebr., Kans., N. Mex., Tex.

comparata Tucker, 1907: 90 (*Anthrax*).—Colo. **N. syn.**

vana (Coquillett), 1887a: 173 (*Anthrax*).—Calif.; Oreg., Utah.

variata (Coquillett), 1892a: 184 (*Anthrax*).—Calif.

vulpina (Coquillett), 1892a: 183 (*Anthrax*).—Calif.

Subgenus RHYNCHANTHRAX Painter

Villa, subg. **Rhynchanthrax** Painter, 1933: 6. Type-species, *Anthrax parvicornis* Loew (orig. des.).

REFERENCE: Painter, 1933 (key).

parvicornis (Loew), 1869b: 23 (Cent. 8, no. 36) (*Anthrax*).—Ill.; Colo. to Ill., s. to Tex. and Miss.

quivera Painter, 1933: 9.—N. Mex.

rex (Osten Sacken), 1886a: 127 (*Anthrax*).—Mexico; Ariz., Tex.

plagosa Coquillett, 1887a: 178 (*Anthrax*).—Ariz.

texana Painter, 1933: 8.—Tex.; N. Mex., Kans., Mexico.

Subgenus PARAVILLA Painter

Villa, subg. **Paravilla** Painter, 1933: 10. Type-species, *edititoides* Painter (orig. des.).

apicola Cole, 1952: 128.—Calif.

castanea (Jaennicke), 1867: 338 (1868: 30) (*Anthrax*).—Mexico; Calif.

cinerea Cole, 1923a: 299.—Mexico (Baja Calif.); Ariz., Tex.

consul (Osten Sacken), 1886a: 125 (*Anthrax*).—Guatemala; Ariz.

coquilletti Painter (for *obscura* Coquillett).—Calif.; Oreg. **N. name.**

obscura Coquillett, 1894a: 99 (*Anthrax;* preocc. Macquart, 1846).—Calif.

cunicula (Osten Sacken), 1886a: 125 (*Anthrax*).—Mexico; Ariz.
diagonalis (Loew), 1869b: 21 (Cent. 8, no. 33) (*Anthrax*).—Calif.; Tex., Kans.
edititoides Painter, 1933: 11.—Colo.; Oreg. to Iowa, s. to Calif. and Tex.
emulata Painter *in* Painter and Painter, 1962: 103.—N. Mex.; Colo., Calif.
eurhinata, authors, not Bigot.
epheba (Osten Sacken), 1886a: 124 (*Anthrax*).—Mexico; N. Mex., Utah.
extremitis (Coquillett), 1902d: 138 (*Anthrax*).—Mexico; Colo.
flavipilosa Cole, 1923a: 303.—Mexico (Baja Calif.: San José I.); Ariz.
fulvicoma (Coquillett), 1887a: 176 (*Anthrax;* as *edititia* var.).—Calif., Kans.
fumida (Coquillett), 1887a: 177 (*Anthrax*).—Calif.; Oreg.
lacunaris (Coquillett), 1892a: 185 (*Anthrax*).—Calif.
mercedis (Coquillett), 1887a: 166 (*Anthrax*).—Calif.; Ariz., Colo.
nigronasica Painter, 1933: 14.—Nebr.; Idaho, Utah, Colo., Kans., Tex.
palliata (Loew), 1869b: 20 (Cent. 8, no. 32) (*Anthrax*).—Ill.; Colo., S. Dak., Minn., Nebr., Kans., Okla.
perplexa (Coquillett), 1887a: 176 (*Anthrax*).—Calif.
separata (Walker), 1852: 177 (*Anthrax*).—N. Amer.; Oreg., S. Dak., Minn., Wis., Mich., Ohio, Ga.
nemakagonensis Graenicher, 1910a: 26 (*Anthrax*).—Wis.
spaldingi Painter, 1933: 13.—Utah; Calif., Nev.
syrtis (Coquillett), 1887a: 173 (*Anthrax*).—Calif.; Nev., Utah, Colo., Ariz., N. Mex., Okla.
tricellula Cole, 1952: 129.—Calif.
vasta (Coquillett), 1892a: 184 (*Anthrax*).—Calif.
vigilans (Coquillett), 1887a: 176 (*Anthrax*).—Calif.
xanthina Painter, 1933: 13.—Kans.; Wyo. and S. Dak., s. to Ariz. and Tex.

Unplaced Species of *Villa*

albicincta Cole, 1923a: 297.—Mexico; Ariz.
albovittata (Macquart), 1850: 417 (1850: 113) (*Anthrax*).—?N. Amer.
anna (Coquillett), 1887a: 169 (*Anthrax*).—Calif.; Ariz.
caprea (Coquillett), 1887a: 170 (*Anthrax*).—Calif.; Calif. to Nebr. and N. Mex.
cautor (Coquillett), 1887a: 175 (*Anthrax*).—Calif.; Ariz., Utah.
costata (Say), 1824a: 373 (1859a: 254) (*Anthrax*).—Northwest Territory (U.S.). Unrecognized.

fissa (Bigot), 1892a: 354 (*Anthrax*).—N. Amer. ?=*inops*.
gemella (Coquillett), 1892a: 182 (*Anthrax*).—Calif.
inculta (Coquillett), 1892a: 181 (*Anthrax*).—Calif.; Ariz., Utah, Colo.
levicula (Coquillett), 1894a: 99 (*Anthrax*).—Calif.
meridionalis Cole, 1923a: 292.—Mexico (Baja Calif.: Ceralbo I.); Calif.
miscella (Coquillett), 1887a: 171 (*Anthrax*).—Wash. Territory, Calif.; Oreg.
psammina Cole, 1960b: 118 (n. name for *arenicola* Cole).—Mexico (Baja Calif.); Utah, Mexico.
arenicola Cole, 1923a: 294 (preocc. Johnson, 1908).—Mexico (Baja Calif.).
sini Cole, 1923a: 303.—Mexico (Baja Calif.: Angel de la Guardia I.); Calif.
sodom (Williston), 1893d: 254 (*Anthrax*).—Calif.
telluris (Coquillett), 1892a: 182 (*Anthrax*).—Calif.
terrena (Coquillett), 1892a: 181 (*Anthrax*).—Calif.
vanduzeei Cole, 1923a: 306.—Mexico; Utah, Colo., Tex.

Genus STONYX Osten Sacken

Stonyx Osten Sacken, 1886a: 94. Type-species, *clelia* Osten Sacken (Coquillett, 1910b: 609).

clelia Osten Sacken, 1886a: 95.—Mexico; Ariz.
keenii Coquillett, 1887a: 164 (*Anthrax*).—Ariz.

Genus LEPIDANTHRAX Osten Sacken

Lepidanthrax Osten Sacken, 1886a: 107. Type-species, *Anthrax disjunctus* Wiedemann (Coquillett, 1910b: 559).

REFERENCE: Curran, 1930b (key).

agrestis (Coquillett), 1887a: 171 (*Anthrax*).—Calif.; Nev., Utah.
agrestris, error.
angulus Osten Sacken, 1886a: 111.—Mexico; Calif., Ariz.
campestris (Coquillett), 1887a: 171 (*Anthrax;* as *camprestris*, corrected in Errata at end of vol.).—Calif.
disjunctus (Wiedemann), 1830: 639 (*Anthrax;* as *disiuncta*).—Mexico; Ariz., N. Mex.
hyalinipennis Cole, 1923a: 307.—Mexico (Baja Calif.: Espiritu Santo I.); Calif., Nev., Utah, Ariz.
inauratus (Coquillett), 1887a: 170 (*Anthrax*).—Wash. Territory; Oreg., Calif., Nev., Ariz.
lautus (Coquillett), 1887a: 171 (*Anthrax*).—Calif.

lutzi Curran, 1930b: 2.—Ariz.; N. Mex.
morna Curran, 1930b: 3.—Ariz.; N. Mex., Tex.
proboscideus (Loew), 1869b: 17 (Cent. 8, no. 27) (*Anthrax*).—Mexico; Ariz., N. Mex.
rufolimbatus (Bigot), 1892a: 359 (*Epacmus*).—Calif.

Genus DIPALTA Osten Sacken

Dipalta Osten Sacken, 1877: 236. Type-species, *serpentina* Osten Sacken (mon.).

Parasitic on larvae of Myrmeleontidae (Smith, 1934).

banksi Johnson, 1921a: 12.—Va.; Ohio.
serpentina Osten Sacken, 1877: 237.—Calif., Colo.; B.C. to Mich., s. to Calif. and Fla., Mexico, Guatemala.

Genus NEODIPLOCAMPTA Curran

Neodiplocampta Curran, 1934a: 200. Type-species, *Diplocampta roederi* Curran (orig. des.).

paradoxa (Jaennicke), 1867: 339 (1868: 31) (*Anthrax*).—Mexico; Tex.

Genus ASTROPHANES Osten Sacken

Astrophanes Osten Sacken, 1886a: 106. Type-species, *adonis* Osten Sacken (mon.).

adonis Osten Sacken, 1886a: 107.—Mexico; Ariz., Utah, N. Mex., Tex., Okla., Kans.

Genus MANCIA Coquillett

Mancia Coquillett, 1886b: 159. Type-species, *nana* Coquillett (mon.).

nana Coquillett, 1886b: 159.—Calif.

Genus POECILANTHRAX Osten Sacken

Anthrax, group **Poecilanthrax** Osten Sacken, 1886a: 119. Type-species, *alcyon* Say (Coquillett, 1910b: 593).

The larvae are mostly parasites on larvae of Noctuidae (cutworms).

References: Johnson and Johnson, 1957 (key); Painter and Hall, 1960 (monog.).

alcyon (Say), 1824a: 371 (1859a: 252) (*Anthrax*).—Northwest Territory (U.S.); Alta. to Ont., s. to Calif. and Va.
halcyon, emend.

alpha (Osten Sacken), 1877: 239 (*Anthrax*).—Wyo.; Oreg. and Alta. to N. Dak., s. to Calif. and N. Mex.

apache Painter and Hall, 1960: 31.—Ariz.; Calif. to Wyo.

arethusa (Osten Sacken) 1886a: 116 (*Anthrax*).—Mexico; Calif. to Wyo. and Nebr., s. to Mexico (Baja Calif.) and Panama.

autumnalis (Cole), 1917: 71 (*Anthrax;* as *arethusa* var.).—Calif.; Idaho, Colo., Ariz., Nev., Utah.

californicus (Cole), 1917: 69 (*Anthrax*).—Calif.; Oreg. to Wyo., s. to Calif. and N. Mex., Mexico (Baja Calif.).

colei Johnson and Johnson, 1957: 10.—Calif.

demogorgon (Walker), 1849: 265 (*Anthrax*).—Fla.; Minn. to N.Y., s. to Kans. and Fla.

demorgon, error.

ceyx Loew, 1869b: 19 (Cent. 8, no. 30) (*Anthrax*).—Va.

effrenus (Coquillett), 1887a: 182 (*Anthrax*).—Ariz.; Calif., N. Mex., Okla., Tex., Mexico.

eremicus Painter and Hall, 1960: 51.—Calif.; Ariz.

fasciatus Johnson and Johnson, 1957: 11.—Colo.; Kans., Tex.

flaviceps flaviceps (Loew), 1869b: 18 (Cent. 8, no. 29) (*Anthrax*).—Mexico; N. Mex., Tex., Kans.

ssp. **fuliginosus** (Loew), 1869b: 20 (Cent. 8, no. 31) (*Anthrax;* as sp.).—Calif.; Ariz., N. Mex., Colo., Mexico.

butleri Johnson and Johnson, 1957: 7.—Ariz.

hyalinipennis Painter and Hall, 1960: 64.—Ariz.; Calif., Nev., Utah.

ingens Johnson and Johnson, 1957: 13.—Ariz.; Mexico.

johnsonorum Painter and Hall, 1960: 69.—Utah.

litoralis Painter and Hall, 1960: 71.—Calif.

lucifer (Fabricius), 1775: 759 (*Bibio*).—Amer.; e. Colo. to N.C., s. to Panama and West Indies.

marmoreus Johnson and Johnson, 1957: 16.—Ariz.; Calif., Utah, Colo., Tex.

moffitti Painter and Hall, 1960: 78.—Calif.

montanus Painter and Hall, 1960: 82.—Calif.; Wash., Oreg., Idaho, Wyo., N. Mex.

nigripennis (Cole), 1917: 70 (*Anthrax*).—Md.; Mich., N.Y., Va., Tenn., N.C., Ga.

painteri Maughan, 1935: 56.—Utah; Oreg., Calif., Idaho, Mont., Wyo., Colo.

pilosus (Cole), 1917: 76 (*Anthrax*).—Calif.

poecilogaster poecilogaster (Osten Sacken), 1886a: 118 (*Anthrax*).—Mexico; Oreg. to Idaho, s. to Mexico.

ssp. **interruptus** Painter and Hall, 1960: 97.—Calif.

robustus Johnson and Johnson, 1957: 20.—Calif.; Mexico (Baja Calif.).

sackenii sackenii (Coquillett), 1887a: 180 (*Anthrax;* as *tegminipennis* var.).—Ariz.; B.C. to Man., s. to Calif., Ariz., and Colo.

ssp. **monticola** Johnson and Johnson, 1957: 23.—Utah; B.C. to Wyo., s. to Utah and Nebr.

signatipennis (Cole), 1917: 74 (*Anthrax*).—Nev., Wyo., Mont.; Wash. to Alta., s.to Calif. and Colo.

yellowstonei Cole, 1917: 80 (*Anthrax*).—Nev., Wyo., Mont. Mislabeling of pl.

marginatus Johnson and Johnson, 1957: 14.—Utah.

tanbarkensis Painter and Hall, 1960: 21, 109, 110 (also as *tanbarkenis*, p. 109).—Calif.

tegminipennis (Say), 1824a: 371 (1859a: 253) (*Anthrax*).—Northwest Territory (U.S.); Alta. to Que., s. to Calif., Nebr., and N.C.

fuscipennis Macquart, 1834a: 410 (*Anthrax*).—N. Amer.

varius Painter and Hall, 1960: 114.—Calif.; Idaho and Mont., s. to Calif. and Colo.

vexativus Painter and Hall, 1960: 119.—N. Mex.; Ariz., Colo., Mexico.

willistonii (Coquillett), 1887a: 181 (*Anthrax*).—Calif., N. Mex.; B.C. to Man., s. to Calif. and Okla., Mexico.

zionensis Johnson and Johnson, 1957: 6 (as *alpha* ssp.).—Utah.

Genus EXOPROSOPA Macquart

Exoprosopa Macquart, 1840: 35 (1841: 313). Type-species, *Anthrax pandora* Fabricius (Coquillett, 1910b: 544).

Exoptata Coquillett, 1887b: 13. Type-species, *divisa* Coquillett (mon.).

Litorhynchus, authors, not Macquart.

The larvae are parasitic on Hymenoptera and Diptera (Asilidae).

A number of subgenera have been used in Europe (Engel, 1932–1937) and Africa (Bezzi, 1924b, Hesse, 1956), but the relationships of these subgenera to Nearctic species have not been studied sufficiently to permit assignment of species where this is possible. Rondani's (1856: 162) type designation of *Bibio capucina* Fabricius is invalid, as the species was not originally included; Coquillett's designation of *pandora* was accomplished by indicating this species as a synonym of *capucina* in citing Rondani's designation.

References: Osten Sacken, 1877, 1886a, Williston, 1901, Coquillett, 1892c, Curran, 1930f (partial keys).

agassizii Loew, 1869b: 16 (Cent. 8, no. 24).—Calif.; Utah, Colo., Ariz., N. Mex., Tex.

albifrons Curran, 1930f: 8.—Ariz.
anomala Painter, 1934: 68.—Tex.; Ariz., N. Mex.
arenicola Johnson and Johnson, 1959a: 71.—Utah.
bifurca Loew, 1869b: 15 (Cent. 8, no. 23).—Calif.; Ariz., N. Mex.
brevistylata Williston, 1901: 272.—Mexico; Tex.
butleri Johnson and Johnson, 1959a: 74.—Ariz.
californiae (Walker), 1852: 172 (*Anthrax*).—Calif. ?=*caliptera*.
caliptera (Say), 1823: 46 (1859b: 62) (*Anthrax*).—Colo. (as Arkansas River); B.C. to Calif., e. to e. face of Rocky Mts. and Black Hills, S. Dak.
capucina (Fabricius).—Not Nearctic.
nigrita Fabricius, 1775: 757 (*Bibio*).—Amer. (error).
nigratus, error.
celer Cole, 1916a: 463.—Calif.
clarki Curran, 1930f: 4.—Ariz.
decora Loew, 1869b: 13 (Cent. 8, no. 19).—Wis.; Alta. to Maine, s. to Ariz. and Ga.
divisa (Coquillett), 1887b: 13 (*Exoptata*).—Calif., Ariz.; Oreg., Kans., s. to Calif. and Ala.
dodrans Osten Sacken, 1877: 234.—Colo.; Ariz., N. Mex., Kans.
dodrina Curran, 1930f: 5.—Colo.; Ariz., Utah, N. Mex.
dorcadion Osten Sacken, 1877: 231.—Wash., Calif., Colo., N.H., Maine; B.C. to N.B., s. to Calif., Tex., and Mo.
doris Osten Sacken, 1877: 235.—Nev.; Wash. to Idaho, s. to Calif. and Tex.
pallens Bigot, 1892a: 345.—Calif.
eremita Osten Sacken, 1877: 236.—Calif.; Wash. to S. Dak., s. to s. Calif.
grata Coquillett, 1892c: 124.—Calif., Wash.
fasciata Macquart, 1840: 51 (1841: 329).—U.S.; Wyo. to N.H., s. to N. Mex. and Fla.
rubiginosa Macquart, 1840: 51 (1841: 329).—Pa.
longirostris Macquart, 1850: 412 (1850: 108).—Va.
americana Wulp, 1867: 141 (*Mulio*).—Wis.
fascipennis fascipennis (Say), 1824a: 373 (1859a: 254) (*Anthrax*).—Man.; Man. to Mass., s. to Tex. and Ga.
philadelphica Macquart, 1840: 52 (1841: 330).—Pa.
coniceps Macquart, 1850: 412 (1850: 108).—Va.
melanura Bigot, 1892a: 344.—N. Amer.
ssp. **albicollaris** Painter *in* Painter and Painter, 1962: 145.—Kans.; Wyo. to Minn. and Ohio, s. to N. Mex. and Tex.
ssp. **noctula** (Wiedemann), 1830: 635 (*Anthrax*; as sp.).—N. Amer.; Ala., S.C. to Fla.
fumosa Cresson, 1919: 177.—Mexico; s. Ariz.

hulli Painter, 1930b: 798.—Miss.; Kans., Mo., Ark., Tex., Mexico, Honduras.
hyalipennis Cole, 1923a: 290.—Mexico (Baja Calif.); Ariz.
ingens Cresson, 1919: 178.—Ariz.; N. Mex., Tex.
iota Osten Sacken, 1886a: 82.—Mexico; Calif., Tex., Kans., Ark.
jonesi Cresson, 1919: 178.—Calif.
junta Curran, 1930f: 9.—Colo.
lutzi Curran, 1930f: 5.—Ariz.
meigenii (Wiedemann), 1828: 278 (*Anthrax*).—Unknown; Kans. to N.J., s. to Tex. and Fla.
emarginata Macquart, 1840: 51 (1841: 329).—Pa.
painterorum Johnson and Johnson, 1960: 74 (n. name for *cingulata* Johnson and Johnson).—Calif.
cingulata Johnson and Johnson, 1959a: 76 (preocc. Wulp, 1885).—Calif.
pardus Osten Sacken, 1886a: 88.—Mexico; Ariz.
pueblensis Jaennicke, 1867: 342 (1868: 38).—Mexico; Nebr. to N.C., s. to Tex. and Fla.
rhea Osten Sacken, 1886a: 83.—Mexico; Ariz., N. Mex., Tex.
rostrifera Jaennicke, 1867: 341 (1868: 33).—Mexico; Ariz., N. Mex.
sharonae Johnson and Johnson, 1959a: 78.—Utah.
sima Osten Sacken, 1877: 231.—Nev.
socia Osten Sacken, 1886a: 87.—Mexico; Ariz., N. Mex.
sordida Loew, 1869b: 14 (Cent. 8, no. 21).—Mexico; Colo., Kans., Okla., N. Mex., Tex.
texana Curran, 1930f: 6.—Tex.; Ariz.
tiburonensis Cole, 1923a: 291.—Mexico (Baja Calif.: Tiburon I.); Ariz.
titubans Osten Sacken, 1877: 233.—Colo.; Utah, N. Mex., Kans.
utahensis Johnson and Johnson, 1959a: 81.—Utah.
xanthina Painter, 1934: 69.—Calif.; Nev., Utah.

Genus LIGYRA Newman

Ligyra Newman, 1841: 220. Type-species, *Anthrax bombyliformis* MacLeay (mon.) = *sylvanus* (Fabricius).
Velocia Coquillett, 1886b: 158 (preocc. Robineau-Desvoidy, 1863). Type-species, *Anthrax cerberus* Fabricius (mon.).
Hyperalonia, authors, not Rondani.

The larvae are parasites of Tiphiidae in India.

gazophylax (Loew), 1869b: 12 (Cent. 8, no. 18) (*Exoprosopa*).—Calif.; Ariz.
pilatei (Macquart), 1846: 238 (1846: 110) (*Exoprosopa*).—Mexico; s. Ariz.

Genus OESTRANTHRAX Bezzi

Oestranthrax Bezzi, 1921: 130. Type-species, *Anthrax obesus* Loew (mon.).

farinosus Johnson and Maughan, 1953: 18.—Utah.

Superfamily EMPIDOIDEA

Family EMPIDIDAE

(Empidae, Hybotidae)

By A. L. Melander

The Empididae, or dance-flies, exhibit more diversity in wing venation and genitalic structure than almost any other fly family. The adults are from 1 to about 15 mm. long and in many genera have holoptic eyes. Probably all adult empidids are predatory, mostly on small Diptera. One or more pairs of legs of some species are enlarged and spined. Many species are anthophilous. In temperate regions Empididae are especially abundant in spring and early summer, and many, if not most, species occur in rather humid, hilly or mountainous environments. Empidids are noted for their swarming activities and for their unique and varied epigamic behavior, which includes offering prey to the female, or the construction by the male of a frothy "balloon" or a ball of silk.

The larvae live in damp earth, decaying wood, or vegetation, under the bark of trees, or are aquatic, and probably all are predators. Terestrial larvae are slender-muscoid in appearance, and aquatic forms have tapered posterior processes and well developed ventral pseudopods.

The present catalog is arranged exactly as my Genera Insectorum volume (Melander, 1927) which served, to that date, as a revision of the North American species of many genera.

[Unfortunately, Dr. Melander was unable to make a final review of this manuscript due to failing health and his death on Aug. 14, 1962. Since that time several changes have been made to bring the taxonomy of the family in line with current developments.—Eds.]

REFERENCES: Melander, 1902a (rev.); Lundbeck, 1910 (rev., Denmark); Melander, 1927 (cat., world); Engel, 1938–1954, Frey, 1955–1956 (rev., Palaearctic); Kessel, 1952c, 1955, 1959b (biol.); Collin, 1961 (rev., Britain).

Subfamily BRACHYSTOMATINAE

Genus BRACHYSTOMA Meigen

Brachystoma Meigen, 1822: 12. Type-species, *Syrphus vesiculosus* Fabricius (Blanchard, 1840: 582).

Subgenus BLEPHAROPROCTA Loew

Blepharoprocta Loew, 1862b: 194 (Cent. 2, no. 17) (as genus). Type-species, *Brachystoma nigrimana* Loew (Coquillett, 1903a: 246).

nigrimanum Loew, 1862b: 194 (Cent. 2, no. 17).—Ill.
serrulatum Loew, 1861b: 319 (Cent. 1, no. 23).—Ga.; Ohio, Pa., N.Y., D.C.
serratula, error or emend.
binummus Loew, 1862b: 193 (Cent. 2, no. 16).—D.C.

Subgenus BRACHYSTOMA Meigen

occidentale Melander, 1902a: 260.—Wash., Idaho; B.C. to Nev.
robertsonii Coquillett, 1895m: 393.—Ill.; Ohio, Tenn.

Genus ANOMALEMPIS Melander

Anomalempis Melander, 1927: 14. Type-species, *tacomae* Melander (orig. des.).

archon Melander, 1945: 79.—Alaska.
tacomae Melander, 1927: 15.—Wash.

Subfamily HYBOTINAE

Genus HYBOS Meigen

Noeza Meigen, 1800: 27. Type-species, *Musca grossipes* Linnaeus (Coquillett, 1910b: 576). Suppressed by I.C.Z.N., 1963b: 339.

Hybos Meigen, 1803: 269. Type-species, *funebris* Meigen (Curtis, 1837a: pl. 661) = *grossipes* (Linnaeus).

reversus Walker, 1849: 487.—N.Y.; Wis. to Que. and Maine, s. to Ga.
var. **slossonae** Coquillett, 1895m: 437 (as sp.).—N.H.; Wis. to Maine, s. to N.C.

Genus EUHYBUS Coquillett

Euhybus Coquillett, 1895m: 437. Type-species, *Hybos purpureus* Walker (Coquillett, 1903a: 250).

Euhybos, emend.

Adults of *Euhybus* are abundant in meadows and other flat, vegetated areas. The females of many species are so similar they are difficult to identify.

baropeodes Melander, 1927: 32.—N.H.; Ont.
coquilletti Melander, 1927: 27.—N.C.
cuspidatus Melander, 1927: 32.—Mass.
duplex (Walker), 1849: 486 (*Hybos*).—N.Y.; Ont. to Ga.
genitivus Melander, 1927: 28.—N.H.
metatarsalis Melander, 1927: 28.—Ala., Ga., S.C.
nigripes Melander, 1927: 28.—Mo., Ill., N.Y., Vt., Mass., Pa., N.J., Va.; N.C.
purpureus (Walker), 1849: 486 (*Hybos*).—Ga.
sordipes Melander, 1927: 28.—Ont.; Que., N.B., P.E.I.
strumaticus Melander, 1927: 26.—Md.; Md. to Tex. and Ga.
subjectus (Walker), 1849: 487 (*Hybos*).—Ont.; Ont. to N.H., s. to Fla., P.R.
triplex (Walker), 1849: 486 (*Hybos*).—N.Y.; Nev. to Maine, s. to Tex. and Fla., Cent. and S. Amer.
var. **simplex** Melander, 1927: 30.—Mass.; Vt. to Tex.

Genus SYNDYAS Loew

Syndyas Loew, 1857b: 369. Type-species, *opaca* Loew (Coquillett, 1903a: 257).

dorsalis Loew, 1861b: 320 (Cent. 1, no. 26).—N.Y.; Ill. to Maine, s. to N.J.
polita Loew, 1861b: 321 (Cent. 1, no. 27).—Carolina; Minn. to Que., s. to Kans. and Ala.

Genus SYNECHES Walker

Syneches Walker, 1852: 165. Type-species, *simplex* Walker (mon.) = *phthia* (Walker).

Syneches is a worldwide genus, the species of which occur in nonmountainous areas.

albonotatus Loew, 1862b: 195 (Cent. 2, no. 18.).—D.C.
ater Melander, 1927: 40.—Pa.
debilis Coquillett, 1895m: 436.—D.C., Md.; Ga.
hyalinus Coquillett, 1895m: 437.—Md.; N.J.
longipennis Melander, 1902a: 346.—N.C.

phthia (Walker), 1849: 492 (*Gloma*).—N.Y.; Wis. to Que., s. to Fla.
simplex Walker, 1852: 165.—U.S.
punctipennis Wulp, 1867: 139.—Wis.
pusillus Loew, 1861b: 320 (Cent. 1, no. 25).—N.Y., Ill.; S. Dak., Ont., and N.J., s. to Fla., Panama, West Indies.
rufus Loew, 1861b: 320 (Cent. 1, no. 24).—Ill., N.Y.; Wis., Ind., Ohio.
testaceus Melander, 1927: 44.—Mo.
thoracicus (Say), 1823: 76 (1859b: 68) (*Hybos*).—Pa.; Minn. to Que. and Mass., s. to Kans. and Tenn.

Genus MEGHYPERUS Loew

Meghyperus Loew, 1850a: 303. Type-species, *sudeticus* Loew (mon.).

nitidus Melander, 1902a: 255.—Idaho.
occidens Coquillett, 1895m: 435.—s. Calif.

Subfamily OCYDROMIINAE

Genus EUTHYNEURA Macquart

Euthyneura Macquart, 1836: 518. Type-species, *myrtilli* Macquart (mon.).

aperta Melander, 1902a: 348.—N. Mex.
argyria Melander, 1927: 53.—Oreg., Idaho, Colo.
bucinator Melander, 1902a: 348.—Pa.; Wis. to N.H., s. to Mo., also Idaho.
crocata (Coquillett), 1900h: 413 (1904: 27) (*Microphorus*).—Alaska.
crocota, error.
matura Melander, 1927: 53.—Wash.
spinipes Melander, 1927: 54.—B.C., Wash., Idaho.

Genus TRICHINA Meigen

Trichina Meigen, 1830: 335. Type-species, *clavipes* Meigen (Rondani, 1856: 152).

atripes (Melander), 1902a: 349 (*Euthyneura*).—s. Calif.
basalis Melander, 1927: 55.—Calif.
clavipes Meigen, 1830: 336.—Europe; Maine, N.H., Mass.
flavipes Meigen, 1830: 336.—Europe; Maine.
nitida Melander, 1927: 56.—Mo.
nura (Melander), 1902a: 349 (*Euthyneura*).—Mass.; Maine, N.Y.
pullata Melander, 1927: 57.—Wash.; Mont.

Genus ANTHALIA Zetterstedt

Anthalia Zetterstedt, 1838: 538. Type-species, *schoenherri* Zetterstedt (Melander, 1927: 57). Coquillett's type designation (1903a: 246), of *gyllenhalli* Zetterstedt makes this name a synonym of *Euthyneura* Macquart, 1836. Action by the I.C.Z.N. is needed to preserve this name.

bulbosa (Melander), 1902a: 349 (*Euthyneura*).—Pa.; Ont., N.Y., N.H., Maine.
femorata Melander, 1927: 59.—Wash., Idaho.
flava Coquillett, 1903a: 268.—N.H.; Ont., N.Y. Maine.
gilvihirta (Coquillett), 1903a: 268 (*Microphorus*).—N.H.; Ont.
inornata Melander, 1927: 61.—Wash.
interrupta Melander, 1927: 60.—Wash.
lacteipennis Melander, 1927: 59.—Idaho; B.C., Wash., Calif.
mandalota Melander, 1927: 58.—Wash., Calif.
schoenherri Zetterstedt, 1838: 539.—Lapland; Mo., Maine, Mass., D.C., Europe.
scutellaris Melander, 1927: 60.—Wash.
stigmalis Coquillett, 1903a: 268.—B.C.; Alaska to Calif.
var. **petiolata** Melander, 1927: 60.—Idaho.

Genus ALLANTHALIA Melander

Allanthalia Melander, 1927: 61. Type-species, *Anthalia pallida* Zetterstedt (orig. des.).

pallida (Zetterstedt), 1838: 539 (*Anthalia*).—n. Europe; Mo., Que., Md., Va.

Genus OEDALEA Meigen

Oedalea Meigen, 1820: 355. Type-species, *Empis hybotina* Fallén (Westwood, 1840: 133).

The adults of *Oedalea* are yellow legged and black bodied, and are very sluggish in flight.

astylata Melander, 1927: 63.—Ga.
lanceolata Melander, 1927: 63.—Wash.; Oreg., Idaho, Mont.
var. **testacea** Melander, 1927: 64.—Wash.
ohioensis Melander, 1902a: 256.—Ohio; Maine, Pa., Md.
stigmatella Zetterstedt of Coquillett *in* Johnson, 1900c: 654.
pruinosa Coquillett, 1903a: 267.—N.H.; N.Y., N.J.

Genus LEPTOPEZA Macquart

Leptopeza Macquart, 1827b: 143 (as *Lemtopeza;* emend. Macquart, 1834a: 320). Type-species, *Ocydromia flavipes* Meigen (mon.)=*ruficollis* (Meigen).

antennalis Melander, 1927: 66.—D.C.; N.C.
borealis Zetterstedt, 1842: 243.—n. Europe; Ont. and Que. to S.C., Europe.
compta Coquillett, 1895m: 435.—N.H., Mass.; Wis. to Que., s. to Tenn., also Idaho.
disparilis Melander, 1902a: 258.—Idaho, Calif.; B.C. to Calif., ?N.Y.
ruficollis (Meigen), 1820: 353 (*Ocydromia*).—Europe; Alaska to Que., s. to N.C., Europe.
flavipes Meigen, 1820: 353 (*Ocydromia*).—Europe.

Genus OCYDROMIA Meigen

Ocydromia Meigen, 1820: 351. Type-species, *Empis glabricula* Fallén (Westwood, 1840: 133).

glabricula (Fallén), 1816a: 33 (*Empis*).—Europe; Alaska, B.C. to Que., s. to N. Mex. and N.C.
peregrinata Walker, 1849: 488.—N.Y.

Genus BICELLARIA Macquart

Bicellaria Macquart, 1823: 155. Type-species, *nigra* Macquart (mon.)=*spuria* (Fallén).
Cyrtoma Meigen, 1824: 1. Type-species, *atra* Meigen (Westwood, 1840: 133=*spuria* (Fallén).

angustifurca Melander, 1927: 75.—Wash.; B.C., Oreg., Idaho.
brevifurca Melander, 1927: 75.—Wash.; B.C., Alta.
furcifer Melander, 1927: 75.—Mont.; B.C., Alta., Sask., Idaho, Wyo.
halteralis (Loew), 1862b: 206 (Cent. 2, no. 46) (*Cyrtoma*).—D.C.; Wis. to Que. and N.S., s. to N.C.
longipes (Loew), 1862b: 206 (Cent. 2, no. 47) (*Cyrtoma*).—Ill.; B.C. to Que., s. to N. Mex. and Ga.
lugubris Melander, 1927: 76.—Wyo.; Alaska, Y.T., B.C., Alta., Sask., Mont.
pectinata Melander, 1927: 76.—Wash.; B.C.
pilipes (Loew), 1862b: 207 (Cent. 2, no. 48) (*Cyrtoma*).—Ill.; Alaska, Ill., Ont. to N.B., s. to N.Y.
spuria (Fallén), 1816a: 33 (*Empis*).—Europe; Ont., Mass.
uvens Melander, 1927: 74.—Que.; Alaska to Labr.

Genus HOPLOCYRTOMA Melander

Hoplocyrtoma Melander, 1927: 78. Type-species, *Cyrtoma procera* Loew (orig. des.).

femorata (Loew), 1864a: 84 (Cent. 5, no. 69) (*Cyrtoma*).—N.H.; Ont. N.Y., Mass., N.C.
procera (Loew), 1864a: 85 (Cent. 5, no. 70) (*Cyrtoma*).—Alaska; B.C., Wash., Oreg.

Subfamily EMPIDINAE

Genus PARATHALASSIUS Mik

Parathalassius Mik, 1891c: 217. Type-species, *blasigii* Mik (orig. des.).

Adults frequent the sands of the seashore.

aldrichi Melander, 1906: 374.—Calif.; Wash.
candidatus Melander, 1906: 375.—Wash.
melanderi Cole, 1912b: 154.—Calif.

Genus MICROPHORELLA Becker

Microphorella Becker, 1909a: 28. Type-species, *Microphorus praecox* Loew (orig. des.).

acroptera Melander, 1927: 88.—Wash.; Calif.
chiragra Melander, 1927: 89.—Wash.
longitarsis Melander, 1927: 89.—Idaho.
ornatipes Melander, 1927: 88.—Idaho.
tubifera Melander, 1927: 88.—Calif.

Genus MICROPHORUS Macquart

Microphorus Macquart, 1827b: 139 (as *Microphor;* emend. Macquart, 1834a: 345). Type-species, *velutinus* Macquart (Rondani, 1856: 151).
Holoclera Schiner of Melander, 1902a: 333.

Subgenus MICROPHORUS Macquart

REFERENCE: Melander, 1940a (rev.).

armipes Melander, 1927: 91.—Wash.
atratus Coquillett, 1900h: 412 (1904: 26).—Alaska; Wash., Idaho. Maine, N.H.
bilineatus (Melander), 1902a: 334 (*Holoclera*).—La.
cirripes Melander, 1940a: 64.—Oreg.; B.C. to Calif.

discalis Melander, 1940a: 64.—Calif.; Wash.
drapetoides Walker, 1849: 489.—Ont. Unrecognized.
evisceratus Melander, 1940a: 65.—Idaho; Mont.
isommatus Melander, 1927: 92.—B.C.; Wash.
obscurus Coquillett, 1903a: 268.—N.H.; N.Y. to N.H., s. to Va.
ravidus Coquillett, 1895m: 409.—Calif.
ravus Melander, 1940a: 67.—s. Calif.; Wash.
robustus Melander, 1927: 91.—Pa.
strigilifer Melander, 1940a: 68.—Calif.
sycophantor (Melander), 1902a: 334 (*Holoclera*).—Idaho; Wash. to Alta., s. to Calif. and Wyo.
tacomae Melander, 1940a: 69.—Wash.

Subgenus SCHISTOSTOMA Becker

Schistostoma Becker, 1902: 46 (as genus). Type-species, *eremita* Becker (mon.) = *truncatus* Loew, **n. syn.**

yakimensis Melander, 1927: 94.—Wash.; Alta.

Genus HORMOPEZA Zetterstedt

Hormopeza Zetterstedt, 1838: 540. Type-species, *obliterata* Zetterstedt (mon.).

REFERENCE: Kessel, 1958 (biol. *copulifera*).

brevicornis Loew, 1864a: 83 (Cent. 5, no. 65).—Alaska; Alaska to Calif. and S. Dak., N.W.T., N.H.
bullata Melander, 1902a: 274.—Wyo.; Ont.
copulifera Melander, 1927: 96.—Idaho; Alaska to Wash. and Idaho.
nigricans Loew, 1864a: 83 (Cent. 5, no. 66).—Alaska; Y.T., Alta., Idaho.
senator Melander, 1927: 95.—D.C.
virgator Melander, 1927: 96.—Wash.; Idaho.

Genus OREOGETON Schiner

Oreogeton Schiner, 1860b: 53. Type-species, *Gloma basalis* Loew (orig. des.).

capnopterus Melander, 1927: 99.—Wash.; Alta.
cymballista Melander, 1927: 99.—B.C.
heterogamus Melander, 1927: 100.—Oreg.
mitrephorus Melander, 1927: 99.—Idaho.
obscurus (Loew), 1864a: 84 (Cent. 5, no. 68) (*Gloma*).—N.H.; Alaska, Idaho, Maine to N.Y. and Mass.

rufus (Loew), 1864a: 84 (Cent. 5, no. 67) (*Gloma*).—N.H.; Maine, Mass.
scopifer (Coquillett), 1900h: 412 (1904: 26) (*Gloma*).—Alaska.
xanthus Melander, 1945: 85.—Wash.

Genus APALOCNEMIS Philippi

Apalocnemis Philippi, 1865: 752. Type-species, *obscura* Philippi (mon.).

REFERENCE: Melander, 1946a (key).

hirsuta Melander, 1946a: 40.—Oreg.
oreas Melander, 1946a: 39.—Calif.

Genus GLOMA Meigen

Gloma Meigen, 1822: 14. Type-species, *fuscipennis* Meigen (mon.).

REFERENCE: Melander, 1945 (key).

fuscipes Melander, 1945: 84.—Wash.; Oreg., Idaho.
luctuosa Melander, 1927: 102.—Wash.
pectinipes Melander, 1945: 84.—Alaska.

Genus ITEAPHILA Zetterstedt

Iteaphila Zetterstedt, 1838: 540.—Type-species, *macquarti* Zetterstedt (Coquillett, 1903a: 251).

REFERENCE: Melander, 1946a (key)

cana Melander, 1946a: 33.—Alta.; Sask.
conjuncta (Coquillett), 1900h: 411 (1904: 25) (*Empis*).—Alaska; B.C., Idaho.
cormus (Walker), 1849: 496 (*Empis*).—Ont.; N.H., Maine.
fuliginosa Melander, 1946a: 34.—Wash.; Oreg.
luctuosa (Kirby), 1837: 311 (*Empis*).—n. Canada; B.C., N.H.
geniculata Kirby, 1837: 312 (*Empis*).—n. Canada.
macquarti Zetterstedt, 1838: 541.—n. Europe; Alaska to Labr., s. to Oreg., Colo., and Maine.
curva Curran, 1925a: 24.—Labr. [See Tuomikoski, 1958: 130.]
napaea Melander, 1946a: 36.—Idaho; B.C., Wash., Calif.
nitidula Zetterstedt, 1838: 541.—Lapland; B.C. to Que., s. to Oreg., N. Mex., and Mo., Europe.
americana Melander, 1946a: 32.—Wyo. [See Tuomikoski, 1958: 130.].
orchestris Melander, 1902a: 354.—N. Mex.; B.C., Alta., Wash., Colo.

testacea Melander, 1946a: 37.—Idaho; B.C.
triangula (Coquillett), 1900h: 410 (1904: 24) (*Empis*).—Alaska; B.C., Wash., Mont., N. Mex.
vetula Melander, 1946a: 37.—Wash.; Idaho.

Genus ANTHEPISCOPUS Becker

Anthepiscopus Becker, 1891: 281. Type-species, *ribesii* Becker (Coquillett, 1903a: 246).

flavicoxa Melander, 1927: 107.—Wash.
flavipilosus (Coquillett), 1900h: 413 (1904: 27) (*Microphorus*).—B.C.
hirsutus Melander, 1927: 106.—Wash.
longipalpis Melander, 1927: 106.—Wash.
nuptus Melander, 1927: 106.—Wash.
polygynus Melander, 1927: 105.—Wash.
stentor (Melander), 1902a: 348 (*Euthyneura*).—N. Mex.

Genus BROCHELLA Melander

Brochella Melander, 1927: 108. Type-species, *monticola* Melander (orig. des.).

monticola Melander, 1927: 109.—Wash.

Genus RAGAS Walker

Ragas Walker, 1837: 229. Type-species, *unica* Walker (mon.).

primigenia Melander, 1945: 83.—Calif.

Genus PHILETUS Melander

Philetus Melander, 1927: 110. Type-species, *memorandus* Melander (orig. des.).

memorandus Melander, 1927: 110.—Wash.; Wyo.
schizophorus Melander, 1927: 110.—Wash.

Genus HESPEREMPIS Melander

Hesperempis Melander, 1906: 377. Type-species, *Ragas mabelae* Melander (mon.).

mabelae (Melander), 1902a: 277 (*Ragas*).—Idaho; B.C. and N.W.T. to Colo.
sanduca Melander, 1927: 111.—Calif.; Oreg.

Genus HILARA Meigen

Hilara Meigen, 1822: 1. Type-species, *Empis maura* Fabricius (Curtis, 1826: pl. 130).

Hilara adults are common along small streams, often performing an aerial dance. The males of some species envelop their prey in a web spun from the mouth.

REFERENCE: Melander, 1940b (biol.).

argyrata Curran, 1930j: 45.—N.Y.
atra Loew, 1862b: 205 (Cent. 2, no. 42).—Ill.; Oreg., Colo., N. Mex., N.H. to Fla.
aurata Coquillett, 1900h: 411 (1904: 25).—Alaska; Maine.
auripila Curran, 1926f: 247.—Alta.
baculifer Melander, 1902a: 271.—Ga.
basalis Loew, 1862b: 206 (Cent. 2, no. 45).—Ill.
bella Melander, 1902a: 271.—Mass.
brevipila Loew, 1862b: 204 (Cent. 2, no. 41).—Ill.; D.C.
cana Coquillett, 1895m: 395.—s. Calif.
carbonaria Melander, 1902a: 272.—Mass.
cavernicola Melander, 1945: 86.—Wash.
congregaria Melander, 1902a: 272.—Calif.
crickmayi Curran, 1926f: 246.—N.W.T.
femorata Loew, 1862b: 202 (Cent. 2, no. 35).—Md.; Wis., Ohio, Maine to N.J.
garretti Curran, 1926f: 248.—Alta.
gracilis Loew, 1862b: 205 (Cent. 2, no. 44).—Pa.; Tex., Maine to N.J.
granditarsis Curran, 1926f: 248.—Alta.
johnsoni Coquillett, 1895m: 395.—Ala.
juno Curran, 1930j: 44.—N.Y.
leucoptera Loew, 1862b: 205 (Cent. 2, no. 43).—Fla.; Ill., Que. to N.J.
lutea Loew, 1863a: 18 (Cent. 3, no. 33).—D.C.; N.Y. and Mass. to Va.
macroptera Loew, 1863a: 18 (Cent. 3, no. 32).—D.C.; Minn., N.H. to N.C.
migrata Walker, 1849: 491.—Ont.
mutabilis Loew, 1862b: 204 (Cent. 2, no. 40).—Ill.; Que. to Va.
nearctica Shewell, 1955: 45.—N.W.T.
nigriventris Loew, 1862b: 203 (Cent. 2, no. 38).—Pa.; Maine.
nugax Melander, 1902a: 273.—Calif.
plebeia Walker, 1857: 148.—U.S.
quadrivittata Meigen, 1822: 7.—Europe; Alaska.
rufopuncta Curran, 1926f: 245.—Alta.
seriata Loew, 1864a: 82 (Cent. 5, no. 63).—N.H.; Mass., N.Y., N.J.
testacea Loew, 1864a: 82 (Cent. 5, no. 64).—N.H.; N.Y., Mass., R.I., Pa., N.J.
transfuga Walker, 1849: 491.—Ont.; Alaska.

tristis Loew, 1864a: 82 (Cent. 5, no. 62).—N.H.; Que. to Nfld., s. to N.J.

trivittata Loew, 1862b: 204 (Cent. 2, no. 39).—Ill.; N.H., Conn., N.J., Tex.

umbrosa Loew, 1862b: 202 (Cent. 2, no. 34).—Ill.; Que. to N.J.

brachystoma Coquillett *in* Johnson, 1900c: 652 (*Empis*). Nomen nudum.

unicolor Loew, 1862b: 203 (Cent. 2, no. 37).—Md.; Labr., Mass., N.Y.

varipennis (Curran), 1930j: 45 (*Empis*).—N.Y.

velutina Loew, 1862b: 203 (Cent. 2, no. 36).—D.C.; Que. to Md.

wheeleri Melander, 1901: 214.—Wyo.; Calif.

Genus TOREUS Melander

Toreus Melander, 1906: 376. Type-species, *Empis neomexicanus* Melander (orig. des.).

neomexicanus (Melander), 1902a: 352 (*Empis*).—N. Mex.

Genus EMPIS Linnaeus

Empis Linnaeus, 1758: 603. Type-species, *pennipes* Linnaeus (Latreille, 1810: 443).

Platyptera Meigen, 1803: 269. Type-species, *Empis borealis* Linnaeus (Melander, 1927: 144). By tautonymy, *Empis platyptera* Panzer is the proper type-species, but acceptance of that fixation would require that *Platyptera* replace *Rhamphomyia* Meigen, 1822. Because of the size of the latter genus and extensive usage of the name, suspension of the rules should be requested.

Pachymeria Stephens, 1829a: 55 (also 1829b: 262). Type-species, *Empis ruralis* Meigen (mon.)=*femorata* Fabricius.

Eriogaster Macquart, 1838b: 162 (1839: 278) (preocc. Germar, 1811). Type-species, *Empis laniventris* Eschscholtz (orig. des.).

Enoplempis Bigot, 1880b: xlvii. Type-species, *mira* Bigot (mon.).

Empimorpha Coquillett, 1895m: 396. Type-species, *comantis* Coquillett (orig. des.).

Empis, subg. *Pterempis* Bezzi, 1909: 87. Type-species, *pennipes* Linnaeus (Engel, 1945: 341).

Empis, subg. *Xanthempis* Bezzi, 1909: 88. Type-species, *stercorea* Linnaeus (orig. des.).

Empis, subg. *Anacrostichus* Bezzi, 1909: 93. Type-species, *nitida* Meigen (orig. des.).

Empis, subg. *Polyblepharis* Bezzi, 1909: 95. Type-species, *albicans* Meigen (orig. des.).

Empis, subg. *Argyrandrus* Bezzi, 1909: 100. Type-species, *dispar* Scholz (orig. des.).

Empis, subg. *Coptophlebia* Bezzi, 1909: 100. Type-species, *hyalipennis* Fallén (orig. des.).

Empis, subg. *Acallomyia* Melander, 1927: 140. Type-species, *Iteaphila peregrina* Melander (orig. des.).

Empis, subg. *Pyrrempis* Melander, 1927: 144. Type-species, *rufescens* Loew (orig. des.).

Adults of *Empis* are noted for their interesting and sometimes intricate mating habits. The larvae are usually found in rich, moist soil.

[Recent work by Collin (1961) indicates that a revision of the subgeneric classification of the North American species of *Empis* is advisable. A preliminary examination of our species in the light of Collin's work, and a comparison of the type-species of the subgenera, has strengthened that idea. Our list is, therefore, not divided among the subgenera, which are, however, listed above. It seems highly unlikely that any of our species can actually be referred to the subgenera *Empis*, *Pachymeria*, *Platyptera*, or *Argyrandrus*, while on the other hand it appears likely that some new subgenera will be needed.—George C. Steyskal.]

REFERENCES: Melander, 1946c (keys, descr., N. Amer., Oriental *Coptophlebia*); Kessel and Karabinos, 1947 (biol. *geneatis*); Kessel and Kessel, 1951 (biol. *bullifera*); Tilden *in* Skinner, 1962 (biol.).

abcirus Walker, 1849: 494.—Ga.

aeripes Melander, 1902a: 328.—Idaho.

aerobatica Melander, 1902a: 323.—Calif., Idaho.

agasthus Walker, 1849: 496.—Ont.

aldrichii Melander, 1902a: 309.—Oreg., Idaho.

amytis Walker, 1849: 493.—N.Y.

amystis, error.

anthophila Melander, 1946c: 109.—N. Mex.; Tex.

armipes Loew, 1861b: 323 (Cent. 1, no. 32).—N.Y.

arthritica Melander, 1902a: 318.—Pa.

asema Melander, 1902a: 294.—Tex.; Colo.

barbatoides Melander (for *barbata* Loew).—Calif.; Wash., Oreg. **N. name.**

barbata Loew, 1862b: 195 (Cent. 2, no. 19) (preocc. Macquart, 1823).—Calif.

bigoti Melander, 1902a: 319 (n. name for *cinerea* Bigot).—Calif.

cinerea Bigot, 1882b: xci (*Enoplempis;* preocc. Fabricius, 1775).—Calif.

brachysoma Coquillett, 1900h: 409 (1904: 23).—Alaska.
brevis (Loew), 1862b: 196 (Cent. 2, no. 22) (*Pachymeria*).—D.C.; Mo.
browni Curran, 1931e: 93.—Que.
brunnea Coquillett, 1903a: 270.—Calif.
bullifera Kessel and Kessel, 1951: 137.—Calif.
cacuminifer Melander, 1902a: 304.—Ohio, Ala.
caeligena Melander, 1902a: 314.—Ala.
canaster Melander, 1902a: 326.—Oreg., Idaho.
captus Coquillett, 1895m: 405.—N.C., Ga.
clausa Coquillett, 1895m: 401.—Ill.; S. Dak. to Ohio, s. to Tex.
colonica Walker, 1849: 498.—N.S.
comantis (Coquillett), 1895m: 396 (*Empimorpha*).—n. Calif.; Oreg.
comata (error) Kessel, 1955: 98.
cometes Steyskal (for *comantis* Coquillett, 1895m: 402).—n. Calif. **N. name.**
comantis Coquillett, 1895m: 402 (preocc. Coquillett, 1895m: 396).—n. Calif.
compta Coquillett, 1895m: 405.—Ill.; La.
ctenocnema Melander, 1945: 87.—N.Y.
dactylica Melander, 1946c: 110.—Ont.; Alta.
delumbis Melander (for *clauda* Coquillett).—Alaska. **N. name.**
clauda Coquillett, 1900h: 407 (1904: 21) (preocc. Schrank, 1803).—Alaska.
desiderata Melander (for *avida* Coquillett).—Ill. **N. name.**
avida Coquillett, 1895m: 405 (preocc. Harris, 1776).—Ill.
deterra Walley, 1927a: 96.—Ont.; N.Y.
distans Loew, 1869b: 32 (Cent. 8, no. 54).—Ga.; N.H., Mass., Conn., Tex.
dolabraria dolabraria Melander, 1902a: 325.—Calif.
ssp. **disconvenita** Melander, 1902a: 326.—Calif.
enodis Melander, 1902a: 303.—Ill.
eudamides Walker, 1849: 493.—N. Amer.
exilis Coquillett, 1903a: 269.—Mo.
falcata Melander, 1902a: 326.—Idaho, Calif.
frontalis Coquillett, 1903a: 271.—Alaska (Pribilof Is.).
fumida Coquillett, 1900h: 409 (1904: 23).—Alaska.
geneatis (Melander), 1902a: 329 (*Empimorpha*).—Calif.
gladiator Melander, 1902a: 316.—Kans.
gulosa Coquillett, 1895m: 408.—Ill.; Mich.
hirticrus Melander, 1927: 141, 158 (n. name for *hirtipes* Coquillett).—N. Mex.; Colo.
hirtipes Coquillett, 1903a: 270 (preocc. Wiedemann, 1824).—N. Mex.

tenebrosa Coquillett, 1903a: 270 (preocc. Coquillett, 1895).—N. Mex.

humilis Coquillett, 1895m: 403.—Ill.; N.Y., N.J.

infumata Coquillett, 1900h: 409 (1904: 23).—Alaska.

johnsoni Melander, 1902a: 303.—Pa.

labiata Loew, 1861b: 323 (Cent. 1, no. 33).—D.C.

laevigata Loew, 1864a: 75 (Cent. 5, no. 49).—N.H.

laniventris Eschscholtz, 1823: 113.—Alaska; B.C., Wash.

latrappensis Ouellet, 1942: 78.—Que.

leptogastra Loew, 1863a: 17 (Cent. 3, no. 30).—D.C.; N.C.

levicula Coquillett, 1895m: 406.—Ill.

longeoblita Steyskal (for *longipes* Loew).—N.Y.; Maine, Vt., N.J. **N. name.**

longipes Loew, 1864a: 76 (Cent. 5, no. 51) (preocc. Meigen, 1804).—N.Y.

loripedis Coquillett, 1895m: 400.—Ill.; Ohio, N.J.

manca Coquillett, 1895m: 406.—Calif.

mira (Bigot), 1880b: xlvii (*Enoplempis*).—Calif.

mixopolia Melander, 1902a: 327.—Idaho.

montiradicis James, 1942c: 163.—Colo.

nodipoplitea Steyskal (for *nodipes* Melander).—N. Mex. **N. name.**

nodipes Melander, 1902a: 324 (preocc. Fallén, 1816).—N. Mex.

nuda Loew, 1862b: 195 (Cent. 2, no. 20).—Ill.; Minn. to Que., s. to Iowa and Ill.

obesa Loew, 1861b: 321 (Cent. 1, no. 28).—Mass.; Labr., N.H.

ravida Coquillett, 1895m: 403.—N.H.

ollius Walker, 1849: 493.—N.S.

otiosa Coquillett, 1895m: 407.—Ill., Conn.; Minn. to Que., s. to La.

pallida Loew, 1861b: 322 (Cent. 1, no. 30).—N.Y.; Ont., N.H., Vt., Mass.

pellucida Coquillett, 1900h: 408 (1904: 22).—Alaska.

peregrina (Melander), 1902a: 331, 361 (as *perigrina*, p. 331) (*Iteaphila*).—N. Mex. (as Calif., error; Melander, 1927: 168).

plectrum Melander, 1946c: 113.—Tex.

podagra Melander, 1902a: 318.—Idaho.

poeciloptera Loew, 1861b: 322 (Cent. 1, no. 31).—N.Y.; Ont., Vt., Mass., Conn.

poplitea Loew, 1863a: 16 (Cent 3, no. 29).—Alaska; Alaska to N. Mex.

serperastrorum Melander, 1902a: 324.—Idaho, Colo.

pudica (Loew), 1861b: 324 (Cent. 1, no. 35) (*Pachymeria*).—D.C.; N. Mex., Ill., N.Y. to Va.

reciproca Walker, 1857: 147.—U.S.

rufescens Loew, 1864a: 76 (Cent. 5, no. 52).—N.H.; N.Y., Vt., Maine, Mass.
scatophagina Melander, 1902a: 351.—Alaska.
scoparia Coquillett, 1903a: 269.—N.H.
sordida Loew, 1861b: 321 (Cent. 1, no. 29).—D.C.; N.Y., N.H., Conn.
spectabilis Loew, 1862b: 196 (Cent. 2, no. 21).—Md.; Conn. to N.C.
stenoptera Loew, 1864a: 75 (Cent. 5, no. 50).—N.H.; N.Y., Vt.
subinfumata Malloch, 1923i: 184.—Alaska (Pribilof Is.).
tenebrosa Coquillett, 1895m: 404.—Tex.; Colo.
teres Melander, 1902a: 315.—Idaho.
tersa Coquillett, 1895m: 404.—N.C., N.Y., Mass.
tridentata Coquillett, 1901h: 609.—Pa.; N.H., Conn., N.J.
vaginifer Melander, 1902a: 352.—D.C.; Md., Tenn.
valentis Coquillett, 1895m: 402.—n. Calif.
varipes Loew, 1861b: 324 (Cent. 1, no. 34).—Pa.; Ont. and Que. to Mass., s. to Pa.
virgata Coquillett, 1895m: 408.—Wash.; Alaska, B.C.

Genus RHAMPHOMYIA Meigen

Rhamphomyia Meigen, 1822: 42. Type-species, *Empis sulcata* Meigen (Curtis, 1834: pl. 517).
Megacyttarus Bigot, 1880b: xlvii. Type-species, *argenteus* Bigot (mon.)=*limbata* Loew.
Neocota Coquillett, 1895m: 434. Type-species, *weedii* Coquillett (orig. des.).
Rhamphomyia, subg. *Pararhamphomyia* Frey, 1922: 33. Type-species, *Empis plumipes* Meigen (as Fallén; orig. des.).
Rhamphomyia, subg. *Dasyrhamphomyia* Frey, 1922: 65. Type-species, *Empis vesiculosa* Fallén (orig. des.).

Rhamphomyia contains a great many undescribed species. The genus in North America requires a thorough revision. [A classification of the genus, with several new subgenera, is being prepared from a manuscript left by Dr. Melander. Meanwhile, the species are listed without reference to subgenera.—George C. Steyskal.]

References: Steyskal, 1941a, 1942c, 1950 (biol., *longicauda*); Frohne, 1952, 1959 (biol.); Hubert, 1953 (biol.); Chillcott, 1959 (tax., *basalis* group); Crane, 1961 (biol., *scutellaris*).

adversa Coquillett, 1900h: 418 (1904: 32).—Alaska.
agasicles Walker, 1849: 499.—Ont.
albata Coquillett, 1902g: 103.—Ariz.
albopilosa Coquillett, 1900h: 418 (1904: 32).—Alaska; Y.T., N.W.T.
ambocnema Chillcott, 1959: 267.—Man.; Ont., Que., N.Y.
americana Wiedemann, 1830: 8.—N. Amer.; Colo., N.H., Maine.

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amplicella Coquillett, 1895m: 431.—s. Calif.; Oreg.
amplipedis Coquillett, 1895m: 422.—Mass.; Que. to Maine, s. to N.J.
ethellia Curran, 1933b: 4.—Que.
anaxo Walker, 1849: 500.—Ont.
angustipennis Loew, 1861b: 336 (Cent. 1, no. 55).—N.Y.; Ill. to N.H., s. to N.J.
anthracodes Coquillett, 1900h: 420 (1904: 34).—Alaska.
aperta Loew, 1862b: 199 (Cent. 2, no. 27).—Ill.; Maine to N.J.
arctotibia Chillcott, 1959: 271.—Que.; Ont.
arcuata Coquillett, 1895m: 421.—Mass.; Maine, N.H.
atrata Coquillett, 1900h: 420 (1904: 34).—Alaska.
avida Coquillett, 1895m: 425.—Mass.; Maine to N.J.
barypoda Coquillett, 1900h: 417 (1904: 31).—Alaska.
basalis Loew, 1864a: 77 (Cent. 5, no. 54).—N.H.; Mich. to N.S., s. to N.C.
bifilata Coquillett, 1895m: 424.—s. Calif.
bigelowi Walley, 1927a: 97.—Ont.
birdi Curran, 1929a: 7.—Man.
borealis (Fabricius), 1780: 211 (*Empis*).—Greenland.
brevis Loew, 1861b: 334 (Cent. 1, no. 52).—D.C.; Alaska, B.C. to Que., s. to Calif. and Ga.
var. **corvina** Loew, 1861b: 307, 334 (as *cervina*, 334) (Cent. 1, no. 51) (as sp.).—N.Y.; Alaska, B.C., Oreg., N.Y. to N.C.
californica Coquillett, 1895m: 420.—Calif.
calvimontis Cockerell, 1916: 123.—Colo.
candicans Loew, 1864a: 81 (Cent. 5, no. 61).—N.H.; Maine to Md.
ciliata Coquillett, 1895m: 428.—N.H.
cilipes (Say), 1823: 95 (1859b: 83) (*Empis*).—Ohio.
cinefacta Coquillett, 1900h: 419 (1904: 33).—Alaska.
cineracea Coquillett, 1900h: 416 (1904: 30).—Alaska.
clauda Coquillett, 1901h: 610.—N.H., N.J.; Ont. to N.S., s. to Md.
clavator Coquillett, 1901h: 611 (n. name for *macrura* Coquillett).—Alaska.
macrura Coquillett, 1900h: 421 (1904: 35) (preocc. Loew, 1871).—Alaska.
clavigera Loew, 1861b: 335 (Cent. 1, no. 53).—N.Y.; Md., N.C.
colorata Coquillett, 1895m: 420.—Tex.
compta Coquillett, 1895m: 423.—U.S.; Nev., Mo., N.Y. and N.H. to N.J.
conjuncta Loew, 1861b: 336 (Cent. 1, no. 56).—D.C.
conservativa Malloch, 1919f: 48.—N.W.T.; Y.T., Man.
cophas Walker, 1849: 499.—N.Y.

currani Steyskal (for *rufipes* Curran).—Okla. **N. name.**
rufipes Curran, 1933b: 5 (*Neocota*; preocc. Zetterstedt, 1838).—Okla.
curvipes Coquillett *in* Baker, 1904: 24.—Calif.; Oreg., Nev.
dana Walker, 1849: 502.—Ont.
daria Walker, 1849: 503.—N.Y.
debilis Loew, 1861b: 330 (Cent. 1, no. 45).—Sask.; Minn., N.H., Maine.
dimidiata Loew, 1861b: 325 (Cent. 1, no. 36).—Md.; Ill., N.Y., N.H., Mass.
disconcerta Curran, 1930j: 46.—N.Y.; Md., Va.
disparilis Coquillett, 1900h: 415 (1904: 29).—Alaska.
diversa Coquillett, 1901h: 611.—N.J.
duplicis Coquillett, 1895m: 424.—s. Calif.
ecetra Walker, 1849: 500.—Ga.
effera Coquillett, 1895m: 427.—Colo. (unpublished); Mass., R.I.
erinacioides Malloch, 1919f: 45.—Alaska.
exigua Loew, 1862b: 201 (Cent. 2, no. 32).—Ill.; Mass. to Va.
expulsa Walker, 1857: 148.—U.S.; N.H.
falcipedia Chillcott, 1959: 268.—Que.; Mich.
ficana Walker, 1849: 501.—Ont.
filicauda Henriksen and Lundbeck, 1917: 608.—Greenland.
fimbriata Coquillett, 1895m: 429.—Calif.
flavirostris Walker, 1849: 501.—Ont.; Alaska.
flexuosa Coquillett, 1895m: 433.—Colo.; Alta., N. Mex.
formosula Melander (for *pulchra* Loew).—N.Y.; N.Y. to Ga. **N. name.**
pulchra Loew, 1861b: 327 (Cent. 1, no. 40) (preocc. Egger. 1860).—N.Y.
frontalis Loew, 1862b: 199 (Cent. 2, no. 28).—Ill.
fumosa Loew, 1861b: 327 (Cent. 1, no. 39).—N.Y.; Minn. to Conn., s. to Ky.
gilvipes Loew, 1861b: 332 (Cent. 1, no. 48).—N.Y.; Ill., Ont. and Que., s. to N.J.
gilvipilosa Coquillett, 1895m: 434.—Ill.; Que.
glabra Loew, 1861b: 328 (Cent. 1, no. 41).—Ill., Va.; Mo. to Vt., s. to N.C.
glauca Coquillett, 1900h: 416 (1904: 30).—Alaska.
gracilis Loew, 1861b: 329 (Cent. 1, no. 43).—Pa.; Que. to N.S., s. to Pa. and N.J.
bipunctata Curran, 1930j: 47.—N.Y.
herschelli Malloch, 1919f: 47.—Y.T.
herscheli, emend.
hirticula Collin, 1937a: 407.—Greenland.

hirtipes Loew, 1864a: 80 (Cent. 5, no. 59).—N.H.; Ont., Que., Mass.
hirtula Zetterstedt, 1842: 421.—Greenland.
hoeli Frey, 1950: 100 (as *hoelsi*; emend. Frey, 1955: 482).—Greenland.
hovgaardii Holmgren, 1880: 21.—U.S.S.R. (Novaya Zemlya); Y.T., n. Asia.
impedita Loew, 1862b: 201 (Cent. 2, no. 31).—Ill.; R.I., D.C.
incompleta Loew, 1863a: 17 (Cent. 3, no. 31).—D.C.; Labr., Md.
insecta Coquillett, 1895m: 426.—Tex.
irregularis Loew, 1864a: 81 (Cent. 5, no. 60).—N.H.; Alaska, Minn. to Que., s. to Colo. and N.C.
jubata Chillcott, 1959: 266.—Que.
laevigata Loew, 1861b: 325 (Cent. 1, no. 37).—Nebr.; Mont. to Man. to Que., s. to Va.
leucoptera Loew, 1861b: 340 (Cent. 1, no. 62).—D.C.; N.Y. to D.C.
limata Coquillett, 1900h: 417 (1904: 31).—Alaska.
limbata Loew, 1861b: 338 (Cent. 1, no. 60).—D.C.; Alaska, Mont. to N.H., s. to Colo. and D.C.
argentea Bigot, 1880b: xlvii (*Megacyttarus*).—Colo.
liturata Loew, 1861b: 339 (Cent. 1, no. 61).—Md.; Maine to D.C.
longicauda Loew, 1861b: 326 (Cent. 1, no. 38).—D.C.; Mich. to Que., s. to Mo. and N.C.
fumosa, authors, not Loew.
longicornis Loew, 1861b: 332 (Cent. 1, no. 47).—D.C.; Que., Pa.
longipennis Loew, 1861b: 331 (Cent. 1, no. 46).—D.C.; N.H., Mass.
loripedis Coquillett, 1895m: 419.—Calif.
luctifera Loew, 1861b: 333 (Cent. 1, no. 50).—N.Y.; N.H., N.C.
luctuosa Loew, 1872a: 114 (Cent. 10, appendix) (n. name for *lugens* Loew).—Calif.
lugens Loew, 1862b: 200 (Cent. 2, no. 30) (preocc. Zetterstedt, 1859).—Calif.
luteiventer Curran, 1929a: 7.—Man.
luteiventris Loew, 1864a: 79 (Cent. 5, no. 57).—N.H.; Ont. to N.B., s. to Va.
macilenta Loew, 1864a: 78 (Cent. 5, no. 55).—N.H.; Maine to Va.
mallos Walker, 1849: 502.—Hudson Bay Territory.
manca Coquillett, 1895m: 427.—N.C.; Maine to Fla.
minytus Walker, 1849: 502.—Ont.; Ont. and N.H., s. to Pa. and R.I.
minutus (error) Johnson, 1910b: 760.
mutabilis Loew, 1862b: 198 (Cent. 2, no. 26).—Ill.; Ill. to N.B., s. to N.C.
nana Loew, 1861b: 341 (Cent. 1, no. 64).—Md.; Ariz., Mo., N.Y. and N.H. to Va.
nasoni Coquillett, 1895m: 423.—Ill.; Ariz., Kans., Mo.
masoni, error.

nigricans Loew, 1864a: 80 (Cent. 5, no. 58).—N.H.; Ont., N.Y., Maine, ?Oreg.
nigrita Zetterstedt, 1838: 567.—Greenland; n. Europe, n. Asia. ?=*borealis*.
nitidivittata Macquart, 1846: 225 (1846: 97).—Tex.
novecarolina Beutenmüller, 1913b: 130.—N.C.
opacithorax Malloch, 1923i: 185.—Alaska (Pribilof Is.).
otiosa Coquillett, 1895m: 425.—Colo.; Que., N.J.
pachymera Bigot, 1887b: cxlii (also 1889: 133).—Calif.
parva Coquillett, 1895m: 433.—Mass.
pectinata Loew, 1861b: 333 (Cent. 1, no. 49).—D.C.; Md., Va.
pectoris Coquillett, 1895m: 420.—Ga.; N.C.
phemius Walker, 1849: 500.—Ont.; Alaska, B.C., Maine, Mass.
piligeronis Coquillett, 1895m: 432.—Ill.; Ont.
polita Loew, 1862b: 200 (Cent. 2, no. 29).—Ill.; N.Y. to Ga.
prava Chillcott, 1959: 266.—Que.; N.H.
priapulus Loew, 1861b: 335 (Cent. 1, no. 54).—Md.; Maine to Va.
pulla Loew, 1861b: 330 (Cent. 1, no. 44).—Conn.; Minn. to Que., s. to N.J.
pusio Loew, 1861b: 340 (Cent. 1, no. 63).—Md.; Maine to Md.
quinquelineata (Say), 1823: 95 (1859b: 82) (*Empis*).—Mo.; N.C.
rava Loew, 1862b: 198 (Cent. 2, no. 25).—Ill.; Nev., N.C.
morissoni Bigot, 1887b: cxli (also 1889: 132).—Nev.
ravida Coquillett, 1895m: 418.—N. Mex., Tex., Ill.; N. Mex. to Ind. and N.C.
rufirostris Say, 1829: 159 (1859b: 355) (as *rufirostra*, error).—Ind.
rustica Loew, 1864a: 79 (Cent. 5, no. 56).—N.H.; Que. to N.C.
scaurissima Wheeler, 1896d: 189.—Calif.
scolopacea (Say), 1823: 96 (1859b: 83) (*Empis*).—Pa.; Conn., R.I., N.J., Md.
scutellaris Coquillett, 1895m: 429.—n. Calif.
geniculata Bigot, 1887b: cxlii (also 1889: 134) (preocc. Meigen, 1830).—Calif.
sellata Loew, 1861b: 328 (Cent. 1, no. 42).—D.C.; Md.
setosa Coquillett, 1895m: 426.—N.H.; Alaska, Man. to Labr., s. to N.J.
similata Malloch, 1919f: 46.—N.W.T.
soccata Loew, 1861b: 342 (Cent. 1, no. 67).—Miss.; Mass.
sociabilis (Williston), 1893c: 76 (*Empis*).—Wash.; Wash. to N. Mex.
abdita Coquillett, 1895m: 430.—Wash.
soleata Melander (for *argentea* Curran).—N.Y. **N. name.**
argentea Curran, 1930j: 47 (preocc. Bigot, 1880).—N.Y.

sordida Loew, 1861b: 337 (Cent. 1, no. 58).—D.C.; N.Y. to R.I., s. to D.C.

crassinervis Loew, 1861b: 338 (Cent. 1, no. 59).—N.Y.

stylata Coquillett, 1895m: 432.—Calif.

sudigeronis Coquillett, 1895m: 431.—Calif.; B.C., Oreg.

nigrita Bigot, 1887b: cxlii (also 1889: 133) (preocc. Zetterstedt, 1838).—Calif.

tersa Coquillett, 1895m: 422.—N.H.; Ont. to Que., s. to Md.

testacea Loew, 1862b: 197 (Cent. 2, no. 24).—Ill.; Tex., N.Y. to D.C.

tristis Walker, 1857: 148.—U.S.

umbilicata Loew, 1861b: 342 (Cent. 1, no. 65).—Maine (as Mexico, error), Pa.; N.Y. to Maine, s. to D.C.

ungulata Loew, 1861b: 342 (Cent. 1, no. 66).—Maine (as Mexico, error).

umbrosa Loew, 1864a: 77 (Cent. 5, no. 53).—N.H.; Que. to N.S., s. to N.J.

unimaculata Loew, 1862b: 201 (Cent. 2, no. 33).—Ill.; Md., D.C.

ursinella Melander, 1927: 209 (n. name for *ursina* Malloch).—N.W.T.

ursina Malloch, 1919f: 46 (preocc. Oldenberg, 1915).—N.W.T.

valga Coquillett, 1895m: 428.—N.H.; Que. to Nfld., s. to N.Y.

vara Loew, 1861b: 337 (Cent. 1, no. 57).—Nebr.; Nebr. to Maine, s. to N.J.

versicolor Chillcott, 1959: 269.—Que.; Ont., N.Y., N.H.

villipes Coquillett, 1900h: 414 (1904: 28).—Alaska; N.W.T.

virgata Coquillett, 1895m: 430.—Mass.; Ont. to Nfld., s. to Pa.

vittata Loew, 1862b: 197 (Cent. 2, no. 23).—Ill.; S. Dak. to Mass., s. to Mo.

weedii (Coquillett), 1895m: 434 (*Neocota*).—Miss.

Subfamily CLINOCERINAE

Adults of this subfamily tend to inhabit situations very close to water, and some of them have been seen to enter the water for their prey. All the known larvae are aquatic.

Genus BOREODROMIA Coquillett

Boreodromia Coquillett, 1903a: 247, 260. Type-species, *Synamphotera bicolor* Loew (orig. des.).

Boreomyia (error) Aldrich, 1905: 316.

Synamphotera Loew of Melander, 1902a: 231.

bicolor (Loew), 1863a: 18 (Cent. 3, no. 34) (*Synamphotera*).—Alaska; Wash.

Genus NIPHOGENIA Melander

Niphogenia Melander, 1927: 217. Type-species, *eucera* Melander (orig. des.).

eucera Melander, 1927: 217.—Wash.

Genus CERATEMPIS Melander

Ceratempis Melander, 1927: 218. Type-species, *longicornis* Melander (orig. des.).

longicornis Melander, 1927: 218.—Wash.

Genus PROCLINOPYGA Melander

Proclinopyga Melander, 1927: 220. Type-species, *amplectens* Melander (orig. des.).

amplectens Melander, 1927: 221.—Calif.
exporrecta Melander, 1927: 222.—Mont.
fistulator Melander, 1927: 222.—Que.
monogramma Melander, 1927: 222.—Mont; Wash., Idaho, Calif.
var. **flavicoxa** Melander, 1927: 223.—Idaho; Wash.
solivaga Melander, 1927: 223.—Wash.

Genus OREOTHALIA Melander

Oreothalia Melander, 1902a: 232. Type-species, *pelops* Melander (mon.).

pelops Melander, 1902a: 233.—Idaho.
rupestris Vaillant, 1960: 118.—N.C.; Tenn.

Genus HELEODROMIA Haliday

Heleodromia Haliday, 1833: 159. Type-species, *immaculata* Haliday (Curtis, 1834: pl. 519).
Sciodromia Westwood, 1840: 132. Type-species, *Heleodromia immaculata* Haliday (orig. des.).

pullata (Melander), 1902a: 345 (*Sciodromia*).—N. Mex.

Genus ROEDERIODES Coquillett

Roederiodes Coquillett, 1901f: 585. Type-species, *juncta* Coquillett (orig. des.).
Roederioides (error) Curran, 1934a: 214.

REFERENCE: Chillcott, 1961b (rev.).

distinctus Chillcott, 1961b: 425.—Colo.
junctus Coquillett, 1901f: 585.—N.Y.; Ont., Que., N.H.
recurvatus Chillcott, 1961b: 424.—Que.; Ont., Maine.
retroversus Chillcott, 1961b: 427.—Calif.
vockerothi Chillcott, 1961b: 424.—Fla.
wirthi Chillcott, 1961b: 426.—N. Mex.

Genus CLINOCERA Meigen

Atalanta Meigen, 1800: 31. Type-species, *Clinocera nigra* Meigen (Coquillett, 1910b: 511). Suppressed by I.C.Z.N., 1963b: 339.

Clinocera Meigen, 1803: 271. Type-species, *nigra* Meigen (sub. mon., Meigen, 1804: 292).

Subgenus BERGENSTAMMIA Mik

Bergenstammia Mik, 1881: 326 (as genus). Type-species, *Clinocera nudipes* Loew (mon.).

brunnipennis Melander, 1927: 232.—Calif.
dolicheretma Melander, 1902a: 241.—Idaho.

Subgenus CLINOCERA Meigen

fuscipennis Loew, 1876: 324.—N.H.
lineata Loew, 1862b: 207 (Cent. 2, no. 50).—Pa.; Maine to Pa., ?Wash.
olivacea Melander, 1927: 233.—Alaska.
prasinata Melander, 1927: 232.—Calif.
trunca Melander, 1927: 230.—Wash.; ?Labr.

Subgenus HYDRODROMIA Macquart

Hydrodromia Macquart, 1835: 658 (as genus). Type-species, *Heleodromia stagnalis* Haliday (Coquillett, 1903a: 251).

appendiculata (Zetterstedt), 1838: 559 (*Wiedemannia*).—Lapland; N.W.T., Que.
aucta Zetterstedt, 1849: 3019 (*Brachystoma*).—Lapland.
binotata Loew, 1876: 325.—N.Y.; Ont.
bicincta (error) Tucker, 1907: 97.
conjuncta Loew, 1860b: 80.—D.C.; Labr. to D.C.
genualis Coquillett, 1910a: 124.—Alta.
longifurca Melander, 1927: 231.—N.H.; Labr.
longipes (Walker), 1849: 504 (*Heleodromia*).—Ont.
maculata Loew, 1860b: 79.—D.C.; Maine to D.C.

stagnalis (Haliday), 1833: 159 (*Heleodromia*).—Europe; Greenland, Iceland, Asia, Africa.
taos Melander, 1902a: 242.—N.H.; N.Y.
undulata Melander, 1927: 230.—Idaho; Wash.

Subgenus PHAEOBALIA Mik

Phaeobalia Mik, 1881: 326 (as genus). Type-species, *trinotata* Mik (Coquillett, 1903a: 255).

brevitibia Melander, 1927: 235.—Wash.
lecta Melander, 1902a: 243.—Idaho.

Genus WIEDEMANNIA Zetterstedt

Wiedemannia Zetterstedt, 1838: 559. Type-species, *borealis* Zetterstedt (Coquillett, 1903a: 258)=*bistigma* (Curtis). *Wiedemannia* of Zetterstedt, 1833: 207 and 1837: 32 are nomina nuda.

Subgenus PHILOLUTRA Mik

Philolutra Mik, 1881: 327 (as genus). Type-species, *Clinocera phantasma* Mik (Coquillett, 1903a: 255).

simplex (Loew), 1862b: 207 (Cent. 2, no. 49) (*Clinocera*).—Ont.; Alta., Wash., Mont.

Subgenus CHAMAEDIPSIA Mik

Chamaedipsia Mik, 1881: 326 (as genus). Type-species, *Clinocera hastata* Mik (mon.).

comata Melander, 1927: 232.—Wash.; Wyo.
ctenistes Melander, 1927: 234.—N.H.; Maine.
gubernans Melander, 1927: 234.—B.C.
hamifera Melander, 1927: 233.—Maine, N.Y., Conn.
lepida (Melander), 1902a: 241 (*Clinocera*).—Idaho.
minor Melander, 1927: 233.—N.Y.

Subgenus ROEDERIA Mik

Roederia Mik, 1881: 326. Type-species, *Clinocera longipennis* Mik (mon.).
Atalanta, subg. *Roederella* Engel, 1918: 79. Type-species, *Roederia czernyi* Bezzi (orig. des.; misident.)=*longipennis* (Mik).

fumosa Vaillant, 1960: 119.—N.Y.
saltans Vaillant, 1960: 122.—N.Y.

Genus DOLICHOCEPHALA Macquart

Dolichocephala Macquart, 1823: 147. Type-species, *maculata* Macquart (mon.) = *irrorata* (Fallén).

Ardoptera Macquart, 1827b: 105. Type-species, *Tachydromia irrorata* Fallén (mon.).

argus Melander, 1927: 246.—Wash.

irrorata (Fallén), 1815: 13 (*Tachydromia*).—Europe; Wash., Idaho, N.H., Vt.

Subfamily HEMERODROMIINAE

(Phyllodromiinae)

The oldest name for this subfamily is Phyllodromiinae, but we elect to retain Hemerodromiinae because of its long established usage, following Art. 23d of the new International Code (Stoll et al., 1961: 23).

Adults of this subfamily are found in shady foliage overhanging streams. All the known larvae are aquatic.

REFERENCE: Melander, 1947 (rev.).

Genus HEMERODROMIA Meigen

Hemerodromia Meigen, 1822: 61. Type-species, *Tachydromia oratoria* Fallén (Rondani, 1856: 148). Acceptance of Westwood's (1840: 132) type-designation of *mantispa* Panzer, which equals *Phyllodromia melanocephala* (Fabricius), would require that *Hemerodromia* replace *Phyllodromia* Zetterstedt, 1837. Action by the I.C.Z.N. is needed to preserve the present widespread usage of these two names. See Melander, 1927: 252.

brevifrons Melander, 1947: 248 (as *empiformis* var.).—Calif.

brunnea Melander, 1927: 255.—Ga.

captus Coquillett, 1895m: 391.—N.Y.; Minn. to Que., s. to Va.

coleophora Melander, 1927: 256 (as *empiformis* ssp.).—Mont.; B.C., Wash.

empiformis (Say), 1823: 99 (1859b: 85) (*Ochthera*).—Ill.; Minn. to Maine, s. to Fla.

empidiformis, error.

exhibitor Melander, 1947: 248 (as *empiformis* var.).—Ga.

haruspex Melander, 1947: 249.—Fla.

jugulator Melander, 1927: 256.—N.Y.; Wis. and Ont. to Mass., s. to Md.

melanosoma Melander, 1947: 250.—Ont.; N.Y., Conn.
rogatoris Coquillett, 1895m: 392.—N.C.; B.C. to Que., s. to Calif. and Ga.
stellaris Melander, 1947: 251.—Tex.
sufflexa Melander, 1947: 248 (*as empiformis* var.).—Idaho; Wash.
superstitiosa Say, 1824a: 376 (1859a: 256).—Northwest Territory (U.S.); Ont. to N.H., s. to Tex. and Fla.
vates Melander, 1947: 252.—Conn.
vittata Loew, 1862b: 210 (Cent. 2, no. 56).—D.C.; Conn.

Genus CHELIFERA Macquart

Chelifera Macquart, 1823: 150. Type-species, *raptor* Macquart (mon.)=*precatoria* (Fallén).
Mantipeza Rondani, 1856: 148. Type-species, *Hemerodromia monostigma* Meigen (orig. des.).

banksi Melander, 1947: 253.—Conn., N.C.
cirrata Melander, 1947: 254.—Wyo.
ensifera Melander, 1947: 254.—Wash.
lovetti Melander, 1947: 255.—Oreg.; Wash., Idaho.
notata (Loew), 1862b: 209 (Cent. 2, no. 53) (*Hemerodromia*).—Ill.; Ill. to Maine.
obsoleta (Loew), 1862b: 208 (Cent. 2, no. 52) (*Hemerodromia*).—Ill.; N.Y. and Mass. to Fla.
palloris (Coquillett), 1895m: 392 (*Mantipeza*).—N.H.; Wash. to Que., s. to Pa.
precatoria (Fallén), 1815: 10 (*Tachydromia*).—Sweden; Ont., n. Europe.
rastrifera Melander, 1947: 257.—N.C.
scrotifera Melander, 1947: 257.—Alaska.
valida (Loew), 1862b: 208 (Cent. 2, no. 51) (*Hemerodromia*).—Ont.; Alaska, N.Y. ?=*precatoria*.
varix Melander, 1947: 258.—Idaho, Mont.

Genus METACHELA Coquillett

Metachela Coquillett, 1903a: 253, 263. Type-species, *Hemerodromia collusor* Melander (orig. des.).

albipes (Walker), 1849: 505 (*Hemerodromia*).—Ont.; Labr., N.H.
collusor (Melander), 1902a: 235 (*Hemerodromia*).—Wyo.; Wash. to Mont., s. to Calif. and Colo.

Genus NEOPLASTA Coquillett

Neoplasta Coquillett, 1895m: 392. Type-species, *Hemerodromia scapularis* Loew (orig. des.).

hebes Melander, 1947: 261.—Calif.; Wash., Oreg., Idaho.

scapularis (Loew), 1862b: 209 (Cent. 2, no. 54) (*Hemerodromia*).—Md.; B.C. to Maine, s. to Calif. and Ga.

maculipes Bigot, 1887d: 118 (*Clinocera*).—Calif.

var. **alleghani** Melander, 1947: 263.—N.Y.; N.Y. to Ga.

var. **megorchis** Melander, 1947: 263.—Wash.; Wash. to Mont., s. to Calif. and Colo.

var. **radialis** Melander, 1947: 264.—Vt.

Genus THANATEGIA Melander

Chelifera, subg. **Thanategia** Melander, 1927: 263. Type-species, *Hemerodromia defecta* Loew (orig. des.).

defecta (Loew), 1862b: 210 (Cent. 2, no. 55) (*Hemerodromia*).—D.C.; Mass., Conn., N.J.

deflecta, error.

recurvata Melander, 1947: 260.—B.C.; Wash.

stuprator Melander, 1947: 259.—Wash.

Genus CHELIPODA Macquart

Chelipoda Macquart, 1823: 148. Type-species, *Tachydromia mantispa* Panzer (orig. des.; misident.)=*vocatoria* (Fallén).

Chiromantis Rondani, 1856: 205 (also as *Chyromantis*, p. 148; *Chiromantis* preocc. Peters, 1854). Type-species, *Tachydromia vocatoria* Fallén (orig. des.).

Litanomyia Melander, 1902a: 231. Type-species, *Sciodromia mexicana* Wheeler and Melander (Coquillett, 1903a: 252).

Phyllodromia, authors, not Zetterstedt.

albiseta (Zetterstedt), 1838: 544 (*Hemerodromia*).—Sweden; N.Y., Mass., n. and cent. Europe.

contracta Melander, 1947: 265.—Mass.; B.C., Wash., Mont., Ont. to Maine, s. to Conn.

elongata (Melander), 1902a: 232 (*Litanomyia*).—S. Dak. (Melander, 1947: 267); S. Dak., Wis. to R.I., s. to Fla.

praestans Melander, 1947: 267.—Conn.; Ont. to Maine, s. to Va.

sicaria Melander, 1947: 268.—Tenn., N.C.

vocatoria (Fallén), 1815: 12 (*Tachydromia*).—Sweden; N.Y., N.J.

Genus PHYLLODROMIA Zetterstedt

Hemerodromia, subg. **Phyllodromia** Zetterstedt, 1837: 31. Type-species, *Empis melanocephala* Fabricius (Rondani, 1856: 148).

americana Melander, 1947: 269.—N.H.; N.Y., R.I., Va., Ga.

Subfamily TACHYDROMIINAE

Genus TACHYPEZA Meigen

Tachypeza Meigen, 1830: 341. Type-species, *Tachydromia nervosa* Meigen (Rondani, 1856: 147)=*nubila* (Meigen).

Tachypeza adults are often found running on the smooth bark of trees with their wings folded. They will not fly easily.

annularis Melander, 1927: 274.—Wash., Calif.
binotata Melander, 1927: 275.—Wash., Calif.
brachialis (Melander), 1902a: 343 (*Tachydromia*).—N.J.; Ont., N.H., Va.
clavipes Loew, 1864a: 86 (Cent. 5, no. 73).—Ill.; Pa., N.J., Md.
corticalis (Melander), 1902a: 343 (*Tachydromia*).—N. Mex.; B.C. to Calif. ?=*portaecola*.
discifera Melander, 1927: 273.—Idaho, Mont.; B.C., Alta.
distans Melander, 1927: 273.—Wash.
dolorosa Melander, 1927: 275.—N. Mex.
excisa Melander, 1927: 274.—N.Y.; Que.
fenestrata (Say), 1823: 95 (1859b: 82) (*Sicus*).—Middle States; Wis. to Maine, s. to Mo. and Va.
similis Walker, 1849: 506 (*Tachydromia*).—Hudson Bay Territory.
rapax Loew, 1864a: 85 (Cent. 5, no. 71).—Ill.
humeralis Melander, 1927: 276.—D.C.; Ont., Que.
inusta (Melander), 1902a: 226 (*Tachydromia*).—Idaho, N. Mex.; Wash., Oreg., Calif., Colo.
portaecola (Walker), 1849: 506 (*Tachydromia*).—Hudson Bay Territory.
postica (Walker), 1857: 149 (*Tachydromia*).—U.S.; N. Mex., Kans., D.C.
pruinosa Coquillett, 1903a: 267.—Mo.
rostrata Loew, 1864a: 86 (Cent. 5, no. 72).—N.H.; Maine to Va.
vittipennis (Walker), 1857: 149 (*Tachydromia*).—U.S.
winthemi Zetterstedt, 1838: 548.—Europe; N.W.T., B.C., Alta., Man., Mont., Que., Labr., N.H., Mass., n. Europe, n. Asia.

Genus TACHYDROMIA Meigen

Sicus Latreille, 1796: 158 (preocc. Scopoli, 1763). Type-species, *Musca cimicoides* Fabricius (sub. mon., Latreille, 1805: 312)=*arrogans* (Linnaeus).

Coryneta Meigen, 1800: 27. Type-species, *Tachydromia connexa* Meigen (Coquillett, 1910b: 528). Suppressed by I.C.Z.N., 1963b: 339.

Tachydromia Meigen, 1803: 269. Type-species, *Musca cimicoides* Fabricius (Curtis, 1833: pl. 477; misident.)=*connexa* Meigen.

Sicodus Rafinesque, 1815: 131 (n. name for *Sicus* Latreille). Type-species, *Musca cimicoides* Fabricius (aut.)=*arrogans* (Linnaeus).

Phoneutisca Loew, 1863a: 19 (Cent. 3, no. 35). Type-species, *bimaculata* Loew (mon.).

Tachista Loew, 1864g: 15 (as *Tachysta*, p. 19). Type-species, *Musca cimicoides* Fabricius (as Meigen; Coquillett, 1903a: 258; misident.)=*connexa* Meigen.

Tachydromia adults run rapidly over the ground or on tree trunks and leaves and rarely take flight.

bimaculata (Loew), 1863a: 19 (Cent. 3, no. 35) (*Phoneutisca*).—Alaska; B.C., Idaho, Mont.

maculipennis Walker of Coquillett, 1903a: 266.

chelana Melander, 1927: 282.—Wash.

diversipes Melander, 1910: 55 (as *schwarzii* var.).—Tex.

enecator Melander, 1902a: 226.—Wyo., Que.; Alaska, Maine.

harti Malloch, 1919i: 248.—Ill.; Ind.

hirtipes Melander, 1927: 282.—Oreg.

maculipennis Walker, 1849: 507.—Ont.; Alta. to Vt., s. to Mexico and Fla.

pusilla Loew, 1864a: 87 (Cent. 5, no. 74).—Ill.

bimaculata Loew of Melander, 1902a: 204.

monaca Melander, 1927: 283.—Wash.

phengites Melander, 1927: 282.—Ont., Va.

pseliophora Melander, 1927: 281.—Calif.

schwarzii Coquillett, 1895m: 440.—Calif., Utah; Wash. to Calif. and Tex., Mexico.

tacoma Melander, 1927: 281.—Wash., Idaho.

varipennis Coquillett, 1903a: 266.—N.H.; Wash., Oreg., Md.

Genus TACHYEMPIS Melander

Tachyempis Melander, 1927: 288. Type-species, *Tachydromia agens* Melander (orig. des.).

agens (Melander), 1910: 59 (*Tachydromia*).—Wash.
calva (Melander), 1910: 58 (*Tachydromia*).—Ga.
cinerea Melander, 1927: 290.—N. Mex.
longipennis Melander, 1958: 296.—Ind.
nervosa Melander, 1927: 290.—Calif.
universalis (Melander), 1910: 60 (*Tachydromia*).—Tex., Ill., Pa.

Genus CHARADRODROMIA Melander

Charadrodromia Melander, 1927: 292. Type-species, *microphona* Melander (orig. des.).

arnaudi Melander, 1960: 129.—Calif.
microphona Melander, 1927: 293.—Wash.
syletor Melander, 1927: 293.—Wash.

Genus CHERSODROMIA Walker

Chersodromia Walker, 1851a: 137. Type-species, *Tachypeza brevipennis* Zetterstedt (Rondani, 1856: 147)=*arenaria* (Haliday).

Coloboneura Melander, 1902a: 229. Type-species, *inusitata* Melander (mon.).

Thinodromia Melander, 1906: 370. Type-species, *inchoata* Melander (mon.).

Chersodromia adults occur on the wet or dry beaches of both fresh and salt water.

REFERENCE: Melander, 1945 (key).

cana Melander, 1945: 82.—Calif.
houghii (Melander), 1902a: 206 (*Stilpon*).—Mass.; N.Y., Conn.
inchoata (Melander), 1906: 370 (*Thinodromia*).—Calif.
insignita Melander, 1945: 81.—Calif.
inusitata (Melander), 1902a: 230 (*Coloboneura*).—Mass., Fla.; Maine to Fla.
magacetes Melander, 1945: 80.—Calif.
nana (Coquillett), 1903a: 267 (*Coloboneura*).—Fla.
parallela (Melander), 1927: 297 (*Thinodromia*).—Wash.

Genus MICREMPIS Melander

Micrempis Melander, 1927: 298. Type-species, *nana* Melander (orig. des.).

minuta (Melander), 1902a: 339 (*Stilpon*).—N. Mex.
nana Melander, 1927: 299.—Tex.
obliqua Melander, 1927: 299.—Iowa.
testacea Melander, 1927: 299.—Va.; Md.

Genus SYMBALLOPHTHALMUS Becker

Macroptera Becker, 1889a: 80 (preocc. Lioy, 1864). Type-species, *pictipes* Becker (mon.)=*dissimilis* (Fallén).

Symballophthalmus Becker, 1889b: 285 (n. name for *Macroptera* Becker). Type-species, *Macroptera pictipes* Becker (aut.)=*dissimilis* (Fallén).

masoni Chillcott, 1958b: 647.—Ont.; Mich.

Genus MEGAGRAPHA Melander

Megagrapha Melander, 1927: 301. Type-species, *Drapetis pubescens* Loew (orig. des.).

REFERENCE: Chillcott, 1958a (rev.).

pubescens (Loew), 1862b: 210 (Cent. 2, no. 57) (*Drapetis*).—N.Y.; Alta., Ont. to Mass., s. to Ill. and Ga.
exquisita Malloch, 1923g: 5 (*Coloboneura*).—Md.

Genus STILPON Loew

Agatachys Meigen, 1830: 343. Unavailable, cited in specific synonymy.

Drapetis, subg. **Stilpon** Loew, 1859a: 34. Type-species, *Tachydromia graminum* Fallén (Coquillett, 1903a: 257).

Subgenus STILPON Loew

curvipes Melander, 1927: 303.—Wis.; Ont., Que., N.Y.
pauciseta Melander, 1927: 304.—Mass., Md.
pectiniger Melander, 1902a: 205.—Wis., Mass.
spinipes Melander, 1927: 303.—Ga.
varipes Loew, 1862b: 211 (Cent. 2, no. 58).—Pa.

Subgenus TETRANEURELLA Dahl

Tetraneurella Dahl, 1909: 362 (as genus). Type-species, *beckeri* Dahl (orig. des., as gen. n., sp. n.)=*graminum* (Fallén) var.

pleuriticus Melander, 1927: 302.—N.H.; Que., Pa., N.C., Fla.

Genus DRAPETIS Meigen

Drapetis Meigen, 1822: 91. Type-species, *exilis* Meigen (mon.).

Subgenus DRAPETIS Meigen

aliternigra Melander, 1918: 192.—B.C., Wash., S. Dak., Tex., Que., N.Y., Mass., Pa.; Ill.
nigra, authors, not Meigen.
assimilis (Fallén), 1815: 8 (*Tachydromia*).—Europe; Canada, S. Dak., Ill.
nigra Meigen, 1830: 344.—Europe.
bispina Melander, 1918: 192.—Ind.
deceptor Curran, 1929a: 7.—Man.
divergens Loew, 1872a: 90 (Cent. 10, no. 62).—Tex.; Utah, N. Mex. to Ga. to D.C., Cent. Amer., West Indies.
diversa Melander, 1918: 193.—N. Mex.
dividua Melander, 1902a: 208.—Idaho; B.C. to Oreg. and N. Mex.
nigripes Melander, 1902a: 339 (*Stilpon*).—N. Mex.
infumata Melander, 1918: 194.—B.C.; Idaho.
latipennis Melander, 1902a: 209.—Kans.; Wis.
mariae Steyskal, 1953b: 257.—Mich.
micropyga Melander, 1918: 195.—Wash.; B.C. to Calif., ?D.C.
naica Melander, 1918: 195.—Wash., Idaho, N. Mex., Tex.
pilosa Melander, 1918: 196.—Ind.; Ont., Alta., Ill.
populi Steyskal, 1953b: 256.—Mich.
setulosa Melander, 1918: 196.—Wash.; B.C., Calif.
trichura Melander, 1918: 197.—Tex.; Calif.

Subgenus CROSSOPALPUS Bigot

Crossopalpus Bigot, 1857b: 557, 563 (as genus). Type-species, *Platypalpus ambiguus* Macquart (mon.)=*flexuosa* Loew.
Drapetis, subg. *Eudrapetis* Melander, 1918: 187. Type-species, *spectabilis* Melander (orig. des.).

armata Melander, 1918: 197.—Wash., Idaho, Maine, Mass.; Alaska to N.S., Mont., Va.
discalis Melander, 1918: 198.—Wash., Calif.
diversipes Melander, 1918: 198.—Calif.
facialis Melander, 1918: 200.—Alta., Ga.
gilvipes Loew, 1872a: 89 (Cent. 10, no. 61).—Tex.; Maine, Mass., Conn., West Indies.
inculta (Coquillett), 1895m: 439 (*Platypalpus*).—Calif.; Tex.
lata (Coquillett), 1903a: 266 (*Tachydromia*).—Fla.
medetera Melander, 1902a: 208.—Wyo., Colo., Ariz.; Wash., Mont., Man., Utah.

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parvicornis Melander, 1918: 202.—Wash., D.C.; Calif., Maine to D.C.
plumipes Melander, 1918: 203.—Tex.; Ala., Mexico.
scissa Melander, 1918: 204.—Wash., Idaho, Wyo.; B.C. and Wash. to Man. and Wyo.
medetera (in part) Melander, 1902a: 208. Idaho specimen only.
septentrionalis Melander, 1902a: 211.—Mich.; Wash. to Vt., s. to Va.
spectabilis Melander, 1902a: 212.—Mass.; Maine to N.Y. and R.I.
unipila Loew, 1872a: 88 (Cent. 10, no. 60).—Tex.; Wash. to Iowa, s. to Calif. and Tex.
var. **nitida** Melander, 1902a: 207 (as sp.).—Calif., Tex.; Wash.
xanthopoda Williston, 1896c: 308.—West Indies (St. Vincent I.); Tex., Ga.

Subgenus ELAPHROPEZA Macquart

Elaphropeza Macquart, 1827b: 86 (as genus). Type-species, *Tachydromia ephippiata* Fallén (mon.).

vittata Melander, 1918: 214.—Fla.; Cuba.

Genus PLATYPALPUS Macquart

Platypalpus Macquart, 1827b: 92. Type-species, *Musca cursitans* Fabricius (Westwood, 1840: 132).
Tachydromia, authors, not Meigen.

achlytarsis Chillcott, 1962: 124.—N.W.T.; Y.T., Man., Que., Labr.
aequalis Loew, 1864a: 88 (Cent. 5, no. 75).—Ill.; Oreg. to Que., s. to Calif., La., and N.C., Mexico.
alexippus Walker, 1849: 510.—Ont.
alumnus Melander, 1927: 330.—Wyo.
anatolicus Chillcott, 1962: 132.—Que.; Labr., N.H.
apicalis Loew, 1864a: 90 (Cent. 5, no. 79).—Pa.; N.Y., N.H., Mass., R.I.
arcticus Melander, 1927: 344.—Labr.
armillatus Melander, 1927: 344.—Wash.; Idaho, Mont.
ballistrarius Melander, 1927: 338.—Va.
ballucatus Melander, 1927: 336.—Wash., Ill.
bicornis Melander, 1927: 329.—Wash.
callithrix Melander, 1927: 325.—Ill.; N.Y.
canus Melander, 1902a: 220.—Calif.
carectorum Chillcott, 1962: 134.—N.W.T.; Alaska, Y.T.
cellarius Melander, 1927: 337.—B.C.; Wyo.
churchillensis Chillcott, 1962: 136.—Man.
continguus Melander, 1927: 320.—B.C.

coquilletti Melander, 1924a: 83.—Mass.; N.Y.
trivialis Loew of Melander, 1902a: 216.
crassifemoris (Fitch), 1856a: 533 (1856: 301) (*Oscinis*).—N.Y.; B.C. and Wash. to Que., s. to Oreg. and Fla.
var. **debilis** Loew, 1863a: 20 (Cent. 3, no. 37) (as sp.).—D.C.; Mass.
var. **melanocerus** Melander, 1927: 337.—Wash.
var. **mollis** Melander, 1927: 337.—Wash., Idaho, Wis., Pa.
crepidarius Melander, 1927: 340.—Wash.
cuneipennis Melander, 1924a: 83.—Vt.; Wis.
decolor Melander, 1927: 321.—Mont.
direptor Melander, 1927: 319.—B.C.
discifer Loew, 1863a: 20 (Cent. 3, no. 36).—D.C.; N.Y., ? Utah.
dissimilipes Melander, 1927: 318.—Idaho; B.C., Wash., Oreg., Colo.
diversipes Coquillett, 1900h: 422 (1904: 36).—Alaska.
enervatus Melander, 1927: 333.—Calif.
fasciventris Melander, 1927: 343.—Wash.
flammifer Melander, 1924a: 84.—N.Y.; B.C., Mont., Ont., Que., N.H., Vt., Mass.
flavirostris Loew, 1864a: 90 (Cent. 5, no. 80).—N.H.; Alaska, Wash. to Mont., Ont. to Maine, s. to N.Y. and Mass.
var. **dilutior** Melander, 1927: 325.—Wash.
var. **microcerus** Melander, 1927: 325.—Idaho.
var. **vittiger** Melander, 1927: 323.—Alaska; Mont.
gesticulor Melander, 1927: 328.—Mont.
glacialis Melander, 1927: 331.—Mont.
gravidus Melander, 1902a: 221.—Calif.
harpestylis Chillcott, 1962: 135.—N.W.T.; Alaska, Y.T., Man.
harpiger Melander, 1924a: 84.—Mass.
hastatus Melander, 1902a: 222.—Kans.; Idaho, Colo., Que., N.Y.
hians Melander, 1902a: 220.—Colo.; Maine.
var. **fuscohalteratus** Melander, 1924a: 85.—N.Y.; Colo., Ont. and N.Y. to N.B.
holosericus Melander, 1924a: 85.—Mass.; Iowa, Ont., Que., N.B., N.S.
hyaenoides Melander, 1927: 332 (as *juvenis* var.).—Wash.; B.C., Alta. [See Chillcott, 1962: 126.]
impexus Melander, 1902a: 219.—S. Dak.; Mich.
incurvus Melander, 1902a: 221.—Calif.
inferialis Melander, 1927: 321.—Wash.; Idaho.
inops Melander, 1902a: 220.—Wyo.; B.C., Mont.
var. **aequicornis** Melander, 1927: 330.—Mont.
juvenis Melander, 1927: 332.—B.C. (lectotype Chillcott, 1962: 128); B.C. to Calif. and Wyo., Maine.

lacertosus Melander, 1927: 319.—Idaho.
laetabilis Melander, 1927: 324.—N.Y.
laetus Loew, 1864a: 91 (Cent. 5, no. 81).—N.H.
lateralis Loew, 1864a: 89 (Cent. 5, no. 78).—N.H.; Alaska, Maine to N.J.
collateralis Melander, 1927: 327.—Alaska. [See Chillcott, 1962: 128.]
luctator Melander, 1927: 335.—Idaho.
lupatus Melander, 1902a: 340.—N. Mex.
lyristes Melander, 1927: 338.—Ariz.
manni Chillcott, 1962: 142.—B.C.
masoni Chillcott, 1962: 121.—B.C.
melanogaster Melander, 1927: 323.—Labr.
melleus Melander, 1927: 321.—N.Y.
mesogrammus Loew, 1863a: 21 (Cent. 3, no. 38).—D.C.; N.Y. to Tenn. and N.C.
mimus Melander, 1927: 324.—N.Y.
monticola Melander, 1902a: 217.—Colo.
murphyi Chillcott, 1962: 133.—N.W.T.; Alaska.
nitidipleura Melander, 1927: 329.—Mont.
ochricollis Melander, 1927: 323.—Wash.; Utah.
oculeus Melander, 1927: 342.—Pa.
pachycnemus Loew, 1864a: 89 (Cent. 5, no. 77).—D.C.; N.Y., N.J.
paluster Chillcott, 1962: 137.—Y.T.; Alaska, N.W.T.
pectinator Melander, 1924a: 85.—Idaho; Alaska, B.C., Wash. and Alta. to Mass.
peneprorsus Chillcott, 1962: 130.—Alaska; Y.T., B.C.
pilatus Melander, 1927: 340.—Wash.
pluto Melander, 1902a: 217.—Calif.; Idaho.
politellus Melander, 1927: 382 (n. name for *politus* Melander).—Calif.; Mo., Md., D.C.
politus Melander, 1927: 333 (preocc. Collin, 1926).—Calif.
var. **nitens** Melander, 1927: 334.—Calif., Mo., D.C.; Md.
porrectus Melander, 1924a: 86.—Wash.; Calif., Colo., Maine.
var. **suffasciatus** Melander, 1927: 336.—Calif., Colo.
postpositus Melander, 1927: 343.—Wash.
prorsus Melander, 1927: 328.—Que. (as Labr., error; Chillcott, 1962: 124); Man., Labr., N.H.
pubescens Melander, 1927: 331.—Wash.
pudens Melander, 1927: 329.—Wash.; Idaho.
puerinus Melander, 1927: 332 (as *juvenis* var.).—B.C. (lectotype Chillcott, 1962: 120); Wash., ?Maine. [See Chillcott, 1962: 120.]

pulverulentus Melander, 1927: 341.—Calif.
recurvus Melander, 1927: 339.—Calif.; Oreg.
richardsi Chillcott, 1962: 139.—Que.; Labr., N.H.
rubefactus Melander, 1927: 322.—Ill.; Md.
rufiventris Melander, 1902a: 341.—N. Mex.
satyriacus Melander, 1927: 327.—Que. (as Labr., error; Chillcott, 1962: 141); Y.T., B.C., Sask., Mich.
sericatus Melander, 1927: 320.—B.C.
simplicipes Melander, 1927: 331.—Wash.
soccatus Melander, 1927: 341.—Idaho.
spinosus Melander, 1927: 319.—Calif.
splendens Melander, 1927: 365 (n. name for *montanus* Melander).—Colo.
montanus Melander, 1902a: 213 (*Elaphropeza;* preocc. Becker, 1887).—Colo.
sutor Melander, 1924a: 87.—Wash.; B.C., Maine, N.Y., Mass.
tachistiformis Melander, 1927: 320.—Mont.
talaris Melander, 1927: 342.—Wash.; Wis., Ont., Que.
tenax Melander, 1927: 339.—Wash.
tenellus Melander, 1902a: 223.—S. Dak., Ill.; Ariz.
tenuis Melander, 1927: 326.—Wash.; B.C.
tersus Coquillett, 1895m: 439.—N.C., Ga.; Iowa, N.Y., La.
trivialis Loew, 1864a: 88 (Cent. 5, no. 76).—Maine, D.C.; Minn. to Que., s. to N.J.
truncatus Chillcott, 1962: 122.—B.C.
valgus Melander, 1927: 338.—Wash.
velox Melander, 1927: 336.—Wash.
venaticus Melander, 1927: 335.—Wash.; B.C., Idaho.
verpus Melander, 1927: 333.—Wash.
versipes Melander, 1927: 318.—Va.
versutus Melander, 1924a: 87.—Va.; Wis., N.Y., Vt.
vicarius Walker, 1857: 148.—U.S.; Maine.
vierecki Melander, 1902a: 340.—N. Mex.
vittatus Melander, 1927: 334.—Wash., Wyo.; Alta.
var. **perimerus** Melander, 1927: 334.—Alta.
vulnificus Melander, 1927: 339.—Mont.
xanthochiton Melander, 1927: 322.—Wash.
xanthopodus Melander, 1927: 367 (n. name for *gilvipes* Coquillett).—Alaska; B.C., Y.T., Ont., Que., Labr.
xanthopus, error.
gilvipes Coquillett, 1900h: 422 (1904: 36) (preocc. Meigen, 1822).—Alaska.

Family DOLICHOPODIDAE

(Dolichopidae)

By Richard H. Foote, Jack R. Coulson and Harold Robinson

Flies of the family Dolichopodidae are ubiquitous, although many species have restricted and localized habitats near water or in moist places. The adults are predaceous and are found on foliage, tree trunks, or damp earth, usually in swamps or along lightly shaded streams where they prefer small areas of sunlight. The males of some species, especially those of the genus *Dolichopus*, have characteristic mating dances. As far as known, most dolichopodid larvae are predaceous, and, except for a few species which mine stems, occur under the bark of trees, or are found in decaying vegetation, they are aquatic. Dolichopodids typically pupate within a cocoon made by the larva from available materials such as sand, mud, or bits of wood.

Because the relationships of the Nearctic and Old World faunas are poorly understood, many undetected synonyms probably exist in the present listing of Nearctic species. Further, much taxonomic work is yet needed to determine the best generic and subfamily placements of some of the species listed below. Hence, the present catalog is to be considered provisional; there is no up-to-date revision of the family in the Nearctic Region.

REFERENCES: Lundbeck, 1912 (rev., Denmark, biol.); Becker, 1922 (rev., Nearctic and Neotropical); Stackelberg, 1930–1941 (rev., Palearctic); Parent, 1938 (rev., France); Smith, 1952b (biol., immature stages); Wirth and Stone, 1956 (keys, biol. aquatic forms).

Subfamily SCIAPODINAE

(Psilopodinae, Chrysosomatinae, Agonosomatinae)

Genus MESORHAGA Schiner

Mesorhaga Schiner, 1868: 217. Type-species, *tristis* Schiner (orig. des.).

Aptorthus Aldrich, 1893b: 48. Type-species, *albiciliatus* Aldrich (Coquillett, 1910b: 509).

REFERENCE: Parent, 1929b (key).

albiciliata (Aldrich), 1893b: 48 (*Aptorthus*).—N.J.; N.C., Ga.
borealis (Aldrich), 1893b: 49 (*Aptorthus*).—Minn.
caerulea Van Duzee, 1930a: 1.—Conn.
caudata Van Duzee, 1915d: 94.—Ga.
clavicauda Van Duzee, 1925c: 154.—Mich.; Ill.
flavipes Van Duzee, 1932b: 9.—N.Y.

jucunda Becker, 1922: 377.—Ga., Paraguay. Neotropical specimen probably different sp.
nigripes (Aldrich), 1893b: 49 (*Aptorthus*).—Calif.
pallidicornis Van Duzee, 1925e: 178.—Ohio; Man. to Ont., s. to Tex. *pallicornis*, error.
townsendii (Aldrich), 1893b: 50 (*Aptorthus*).—Ariz.; Utah. ?Mass., ?N.J.
tristis Schiner.—Not Nearctic.
varipes Van Duzee, 1917a: 123.—Mass.; N.J.

Genus CONDYLOSTYLUS Bigot

Condylostylus Bigot, 1859b: 215, 223. Type-species, *Psilopus bituberculatus* Macquart (mon.).
Laxina Curran, 1934a: 230. Type-species, *Dolichopus patibulatus* Fabricius (orig. des.).
Psilopodinus, authors, not Bigot.
Psilopus, authors, not Meigen.
Sciapus, authors, not Zeller.

Condylostylus is a complex genus with wide distribution. In the Tropics, this genus and closely related ones are the predominant dolichopodids. *Laxina* is not a natural group as previously recognized; its relationship to *Condylostylus* and *Sciapus* needs further study.

REFERENCES: Van Duzee, 1915b (key, as *Sciapus*); Parent, 1929a (key); Curran, 1942a (rev., *Laxina*).

albicoxa (Walker), 1849: 651 (*Psilopus*).—Ohio, Mass., N.S. Unrecognized.
banksii (Van Duzee), 1915b: 23 (*Sciapus*).—Va.; N.Y.
calcaratus (Loew), 1861a: 93 (*Psilopus*).—Carolina; Iowa to Que., s. to Carolina.
caudatus (Wiedemann), 1830: 224 (*Psilopus*).—Ga.; Calif. to Que., s. to Fla.
virgo Wiedemann, 1830: 224 (*Psilopus*).—N.Y.
caudatulus Loew, 1861a: 93 (*Psilopus*).—Miss.
chalybeus (Van Duzee), 1914a: 390 (*Sciapus*).—Pa.
chrysoprasi (Walker), 1849: 646 (*Psilopus*).—West Indies; N.C., Fla., Mexico, Cent. Amer.
chrysoprasius, emend.
ciliipes Aldrich, 1901: 355 (*Psilopus*).—Mexico.
clavatus (Van Duzee), 1929: 15 (*Psilopus*).—Panama; ?Mass.
coloradensis Van Duzee, 1932b: 4.—Colo.; Nebr.

comatus (Loew), 1861a: 89 (*Psilopus*).—Middle States; Kans., Iowa, N.J., Fla.

comatus Schiner (error) of authors.

connectans (Curran), 1942a: 61 (*Laxina*).—Conn.; Mass., N.C.

crinitus (Aldrich), 1904: 283 (*Psilopodinus*).—Kans., Fla.; Ga.

albiapicatus Parent, 1929a: 206.—Ga.

debilis Becker, 1922: 356.—Ga.

delicatus (Walker), 1849: 645 (*Psilopus*).—N.Y.; N.C.

pallescens Bigot, 1888c: xxix (also 1890: 289) (*Psilopodinus*).—N.C.

diffusus (Wiedemann), 1830: 221 (*Psilopus*).—Brazil (as Savannah, error; Loew, 1864e: 234). Not Nearctic.

dimidiatus (Loew), 1862b: 216 (Cent. 2, no. 70) (*Psilopus*).—Mexico; Ariz.

erectus Becker, 1922: 296.—N.Y., Paraguay, Argentina. Neotropical specimens probably different sp.

femoratus (Say), 1823: 86 (1859b: 76) (*Dolichopus*).—Pa. Unrecognized.

flavipes (Aldrich), 1904: 284 (*Psilopodinus*).—S. Dak., Mass.; Man. to Maine, s. to S. Dak. and Fla.

femoratus Say of Say, 1829: 168 (1859b: 361).

furcatus (Van Duzee), 1915b: 21, key (descr., 1915d: 90) (*Sciapus*).—Ga., Fla.

fusitarsis Van Duzee, 1933a: 2.—N.Y.

graenicheri (Van Duzee), 1927c: 73 (*Psilopus*).—Fla.; Mexico to Colombia, West Indies.

guttulus (Wiedemann), 1830: 222 (*Psilopus*).—Brazil (as Savannah, error; Loew, 1864e: 237). Not Nearctic.

hirsutus Becker.—Not Nearctic.

inermis (Loew), 1861a: 93 (*Psilopus*).—Pa.; Wis. to Que., s. to N.C.

inornatus (Aldrich), 1901: 356 (*Psilopus*).—Mexico; Ariz.

jucundus (Loew), 1861a: 87 (*Psilopus*).—Cuba; ?Mass., ?Pa.

sipho, authors, not Say.

leonardi (Van Duzee), 1915b: 19, key (descr., 1915d: 89) (*Sciapus*).—Ga.; Fla. **N. comb.**

longitalus (Van Duzee), 1923d: 72 (*Psilopus*).—La.

melampus (Loew), 1862b: 215 (Cent. 2, no. 69) (*Psilopus*).—Mexico; Nev. to Colo., s. to Mexico.

mundus (Wiedemann), 1830: 227 (*Psilopus*).—Ga.; N.C., Fla., West Indies, Brazil.

ciliatus Loew, 1861a: 88 (*Psilopus*).—Fla.

nigrofemoratus (Walker), 1849: 650 (*Psilopus*).—N.S.; Colo. to Que. and N.S., s. to Ga.

nigrifemoratus, error.

scobinator Loew, 1861a: 91 (*Psilopus*).—N.Y., Ill.
scrobinator, error.
cockerelli Van Duzee, 1927c: 73 (*Psilopus*).—Colo.
scutellatus Harris, 1835: 597 (*Psilopus*). Nomen nudum.
noveboracensis (Van Duzee), 1915b: 25 (*Sciapus*).—N.Y.; Ind.
occidentalis (Bigot), 1888c: xxix (also 1890: 290) (*Psilopodinus*).—Calif.; Mexico.
ogilvii (Malloch), 1932a: 124 (*Sciapus*).—Bermuda.
parvicauda (Van Duzee), 1927c: 72 (*Psilopus*).—Ont.
patibulatus (Say), 1823: 87 (1859b: 76) (*Dolichopus*).—Fla.; Nebr. to Que., s. to Fla., ?Alta.
amatus Walker, 1849: 648 (*Psilopus*).—N.Y.
carolinensis Bigot, 1888c: xxix (also 1890: 291) (*Psilopodinus*).—Carolina.
pilicornis (Aldrich), 1904: 282 (*Psilopodinus*).—Wash., Idaho, Calif.; B.C.
filicornis, error.
portoricensis (Macquart), 1834a: 450 (*Psilopus*).—P.R.; Fla.
radians (Macquart), 1834a: 450 (*Psilopus*).—N. Amer.; Fla., Cuba.
semicomatus (Van Duzee), 1929: 4 (*Psilopus*).—Guatemala; Tex., British Guiana. **N. comb.**
similis (Aldrich), 1901: 359 (*Psilopus*).—Mexico, Brazil; Tex.
sipho (Say), 1823: 84 (1859b: 75) (*Dolichopus*).—U.S.; se. Canada to Tex. and Fla.
gemmifer Walker, 1849: 646 (*Psilopus*).—N.Y.
scaber Loew, 1861a: 85 (*Psilopus*).—Pa.
superbus (Wiedemann).—Not Nearctic.
tonsus (Aldrich), 1901: 364 (*Psilopus*).—Mexico; N.C., Fla.
viridicoxa (Aldrich), 1904: 284 (*Psilopodinus*).—La.; Mo., Ind., N.J.
viridis Parent, 1929a: 238.—Pa.

Genus SCIAPUS Zeller

Psilopus Meigen, 1824: 35 (preocc. Poli, 1795). Type-species, *Dolichopus platypterus* Fabricius (Westwood, 1840: 134).
Sciapus Zeller, 1842: 831 (n. name for *Psilopus* Meigen). Type-species, *Dolichopus platypterus* Fabricius (aut.).
Sciopus, error.
Psilopodinus Bigot, 1888b: xxiv (also 1888c: xxix). Type-species, *Dolichopus platypterus* Fabricius (orig. des.).
Gnamptopsilopus Aldrich, 1893b: 48. Type-species, *Psilopus scintillans* Loew (Coquillett, 1910b: 547).

Agonosoma, authors, not Guérin-Méneville.

REFERENCE: Van Duzee, 1915b (rev.).

amabilis Parent, 1929a: 239.—Ga.
bicolor (Loew), 1861a: 96 (*Psilopus*).—Middle States; N.C.
bradleii Van Duzee, 1915b: 24.—Ga.; N.C., Fla.
costalis (Aldrich), 1904: 286 (*Agonosoma*).—Ga.; Fla.
divergens Van Duzee, 1933a: 3.—Wash.
dorsalis (Loew), 1866a: 180 (Cent. 6, no. 85) (*Psilopus*).—Cuba; Mo., D.C., S.C., Fla.
viridivittatus Robinson, 1960: 272 (*Condylostylus*).—D.C.
filipes (Loew), 1861a: 99 (*Psilopus*).—Middle States; Minn., Conn.
fuscinervis (Van Duzee), 1926g: 56 (*Psilopus*).—Ont.
infumatus (Aldrich), 1901: 365 (*Gnamptopsilopus*).—Mexico; Ariz.
lectus Becker, 1922: 366.—Amer. Probably not Nearctic.
pallens (Wiedemann), 1830: 219 (*Psilopus*).—N.Y.; Mich., Mass. to N.C.
pollinosus Van Duzee, 1915b: 22, key (descr., 1915d: 93).—Ga.
pressipes Parent, 1929a: 244.—Carolina.
pruinosus Coquillett, 1904f: 186.—Fla.
psittacinus (Loew), 1861a: 96 (*Psilopus*).—Fla.; N.J., Ga., West Indies.
rotundiceps (Aldrich), 1904: 286 (*Agonosoma*).—Fla.
scintillans (Loew), 1861a: 94 (*Psilopus*).—Middle States; Minn. and Iowa to N.H.
fulgidus Parent, 1929a: 242.—N.H.
dubiosus Van Duzee, 1932b: 8.—N.Y.
tener (Loew), 1862b: 217 (Cent. 2, no. 71) (*Psilopus*).—Pa.; Mich., Que. and Maine to Fla.
trisetosus Van Duzee, 1932a: 2.—Fla.
unifasciatus (Say), 1823: 85 (1859b: 75) (*Dolichopus*).—Pa.; Ont. and Mich. to R.I., s. to La. and Fla.
sayi Wiedemann, 1830: 219 (*Psilopus*).—Pa.
ungulivena Walker, 1857: 149 (*Psilopus*).—U.S.
plumosa Van Duzee, 1932a: 1 (*Chrysosoma*).—Ill. **N. syn.**
variegatus (Loew), 1861a: 95 (*Psilopus*).—Fla.; N.J., Tex., Ga., Neotropical.

Genus PSILOPIELLA Van Duzee

Psilopiella Van Duzee, 1914c: 438. Type-species, *rutila* Van Duzee (orig. des.).

rutila Van Duzee, 1914c: 439.—Fla.; Nebr.

Subfamily DOLICHOPODINAE

Genus DOLICHOPUS Latreille

Dolichopus Latreille, 1796: 159. Type-species, *Musca ungulata* Linnaeus (Latreille, 1810: 443).

Hygroceleuthus Loew, 1857a: 10. Type-species, *Dolichopus latipennis* Fallén (Coquillett, 1910b: 554).

Spathichira Bigot, 1888b: xxiv (also 1888c: xxx). Type-species, *Dolichopus funditor* Loew (orig. des.).

Spatichira Bigot, 1888c: xxx, emend. or error.

The genus *Dolichopus* contains some of the largest and most common members of the family, and is by far the largest North American dolichopodid genus. Aside from the observations by Steyskal, little is known about the biology of the adults or immature stages in North America.

References: Van Duzee, Cole, and Aldrich, 1921 (rev.); Van Duzee and Curran, 1934a (key, males), 1934b (key, females); Steyskal, 1938b, 1942b, 1947c, 1959b (biol.).

abbreviatus Van Duzee, 1921c: 144.—Labr.; Maine.

aboriginis Harmston and Knowlton, 1943a: 102.—Utah.

abrasus Van Duzee, 1921c: 162.—N.Y.

abruptus Aldrich, 1922b: 14.—N.Y.; Mich.

absonus Van Duzee, 1921c: 294.—N.Y.; Iowa, Mo., Mich., Ind., Ont., Que.

absconus, error.

accidentalis Harmston and Knowlton, 1941b: 93.—Colo.

acricola Van Duzee, 1921c: 58.—Calif.

acuminatus Loew, 1861a: 12.—D.C.; Man. to Que., s. to Colo. and D.C.

acutus Van Duzee, 1921c: 142.—Mass.

adaequatus Van Duzee, 1921c: 53.—Nev.; B.C. to Minn., s. to N. Mex.

adultus Van Duzee, 1921c: 98.—N.Y.; Mich., Maine, Mass., N.J.

aequalis Van Duzee, 1921c: 81.—N.Y.; Que.

aeratus Van Duzee, 1921c: 211.—Colo.; B.C., Alta., Wyo.

aethiops Van Duzee, 1921c: 296.—Ind.

affinis Walker, 1849: 659.—N.S.; Wis. and Ill. to N.S.

splendidulus Loew, 1864a: 91 (Cent. 5, no. 82).—N.H.

afflictus (Osten Sacken), 1877: 313 (*Hygroceleuthus*).—Calif.; Wash. to Wyo., s. to Calif. and N. Mex.

affluens Van Duzee, 1921c: 114.—Wash.; Colo.

agronomus Melander and Brues, 1900: 140.—Mass.; N.H.

ainsliei Van Duzee, 1921c: 272.—Minn.; Nebr., Que., N.Y.

alacer Van Duzee, 1921c: 86.—Ind.; Ind. to Que., s. to La. and Fla., ?Man.

albertensis Curran, 1922i: 286.—Alta.; Colo.

albiciliatus Loew, 1862b: 211 (Cent. 2, no. 59).—Ill.; Iowa to Que., s. to N.J.

atrovirens Harris *in* Johnson, 1925c: 77. Nomen nudum.

albicoxa Aldrich, 1893a: 10.—Mass., Conn.; Wis. to Que., s. to N.J., ?Alta.

aldrichii (Wheeler), 1899: 3 (*Hygroceleuthus*).—Idaho, Wyo.; B.C., Wash., Utah, Colo.

amnicola (Melander and Brues), 1900: 130 (*Hygroceleuthus*).—Colo.; Idaho to Man., s. to Calif. and Colo.

var. **robertsoni** Curran, 1923h: 191 (as sp.).—Man.; Colo.

amphericus Melander and Brues, 1900: 146.—Wis.; Alaska, Alta., Colo.

amplipennis Van Duzee, 1921c: 197.—Colo.; Mich.

andersoni Curran, 1924m: 304.—B.C.

angustatus Aldrich, 1893a: 15.—Mass.; Minn., Vt., N.H., Maine.

angusticornis Van Duzee, 1921c: 79.—Ind.

apheles Melander and Brues, 1900: 144.—Wis.; Sask., Mich., Que.

appendiculatus Van Duzee, 1921c: 72.—Nev.; Utah.

argentipes Van Duzee, 1921c: 61.—Wash.

arizonicus Harmston, 1951b: 103.—Ariz.; Tex.

aurifacies Aldrich, 1893a: 20.—Tenn., Kans.

aurifex Van Duzee, 1921c: 224.—Oreg.; N. Mex.

bakeri Cole, 1912a: 839.—Calif.; B.C. to Sask., s. to N. Mex.

barbaricus Van Duzee, 1921c: 41.—Colo.

barbicauda Van Duzee, 1921c: 76.—Ont.; B.C. to P.E.I., s. to Iowa and N.Y.

barbipes Van Duzee, 1921c: 129.—Nev.; Colo.

barycnemus Coquillett, 1900h: 424 (1904: 38).—Alaska.

braycnemus, error.

beameri Harmston and Knowlton, 1941b: 92.—Ariz.

beatus Van Duzee, 1921c: 63.—Idaho.

bifractus Loew, 1861a: 19.—Ill., Nebr.; Alta. to Que., s. to Utah, Mo., and N.Y., ?Mexico.

bisetosus Van Duzee, 1921c: 77.—Idaho.

blandus Van Duzee, 1921c: 176.—Colo.; Mont., Utah, ?Ont.

bolsteri Van Duzee, 1921c: 249.—Nfld.

brevicauda Van Duzee, 1921c: 108.—N.H.

breviciliatus Van Duzee, 1930c: 71.—Alta.

brevimanus Loew, 1861c: 14.—D.C.; N.W.T., Man. to Que., s. to Wis. and D.C.

brevipennis Meigen, 1824: 89.—Sweden; Alaska to N.W.T., s. to B.C. and P.E.I., n. Europe.

brevipilosus Van Duzee, 1933b: 20 (n. name for *breviciliatus* Van Duzee).—Que.

breviciliatus Van Duzee, 1933a: 13 (preocc. Van Duzee, 1930).—Que.

bruesi Van Duzee, 1921c: 223 (n. name for *propinquus* Melander and Brues).—B.C.; Wash., Calif., Wyo.

propinquus Melander and Brues, 1900: 132 (*Hygroceleuthus;* as *consanguineus* var.; preocc. Zetterstedt, 1852).—B.C.

bruneifacies Van Duzee, 1933a: 14.—Colo.

brunneus Aldrich, 1893a: 14.—S. Dak.; Colo.

brunneus Van Duzee (error) Van Duzee and Curran, 1934a: 4.

bryanti Van Duzee, 1921c: 104.—Labr.; Que.

burnesi Van Duzee, 1921c: 64.—N.Y.; Mich., Que., Mass., N.J.

calainus Melander and Brues, 1900: 138.—Ill.; Maine.

calcaratus Aldrich, 1893a: 8.—N.J.; Ont. to Que., s. to Iowa and N.J.

californicus Van Duzee, 1921c: 99.—Calif.; Wash.

calvimontis James, 1939a: 221.—Colo.

canadensis Van Duzee, 1921c: 141.—Ont.; Sask. to Que., s. to Wyo. and Mass.

canaliculatus Thomson, 1869: 512.—Calif.; Nev.

carolinensis Van Duzee, 1921c: 239.—N.C.; Fla.

cavatus Van Duzee, 1921c: 226.—Oreg.; Calif.

celeripes Van Duzee, 1921c: 243.—Oreg.; Utah, Colo., Ont.

chrysostomus Loew, 1861a: 23.—D.C.; Ont. to N.S., s. to Ga.

coercens Walker, 1849: 661.—N.Y.; S. Dak. and Iowa to N.S.

conterminus Walker, 1849: 664.—N.Y.

batillifer Loew, 1861a: 15.—Middle States.

coloradensis Aldrich, 1893a: 26 (n. name for *agilis* Aldrich).—Colo.; Alta., N. Mex., Ont., Que.

agilis Aldrich, 1893a: 16 (preocc. Meigen, 1824).—Colo.

comatus Loew, 1861a: 23.—Pa., Md.; Wis. to Que., s. to Tex. and N.C.

cornutus (error) Johnson, 1910b: 756.

compactus Van Duzee, 1921c: 206.—Oreg.; B.C.

completus Van Duzee, 1921c: 210.—Calif.; B.C.

comptus Van Duzee, 1921c: 160.—Calif.

confinis Walker, 1849: 664.—Ont. Unrecognized.

consanguineus (Wheeler), 1899: 5 (*Hygroceleuthus*).—Calif.; Idaho, Utah, Colo.

conspectus Van Duzee, 1921c: 30, 65 (as *conspicuus*, p. 13).—Idaho; B.C. to Man., s. to Colo.

contiguus Walker, 1849: 663.—N.Y.; N. Dak. to Que., s. to S. Dak., Ill., and Va.
splendidus Loew, 1861a: 14.—Ill.
convergens Aldrich, 1893a: 9.—Wash., Oreg.
coquilletti Aldrich, 1893a: 19.—Calif.; Wash. to P.E.I., s. to Calif. and Colo.
corax Osten Sacken, 1877: 314.—Calif.; ?B.C.
correus Steyskal, 1959b: 1.—Mich.; Minn. to N.Y., s. to Tenn. and N.C.
crassicornis Aldrich, 1922b: 10.—Alaska.
crenatus (Osten Sacken), 1877: 312 (*Hygroceleuthus*).—Calif.; B.C. to P.E.I., s. to Calif. and Ariz.
cuprinus Wiedemann, 1830: 230 (n. name for *cupreus* Say).—Md.; N.W.T., B.C. to N.S., s. to Nev. and Va.
cupreus Say, 1823: 86 (1859b: 76) (preocc. Fallén, 1823).—Md.
czekanowskii Stackelberg, 1928: 263.—n. Siberia; n. Alaska.
dakotensis Aldrich, 1893a: 11.—S. Dak.; Mont. and Man. to Que., s. to Ill.
dasyops Malloch, 1919f: 49.—N.W.T.
dasypodus Coquillett, 1910c: 42.—N.H.; Alaska, Mich., Que., Maine, N.Y.
decorus Van Duzee, 1921c: 153.—Ill.; Mich. to N.Y.
defectus Van Duzee, 1921c: 143.—Ont.; Man. to Que., s. to Conn., ?N. Mex.
deflectus, error.
delicatus Aldrich, 1922b: 12.—Labr.
demissus Van Duzee, 1921c: 63.—N.Y.; N.J.
detersus Loew, 1866b: 44 (Cent. 7, no. 79).—N.Y.; Alaska, Man. to Que., s. to S. Dak., Iowa, and N.Y.
digitus Van Duzee, 1921c: 283.—La.
discessus Walker, 1849: 662.—Mass. Unrecognized.
discolor Van Duzee, 1921c: 116.—N.Y.; N. Dak. to Vt., s. to Ill.
distractus Walker, 1849: 662.—N.Y. Unrecognized.
diversipennis Curran, 1922i: 286.—Alta.
divigatus Harmston, 1952: 284.—Oreg.
dolosus Parent, 1934b: 267.—Wis.
domesticus Van Duzee, 1921c: 246.—N.Y.; Mich. to N.Y., N.J., Va.
dorsalis Van Duzee, 1921c: 161.—N. Mex.; Ariz.
dorycerus Loew, 1864a: 93 (Cent. 5, no. 85).—N.H.; N.H. to Ga.
duplicatus Aldrich, 1893a: 18.—Wash.; Wash. to Mont., s. to Calif. and Utah.
elegans Aldrich, 1922b: 12.—Colo.

enigma Melander and Brues, 1900: 139.—Colo.; Idaho, Wyo., Utah, Mich.

eudactylus Loew, 1861a: 16.—N.Y.; Kans. and Iowa to N.S., s. to N.C.

edactylus, error.

evolvens Parent, 1929a: 173.—N.H.

exclusus Walker, 1849: 663.—Ont. Unrecognized.

facirecedens Harmston and Knowlton, 1939c: 83.—S. Dak.; Iowa.

fallax Van Duzee, 1933a: 14.—Colo.

finitus Walker, 1849: 662.—N.Y.; Kans., Wis. to N.S., s. to Pa.

scoparius Loew, 1864e: 70.—Maine, Mass.

atricornis Harris, 1835: 597. Nomen nudum.

flagellitenens Wheeler, 1890: 339.—Wis.; S. Dak. to N.H., s. to Colo.

flaviciliatus Van Duzee, 1921c: 152.—Ont.

flavicoxa Van Duzee, 1921c: 188.—Wis.; B.C. to N.Y., s. to W. Va.

flavifacies Van Duzee, 1933a: 15.—Que.

flavilacertus Van Duzee, 1921c: 110.—Md.; Ont. to Mass., s. to Tenn. and N.C.

formosus Van Duzee, 1921c: 42.—Calif.

fortis Aldrich, 1922b: 8.—Alaska.

frontalis Van Duzee, 1928b: 40.—Sask.; Alaska.

fucatus Van Duzee, 1921c: 113.—Wash.

fulvipes Loew, 1862b: 212 (Cent. 2, no. 61).—Ill.; Alta. to N.S., s. to N.J.

fumosus Van Duzee, 1921c: 74.—Sask.

funditor Loew, 1861a: 22.—Middle States; Ind. to Ont., s. to La. and Ga.

frauditor, error.

var. **distinctus** Van Duzee, 1921c: 274.—La.; Ont., N.J.

genualis Van Duzee, 1921c: 119.—Maine; Ont., Que., Nfld.

gladius Van Duzee, 1921c: 136 (as *socius* var.).—Ont.; Ont. to N.S., s. to Mich. and N.Y., also Alaska.

grandis Aldrich, 1893a: 21.—Calif.; Wash., Oreg., Nev.

gratus Loew, 1861a: 11.—N.Y.; Wis. to Que., s. to Ga.

mercieri Parent, 1929a: 175.—Ga.

groenlandicus Zetterstedt, 1843: 528.—Greenland; Alaska, Colo., Labr.

harbecki Van Duzee, 1921c: 233.—Pa.; Que. and Maine to Ga.

hardyi Harmston, 1951b: 105.—Ariz.; N. Mex.

hastatus Loew, 1864e: 59.—Alaska; Alaska to Calif.

helenae James, 1939a: 220.—Colo.

hirsutitarsis Harmston, 1952: 281.—Calif.

humilis Van Duzee, 1921c: 108.—Alaska; N.W.T., Greenland.

idahoensis (Aldrich), 1894: 154 (*Hygroceleuthus*).—Idaho; Oreg. to S. Dak., s. to Calif. and Colo.
idoneus Van Duzee, 1921c: 140.—N.Y.; Vt.
imperfectus Van Duzee, 1921c: 240.—Ill.
incisuralis Loew, 1861a: 25.—N.Y.; N.W.T., Ont. to N.H., s. to Ga.
platyprosopus Loew, 1866b: 44 (Cent. 7, no. 80).—N.W.T.
incongruus Wheeler, 1890: 338.—Wis.; Wis., N.H., s. to Tenn. and N.C.
indianus Harmston and Knowlton, 1946a: 672.—Ind.
indigenus Van Duzee, 1921c: 139.—Idaho; Wash. and Man. to N.S., s. to Iowa.
inflatus Aldrich, 1922b: 11.—Alaska.
integripes Parent, 1929a: 174.—B.C.
intentus Melander and Brues, 1900: 137.—Ill.
interjectus Van Duzee, 1923d: 70.—Mont.
iowaensis Harmston and Knowlton, 1939c: 84.—Iowa.
jaquesi Harmston and Knowlton, 1939d: 87.—Iowa.
johnsoni Aldrich, 1893a: 7.—N.J.; Ind. to N.H., s. to N.C.
jugalis Tucker, 1911: 106.—Colo.; Wash. to Man., s. to Utah.
procerus Van Duzee, 1921c: 209.—Colo.
kansensis Aldrich, 1893a: 8.—Kans.
kleini Curran *in* Van Duzee and Curran, 1934a: 25.—N.J.
laciniatus Coquillett, 1910c: 42.—Pa.; Mich. and Ont. to N.C.
lamellipes Walker, 1849: 660.—Ont.; Alaska, Man. to Labr., Europe.
boreus Van Duzee, 1921c: 204.—Labr.
laticornis Loew, 1861a: 12.—Conn. (Loew, 1864c: 29); Wyo. to Que., s. to Fla.
latipes (Loew), 1861a: 5 (*Hygroceleuthus*).—Ill.; B.C. to Que., s. to Wyo., Iowa, and Mass.
var. **cognatus** (Melander and Brues), 1900: 129 (*Hygroceleuthus*).—Mass., Ill.
latronis Van Duzee, 1921c: 232.—Labr.
leucacra James, 1939a: 225.—Colo.
litoralis Van Duzee, 1921c: 82.—Wash.; Alaska.
lobatus Loew, 1861a: 24.—Ont.; B.C. and Idaho to N.Y., s. to Iowa.
longicornis Stannius, 1831a: 53.—Germany; ?Alaska.
acuticornis, authors, not Wiedemann.
longimanus Loew, 1861a: 14.—Ont.; Alaska, B.C. to N.H., s. to Colo. and Va.
longipennis Loew, 1861a: 21.—Ill.; B.C. to Que., s. to Fla.
longus Aldrich, 1922b: 13.—Colo.
lundbecki Curran, 1923k: 236.—Ont.

luteipennis Loew, 1861a: 18.—D.C.; B.C. to Mich. and Que., s. to Va.

greenei Van Duzee, 1921c: 192.—Va. **N. syn.**

maculitarsis Van Duzee, 1925e: 184.—Man.; N.W.T., Alta. to Man., Colo.

magnantenna James, 1939a: 222.—Colo.

manicula Van Duzee, 1921c: 56.—Colo.; Alaska, B.C. and Alta. to N. Mex.

mannerheimi Zetterstedt, 1838: 707.—Lapland; Alaska, n. Europe.

marginatus Aldrich, 1893a: 17.—Conn.; Man. to N.S., s. to Fla.

melanderi Van Duzee, 1921c: 70.—Wash.; B.C.

melanocerus Loew, 1864a: 93 (Cent. 5, no. 86).—Canada; Mich. to Nfld. and Conn.

micropygus Wahlberg, 1851: 216.—Sweden; ?Colo.

monticola Van Duzee, 1921c: 40.—Wash.; ?B.C.

multisetosus Van Duzee, 1921c: 49.—Calif.; Utah, Colo., ?Maine.

myosotus Osten Sacken, 1887a: 213.—Mexico; B.C. to Iowa, s. to Mexico, ?N.J.

neomexicanus Harmston, 1951b: 104.—N. Mex.

nigricauda Van Duzee, 1921c: 46.—Colo.; N.W.T., B.C. to Man., s. to Calif. and Colo.

nigricornis Meigen, 1824: 82.—Europe; Alaska, B.C. to N.S., s. to Colo. and N.Y., Europe.

discifer Stannius, 1831a: 57.—Germany.

tanypus Loew, 1861a: 24.—Man., Ont.

nigricoxa Van Duzee, 1926h: 230.—B.C.; Utah, Colo.

nigrilineatus Van Duzee, 1924c: 248.—Alta.; Man., Colo.

nigrimanus Van Duzee, 1921c: 45.—Idaho; B.C. and Idaho to Ont.

nigroapicalis Van Duzee, 1930d: 125.—Colo.

nigriapicalis, error.

nodipennis Van Duzee, 1921c: 102.—N.Y.; Que to Ont. and Conn.

nomadus Harmston and Knowlton, 1942c: 18.—Alta.

nubifer Van Duzee, 1921c: 75.—Nev.; Man., Idaho, Utah, Nebr., Mich.

nudus Loew, 1864e: 41.—N.W.T.; Alaska to N.W.T., s. to Alta. and Que.

obcordatus Aldrich, 1893a: 14.—Wyo., Colo.; Alaska to Alta., s. to Calif. and N. Mex., Mich.

obsoletus Van Duzee, 1921c: 121.—N.H.; Maine.

occidentalis Aldrich, 1893a: 19.—Wash.; B.C. and Idaho to Calif., ?P.E.I.

omnivagus Van Duzee, 1921c: 216.—N.Y.; Alaska, Alta. to Maine, s. to Mont. and Iowa.

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opportunus Van Duzee, 1921c: 107.—Idaho; Utah.
oregonensis Van Duzee, 1927e: 148.—Oreg.
ornatipennis Van Duzee, 1921c: 132.—Mass.; N.Y. to N.S., s. to N.C.
ovatus Loew, 1861a: 13.—Middle States; B.C. to Que., s. to Idaho and N.C., ?Calif.
pachycnemus Loew, 1861a: 13.—Middle States; Man. to Que., s. to Mont. and Iowa.
packardi Van Duzee, 1921c: 83.—Labr.; Alta., Que.
refulgens Harmston and Knowlton, 1939b: 349.—Alta. **N. syn.,** F. C. Harmston *in litt.*
palaestricus Loew, 1864a: 92 (Cent. 5, no. 84).—N.H.; Ont. and N.H., s. to Ill. and N.J.
paluster Melander and Brues, 1900: 136.—Calif.; Alta., Oreg.
pantomimus Melander and Brues, 1900: 142.—Mass.; Ont. to Mass., s. to Tenn. and N.C.
partitus Melander and Brues, 1900: 135.—Colo.
parvicornis Van Duzee, 1921c: 231.—Ont.; Minn.
parvimanus Van Duzee, 1933a: 16.—Colo.
penicillatus Van Duzee, 1921c: 227 (n. name for *ciliatus* Aldrich).—S. Dak.; B.C. to Maine, s. to Calif. and N.Y.
ciliatus Aldrich, 1893a: 25 (*Hygroceleuthus*; preocc. Walker, 1849).—S. Dak.
pensus Aldrich, 1922b: 8.—Alaska.
pernix Melander and Brues, 1900: 141.—B.C.; Wash., Alta., Sask.
perplexus Van Duzee, 1923d: 71 (n. name for *melanderi* Becker).—Wyo.
misellus Melander, 1900: 136 (preocc. Boheman, 1851).—Wyo.
melanderi Becker, 1922: 15 (as *melandri;* n. name for *misellus* Melander, but preocc. Van Duzee, 1921).—Wyo.
phyllocerus Vockeroth, 1962: 502.—N.C.
pilatus Van Duzee, 1921c: 167.—Labr.; Alta.
pingreensis James, 1939a: 223.—Colo.
plumipes (Scopoli), 1763: 334 (*Musca*).—Yugoslavia; Alaska to N.W.T., s. to Calif., Ark., and Mich., Greenland, Mexico, Europe.
ciliatus Walker, 1849: 661.—Ont.
sequax Walker, 1849: 666.—Ont.
plumitarsis Fallén, 1823c: 10.—Sweden; Alaska, Ont., n. Europe.
pulmitarsis, error.
plumosus Aldrich, 1893a: 18.—Wash.; B.C., Alta., Nev.
pollex Osten Sacken, 1877: 314.—Calif.; Alta., Oreg., Idaho, Utah, Nev.

porphyrops Van Duzee, 1921c: 169.—N.H.; Ont. to N.S., s. to Mich., N.Y., and Mass.
praeustus Loew, 1862b: 212 (Cent. 2, no. 62).—Ill.; Mo., Ind., Conn.
puberiseta Parent, 1934b: 268.—Va.
pugil Loew, 1866b: 43 (Cent. 7, no. 77).—Canada; Ont. to N.S., s. to N.J.
henshawi Wheeler, 1890: 340.—Mass.
pulcher Walker, 1852: 215.—U.S. Unrecognized.
pulchrimanus (Bigot), 1888c: xxx (also 1890: 292) (*Spathichira*).—Rocky Mts.; Wis. to N.Y., s. to Tex. and La.
willistonii Aldrich, 1893a: 22.—Kans.
quadrilamellatus Loew, 1864a: 92 (Cent. 5, no. 83).—N.J. (as N.Y., error); Ont. to Conn., s. to Tenn. and N.C.
ramifer Loew, 1861a: 19.—Man., Nebr.; Alaska, Oreg. to Que., s. to Calif., Tex., and Va.
recticosta Aldrich, 1922b: 13.—Fla.
reflectus Aldrich, 1893a: 12.—Pa.; Ont. and Que., s. to Kans. and Fla.
remipes Wahlberg, 1839: 13.—Sweden; Wash. to Man. and Maine, s. to Wis., n. Europe.
remotus Walker, 1849: 666.—N. Amer.; N.Y.
cuniculus Van Duzee, 1921c: 145.—N.Y.
remus Van Duzee, 1921c: 96.—N.Y.; Ill., Ohio, Ont., Vt.
renidescens Melander and Brues, 1900: 143.—Colo.; Alaska, B.C. to Man., s. to S. Dak. and Iowa, ?Maine.
reticulus Van Duzee, 1926h: 231.—Oreg.; B.C.
retinens Van Duzee, 1921c: 90.—Ind.; S. Dak. and Nebr. to Ont., s. to Ga.
ruficornis Loew, 1861a: 21.—Middle States; Kans. to N.Y., s. to Ark. and Va.
rupestris Haliday, 1833: 164.—England; Alaska, n. Europe.
festinans Zetterstedt, 1838: 708.—Lapland.
sarotes Loew, 1866b: 44 (Cent. 7, no. 81).—Ill.; Kans. to Ont. and Mass.
sorotes, error.
scapularis Loew, 1861a: 22.—Ill.; Wis. to N.H., s. to Tex. and Ga.
scopifer James, 1939a: 224.—Colo.
sedulus Van Duzee, 1921c: 93.—Idaho; N.W.T., Ind.
separatus Walker, 1849: 665.—Ont. Unrecognized.
serratus Van Duzee, 1921c: 155.—Maine; Wis., Mich., N.Y., Labr.
setifer Loew, 1861a: 12.—N.Y.; Ont. and Que., s. to N.C.
michiganus Harmston and Knowlton, 1945: 78.—Mich. **N. syn.,** F. C. Harmston *in litt.*
setosus Loew, 1862b: 213 (Cent. 2, no. 63).—Mass.; Ont. to N.S., s. to N.C., ?B.C.

sexarticulatus Loew, 1864e: 62.—D.C.; Ill. and Mich. to D.C., s. to Tex. and S.C.
shelfordi Curran *in* Van Duzee and Curran, 1934a: 26.—Man.
sicarius Van Duzee, 1921c: 261.—Ont.; Mich., Que., N.S.
silvicola Harmston, 1951b: 106.—N. Mex.
simplicipes Aldrich, 1922b: 9.—Alaska.
simulans Van Duzee, 1926h: 231.—Man.
sincerus Melander, 1900: 136.—Wis.; Oreg., Idaho, Wis. to N.S., s. to N.C.
var. **subdirectus** Van Duzee, 1921c: 118.—Mass.; N.Y., N.H., Maine.
slossonae Van Duzee, 1921c: 235.—N.H.; Que. to Tenn. and N.C.
soccatus Walker, 1849: 666.—Ont. Unrecognized.
socius Loew, 1862b: 211 (Cent. 2, no. 60).—Ill.; Oreg. to Que. and N.S., s. to Iowa and N.J.
solidus Van Duzee, 1921c: 104.—Alaska; Colo.
sordidatus Van Duzee, 1921c: 41.—Idaho.
speciosus Van Duzee, 1921c: 208.—N. Mex.; Alta., Utah, Colo.
sphaeristes Brues, 1901a: 44.—Tex.; Tenn.
sporadicus Harmston and Knowlton, 1942c: 17.—Utah.
squamosus Van Duzee, 1921c: 43.—Idaho; Calif., Nev., Wyo., Utah.
stenhammari Zetterstedt, 1843: 521 (n. name for *annulipes* Zetterstedt).—Lapland; Alaska, Ont. to Labr., s. to N.Y., n. Europe.
annulipes Zetterstedt, 1838: 710 (preocc. in *Dolichopus* by Meigen, 1824, orig. *Porphyrops*, now *Sympycnus*).—Lapland.
stricklandi Harmston and Knowlton, 1939b: 350.—Alta.
subciliatus Loew, 1864e: 42.—N.W.T.; Ont., N.S.
subcostatus Van Duzee, 1930d: 124.—Calif.
subspina Van Duzee, 1928b: 41.—Sask.
sufflavus Van Duzee, 1921c: 213.—Idaho; Alta., Wash., Mont., Utah, Colo.
subflavus, error.
superbus Van Duzee, 1921c: 287.—Calif.
talus Van Duzee, 1921c: 268.—Calif.
tener Loew, 1861a: 17.—Ill.; Wis., Ont., Que., N.Y.
tenuimanus Van Duzee, 1932a: 12.—N.C.
tenuipes Aldrich, 1894: 155.—Idaho; B.C. and Idaho to Wash., Calif.
terminalis Loew, 1866b: 43 (Cent. 7, no. 78).—N.Y.; Wyo. to Que., s. to Iowa, ?Wash., ?D.C.
germanus Wheeler, 1890: 341 (preocc. Wiedemann, 1817).—Wis.
terminatus Walker, 1849: 665.—N. Amer. Unrecognized.

tetricus Loew, 1864e: 33.—N.W.T.; Que.
tonsus Loew, 1861a: 16.—D.C.; Mich. and Ind. to Mass., s. to N.C.
townsendi Aldrich, 1922b: 15.—N. Mex.; Ariz.
trisetosus Van Duzee, 1921c: 122.—Mass.; Ont. to N.B., s. to N.Y.
uliginosus Van Duzee, 1923d: 69.—B.C.
umbrosus Van Duzee, 1921c: 100.—Wis.; Ont.
ungulatus (Linnaeus), 1758: 598 (*Musca*).—Europe; Wis.
aeneus De Geer, 1776: 194 (*Nemotelus*).—Europe.
utahensis Harmston and Knowlton, 1943a: 101.—Utah.
uxorcula Van Duzee, 1921c: 186.—Alaska; Alaska, Alta. to Man., s. to Calif.
vanduzeei Curran, 1922i: 285.—Alta.
variabilis Loew, 1861a: 17.—N.Y.; B.C. to N.S., s. to Colo. and N.C.
var. **gracilis** Aldrich, 1893a: 15 (as sp.).—Pa.; Ont. to Maine, s. to Tenn.
varipes Coquillett, 1900h: 425 (1904: 39).—Alaska; Alaska to N. Mex.
vegetus Harmston, 1952: 283.—Alaska.
vernaae Harmston and Knowlton, 1940b: 129.—Utah; Wyo.
versutus Van Duzee, 1921c: 253.—Ont.; Ont. and Que., s. to Kans. and Va.
vigilans Aldrich, 1893a: 13.—Kans.; Ont. to N.B., s. to Kans. and Ohio.
virga Coquillett, 1910c: 41.—N.J., Ont. to N.S., s. to N.J.
virginiensis Van Duzee, 1921c: 236.—Va.; N.H. to Ga.
lobipennis Van Duzee, 1930a: 3.—Conn.
viridis Van Duzee, 1921c: 44.—Idaho; B.C., Mont., Utah, Colo.
vittatus Loew, 1861a: 20.—Ill.; S. Dak. to Que., s. to Kans. and N.J.
walkeri Van Duzee, 1921c: 207.—Colo.; Man., N. Mex.
wheeleri (Melander and Brues), 1900: 126 (*Hygroceleuthus*).—Mass.; Man. to N.S., s. to Mass.
xanthocnemus Loew, 1864e: 31.—Alaska; B.C., Colo., Ont., Que., N.H.

Genus HERCOSTOMUS Loew

Hercostomus Loew, 1857a: 9. Type-species, *Sybistroma longiventris* Loew (orig. des.).

albipodus Harmston and Knowlton, 1941a: 131.—Utah.
aurifer (Thomson), 1869: 512 (*Dolichopus*).—Calif.
cacheae Harmston and Knowlton, 1941a: 131.—Utah; Calif., Wyo.
chaetilamellus Harmston and Knowlton, 1941a: 127.—Calif.
coloradensis Harmston, 1952: 286.—Colo.

convergens (Van Duzee), 1920: 49 (*Gymnopternus*).—Nev.; S. Dak.
costalis Van Duzee, 1923d: 65.—Ont.; Iowa, Mich., Ohio.
cryptus Harmston and Knowlton, 1941a: 130.—Utah.
dorsalis (Van Duzee), 1914c: 434 (*Neurigona*).—N.Y.; N.H.
flavicornis (Van Duzee), 1918: 48 (*Paraclius*).—Ariz.
flutatus Harmston and Wheeler, 1945: 79.—Mich.; Tenn.
impudicus Wheeler, 1899: 10.—Calif.
indianus Harmston, 1952: 285.—Ind.; Iowa.
longilamellus Harmston and Knowlton, 1940f: 127.—Utah.
neocryptus Harmston and Knowlton, 1941a: 130.—Alta.; Wash.
nigrifacies Van Duzee, 1933a: 19.—Oreg.
occidentalis Cole, 1912a: 839.—Calif.
orbicularis Harmston, 1952: 286.—Calif.
ornatus (Van Duzee), 1921b: 128 (*Paraclius*).—N.Y.; Mich. to Que., s. to Tenn. and N.C.
ornatipes (error) Curran, 1925j: 100.
dreisbachi Harmston and Knowlton, 1945: 80.—Mich.
setosus (Van Duzee), 1913b: 54 (*Neurigona*).—N. Mex.; Utah, Colo.
torridus Harmston and Knowlton, 1941a: 129.—Utah.
stanfordi Harmston and Knowlton, 1940f: 126.—Utah.
tibialis (Van Duzee), 1913b: 55 (*Neurigona*).—N.Y.; Tenn., N.C., S.C.
truncatus Harmston and Knowlton, 1940f: 127.—Utah.
unicolor Loew, 1864e: 117.—N.W.T.; Alaska, Wash. and Alta. to Que., s. to n. Calif., Mich., and Maine, also Ariz.
poenitens Wheeler, 1890: 355 (*Gymnopternus*).—Wis.
ornaticauda Van Duzee, 1933a: 16.—Wash.
utahensis Harmston and Knowlton, 1940f: 125.—Utah.
wasatchensis Harmston and Knowlton, 1943a: 103.—Utah.

Genus GYMNOPTERNUS Loew

Gymnopternus Loew, 1857a: 10. Type-species, *Dolichopus cupreus* Fallén (Coquillett, 1910b: 548).

albiceps Loew, 1861a: 30.—Middle States (Loew, 1864e: 85); Maine to Fla.
anarmostus (Melander), 1900: 139 (*Hercostomus*).—Ill.
anormostus, error.
annulatus Van Duzee, 1926g: 58.—N.S.; Mich., Conn., Va., N.C.
barbatulus Loew, 1861a: 29.—Middle States; Iowa to Que., s. to Tenn. and N.C.
brevipes (Van Duzee), 1933a: 17 (*Hercostomus*).—Iowa; Colo.
brunneifacies (Robinson), 1960: 273 (*Hercostomus*).—N.Y.; S.C. **N. comb.**

californicus Van Duzee, 1920: 48.—Calif.; Oreg., Colo.
consanguineus (Harmston), 1952: 287 (*Hercostomus*).—Wash.
coxalis Loew, 1864a: 94 (Cent. 5, no. 87).—N.Y.; N.H.
crassicauda Loew, 1861a: 35.—N.Y.; Iowa to Que. and N.S., s. to Kans. and Ga.
currani (Van Duzee), 1930a: 4 (*Hercostomus*).—Conn.; N.Y., N.H.
debilis Loew, 1861a: 35.—Pa.; Iowa, Mich., Maine to Fla.
despicatus Loew, 1861a: 33.—Middle States; Que. and Maine to N.Y.
difficilis Loew, 1861a: 33.—N.Y.; Ont. to N.S., s. to Fla.
exilis Loew, 1861a: 30.—Pa.; N.H. and Mass. to Fla.
fimbriatus Loew, 1861a: 32.—Md.; Que. to Ga.
flaviciliatus Van Duzee, 1914b: 404.—Ga.
flavitarsis (Van Duzee), 1925e: 187 (*Hercostomus*).—N.Y.
flavus Loew, 1861a: 28.—Pa.; Ont. and Que. to Ga.
frequens Loew, 1861a: 32.—N.Y.; Ont. and Que., s. to Iowa and Ga.
humilis Loew, 1864e: 336.—Ill., N.Y.; Kans. and Mich. to Que., s. to N.C.
humeralis (error) Criddle, 1921: 85.
laevigatus Loew, 1861a: 31.—Middle States; Maine to Ga.
lividifrons Van Duzee, 1926g: 58.—Ont.; Mich., Que.
lunifer Loew, 1861a: 32.—N.Y.; Ill. to Que., s. to Ga.
exiguus Loew, 1864e: 337.—Ill.
maculiventris (Van Duzee), 1925e: 188 (*Hercostomus*).—N.Y.
meniscus Loew, 1864a: 94 (Cent. 5, no. 88).—D.C.; Iowa to N.Y., s. to S.C.
metatarsalis (Thomson), 1869: 512 (*Dolichopus*).—Calif.; B.C.
procerus Wheeler, 1899: 8 (*Hercostomus*).—Calif.
minutus Loew, 1861a: 35.—Middle States (Loew, 1864e: 96); Iowa.
mirificus Melander, 1900: 137.—Mass.
nigribarbus Loew, 1861a: 33.—Pa.; Mich. to N.S., s. to N.J.
phyllophorus Loew, 1866b: 45 (Cent. 7, no. 82).—N.Y.
nigricoxa Van Duzee, 1924a: 103.—N.Y.; Que., Mass.
nigricera (error) Leonard, 1928: 782.
obscurus (Say), 1823: 85 (1859b: 75) (*Dolichopus*).—Pa.
obtusicauda Van Duzee, 1924a: 103.—Maine; N.Y. to N.S.
opacus Loew, 1861a: 34.—N.Y.; Maine to Mo. and Ga.
ovaticornis (Van Duzee), 1933a: 20 (*Hercostomus*).—N.J.
pallidiciliatus (Van Duzee), 1930b: 85 (*Hercostomus*).—Mass.
parvicornis Loew, 1861a: 34.—Middle States; N.Y. and Mass. to Ga.
politus Loew. 1861a: 34.—N.Y.; Mich., N.Y. to Tenn. and S.C.
purpuratus (Van Duzee), 1925e: 185 (*Hercostomus*).—Man.; Mich.
pusillus Loew, 1864e: 334.—Ill.; Iowa, Tenn.
robustus (Van Duzee), 1925e: 189 (*Hercostomus*).—N.Y.

scotias Loew, 1861a: 29.—Ont.; Man. to N.S., s. to Iowa and N.J.
browni Van Duzee, 1933a: 18 (*Hercostomus*).—Que.
singularis Van Duzee, 1924a: 102.—R.I.
spectabilis Loew, 1861a: 30.—N.Y.; Ont. and Que. to Tenn. and Ga.
chalcochrus Loew, 1864e: 335.—N.Y., D.C.
subdilatatus Loew, 1861a: 31.—Middle States; Maine to Tenn. and Ga.
subulatus Loew, 1861a: 29.—N.Y.; Ont. to N.S., s. to N.C.
tenuicauda Van Duzee, 1928d: 88.—N.C.
tibialis Van Duzee, 1928d: 88.—N.C.
tristis Loew, 1864e: 83.—Alaska; B.C., Que., Vt., Mass.
vanduzeei Curran, 1930l: 287.—Oreg.
ventralis Loew, 1861a: 36.—N.Y.; Ont. and Que. to N.C.
vernaculus Van Duzee, 1924a: 104.—N.Y.; Maine.
vetitus (Melander), 1900: 138 (*Hercostomus*).—N.J.; N.Y.
vestitus and *vetius*, errors.
violaceus (Van Duzee), 1921b: 123 (*Proarchus*).—N.Y.; Mich. to Mass., s. to Tenn. and S.C.

Genus PARACLEIUS Bigot

Paracleius Bigot, 1859b: 215, 227. Type-species, *Dolichopus heteroneurus* Macquart (mon.).
Paraclius Loew, 1864e: 97, emend. Since *heteroneurus* Macquart is unrecognized, Loew's concept may not be congeneric. Coquillett (1910b: 583) has even designated a type-species for this emendation.

The species are found on moist soil or sand or on low herbaceous foliage near water. Most of the species are maritime.

REFERENCE: Aldrich, 1904 (key).

alternans (Loew), 1864a: 95 (Cent. 5, no. 91) (*Pelastoneurus*).—N.Y.; Maine to Fla.
vicinus Aldrich, 1904: 277.—Mass.
claviculatus Loew, 1866b: 45 (Cent. 7, no. 83).—N.Y.; Ont. to N.S., s. to N.C.
fraternus Van Duzee, 1933a: 21.—N.Y.
consors (Walker), 1852: 213 (*Dolichopus*).—U.S. Unrecognized.
filifer Aldrich, 1896b: 314.—St. Vincent I.; Fla., Mexico, West Indies.
flagellatus (Harmston), 1952: 293 (*Hercostomus*).—Ala. (immigrant, found in hold of ship). **N. comb.**
heteroneurus (Macquart), 1850: 432 (1850: 128) (*Dolichopus*).—N. Amer. Unrecognized.
heteropterus, error.
hybridus Melander, 1900: 141.—Mass.; Maine, N.Y., Conn., N.C.

magnicornis Van Duzee, 1927e: 146.—Idaho.
minutus Van Duzee, 1921b: 127.—Fla.
nigrocaudatus Van Duzee, 1918: 47.—Mont.
ovatus Van Duzee, 1914c: 436.—Ga.; Mich. to N.Y., s. to Fla., ?Panama.
propinquus Wheeler, 1899: 18.—Fla.; Mass.
pumilio Loew, 1872a: 90 (Cent. 10, no. 63).—Tex.; Iowa, Mich., Ind., Md., Va., Tenn., Mexico.
quadrinotatus Aldrich, 1902: 81.—Grenada I.; Tex., Fla., West Indies.
utahensis Harmston and Knowlton, 1946b: 23.—Utah.

Genus PELASTONEURUS Loew

Pelastoneurus Loew, 1861a: 36. Type-species, *vagans* Loew (Coquillett, 1910b: 586).
Metapelastoneurus Aldrich, 1894: 152. Type-species, *kansensis* Aldrich (mon.).

REFERENCE: Van Duzee, 1923b (rev.).

abbreviatus Loew, 1864a: 94 (Cent. 5, no. 89).—N.Y.; Ont. to N.S., s. to Ill. and N.C., ?Mont.
aldrichi Van Duzee, 1923b: 36.—Utah.
asciaeformis Becker, 1922: 63.—Ga.
aurifacies Van Duzee, 1923b: 35.—Fla.; Ala.
minutus Van Duzee, 1933a: 27.—Ala.
bifrons (Walker), 1852: 212 (*Dolichopus*).—U.S.
cognatus Loew, 1861a: 40.—Middle States; Ill., Tex., Fla., Mexico.
cyaneus Wheeler, 1899: 17.—Calif.; Oreg. to S. Dak., s. to Calif., Mexico.
dissimilipes Wheeler, 1899: 16.—Calif.; Ariz.
nigrescens Wheeler, 1899: 78, 79 (pls. 1, 2, figs. 21, 27) (alternate orig. spelling).—Calif.
floridanus Wheeler, 1899: 13.—Fla.; Tex., N.C.
furcifer Loew, 1872a: 91 (Cent. 10, no. 64).—Tex.
hebes (Walker), 1852: 213 (*Dolichopus*).—U.S. Unrecognized.
ineptus (Walker), 1852: 214 (*Dolichopus*).—U.S. Unrecognized.
irrasus (Walker), 1849: 667 (*Dolichopus*).—Fla. Unrecognized.
kansensis (Aldrich), 1894: 153 (*Metapelastoneurus*).—Kans.; S. Dak., Mich., Ill., Ind.
laetus Loew, 1861a: 38.—Ga.; Mich. to Que., s. to La. and Fla.
falcatus Aldrich, 1904: 277.—Que.
ramosus Van Duzee, 1923b: 33.—Ind., Va.
lamellatus Loew, 1864a: 95 (Cent. 5, no. 90).—N.Y.; Iowa to Maine, s. to Tex. and Fla.
cristatus Van Duzee, 1924a: 105.—Mass.

latifacies Van Duzee, 1930d: 123.—Calif.
longicauda Loew, 1861a: 37.—N.Y.; N.C., Fla., ?Calif.
quadricincta Van Duzee, 1928d: 89.—N.C.
lugubris Loew, 1861a: 38.—N.Y.; Mich., Vt. to Tex. and Fla., Mexico.
maculipes (Walker), 1852: 214 (*Dolichopus*).—U.S. Unrecognized.
neglectus Wheeler, 1899: 12.—Wis., Ill.; Wis. to N.H., s. to La. and Ga.
nigricornis Van Duzee, 1923b: 39.—Mo.; Tex., La., Tenn.
penicillatus Parent, 1929a: 181.—Tex.
occidentalis Wheeler, 1899: 13.—Calif.; Oreg., ?Va.
parvus Aldrich, 1904: 276.—La.; Ga., Fla.
proximus Aldrich, 1904: 278.—La.; Mich., Ind., Tenn., N.C.
arboreus Van Duzee, 1923b: 34.—Ind.
scutatus Aldrich, 1904: 276.—Fla.
semiplumatus Becker, 1922: 69.—Amer. Possibly not Nearctic.
seticauda Van Duzee, 1930b: 85.—Mo.; Tenn.
tibialis Van Duzee, 1923b: 41.—N. Mex.
umbripictus Becker, 1922: 73.—Carolina, Colombia; Mich., N.C.
vagans Loew, 1861a: 39.—Middle States; Alaska, Oreg. to Que., s. to N. Mex. and Ga.
vagrans, error.
longilamellatus Parent, 1929a: 180.—Tex., Ga.
varius (Walker), 1852: 215 (*Dolichopus*).—U.S.; Ga., Fla.
pictipennis Wheeler, 1899: 14.—Fla.
punctipennis, error (not Say).
wheeleri Melander, 1900: 140.—Tex.; Calif., Mich., Tenn., N.C., S.C., Ga.

Genus TACHYTRECHUS Haliday

Ammobates Stannius, 1831a: 33, 268 (preocc. Latreille, 1809). Type-species, *notatus* Stannius (Rondani, 1856: 143).
Hammobates, error or emend.
Tachytrechus Haliday, 1851: 173 (n. name for *Ammobates* Stannius). Type-species, *Ammobates notatus* Stannius (aut.). *Tachytrechus* of Stannius, 1831a: 261, is a nomen nudum.
Tetrechus, error.
Macellocerus Mik, 1878b: ?3 (1878: 5). Type-species, *Tachytrechus moechus* Loew (orig. des.).

References: Greene, 1922 (key); Harmston and Knowlton, 1940a (key, males).

albonotatus (Loew), 1864e: 102 (*Paraclius*).—La.; Utah to Vt., s. to La. and Fla., Cent. Amer.
angulatus (Van Duzee), 1914c: 436 (*Paraclius*). N.Y.; Tenn., N.C.

angustipennis Loew, 1862b: 213 (Cent. 2, no. 64).—D.C.; Calif. to D.C., s. to Fla., Mexico.
argyropus Becker, 1922: 79.—Amer. Possibly not Nearctic.
auratus (Aldrich), 1896a: 83 (*Macellocerus*).—Idaho; Calif., Utah, Colo., Ariz.
binodatus Loew, 1866b: 46 (Cent. 7, no. 84).—N.Y.; Alaska, Ont. and Que., s. to Tenn.
floridensis Aldrich, 1896a: 82.—Fla.
granditarsis Greene, 1922: 17.—Calif.; Utah, Ariz.
greenei Foote, Coulson, and Robinson (for *bipunctatus* Greene).—Idaho; Alta., Utah. **N. name.**
bipunctatus Greene, 1922: 9 (preocc. Macquart, 1842).—Idaho.
indianus (Harmston and Knowlton), 1946b: 24 (*Paraclius*).—Ind.; Tenn., N.C., S.C., Fla.
laticrus Van Duzee, 1918: 46.—N.J.
moechus Loew, 1861a: 40.—N.Y.; Ont. and Que., s. to Iowa and S.C.
mysticus (Becker), 1922: 52 (*Paraclius*).—Ga.
olympiae (Aldrich), 1896a: 83 (*Macellocerus*).—Wash.; Wash. to Ill., s. to Calif.
protervus Melander, 1900: 143.—N.J.; N.H. to Fla.
junctus Coquillett, 1910a: 125.—N.J.
rotundipennis Greene, 1922: 5.—Del.; N.J.
sanus Osten Sacken, 1877: 316.—Calif.; Wash. to Alta., s. to Calif. and Colo.
simulatus Greene, 1922: 4.—Idaho; B.C., Utah.
spinitarsis (Van Duzee), 1924d: 43 (*Tetrechus*).—Calif.
tahoensis Harmston and Knowlton, 1940a: 114.—Calif.
tenuiseta Greene, 1922: 10.—Oreg.
utahensis Harmston and Knowlton, 1940a: 112.—Utah.
volitans Melander, 1900: 143.—Wyo.; Tex.
vorax Loew, 1861a: 41.—D.C.; Calif. to Que., s. to N.C.

Genus POLYMEDON Osten Sacken

Polymedon Osten Sacken, 1877: 317. Type-species, *flabellifer* Osten Sacken (mon.).

REFERENCE: Van Duzee, 1927d (key).

californicus Harmston and Knowlton, 1943a: 105.—Calif.
castus Wheeler, 1899: 6.—Ariz; Utah.
castor, error.
dilaticosta Van Duzee, 1927d: 124.—Ariz.
flabellifer Osten Sacken, 1877: 317.—Calif.; Idaho.
flavitibialis Van Duzee, 1930c: 71.—Ariz.

nigrifemoratus Van Duzee, 1927d: 125.—Ariz.
nimius Aldrich, 1901: 334.—Mexico; Idaho, Utah, Ariz.
nitidus Van Duzee, 1927d: 125.—Ariz.

Unplaced Species of Dolichopodinae

contingens Walker, 1852: 213 (*Dolichopus*).—U.S.

Subfamily PLAGIONEURINAE

Genus PLAGIONEURUS Loew

Plagioneurus Loew, 1857c: 43. Type-species, *univittatus* Loew (mon.).

univittatus Loew, 1857c: 43.—Cuba; S. Dak. to Mass., s. to Fla., Neotropical.

Subfamily HYDROPHORINAE

Genus HYDROPHORUS Fallén

Hydrophorus Fallén, 1823c: 2. Type-species, *jaculus* Fallén (Macquart, 1827a: 249; 1827b: 37).

Parhydrophorus Wheeler, 1896c: 185. Type-species, *canescens* Wheeler (mon.).

Millardia Curran, 1934a: 231 (preocc. Thomas, 1911). Type-species, *Medeterus viridiflos* Walker (orig. des.).

Flies of the genus *Hydrophorus* skate over the quiet surface of large bodies of water. The adults of *H. pacificus* Van Duzee, a Hawaiian species, have been seen pulling the larvae of Chironomidae from the mud of wet shores.

REFERENCES: Aldrich, 1911a (rev.); Van Duzee, 1923c, 1926f (keys).

agalma Wheeler, 1899: 66.—Mich.; Man., N.Y.
alboflorens (Walker), 1849: 656 (*Medeterus*).—N.S. Unrecognized.
albomaculatus Van Duzee, 1926c: 47.—Man.
algens Wheeler, 1899: 63.—Wyo.; Alta., Man., Colo.
alter Parent, 1934a: 19.—Amer. Unrecognized.
glaber, authors, not Walker.
altivagus Aldrich, 1911a: 67.—Colo.; Alaska, Alta., Idaho, Man.
amplectens Aldrich, 1911a: 67.—S. Dak.; Mich., Que., N.Y.
ampullaceus Van Duzee, 1924c: 247.—Alta.
aquatilis Aldrich, 1922b: 17.—Alaska.
argentatus Van Duzee, 1918: 50.—Calif.
argentifacies Van Duzee, 1926c: 51.—Man.

brevicauda Van Duzee, 1923c: 259.—Alaska.
breviseta (Thomson), 1869: 510 (*Medeterus*).—Calif.; Alaska, Wash.
browni Curran, 1930i: 73.—Que.
canescens (Wheeler), 1896c: 187 (*Parhydrophorus*).—Wyo.; Calif., Utah., S. Dak., Kans.
canities Van Duzee, 1923c: 253.—Alaska.
cerutias Loew, 1872a: 91 (Cent. 10, no. 65).—Tex.; Alta., S. Dak., Colo., Kans., N. Mex.
chrysologus (Walker), 1849: 655 (*Medeterus*).—Ont.; Alaska, Man. to N.S., s. to Colo. and N.Y.
chrysolygus, error.
claripennis Van Duzee, 1924c: 246.—Man.; Sask.
criddlei Van Duzee, 1925e: 181.—Man.
extrarius Aldrich, 1911a: 65.—S. Dak.; Ont., Que.
flavihirtus Van Duzee, 1923c: 259.—Alaska; Colo.
flavipennis Van Duzee, 1926c: 48.—Ont.; Mich., N.Y., ?Calif.
fulvidorsum Van Duzee, 1925e: 182.—Alta.
fumipennis Van Duzee, 1921a: 167.—Alaska; Alaska (Pribilof Is.), N.W.T. (Baffin I.).
glaber (Walker), 1849: 655 (*Medeterus*).—Ont.; Alaska, N.W.T.
gratiosus Aldrich, 1911a: 49.—Idaho; Alaska to Calif. and Colo.
hirtipes Van Duzee, 1933b: 17.—Que.
innotatus Loew, 1864e: 212.—Alaska; Alaska (Pribilof Is.) to n. N.W.T., s. to Oreg.
lividipes Van Duzee, 1926c: 50.—Man.
maculipennis Van Duzee, 1926c: 45.—Oreg.
magdalenae Wheeler, 1899: 67.—N. Mex.; Wash. to Nev. and N. Mex.
manicatus Collin, 1935: 372.—Que.
minimus Van Duzee, 1924f: 15.—Alaska.
nigribarbus Van Duzee, 1923c: 257.—Alaska.
nigrinervis Van Duzee, 1926c: 46.—B.C.
oregonensis Van Duzee, 1933b: 19.—Oreg.
parvus Loew, 1862b: 214 (Cent. 2, no. 67).—Ill.; Mich., Pa., N.H., Mass., Conn.
pectinipes Van Duzee, 1923c: 254.—Alaska.
pensus Aldrich, 1911a: 68.—Idaho; Wash., Oreg., Utah.
philombrius Wheeler, 1890: 378.—Wis.; Wash. to Que., s. to Calif. and Tex.
phoca Aldrich, 1911a: 63.—B.C.
pilitarsis Malloch, 1919f: 51.—Alaska.
pirata Loew, 1861a: 71.—Pa., D.C. (Loew, 1864e: 214); Mich., Que. to Pa. and D.C.

plumbeus Aldrich, 1911a: 50.—Wash.
praecox (Lehmann), 1822: 42 (also 1824: 243) (*Dolichopus*).—Germany; s. Canada, entire U.S., Europe.
cinerea Perris, 1847: 492 (*Aphrozeta*).—France.
aestuum Loew, 1869b: 36 (Cent. 8, no. 60).—R.I.
aestuans, error.
eldoradensis Wheeler, 1899: 65.—Calif., Wyo., N. Mex., Tex., Kans.
propinquus Van Duzee, 1923c: 256.—Alaska.
purus Curran, 1924g: 193.—Man.; Alta.
signifer Coquillett, 1899f: 344.—U.S.S.R. (Bering I.); Alaska.
sodalis Wheeler, 1899: 68.—Wyo.; Nev., Utah, Colo., Mich., N. Mex.
spinosus Van Duzee, 1933b: 16.—Oreg.
vandykei Van Duzee, 1926f: 4.—Oreg.
viridifacies Van Duzee, 1923c: 255.—Alaska; Colo.
viridiflos (Walker), 1852: 212 (*Medeterus*).—N. Amer.; Maine to N.J.
intentus Aldrich, 1911a: 51.—Mass.
indentus, error.

Genus SCELLUS Loew

Scellus Loew, 1857a: 22. Type-species, *Hydrophorus spinimanus* Zetterstedt (Coquillett, 1910b: 603).

REFERENCE: Greene, 1924a (rev.).

amplus Curran, 1923e: 73.—B.C.; Oreg., Idaho, Mont.
avidus Loew, 1864e: 207.—N.W.T.; Alta. to N. Mex.
coloradensis Harmston and James *in* Harmston and Knowlton, 1942b. 82.—Colo.
crinipes Van Duzee, 1925b: 177.—Utah; Idaho, Wyo.
exustus (Walker), 1852: 211 (*Medeterus*).—N. Amer.; Wash. and Alta. to Maine, s. to Colo. and N.Y.
filifer Loew, 1864e: 209.—N.W.T.; Alaska to N.W.T., s. to Colo.
knowltoni Harmston, 1939: 71.—Utah; Mont.
monstrosus Osten Sacken, 1877: 319.—B.C.; B.C. to Minn., s. to Utah.
spinimanus (Zetterstedt), 1843: 445 (*Hydrophorus*).—Scandinavia; N.W.T.
varipennis Van Duzee, 1925b: 180.—Calif.
vigil Osten Sacken, 1877: 318.—Calif.; Wash. to Alta., s. to Calif. and Utah.
virago Aldrich, 1907a: 133.—Calif.; Sask. to Calif. and Utah.

Genus MELANDERIA Aldrich

Melanderia Aldrich, 1922c: 146. Type-species, *mandibulata* Aldrich (orig. des.).

A genus of intertidal dolichopodids, the larvae of which have highly developed labellae which are used like mandibles. The biology of these flies is similar to that of *Hydrophorus*.

REFERENCE: Arnaud, 1958b (rev.).

Subgenus MELANDERIA Aldrich

crepuscula Arnaud, 1958b: 181.—Calif.
mandibulata Aldrich, 1922c: 146.—Wash.; Calif.

Subgenus WIRTHIA Arnaud

Melanderia, subg. **Wirthia** Arnaud, 1958b: 184. Type-species, *Hydrophorus curvipes* Van Duzee (orig. des.).

curvipes (Van Duzee), 1918: 48 (*Hydrophorus*).—Calif.

Genus LIANCALUS Loew

Anoplomerus Rondani, 1856: 141 (preocc. Dejean, 1835). Type-species, *Musca regius* Fabricius (orig. des.)=*virens* (Scopoli).

Liancalus Loew, 1857a: 22 (n. name for *Anoplomerus* Rondani). Type-species, *Musca regius* Fabricius (aut.)=*virens* (Scopoli).

REFERENCE: Van Duzee, 1917a (key).

genualis Loew, 1861a: 70.—Middle States (Loew, 1864e: 199); Minn. to Que., s. to Ga.
hydrophilus Aldrich, 1893c: 569.—S. Dak.; Alta., Utah, Colo.
limbatus Van Duzee, 1917a: 127.—Calif.; B.C. to Calif.
querulus Osten Sacken, 1877: 318.—Calif.; Idaho, Wyo., Utah.
similis Aldrich, 1893c: 571.—Wash.; Idaho.

Genus THINOPHILUS Wahlberg

Thinophilus Wahlberg, 1844a: 37 (also Schiödte, 1844: 44). Type-species, *Rhaphium flavipalpe* Zetterstedt (mon.).

REFERENCE: Van Duzee, 1926b (rev.).

armiger Van Duzee, 1926b: 43.—Fla.; Tex., N.C.
bimaculatus Johnson, 1921a: 13.—Fla.; Md., N.C.
brevipes Van Duzee, 1932a: 10.—Fla.

canities Van Duzee, 1926b: 44 (as *cantities*, p. 36).—Kans.; Nebr., Iowa, N. Mex.
delicatus Van Duzee, 1926b: 40.—Mo.
depressus Van Duzee, 1926b: 39.—Mexico (Baja Calif.); Utah.
frontalis Van Duzee, 1914b: 406.—Fla.; La., N.C.
insulanus Van Duzee, 1926b: 49.—Calif.
latimanus Van Duzee, 1926b: 37.—Colo.
magnipalpus Van Duzee, 1926b: 45.—N. Mex.
neglectus Wheeler, 1899: 70.—N.J.; Fla.
ochrifacies Van Duzee, 1924a: 101.—N.Y.; N.S. to Mo. and Fla.
pectinifer Wheeler, 1896b: 155.—Wyo.; Calif., Utah, Colo.
prasinus Johnson, 1921a: 13.—Mass.; N.Y., N.H., N.C., Fla.
pruinosus Van Duzee, 1930b: 84.—Colo.
rufibarbis Van Duzee, 1926b: 48.—Utah.
russelli Curran, 1927f: 89.—N.W.T.
scopiventris Harmston and Knowlton, 1940e: 108.—Calif.
spinipes Van Duzee, 1926b: 46.—Man.; Nev., Utah, Colo., Nebr.
thallasinus Van Duzee, 1926b: 42.—Fla.
viridifacies Van Duzee, 1924a: 102.—Mass.; Tex., N.C.
quadratus Van Duzee, 1924b: 28 (*Chrysotus*).—Mass.
nigripilosus Van Duzee, 1926b: 44.—Tex.

Genus DIOSTRACUS Loew

Diostracus Loew, 1861a: 43. Type-species, *prasinus* Loew (mon.).

olga Aldrich, 1911b: 71.—Wash.
prasinus Loew, 1861a: 44.—N.Y.; Vt., Mass., Va., Tenn., N.C.

Genus HYPOCHARASSUS Mik

Hypocharassus Mik, 1878a: 627. Type-species, *gladiator* Mik (orig. des.).
Drepanomyia Wheeler, 1898: 217. Type-species, *pruinosus* Wheeler (Coquillett, 1910b: 535).

Hypocharassus larvae are intertidal and form cocoons of sand in which the insect pupates. Adults are occasionally found in immense numbers on floating seaweed.

REFERENCE: Smith, 1952b (biol.).

gladiator Mik, 1878a: 629.—Ga.; N.C., Fla.
johnsonii Wheeler, 1898: 219 (*Drepanomyia*).—Fla.
pruinosus (Wheeler), 1898: 218 (*Drepanomyia*).—Fla.; Mass., R.I., Va., N.C., Ga.

Subfamily APHROSYLINAE

Genus APHROSYLUS Haliday

Aphrosylus Haliday, 1851: 220. Type-species, *raptor* Haliday (Coquillett, 1910b: 508).

Aphrosylus, subg. *Paraphrosylus* Becker, 1922: 127. Type-species, *praedator* Wheeler (present des.).

The immature stages of *Aphrosylus* species breed in intertidal seaweeds. The adults are found flying over exposed plants at low tides.

REFERENCES: Wheeler, 1897 (rev., larvae); Saunders, 1928 (biol.); Wirth and Stone, 1956 (biol.).

californicus Harmston, 1952: 292.—Calif.
direptor Wheeler, 1897: 148.—Calif.; B.C.
grassator Wheeler, 1897: 149.—Calif.
nigripennis Van Duzee, 1924e: 75.—Alaska.
praedator Wheeler, 1897: 146.—Calif.; B.C.
wirthi Harmston, 1951a: 13.—Calif.

Subfamily MEDETERINAE

Genus MEDETERA Fischer von Waldheim

Medetera Fischer von Waldheim, 1819: 7 and pl. Type-species, *carnivora* Fischer von Waldheim (mon.)=*diadema* (Linnaeus).

Medeterus, error or emend.

Adults of *Medetera* are usually found on tree trunks, logs, or old wooden fences. The larvae apparently feed on the immature stages of wood-boring beetles.

REFERENCES: Van Duzee, 1928e (key); De Leon, 1935 (biol.).

aberrans Wheeler, 1899: 22.—N.J.; Iowa, Ont., N.Y., Tenn., N.C.
lobatus Van Duzee, 1914c: 441.—N.J.
aeneiventris Van Duzee, 1933c: 152 (n. name for *aeneus* Van Duzee).—Calif.
aeneus Van Duzee, 1919a: 263 (preocc. Meigen, 1838).—Calif.
aequalis Van Duzee, 1919a: 265.—Calif.
albiciliata Van Duzee, 1933b: 13.—Ont.
albosetosa Van Duzee, 1928e: 36.—Tex.
aldrichii Wheeler, 1899: 24.—Idaho.
alpina Harmston and Knowlton, 1941b: 95.—Calif.

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arctica Van Duzee, 1933c: 152 (n. name for *bicolor* Van Duzee).—Alaska.
bicolor Van Duzee, 1923c: 249 (preocc. Meigen, 1838).—Alaska.
arnaudi Harmston, 1951a: 12.—Calif.
aurivittata Wheeler, 1899: 29.—Idaho.
bistriata Parent, 1929a: 183.—Ga.
caerulescens Malloch, 1919m: 8.—Ill.; Alaska, N.Y., N.J.
distinctus Van Duzee, 1919a: 266.—N.Y.
californiensis Wheeler, 1899: 27.—Calif.
longimana Van Duzee, 1933b: 12.—Calif.
ciliata Van Duzee, 1928e: 37.—Ont.; N.Y.
crassivenis Curran, 1928e: 199.—N.Y.
cuneiformis Van Duzee, 1919a: 263.—Calif.
cyanogaster Wheeler, 1899: 27.—Wash.
emarginata Van Duzee, 1914c: 439.—Ont.; N.Y.
excipiens Becker, 1922: 133.—S.C., Paraguay. Neotropical specimen probably different sp.
falcata Van Duzee, 1919a: 261.—Calif.
flavicosta Van Duzee, 1932a: 11.—N.Y.
frontalis Van Duzee, 1919a: 265.—N.Y.; Ont., Que.
furcata Curran, 1928e: 200.—N.Y.
halteralis Van Duzee, 1919a: 267.—Ont.; Que.
idahoensis Harmston and Knowlton, 1943a: 106.—Idaho.
intermedia Van Duzee, 1928b: 40.—Sask.
longinervis Van Duzee, 1928e: 36.—Oreg.
longinqua Van Duzee, 1919a: 262.—Calif.
maura Wheeler, 1899: 23.—N.H.; Vt., Mass., N.C.
minima Van Duzee, 1925e: 180.—Calif.; Alaska.
modesta Van Duzee, 1914c: 440.—N.J.; Maine to N.J.
nigripes Loew, 1861a: 73.—Middle States; Iowa, Ont. to Mass., s. to Fla.
nitidiventris Van Duzee, 1919a: 264.—Calif.
nova Van Duzee, 1919a: 262.—Va.; Md., Tenn., N.C., S.C.
obscuripennis Van Duzee, 1919a: 266.—Calif.
orbiculata Van Duzee, 1932a: 12.—Calif.
oregonensis Van Duzee, 1919a: 268.—Oreg.
parva Van Duzee, 1923c: 249.—Alaska.
petulca Wheeler, 1899: 21.—Wash.
princeps Wheeler, 1899: 25.—N.J.; N.H., Mass., R.I.
similis Van Duzee, 1919a: 261.—Calif.
simplicipes Curran, 1928e: 202.—N.Y.; Tenn., N.C.
trisetosa Van Duzee, 1924c: 246.—Alta.; Ont.

univittata Van Duzee, 1933c: 151 (n. name for *obesus* Van Duzee).—N.Y.; N.J.

obesus Van Duzee, 1919a: 264 (preocc. Kowarz, 1877).—N.Y.

vanduzeei Curran, 1928e: 203.—Que.

veles Loew, 1861a: 73.—Fla.; Idaho to Man. to N.H., s. to Utah and Fla.

veneta Curran, 1928e: 201.—N.Y.

vidua Wheeler, 1899: 24.—Wash.; Alaska, Oreg., Idaho, ?Ont.

viridifacies Van Duzee, 1923c: 248.—Alaska.

vittata Van Duzee, 1919a: 268.—Ont.; Iowa, Mich., Ill., Que., N.Y., Tenn.

wheeleri Foote, Coulson, and Robinson (for *appendiculatus* Wheeler).—Wyo. **N. name.**

appendiculatus Wheeler, 1899: 29 (preocc. Macquart, 1827).—Wyo.

xerophila Wheeler, 1899: 28.—Calif.

Genus THRYPTICUS Gerstäcker

Thrypticus Gerstäcker, 1864: 43. Type-species, *smaragdinus* Gerstäcker (mon.).

Aphantotimus Wheeler, 1890: 375. Type-species, *willistoni* Wheeler (Coquillett, 1910b: 508).

In contrast to those of *Medetera*, the larvae of *Thrypticus* are said to be phytophagous.

REFERENCE: Van Duzee, 1921b (key).

abdominalis (Say), 1829: 169 (1859b: 362) (*Chrysotus*).—Ind.; Kans. to Mich. and Pa., s. to La. and N.C.

aurinotatus Van Duzee, 1915c: 87.—Ga.

comosus Van Duzee, 1915c: 86.—N.Y., Ont.; Mich.

fraterculus (Wheeler), 1890: 376 (*Aphantotimus*).—Wis.; Alaska, Minn. to Ont., s. to Calif. and Tenn., Mexico.

longicauda Van Duzee, 1921b: 126.—Calif.

minutus Parent, 1929a: 186.—Tex.; Pa.

muhlenbergiae Johannsen and Crosby, 1913: 164.—N.Y.; Mo., Ohio, Md., N.C.

nigripes Van Duzee, 1921b: 125.—Nev.; Utah.

tectus Van Duzee, 1915c: 87.—N.Y.; Iowa to Conn., s. to N.C.

vietus Van Duzee, 1915c: 86.—Fla.

willistoni (Wheeler), 1890: 376 (*Aphantotimus*).—Wis.; Wyo., Iowa and Mo. to Mass., s. to Tenn. and N.C.

Subfamily RHAPHIINAE

Genus RHAPHIUM Meigen

Rhaphium Meigen, 1803: 272. Type-species, *macrocerum* Meigen (Curtis, 1835a: pl. 568).

Xiphandrium Loew, 1857a: 36. Type-species, *Rhaphium quadrifilatum* Loew (as *quadrifilum;* Coquillett, 1910b: 621).

Porphyrops, authors, not Meigen.

Adults of *Rhaphium* are usually found on foliage in moist places.

REFERENCES: Curran, 1926j, 1927k (rev.).

aequale Van Duzee, 1927e: 147.—Idaho.

albibarbum (Van Duzee), 1924f: 10 (*Porphyrops*).—Alaska.

aldrichi (Van Duzee), 1922a: 86 (*Xiphandrium*).—Alaska.

arboreum Curran, 1924f: 140.—Que.; Ind.

armatum Curran, 1924f: 136.—Que.; N.Y., N.C.

atkinsoni Curran, 1926j: 257, key (descr. 1927k: 156).—Sask.; Mich.

banksi Van Duzee *in* Curran, 1926j: 257, key (descr. 1927k: 109).—Va.; N.C.

barbipes (Van Duzee), 1923a: 239 (*Porphyrops*).—Maine.

boreale (Van Duzee), 1923c: 246 (also 1924f: 9) (*Porphyrops*).—Alaska.

brevicorne (Van Duzee), 1923a: 241 (*Porphyrops*).—Oreg.

brevilamellatum Van Duzee *in* Curran, 1926j: 254, key (descr. 1927k: 119).—Va.

browni Curran, 1931c: 5.—Que.

calcaratum Van Duzee, 1928c: 167.—N.Y.

campestre Curran, 1924f: 133.—Man.; B.C. to Man.

canadense Curran, 1924f: 137.—Que.; Ohio to Que., s. to Ga.

caudatum Van Duzee *in* Curran, 1926j: 254, key (descr. 1927k: 117).—N.Y., Ont.

ciliatum Curran, 1929c: 30.—B.C.

coloradense Curran, 1926j: 256, key (descr. 1927k: 162) (n. name for *longicorne* Van Duzee).—Colo.

longicorne Van Duzee, 1922a: 85 (*Xiphandrium;* preocc. Meigen, 1824).—Colo.

colute Harmston and James *in* Harmston and Knowlton, 1942b: 83.—Colo.; Utah.

crassipes (Meigen), 1824: 50 (*Porphyrops*).—Europe; Alaska, B.C. to Que., Europe, Asia.

discolor Zetterstedt, 1838: 704.—Lapland; Alaska, Scandinavia.

consobrinum Zetterstedt, 1843: 471.—Scandinavia.

dubium (Van Duzee), 1922a: 85 (*Xiphandrium*; as *femineum* var.).—N.Y.; Ont., Que.
effilatum (Wheeler), 1899: 34 (*Porphyrops*).—Wis., Wyo.; B.C. to N.S., s. to Utah and Colo.
elegantulum (Meigen), 1824: 51 (*Porphyrops*).—Germany; Alaska, Que.
elongatum Van Duzee, 1933a: 4.—Que.
exile Curran, 1926j: 257, key (descr. 1927k: 165).—Ind.; Tenn.
fascipes (Meigen), 1824: 54 (*Porphyrops*).—Germany; Alaska, Kans., Mich., Que., N.Y.
femineum (Van Duzee), 1922a: 84 (*Xiphandrium*).—N.Y.; Mich., Ind.
femoratum (Van Duzee), 1922a: 81 (*Xiphandrium*).—Nev.; Alaska, Alta., Utah.
flavicoxa (Van Duzee), 1922a: 84 (*Xiphandrium*).—Ga.; Tenn.
foliatum Curran, 1926j: 256, key (descr. 1927k: 150).—Ohio; N.Y., Tenn.
fuscicosta Van Duzee, 1928c: 167.—N.Y.
furcifer Curran, 1931c: 2.—Que.
gibsoni Curran, 1926d: 171.—N.S.
gracile Curran, 1924o: 228.—Mass.
grande (Curran), 1923j: 210 (*Porphyrops*).—B.C.
hirtimanum Van Duzee, 1933a: 6.—Oreg.
impetuum Curran, 1926j: 254, key (descr. 1927k: 172).—Md.
insolitum Curran, 1926j: 256, key (descr. 1927k: 151).—Fla.; Md., N.C., ?Ont.
johnsoni (Van Duzee), 1923a: 240 (*Porphyrops*).—N.J.; N.H., R.I., Va.
latifacies Van Duzee, 1930c: 53.—Alta.
longibara Van Duzee, 1930c: 53.—Alta.
longipalpe Curran, 1926j: 253, key (descr. 1927k: 148).—Colo.; Idaho, Utah.
longipes (Loew), 1864a: 95 (Cent. 5, no. 92) (*Porphyrops*).—N.H.; N.B. to N.Y. and Conn.
lugubre Loew, 1861a: 49.—Carolina; N.Y., Conn., Pa., N.J., Md.
melampus (Loew), 1861a: 50 (*Porphyrops*).—Middle States; Mich. to Que., s. to Tenn., and S.C.
americanus Van Duzee, 1914b: 404 (*Systenus*).—N.C.
montanum (Van Duzee), 1920: 47 (*Porphyrops*).—Calif.
nigricoxa (Loew), 1861a: 51 (*Porphyrops*).—Md.; Maine to Md.
nigrociliatum Curran, 1926j: 252, key (descr. 1927k: 99).—Colo.
nigrovittatum Curran, 1926j: 254, key (descr. 1927k: 121).—Idaho.
nigrum (Van Duzee), 1923c: 245 (*Porphyrops*).—Alaska.

nudum (Van Duzee), 1924f: 9 (*Porphyrops*).—Alaska; Wash., Ont., Que.
obtusum Van Duzee, 1928c: 166.—Nev.
occipitale Curran, 1927k: 171.—La.
orientale Curran, 1926j: 254, key (descr. 1927k: 113).—N.B.; Mass.
ornatum (Van Duzee), 1923a: 242 (*Porphyrops*).—N.Y.; Ont., Que., Vt.
petchi Curran, 1924f: 138.—Que.
palpale Curran, 1926j: 256, key (descr. 1927k: 149).—N.J.
pollex (Van Duzee), 1922a: 82 (*Xiphandrium;* as *femoratum* var.).—Nev.; Alaska, Oreg., Idaho, Utah.
punctitarse Curran, 1924f: 135.—Que.; Man., Mich.
robustum Curran, 1926j: 256, key (descr. 1927k: 145).—Idaho.
rossi Harmston and Knowlton, 1940d: 60.—Ill.
rotundiceps (Loew), 1861a: 51 (*Porphyrops*).—D.C.; Mich., Ind., Que. to Fla.
fumipennis Loew, 1861a: 51 (*Porphyrops*).—Middle States.
septentrionale Curran, 1931c: 4.—Que.
shannoni Curran, 1926j: 257, key (descr. 1927k: 155).—Md.; Mass. to Pa. and Va.
signiferum (Osten Sacken), 1878c: 242 (*Porphyrops*).—N.Y.; Ont., Mich., N.S., Mass., Tenn., Va., N.C.
simplicipes Curran, 1926j: 256, key (descr. 1927k: 169).—Colo.
slossonae (Johnson), 1906: 59 (*Leucostola*).—N.H.; Oreg., Idaho, Colo., Que. to N.S., s. to N.Y.
spinitarse Curran, 1924f: 139.—Man.; Alta., Calif., Nev., Utah, Colo.
subarmatum Curran, 1924o: 228.—N.B.; N.H., N.C.
subfurcatum Van Duzee, 1932a: 8.—Wyo.
temerarium (Becker), 1922: 151 (*Xiphandrium*).—Colo.; Y.T., Man., Utah.
terminale (Van Duzee), 1924f: 7 (*Porphyrops*).—Alaska; N.W.T.
triangulatum (Van Duzee), 1922a: 83 (*Xiphandrium*).—Ariz.; Utah, Colo.
tricaudatum (Van Duzee), 1923c: 243 (*Porphyrops*).—Alaska.
tripartitum (Frey) *in* Lundstrom and Frey, 1913: 13 (*Porphyrops*).—n. U.S.S.R.; N.W.T.
unistylatum Vockeroth, 1952: 276.—N.W.T. (Mackenzie Delta); Utah, Colo.
vanduzeei Curran, 1926j: 253, key (descr. 1927k: 104).—Ind.; Nebr., Ont., Que., N.Y., Tenn., N.C.
wheeleri Van Duzee, 1932a: 9.—Wis.
xipheres (Wheeler), 1899: 34 (*Porphyrops*).—Pa.

Genus NEMATOPROCTUS Loew

Nematoproctus Loew, 1857a: 40. Type-species, *Porphyrops annulata* Macquart (Coquillett, 1910b: 574)=*distendens* (Meigen).

The adults of *Nematoproctus* are usually found on herbaceous foliage.

REFERENCE: Van Duzee, 1930f (rev.).

cylindricus (Van Duzee), 1924c: 248 (*Diaphorus*).—Que.; Ont.
flavicoxa Van Duzee, 1930f: 168.—Conn.; Va.
jucundus Van Duzee, 1927b: 53.—Pa.; N.C.
junctus (error) Van Duzee, 1930f: 168.
metallicus Van Duzee, 1930f: 169.—Pa.; Mich., N.C., ?Ind., ?Tenn.
terminalis (Van Duzee), 1914b: 405 (*Leucostola*).—Va.; Ohio, N.Y.
varicoxa Van Duzee, 1930f: 170.—Conn.
venustus Melander, 1900: 142.—N.J.; ?Iowa.
venustus Malloch (error) Johannsen, 1928b: 774 (*Leucostola*).

Genus KEIROSOMA Van Duzee

Keirosoma Van Duzee, 1929: 24. Type-species, *albicinctum* Van Duzee (orig. des.).

slossonae Van Duzee, 1933b: 2.—Fla.
albicinctum (in part) Van Duzee, 1929: 24. Fla. specimens only.

Genus SYNTORMON Loew

Syntormon Loew, 1857a: 35. Type-species, *Rhaphium metathesis* Loew (Coquillett, 1910b: 611).
Synarthrus Loew, 1857a: 35. Type-species, *Musca pallipes* Fabricius, (once as *tarsatum*, error) (mon.).

REFERENCE: Van Duzee, 1925a (rev.).

affine (Wheeler), 1899: 38 (*Synarthrus*).—Calif.; Nev., Utah.
bisinuatum Van Duzee, 1925a: 282.—Oreg.; Calif.
californicum Harmston, 1951a: 15.—Calif.
cinereiventre (Loew), 1861a: 48 (*Synarthrus*).—Middle States; Alta. and Idaho to Que., s. to Tex. and Tenn.
clavatum Van Duzee, 1925a: 281.—Nev.; Utah.
dissimilipes Van Duzee, 1925a: 283.—Nev.; Idaho, Utah.
femoratum Van Duzee, 1925a: 280.—Ind.
kennedyi Harmston and Knowlton, 1942d: 23.—Colo.; Utah.
nubilum Van Duzee, 1933b: 3.—Que.
oregonense Harmston and Knowlton, 1942d: 25.—Oreg.

ornatipes Van Duzee, 1925a: 277.—Colo.; Utah.
palmare (Loew), 1864e: 135 (*Synarthrus*).—Alaska; Wash., Idaho, Calif., Utah, Colo., Mich.
simplicitarse Van Duzee, 1925a: 286.—Ind.
strataegum (Wheeler), 1899: 39 (*Synarthrus*).—Wyo., Calif.; Oreg., Idaho, Utah, Colo.
tricoloripes Curran, 1923j: 209.—B.C.; Oreg., Idaho, Ont., Mich., Que.
uintaense Harmston and Knowlton, 1940b: 130.—Utah.
utahense Harmston and Knowlton, 1942d: 24.—Utah.
vanduzeei Curran, 1931c: 1.—Ont.
variegatum Harmston, 1952: 291.—Calif.

Genus PARASYNTORMON Wheeler

Parasyntormon Wheeler, 1899: 41. Type-species, *asellus* Wheeler (Coquillett, 1910b: 585).
Neosyntormon Curran, 1934a: 230. Type-species, *Parasyntormon montivagum* Wheeler (orig. des.).

appendiculatum Harmston and Knowlton, 1943b: 63.—Utah.
asellus Wheeler, 1899: 42.—Calif.; Colo.
classicum Harmston and Knowlton, 1943b: 64.—Utah.
emarginatum Wheeler, 1899: 45.—Calif.
emarginicorne Curran, 1923h: 192.—Alta.; B.C.
flavicoxa Van Duzee, 1922b: 89.—Calif.
fraterculus Van Duzee, 1922b: 88.—Calif.
hendersoni Harmston and Knowlton, 1939a: 256.—Utah.
hinnulus Wheeler, 1899: 44.—Wyo.
lagotis Wheeler, 1899: 43.—Calif.
lepus Van Duzee, 1918: 45.—Calif.
longicorne Van Duzee, 1933b: 4.—Oreg.
montivagum Wheeler, 1899:46.—Wyo.; Calif.
mulinum Van Duzee, 1922b: 89.—Calif.
nigripes Harmston and Knowlton, 1943b: 64.—Utah.
occidentale (Aldrich), 1894:153 (*Sympycnus*).—Wyo.; Utah, Nev.
petiolatum Van Duzee, 1933b: 5.—Calif.
rotundicorne Van Duzee, 1926g: 57.—N.S.
utahnum Van Duzee, 1933d: 64.—Utah.
virens Harmston and Knowlton, 1943b: 65.—Utah.

Genus PELOROPEODES Wheeler

Peloropeodes Wheeler, 1890: 373. Type-species, *salax* Wheeler (mon.).

Kophosoma Van Duzee, 1926a: 39. Type-species, *Sympycnus falco* Aldrich (orig. des.).

REFERENCE: Van Duzee, 1926a (as *Kophosoma*).

acuticornis (Van Duzee), 1926a: 44 (*Kophosoma*).—Ind.; Utah to Mich. to D.C., s. to Ga., Mexico.

apicales Harmston and Knowlton, 1946c: 139.—Idaho.

bicolor (Van Duzee), 1926a: 41 (*Kophosoma*).—Pa.; Iowa to Pa., s. to S.C.

brevis (Van Duzee), 1926a: 45 (*Kophosoma*).—N.Y.; Ont. to Conn., s. to Ga.

crassitibia Van Duzee, 1930a: 1 (*Campsicnemus*).—Conn.

cornutus (Van Duzee), 1926a: 42 (*Kophosoma*).—Calif.; Oreg., Idaho, Mich., Mexico.

discolor Robinson (for *frater* Robinson).—N.C.

[Name published by Robinson, 1964, Ent. Soc. Amer. Misc. Pub. 4: 126.—EDS.]

frater Robinson, 1960: 271 (preocc. Aldrich, 1902).—N.C.

fuscipes (Van Duzee), 1926a: 40 (*Kophosoma*).—N. Mex.; Idaho, Mexico.

salax Wheeler, 1890: 374.—Wis.; Wis. to Va., s. to Tenn.

flavipes Van Duzee, 1914c: 437.—Va.

Genus SYSTENUS Loew

Systenus Loew, 1857a: 34. Type-species, *Rhaphium adpropinquans* Loew (present des.) = *pallipes* (Roser).

All species of which the larval stages are known, have been reared from moist tree holes and the ulcerated or decaying wood of trees.

REFERENCE: Wirth, 1952d (rev.).

albimanus Wirth, 1952d: 240.—Va.; Tex., Tenn., Ala.

apicalis Wirth, 1952d: 237.—Va.; Md., Ala.

minutus (Van Duzee), 1913b: 60 (*Neurigona*).—Pa.; Ky., Tenn., Ala.

shannoni Wirth, 1952d: 240.—Md.; N.H.

Subfamily NEURIGONINAE

Genus NEURIGONA Rondani

Neurigona Rondani, 1856: 142. Type-species, *Musca quadrifasciata* Fabricius (orig. des.).

Neurogona, *Neurogonia*, errors.

Saucropus Loew, 1857a: 41 (unjustified n. name for *Neurigona* Rondani). Type-species, *Musca quadrifasciata* Fabricius (aut.).

Dactylomyia Aldrich, 1894: 151. Type-species, *gracilipes* Aldrich (mon.) = *lateralis* (Say).

The adults of most *Neurigona* species are found on tree trunks and low foliage. The larval habitats are unknown.

REFERENCE: Van Duzee, 1913b (rev.).

aestiva Van Duzee, 1913b: 50.—N.Y., Vt., Md.; Iowa, Ont., Mich.
albospinosa Van Duzee, 1913b: 59.—Wash., Idaho, Calif.; B.C.
aldrichii Van Duzee, 1913b: 40.—Kans.; Iowa, Mich., N.Y.
arcuata Van Duzee, 1913b: 45.—Ont.; Mich., N.Y., Tenn.
australis Van Duzee, 1913b: 59.—N. Mex.
bivittata Van Duzee, 1913b: 51.—Colo.; B.C.
carbonifer (Loew), 1869c: 177 (Cent. 9, no. 84) (*Saucropus*).—N.Y., Minn. to Que., s. to Va.
ciliata Van Duzee, 1913b: 56.—Wash.
cilimanus Van Duzee, 1924c: 245.—Man.
deformis Van Duzee, 1913b: 46.—N.Y., Ont.; N.H., Maine.
dimidiata (Loew), 1861a: 75 (*Saucropus*).—Fla.; N.H. and Vt., s. to Fla.
disjuncta Van Duzee, 1913b: 42.—Canada, Vt., N.Y.; Mich. to se. Canada, s. to Ga.
flava Van Duzee, 1913b: 40.—Idaho.
floridula Wheeler, 1899: 72.—N.J., Md.; Wis. to Maine, s. to N.C.
var. **infuscata** Van Duzee, 1913b: 39.—N.Y.; Wis. to Ont. and Mass., s. to N.J.
kesseli Hendrickson, 1961: 278.—Calif.
lateralis (Say), 1829: 169 (1859b: 362) (*Medeterus*).—Ind.; S. Dak. to Que., s. to Fla.
superbiens Loew, 1861a: 76 (*Saucropus*).—Fla.
gracilipes Aldrich, 1894: 151 (*Dactylomyia*).—S. Dak.
lienosa Wheeler, 1899: 73.—Calif.
maculata Van Duzee, 1913b: 36.—Canada, Wis., Mich., N.Y., N.H., Mass., Pa., N.C.; Wis. to Que., s. to N.C.
nigricornis Van Duzee, 1914c: 433.—N.Y.
nigrimanus Van Duzee, 1930c: 70.—Alta.
nitida Van Duzee, 1913b: 33.—Wis.; Maine, N.H., Vt.
ornata Van Duzee, 1930c: 55.—Alta.
pectoralis Van Duzee, 1913b: 49.—N. Mex.; ?Ont.
perbrevis Van Duzee, 1913b: 57.—N. Mex.
perplexa Van Duzee, 1913b: 29.—Pa.; Mich., Maine, N.H.
planipes Van Duzee, 1924c: 245.—Alta.; B.C.

rubella (Loew), 1861a: 76 (*Saucropus*).—Va.; Iowa to Mass., s. to Kans. and Va.
sombrea Harmston and Knowlton, 1945: 77.—Mich.
tarsalis Van Duzee, 1913b: 51.—Mich., N.Y., Pa.; Mich. to Vt., s. to N.C.
tenuis (Loew), 1864e: 228 (*Saucropus*).—Middle States; Mo., Mich., Mass. to N.C., ?N. Mex.
terminalis Van Duzee, 1924c: 244.—B.C.
torrida Harmston, 1951a: 14.—Calif.
transversa Van Duzee, 1913b: 41.—Calif.
tridens Van Duzee, 1913b: 34.—Wash. (as Idaho, error); B.C.
uinta Harmston and Knowlton, 1942b: 80.—Utah.
viridis Van Duzee, 1913b: 43.—N.Y., N.H., Va.; Tenn.
zionensis Harmston and Knowlton, 1942b: 81.—Utah.

Subfamily DIAPHORINAE

Genus DIAPHORUS Meigen

Diaphorus Meigen, 1824: 32. Type-species, *flavocinctus* Meigen (Westwood, 1840: 134)=*oculatus* (Fallén).

REFERENCE: Van Duzee, 1915a (rev.).

aldrichi Van Duzee, 1915a: 185.—Idaho; Mont., Nev., Utah, Colo., Mich.
albifacies Parent, 1929a: 191.—Mont.
alienus Van Duzee, 1915a: 176.—Oreg.
argentifacies Van Duzee, 1932a: 5.—Nev.
australis Van Duzee, 1915a: 194, on printed slip pasted in separates (n. name for *femoratus* Van Duzee).—La. No further reference to this name has been found in the literature. If *australis* is not considered published in the sense of the International Code, its use in this catalog is to be construed as a formal proposal of the replacement name, credited to Van Duzee.
femoratus Van Duzee, 1915a: 194 (preocc. Walker, 1852).—La.
basalis Van Duzee, 1915a: 168.—Va.; Iowa, N.C.
brevinervis Van Duzee, 1924f: 2.—Alaska.
californicus Van Duzee, 1917c: 33.—Calif.
funeralis Parent, 1929a: 188.—Ga.; Fla.
fuscus Van Duzee, 1921b: 122 (n. name for *adustus* Van Duzee).—Idaho, Nev.; Alaska, N.W.T., Utah.
adustus Van Duzee, 1915a: 172 (preocc. Wiedemann, 1830, orig. *Dolichopus*, now *Lyroneurus*).—Idaho, Nev.

gibbosus Van Duzee, 1915a: 173.—N.Y., Ont., Maine, Vt., Mass., Pa.; Alaska, Calif., Ont. and Wis. to Maine, s. to N.C.
hirsutus Van Duzee, 1921b: 120.—Calif.
inornatus Van Duzee, 1917c: 38.—Calif.
junctus Van Duzee, 1917c: 35.—Calif.
lamellatus Loew, 1864e: 165.—Middle States; N.Y. to S.C.
latifacies Van Duzee, 1932a: 6.—Okla.
leucostoma Loew, 1861a: 58.—Md.; S. Dak. to Que., s. to La. and Fla.
vittatas Van Duzee, 1915a: 179.—Va.
var. **infuscatus** Van Duzee, 1915a: 179.—D.C.; N.Y., Mass., Conn., N.J.
mundus Loew, 1861a: 57.—Pa.; Idaho, Que. to Ga.
nigricans Meigen, 1824: 33.—Germany; Utah to Maine, s. to Tenn. and Fla., Europe, Mexico, Cent. Amer.
opacus Loew, 1861a: 56.—N.Y.
nudus Van Duzee, 1917c: 34.—Va.; N.Y., Pa., N.C.
occidentalis Van Duzee, 1915a: 180.—Oreg.; Alaska, Calif., Colo., N. Mex.
parmatus Van Duzee, 1915a: 181.—Calif.
quadratus Van Duzee, 1915a: 179.—Ont.
remulus Van Duzee, 1915a: 182.—S. Dak.
repandus Van Duzee, 1915a: 183.—Calif.
similis Van Duzee, 1915a: 186.—Pa.; S.C., Ga.
slossonae Van Duzee, 1932a: 5.—Fla.
snowii Van Duzee, 1917c: 36.—Ariz.; Alta., Colo.
sodalis Loew, 1861a: 58.—N.Y.; Iowa to N.H., s. to Ga.
sparsus Van Duzee, 1917c: 37.—Va.; N.Y.
spectabilis Loew, 1861a: 57.—D.C.; S. Dak. to Conn., s. to La. and Ga., Mexico, Cent. Amer.
spinitalus Van Duzee, 1923d: 67.—Calif.
texanus Van Duzee, 1932a: 7.—Tex.
triangulatus Van Duzee, 1915a: 189.—Idaho; Utah.
trivittatus Van Duzee, 1915a: 187.—Fla.; Mexico.
usitatus Van Duzee, 1915a: 184.—Oreg., Idaho.
vanduzeei Robinson (for *communis* Van Duzee).—Okla. [Name published by Robinson, 1964. Ent. Soc. Amer. Misc. Pub. 4: 138.—Eds.]
communis Van Duzee, 1932a: 4 (preocc. White, 1917).—Okla.
variabilis Van Duzee, 1915a: 191.—Fla., Ga.; Minn., Iowa, Ill., N.Y. to Fla.
versicolor Van Duzee, 1932a: 6.—Tex.
vulsus Van Duzee, 1917c: 38.—Ariz.

Genus CHRYSOTUS Meigen

Chrysotus Meigen, 1824: 40. Type-species, *Musca nigripes* Fabricius (Westwood, 1840: 134). Further study to determine the true type-species is necessary. Fabricius' *nigripes* is at present unrecognized; Meigen's usage of it was probably a mixed species. See Kowarz, 1874: 471.

Chrysotus is a widespread genus, and its species are found in a wide variety of habitats. Females can seldom be determined to species, and as a group are hard to distinguish from those of *Diaphorus*.

REFERENCE: Van Duzee, 1924b (key, males).

affinis Loew, 1861a: 64.—Middle States; Ont., Que., Maine, Conn., N.Y.
albohirtus Van Duzee, 1924b: 41.—S. Dak.
aldrichi Van Duzee, 1924b: 47.—Ga.
annulatus Van Duzee, 1924b: 27.—Ga.; Mich., Conn., Va. to Fla.
anomalus Malloch, 1914g: 238.—La.; N.Y., Ga.
arcuatus Van Duzee, 1924b: 48.—Calif.; Oreg., Idaho, Mexico.
argentatus Van Duzee, 1924b: 41.—Calif.; Idaho, Mich.
arkansensis Van Duzee, 1930b: 84.—Ark.
atratus Van Duzee, 1930a: 2.—Conn.
auratus Loew, 1861a: 65.—N.Y. Unrecognized.
badius Van Duzee, 1932b: 15.—Que.
barbatus (Loew), 1861a: 48 (*Synarthrus*).—Middle States (Loew, 1864e: 138); Wis. to R.I., s. to Iowa and Fla., Mexico, West Indies.
validus Loew, 1861a: 63.—Middle States.
americanum Wheeler, 1896b: 154 (*Xiphandrium*).—Wis., Ill., Ind.
barbipes Van Duzee, 1932b: 14.—Colo.
bellulus Van Duzee, 1932b: 14.—Que.
bellus Van Duzee, 1924b: 39.—D.C.; Mich., N.Y. to Maine, s. to N.C.
bracteatus Van Duzee, 1924b: 36.—Ga.
caerulus Van Duzee, 1924b: 21.—Wash.; B.C.
californicus Van Duzee, 1924b: 16.—Calif.
canadensis Van Duzee, 1924b: 19.—Ont.; Mich.
caudatus Van Duzee, 1924b: 29.—N.Y.
chlanoflavus Harmston and Knowlton, 1940d: 59.—N. Dak.
choricus Wheeler, 1890: 357.—Wis.; Ont., Iowa, Ill., ?Mexico, ?West Indies.
chloricus, error.
ciliatus Malloch, 1914g: 236.—Ill.
coloradensis Van Duzee, 1924b: 14.—B.C.

convergens Van Duzee, 1924b: 17.—N.Y.; Mich., Que.; N.C.
cornutus Loew, 1862b: 214 (Cent. 2, no. 65) (also 1864e: 174).—Ill.; Iowa, N.Y.
costalis Loew, 1861a: 64.—Md., Fla.; Mich., N.Y., Ga.
costatus, error.
cressoni Van Duzee, 1924b: 17.—N.Y.; N.C.
crosbyi Van Duzee, 1924b: 43.—Mo.; N.C.
currani Van Duzee, 1924b: 15.—Que.; Ont., N.Y., Del., Tenn., N.C.
dakotensis Harmston, 1952: 290.—S. Dak.
discolor Loew, 1861a: 65.—Middle States; Oreg. to Man. and Que., s. to Iowa and Fla.
cobaltinus Van Duzee, 1924b: 38.—Fla.
disjunctus Van Duzee, 1924b: 33.—Va.; Mass.
distinctus Van Duzee, 1924b: 23.—Ga.; Mich., Tenn.
dividuus Van Duzee, 1924b: 12.—N.Y.; Mich., Iowa, Ga.
dorsalis Van Duzee, 1924b: 44.—Ga.; La. to S. C.
emarginatus Van Duzee, 1928d: 87.—Iowa.
excisus Aldrich, 1896b: 325.—St. Vincent I.; ?N.Y.
exilis Van Duzee, 1924b: 32.—Ga.; N.C.
flavicauda Van Duzee, 1928d: 87.—Iowa.
flavisetus Malloch, 1914g: 239.—Ill.; Iowa, Tenn.
frontalis Van Duzee, 1924b: 24.—Ga.
fulvohirtus Van Duzee, 1915d: 95.—Ga.; Mass.
gilvipes Van Duzee, 1924b: 25.—Ga.
halteralis Van Duzee, 1924b: 40.—N.Y.; Que., N.C.
hastatus Van Duzee, 1924b: 46.—N.Y.
hirtipes Van Duzee, 1924b: 22.—N.Y.; Alta., S. Dak., Iowa, Ont., Que.
var. **dubius** Van Duzee, 1924b: 22.—S. Dak.; Que., Ont., N.Y.
humilis Parent, 1928: 164.—Costa Rica; Tex.
idahoensis Van Duzee, 1924b: 18.—Wash.
incertus Walker, 1849: 651.—U.S.
intrudus Harmston, 1951b: 107.—Okla.; Kans.
johnsoni Van Duzee, 1924b: 21.—Maine; Mich., Que., N.C., S.C.
junctus Van Duzee, 1924b: 13.—Fla.; Ga.
kansensis Harmston, 1952: 289.—Kans.
longihirtus Van Duzee, 1932b: 13.—Que.
longimanus Loew, 1861a: 62.—Middle States; Oreg., Calif., Colo., Kans.
magnicornis Van Duzee, 1924b: 13.—N.Y.; Iowa.
major Van Duzee, 1924b: 34.—N.Y.
nigriciliatus Van Duzee, 1933b: 2.—N.H.
nigrifrons Parent, 1929a: 187.—Tex.
nigripalpis Van Duzee, 1924b: 32.—Ga.

nudipes Van Duzee, 1924b: 33.—Calif.
obliquus Loew, 1861a: 63.—N.Y.; Iowa to Ont., Que., and N.S., s. to Kans. and Fla., ?S. Amer.
pallipes Loew, 1861a: 66.—Middle States; Iowa to Conn., s. to Mo. and Ga., West Indies, S. Amer.
palpiger (Wheeler), 1890: 360 (*Diaphorus*).—Wis.; Alaska, Wash. to Ont. and Mass., s. to Calif, Ill., and N.Y.
spinifer Malloch, 1914g: 238.—Ill.
parvicornis Van Duzee, 1924b: 12.—N.Y., Va.; Iowa, Ohio, Del., Tenn., N.C., S.C.
exiguus Van Duzee, 1924b: 23.—N.Y.
parvulus Van Duzee, 1924b: 25.—N. Mex. (as N.H., error).
pectoralis Van Duzee, 1924b: 24.—Ga.; Fla.
philtrum Melander, 1903a: 72.—Pa., Tex., La.; Iowa, Mo., Mich., Ind.
picticornis Loew, 1862b: 214 (Cent. 2, no. 66) (also 1864e: 184).—Ill.; Calif. to Mass., s. to Fla., Mexico, S. Amer.
pomeroyi Parent, 1934b: 262.—Va.; Conn., N.C.
rauterbergi (Wheeler), 1890: 360 (*Diaphorus*).—Nebr.
sagittarius Van Duzee, 1924b: 42.—N.Y.
silvicola Harmston. 1951a: 11.—Calif.
simulans Van Duzee, 1924b: 31.—Va.; Fla.
subcostatus Loew, 1864e: 181.—Ill.; Nebr. and Mich. to Mass., s. to S.C., ?Calif.
pratincola Wheeler, 1890: 357.—Nebr.
subjectus Van Duzee, 1924b: 40.—Va.
tarsalis Van Duzee, 1924b: 30.—Ga.; Tenn. and N.C., s. to La. and Fla.
teapanus Aldrich, 1901: 347.—Mexico; Ga., Fla.
terminalis Van Duzee, 1924b: 28.—Md.
tibialis Van Duzee, 1924b: 16.—Idaho; Man., Mich., N.Y.
triangularis Van Duzee, 1924b: 46.—Md.
varipes Van Duzee, 1924b: 20.—N.Y.
vividus Loew, 1864e: 178.—Ill.; Kans., N.Y., D.C., Fla., Mexico.
vulgaris Van Duzee, 1924b: 15.—N.Y.; Mich., Conn., N.C.
wisconsinensis Wheeler, 1890: 356.—Wis.; Que., Vt., N.Y., N.C.
wisconensis, error.
xanthocal Harmston and Knowlton, 1940e: 110.—Calif.

Genus ASYNDETUS Loew

Asyndetus Loew, 1869b: 34 (Cent. 8, no. 58). Type-species, *ammophilus* Loew (Coquillett, 1910b: 511).

REFERENCE: Van Duzee, 1919b (key, males).

ammophilus Loew, 1869b: 34 (Cent. 8, no. 58).—R.I.; Iowa, Mass. to S.C.
appendiculatus Loew, 1869b: 36 (Cent. 8, no. 59).—R.I.; Iowa, Mich., Ind., Fla.
caudatus Van Duzee, 1916b: 92.—Ariz.
cornutus Van Duzee, 1916b: 89.—Calif., Utah.
flavipalpus Van Duzee, 1932b: 10.—Nev.
harbeckii Van Duzee, 1914c: 442.—N.J.
interruptus (Loew), 1861c: 37 (*Diaphorus*).—Cuba; Fla.
johnsoni Van Duzee, 1916b: 93.—Conn.; N.H., N.C.
latus Van Duzee, 1916b: 91.—Ariz.; Calif., ?Mich.
nigripes Van Duzee, 1916b: 91.—Calif.
occidentalis Van Duzee, 1919b: 249.—Calif.
parvicornis Van Duzee, 1932b: 11.—Wyo.
scopifer Harmston, 1952: 288.—Oreg.
severini Harmston and Knowlton, 1939b: 351.—S. Dak.
spinitarsis Harmston, 1951b: 108.—Calif.
syntormoides Wheeler, 1899: 32.—Mass., N.J.; Kans., Mass. to Fla.
texanus Van Duzee, 1916b: 90.—Ariz., Tex.
utahensis Harmston and Knowlton, 1942b: 85.—Utah.

Genus ARGYRA Macquart

Porphyrops Meigen, 1824: 45. Type-species, *Musca diaphana* Fabricius (Curtis, 1835a: pl. 541). See discussion below.
Argyra Macquart, 1834a: 456. Type-species, *Musca diaphana* Fabricius (Rondani, 1856: 141). See discussion below.
Leucostola Loew, 1857a: 39. Type-species, *Argyra vestita* Wiedemann (mon.).

The name *Porphyrops* has priority over *Argyra*. However, the presently established use of *Argyra* and the former usage of *Porphyrops* by many authors in Rhaphiinae, make a suspension of the latter name in favor of *Argyra* advisable to avoid confusion. Application has been made to the I.C.Z.N.

Adults of *Argyra* are frequently encountered on moist soil and herbaceous foliage near water.

REFERENCE: Van Duzee, 1925d (rev.).

abdominalis (Say), 1829: 170 (1859b: 362) (*Dolichopus*).—Ind.
albicans Loew, 1861a: 45.—D.C.; Minn. to Que., s. to Kans. and S.C.
quadriplagiatus Harris, 1835: 597 (*Porphyrops*). Nomen nudum.
albicoxa Van Duzee, 1925d: 30.—Que.; N.Y.
albiventris Loew, 1864e: 128.—Alaska; Alaska, s. to Oreg. and Utah.

aldrichi Johnson, 1904: 18.—N.J.; Mass. to S.C.
angustata Van Duzee, 1925d: 10.—Maine; Wis. to Maine and Mass.
argentiventris Van Duzee, 1925d: 15.—Calif.
barbipes Van Duzee, 1925d: 11.—Calif.
basalis Van Duzee, 1932c: 186.—N.Y.; S.C.
bimaculata Van Duzee, 1925d: 19.—Que.; Oreg. to Maine, s. to Ill. and Mass.
brevipes Van Duzee, 1925d: 11.—La.
calceata Loew, 1861a: 47.—Middle States; Ont. to Que., s. to Ind. and Pa.
calcitrans Loew, 1861a: 46.—N.Y.; Ont. to Maine, s. to Iowa and S.C.
californica Van Duzee, 1925d: 26.—Calif.
ciliata Van Duzee, 1924f: 5.—Alaska.
cingulata (Loew), 1861: 53 (*Leucostola*).—D.C.; Kans. to Maine, s. to La. and Fla.
condomina Harmston and Knowlton, 1946c: 137.—Utah; Colo., S. Dak.
currani Van Duzee, 1925d: 24.—Ont.; Mich., Que.
cylindrica Loew, 1864e: 132.—Alaska; Wash., Calif.
dakotensis Harmston and Knowlton, 1939c: 85.—S. Dak.; Utah.
fasciventris Van Duzee, 1930a: 2.—Conn.
femoralis Van Duzee, 1925d: 16.—Calif.
flavicornis Van Duzee, 1925d: 35.—Kans.; Mo., La.
flavicoxa Van Duzee, 1925d: 39.—Fla.
flavipes Van Duzee, 1925d: 34.—Md.; Ind., N.Y., Tenn.
hirta Van Duzee, 1925d: 7.—Colo.
idahona Harmston and Knowlton, 1946c: 138.—Idaho.
inaequalis Van Duzee, 1925d: 40.—Ind.; Tenn.
involuta Van Duzee, 1925d: 38.—Ind.; S. Dak.
johnsoni Van Duzee, 1925d: 37.—N.J.; Iowa, Ill., Pa.
minuta Loew, 1861a: 46.—D.C.; Iowa, Ind. to Ont. and Vt., s. to D.C.
nigricoxa Van Duzee, 1925d: 26.—Ohio; Ont., Va., S.C.
nigripes Loew, 1864e: 127.—Alaska; Wash. and Idaho, s. to Calif.
nigriventris Van Duzee, 1925d: 14.—Wash.
obscura Van Duzee, 1925d: 36.—N.H.
robusta Johnson, 1906: 59.—Que.; Idaho and Utah to Maine.
scutellaris Van Duzee, 1925d: 12.—Oreg.; Idaho.
sericata Van Duzee, 1925d: 28.—Maine; Iowa, Ind., Que., Mass.
setipes Van Duzee, 1925d: 31.—N.Y.; Ont. to Mass., s. to N.C.
similis Harmston and Knowlton, 1940d: 58.—Ill.; S.C.
spina Van Duzee, 1925d: 41.—Ind.

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splendens Van Duzee, 1933c: 151 (n. name for *splendida* Van Duzee).—Calif.

splendida Van Duzee, 1925d: 21 (preocc. Meijere, 1916).—Calif.

thoracica Van Duzee, 1925d: 23.—Ont.; Ind., Tenn., N.Y.

utahna Harmston, 1951a: 16.—Utah.

velutina Van Duzee, 1925d: 20.—Que.; Mich.

Subfamily SYMPYCNINAE

(Xanthochlorinae, Campsicneminae)

Genus CAMPSICNEMUS Haliday

Medeterus, subg. *Camptosceles* Haliday, 1832: 357. Type-species, *Dolichopus scambus* Fallén (Coquillett, 1910b: 518). Suppressed by I.C.Z.N., 1958b: 349.

Campsicnemus Haliday 1851: 187. Type-species, *Dolichopus curvipes* Fallén (Coquillett, 1910b: 518).

The species of *Campsicnemus* are small and are found on moist sand or soil and on low herbaceous foliage near the margins of streams and lakes. Adults sometimes run about on the surface of still water.

REFERENCES: Curran, 1933d (key); Harmston and Knowlton, 1942a (rev.).

americanus Van Duzee, 1924f: 3.—Alaska; Colo., Ont., Mich., Maine, N.Y., Mass.

arcuatus Van Duzee, 1917a: 125.—Colo.

bryanti Malloch, 1932a: 121.—Man.

claudicans Loew, 1864e: 194.—Alaska; Alaska to Calif. and Idaho, also Colo.

clandicans, error.

curvispina Van Duzee, 1930a: 2 (n. name for *calcaratus* Van Duzee).—Alaska.

calcaratus Van Duzee, 1924f: 3 (preocc. Grimshaw, 1901).—Alaska.

degener Wheeler, 1899: 58.—Calif.; Alaska, Wash. to Calif. and Colo., also Ont., Que., ne. U.S.

hirtipes Loew, 1861a: 68.—Pa.; Kans to Mich. and Que., s. to Fla.

melanus Harmston and Knowlton, 1942a: 11.—Utah.

montanus Harmston and Knowlton, 1942a: 14.—Mont.; Wyo.

nigripes Van Duzee, 1917a: 126.—Calif.; Mont. to Calif. and Colo.

oedipus Wheeler, 1899: 60.—Wyo.; Oreg., Utah, Colo.

philoctetes Wheeler, 1899: 59.—Wyo., S. Dak.; Wash., Oreg., Idaho, Utah.

thersites Wheeler, 1899: 61.—Wyo.; Mont., Idaho, Utah.
utahensis Harmston and Knowlton, 1942a: 13.—Utah.
vanduzeei Curran, 1933d: 6.—Man.
wheeleri Van Duzee, 1923d: 64.—Maine; Que.
variabilis Van Duzee, 1932a: 9 (*Thinophilus*).—Que.

Genus SYMPYCNUS Loew

Sympycnus Loew, 1857a: 42. Type-species, *Porphyrops annulipes* Meigen (Coquillett, 1910b: 610).

Most species of *Sympycnus* are found in deep shade and often hover over moist rocks and falling water.

REFERENCE :Van Duzee, 1930e (rev.).

aldrichi Van Duzee, 1930e: 39.—Ind.
aurifacies Van Duzee, 1923c: 248.—Alaska.
basistylatus Parent, 1929a: 196.—B.C.
binodatus Harmston and Knowlton, 1940c: 397.—Utah.
brevicauda Van Duzee, 1932b: 19.—Que.
brevipes Van Duzee, 1933b: 6.—N.Y.
breviventris Van Duzee, 1930e: 40.—Calif.; Utah.
calcaratus Van Duzee, 1930e: 41.—Colo.; Utah, N. Mex.
caudatus Van Duzee, 1917b: 338.—Calif.
clavatus Van Duzee, 1913a: 271.—N. Mex.; Utah, Colo., Ariz., Mexico.
cuprinus Wheeler, 1899: 50.—Calif.; Alaska, Alta., Utah.
fasciventris Van Duzee, 1917b: 337.—Calif.; Oreg., Colo.
globulicauda Van Duzee, 1930e: 43.—Colo.
hardyi Harmston and Knowlton, 1940c: 397.—Utah.
inaequalis Van Duzee, 1930e: 44.—Calif.
isoaristus Harmston and Knowlton, 1940c: 402.—Utah.
laevigatus Van Duzee, 1930e: 45.—Calif.
latitarsis Van Duzee, 1930e: 46.—Utah.
jamesi Harmston and Knowlton, 1939a: 257 (*Peloropeodes*).—Utah. **N. syn.**, F. C. Harmston *in litt.*
lineatus Loew, 1861a: 67.—N.Y., Va.; Minn. to Que., s. to Kans. and Va.
longinervis Van Duzee, 1932b: 18.—N.Y.
marcidus Wheeler, 1899: 48.—Wyo.; Alta., Calif., Utah.
minuticornis Van Duzee, 1932b: 17.—Colo.
montanus Van Duzee, 1930e: 47.—Idaho.
pectoralis Van Duzee, 1933b: 7.—N.Y.
pennarista Harmston and Knowlton, 1940c: 399.—Utah.
pictipes Harmston and Knowlton, 1940c: 401.—Utah.

pugil Wheeler, 1899: 51.—Wash.; Oreg., Calif., Utah.
pulvillus Van Duzee, 1930e: 49.—Colo.; Calif.
setosus Van Duzee, 1930e: 50.—Colo.
tertianus Loew, 1864c: 187.—Alaska.
tripilus Van Duzee, 1930e: 52.—Calif.; Utah.
utahensis Harmston and Knowlton, 1939a: 258.—Utah.

Genus CALYXOCHAETUS Bigot

Calyxochaetus Bigot, 1888b: xxiv. Type-species, *Sympycnus nodatus* Loew (as *notatus*; orig. des.).
Nothosympycnus Wheeler, 1899: 51. Type-species, *vegetus* Wheeler (Coquillett, 1910b: 576).
Notosympycnus, error or emend.

REFERENCE: Van Duzee, 1930e (rev.).

abbreviatus (Van Duzee), 1917b: 341 (*Nothosympycnus*).—Kans.
cilifemoratus (Van Duzee), 1924f: 12 (*Nothosympycnus*).—Alaska; Utah, Colo.
fuscitibialis Harmston and Knowlton, 1940c: 400 (*Sympycnus*).—Utah. **N. syn.,** F. C. Harmston *in litt.*
clavicornis (Van Duzee), 1930e: 55 (*Sympycnus*).—Calif.
distortus (Van Duzee), 1930e: 55 (*Sympycnus*).—Utah.
fortunatus (Wheeler), 1899: 52 (*Nothosympycnus*).—Pa.; Ont. to Maine, s. to N.C.
frontalis (Loew), 1861a: 67 (*Sympycnus*).—Pa.; Iowa to Maine, s. to Tenn. and N.C.
hastatus (Van Duzee), 1930e: 57 (*Sympycnus*).—Calif.; Mexico.
inornatus (Van Duzee), 1917b: 340 (*Nothosympycnus*).—Calif.
insolitus (Van Duzee), 1932b: 20 (*Sympycnus*).—Colo.; Utah.
luteipes (Van Duzee), 1923d: 63 (*Nothosympycnus*).—Maine; Ont., N.Y.
tarsalis Curran, 1924e: 108 (*Nothosympycnus*).—Ont.
monticola (Van Duzee), 1932b: 20 (*Sympycnus*).—Colo.
nodatus (Loew), 1862b: 215 (Cent. 2, no. 68) (*Sympycnus*).—Ill.; Man. to N.Y., s. to Tex.
notatus, error.
oreas (Wheeler), 1899: 55 (*Nothosympycnus*).—Wyo.; Calif., Utah.
spatulatus Harmston and Knowlton, 1940c: 398 (*Sympycnus*).—Utah.
sobrinus (Wheeler), 1899: 54 (*Nothosympycnus*).—Idaho; Calif.
vegetus (Wheeler), 1899: 53 (*Nothosympycnus*).—Calif.; Oreg., Idaho, Utah, ?N.S.

Genus CHRYSOTIMUS Loew

Chrysotimus Loew, 1857a: 48. Type-species, *pusio* Loew (Coquillett, 1910b: 524).

REFERENCE: Curran, 1923h (key).

delicatus Loew, 1861a: 74.—N.Y.; Ont. to Maine, s. to Ga.
flavicornis Van Duzee, 1916a: 24.—N.Y.; Utah, Wis., S.C.
luteopalpus Curran, 1923h: 190.—Man.
luteus Curran, 1930j: 52.—N.Y.; Md., S.C., Ga.
occidentalis Harmston, 1951b: 109.—Ariz.
pusio Loew, 1861a: 74.—N.Y.; N.C.

Genus XANTHOCHLORUS Loew

Xanthochlorus Loew, 1857a: 42.—Type-species, *Medeterus ornatus* Haliday (Coquillett, 1910b: 620).

helvinus Loew, 1861a: 75.—Ill.; Wis. to Vt., s. to Iowa and Ga.

Genus TEUCHOPHORUS Loew

Teuchophorus Loew, 1857a: 44. Type-species, *Dolichopus spinigerellus* Zetterstedt (Coquillett, 1910b: 613).

REFERENCE: Harmston and Knowlton, 1946a (key).

clavigerellus Wheeler, 1899: 57.—S. Dak.; Mich.
condylus Harmston and Knowlton, 1946a: 671.—Ind.; Conn.
diminucosta Harmston and Knowlton, 1942c: 21.—Utah.
utahensis Harmston and Knowlton, 1942c: 20.—Utah.

Genus TELMATURGUS Mik

Telmaturgus Mik, 1874: 349. Type-species, *Sympycnus tumidulus* Raddatz (orig. des.).

parvus (Van Duzee), 1924b: 45 (*Chrysotus*).—N.Y.; Mich., Pa., Tenn.

perparvus (?error) Johannsen, 1928b: 773.

Genus ENLINIA Aldrich

Collinellula Aldrich, 1932b: 4 (preocc. Strand, 1928). Type-species, *magistri* Aldrich (orig. des.).

Enlinia Aldrich, 1933b: 168 (n. name for *Collinellula* Aldrich). Type-species, *Collinellula magistri* Aldrich (aut.).

E. magistri is one of the smallest species of Dolichopodidae. The adults fly very rapidly close to the ground.

magistri (Aldrich), 1932b: 5 (*Collinellula*).—N.Y.; D.C.

Genus MICROMORPHUS Mik

Micromorphus Mik, 1878b: ?4 (1878: 6). Type-species, *Hydrophorus albipes* Zetterstedt (orig. des.).

albipes (Zetterstedt), 1843: 454 (*Hyrdophorus*).—Sweden; Md., S.C., Fla., Mexico, Costa Rica, Europe, ?New Zealand.
fulvosetosus Parent, 1929a: 193.—Tex.; Md., S.C., Fla.
minimus (Van Duzee), 1925e: 179 (*Neurigona*).—N.Y.; Que.

Genus LAMPROCHROMUS Mik

Lamprochromus Mik, 1878b: ?5 (1878: 7). Type-species, *Chrysotus elegans* Meigen (orig. des.).

canadensis (Van Duzee), 1917b: 339 (*Sympycnus*).—Ont.; N.Y., N.C., ?Utah.
brevicornis Robinson, 1960: 271 (*Telmaturgus*).—N.C.
satrapa (Wheeler), 1890: 359 (*Diaphorus*).—Nebr. N. comb.

Unplaced Species of Dolichopodidae

adjacens Walker, 1849: 661 (*Dolichopus*).—Ont.
deremptus Walker, 1849: 667 (*Orthochile*).—N. Amer.
lamellicornis Thomson, 1869: 511 (*Dolichopus*).—Calif.
nubilus Say, 1829: 168 (1859b: 361) (*Chrysotus*).—Ind.
pilosicornis Walker, 1849: 653 (*Porphyrops*).—Ont.
viridifemora Macquart, 1850: 428 (1850: 124) (*Chrysotus*).—N. Amer.

Suborder CYCLORRHAPHA

Division ASCHIZA

Superfamily LONCHOPTEROIDEA

Family LONCHOPTERIDAE

(Musidoridae)

By Willis W. Wirth

The "pointed-wing" flies are a small family of slender, yellowish to brownish flies which are found in moist, shady places. The larvae live under leaves and decaying vegetation. *Lonchoptera furcata* (Fallén)

is a worldwide, parthenogenetic species, which has been studied genetically by Stalker (1956).

REFERENCES: Curran, 1934b (rev.); Czerny, 1934a (anat., biol., immature stages, rev. Palaearctic spp.); Hardy, 1952 (syn.).

Genus LONCHOPTERA Meigen

Musidora Meigen, 1800: 30. Type-species, *Lonchoptera lutea* Panzer (Coquillett, 1910d: 377). Suppressed by I.C.Z.N., 1963b: 339.

Lonchoptera Meigen, 1803: 272. Type-species, *lutea* Panzer (sub. mon., Panzer 1809c: 20).

borealis Curran, 1934b: 4.—Que.; Alaska, Colo., Ont., N.Y.
furcata (Fallén), 1823b: 1 (*Dipsa*).—Europe; N. Amer., worldwide.
dubia Curran, 1934b: 5.—N.Y.
occidentalis Curran, 1934b: 4.—Calif.; Alaska, Idaho.
uniseta Curran, 1934b: 2.—Colo.; B.C., Que.

Superfamily PHOROIDEA

Family PHORIDAE

By H. Schmitz[1] and Erwin Beyer

Flies of the family Phoridae are black, brown, or yellow and are small, humpbacked, and usually inconspicuous. They are common around decaying vegetation or animal matter, and sometimes in and around nests of ants, termites, and bees. The adults move about with a characteristic quick, jerky movement. Larval habits are diverse (see under genera). Some species are parasitic, others are scavengers, and many have been reared from fleshy and woody fungi. Parasitic forms are often found in nests of ants, termites, bees, and wasps, and on beetles, caterpillars, land mollusks, and diplopods.

The extensive work on North American phorids early in the century by Aldrich, Brues, and Malloch is now badly out of date and needs to be revised in the light of modern revisionary studies by Schmitz and Borgmeier. While this catalog was in preparation, and after the death of Father Schmitz on September 1, 1960, Father T. Borgmeier made an extensive study of types and other material in the Brues Collection of the Museum of Comparative Zoology in Cambridge, Mass., and the Aldrich and Malloch collections at the U.S. National Museum in Washington, D.C. Father Borgmeier has gen-

[1] Father Schmitz died September 1, 1960.

erously allowed us to incorporate the resulting new synonymies, new generic assignments, and additional distributions in the present catalog.

REFERENCES: Brues, 1903 (monog.), 1906a (cat., keys to genera for world), 1915 (world cat.), 1950 (keys genera and spp. ne. U.S.); Malloch, 1912b (rev.); Lundbeck, 1922 (rev., Denmark); Schmitz, 1929b (world rev. genera).

Subfamily PHORINAE

Genus ANEVRINA Lioy

Anevrina Lioy, 1864b: 77. Type-species, *Phora urbana* Meigen (Coquillett, 1910b: 506, by inference as "the first species").

Aneurina, emend.

Chaetoneura Malloch, 1909: 26 (preocc. Felder, 1862). Type-species, *Trineura thoracica* Meigen (Malloch, 1910: 19).

Stenophora Malloch, 1909: 27 (preocc. Labbé, 1899). Type-species, *Trineura unispinosa* Zetterstedt (Malloch, 1910: 89).

Pseudostenophora Malloch, 1912b: 412 (n. name for *Stenophora* Malloch). Type-species, *Trineura unispinosa* Zetterstedt (aut.).

Chaetoneurophora Malloch, 1912b: 422 (n. name for *Chaetoneura* Malloch). Type-species, *Trineura thoracica* Meigen (aut.).

aureiventris (Brues), 1913: 90 (*Chaetoneurophora*).—R.I.; N.H., Mass.

californica (Van Duzee), 1933d: 63 (*Hypocera*).—Calif. **N. comb.,** T. Borgmeier *in litt.*

curvinervis (Becker), 1901: 33 (*Phora*).—Germany; Wash., N.H., Maine, Europe.

luggeri (Aldrich), 1892a: 145 (*Phora*).—Minn.; Minn. to N.H., s. to Kans. and Md.

macateei (Malloch), 1913b: 273 (*Chaetoneurophora*).—Md.; Mich.

olympiae (Aldrich) *in* Brues, 1903: 344 (*Phora*).—Wash.; N.Y.

spinipes (Coquillett), 1895b: 105 (*Phora*).—Conn.; Wash., Oreg., Idaho, Ohio.

sulcatifemur Borgmeier, 1962a: 65.—Calif.; Oreg.

thoracica (Meigen), 1804: 313 (*Trineura*).—Europe; Alaska, Mont., Mich., N.H.

urbana (Meigen), 1830: 215 (*Phora*).—Europe; Utah.

variabilis (Brues), 1908: 199 (*Phora*).—Wash.; Oreg., Colo.

Genus CHAETOPLEUROPHORA Schmitz

Chaetopleurophora Schmitz, 1922: 131. Type-species, *Phora erythronota* Strobl (Schmitz, 1927c: 31).

Larval stages have been found in dead snails.

REFERENCE: Borgmeier, 1961 (key).

atra Borgmeier, 1962a: 66.—Calif.
erythronota (Strobl), 1892: 195 (*Phora*).—Austria; se. Canada, Tenn., Md., Va.
multiseriata (Aldrich) *in* Brues, 1903: 345 (*Phora*).—Kans.; Nebr. to Conn., s. to Miss. and Va.
pennsylvanica (Malloch), 1914e: 175 (*Paraspiniphora*).—Pa.; Ohio, Conn., Md.
spinosissima Strobl of Malloch, 1912b: 426.
rubricornis Borgmeier, 1962a: 67.—N.Y.
rufithorax Brues, 1943: 50.—N.Y.
spinosissima (Strobl).—Not Nearctic.

Genus SPINIPHORA Malloch

Spiniphora Malloch, 1909: 26. Type-species, *Phora maculata* Meigen (Malloch, 1910: 20).
Paraspiniphora Malloch, 1912b: 425 (unjustified n. name for *Spiniphora* Malloch). Type-species, *Phora maculata* Meigen (aut.).

Larvae are found in dead snails.

bergenstammii (Mik), 1864: 793 (*Phora*).—Austria; Calif., Europe, n. Africa, Uruguay.
excisa (Becker), 1901: 28 (*Phora*).—Europe; Tex., N.Y., Md.
comstocki (Aldrich) *in* Brues, 1903: 346 (*Phora*).—N.Y.
slossonae (Malloch), 1912b: 428 (*Paraspiniphora*).—N.H.; N.Y.
spinulosa (Malloch), 1912b: 429 (*Paraspiniphora*).—N.Y. **N. comb.**
trispinosa (Malloch), 1912b: 427 (*Paraspiniphora*).—B.C.; Idaho.

Genus TRIPHLEBA Rondani

Triphleba Rondani, 1856: 136. Type-species, *hyemalis* Rondani (orig. des.) = *hyalinata* (Meigen).
Trupheoneura Malloch, 1909: 27. Type-species, *Phora perennis* Meigen (Malloch, 1910: 88).
Woodia Malloch, 1909: 28 (preocc. Deshayes, 1860). Type-species, *Phora gracilis* Wood (mon.).

Parastenophora Malloch, 1910: 17, 90 (n. name for *Woodia* Malloch). Type-species, *Phora gracilis* Wood (aut.).

The larvae of most species are necrophagous.

bispinosa (Malloch), 1914e: 173 (*Pseudostenophora*).—N.J.
carbonaria Borgmeier, 1962a: 70.—Alaska.
forcipata Borgmeier, 1962a: 69.—Wash.
labida Borgmeier, 1962a: 69.—Wash.; Alaska, Calif.
laticosta Borgmeier, 1962a: 68.—B.C.
lugubris (Meigen), 1830: 217 (*Phora*).—Europe; Wyo., N.H., Md., Tenn.
fratercula Brues, 1903: 341 (*Phora*).—Wyo. **N. syn.**
microcephala (Loew), 1866b: 51 (Cent. 7, no. 96) (*Phora*).—D.C.; Mass.
occidentalis (Brues), 1908: 200 (*Phora*).—Idaho; Wash.
pachyneura (Loew), 1866b: 52 (Cent. 7, no. 97) (*Phora*).—Alaska; Alaska to Que. and Maine, s. to Idaho and Md.
subfusca (Malloch), 1912b: 422 (*Trupheoneura*).—Mass.; Mich., Mass. to Md.
suspecta (Malloch), 1912b: 420 (*Trupheoneura*).—N. Dak.
trinervis (Becker), 1901: 19 (*Phora*).—Germany; B.C., Europe.
gilsoni Schmitz, 1915: 497 (*Trupheoneura*).—B.C. **N. syn.**
varipes (Malloch), 1912b: 419 (*Trupheoneura*).—Kans.; Ill., Md.
vitrinervis (Malloch), 1912b: 419 (*Trupheoneura*).—N.H.

Genus HYPOCERA Lioy

Hypocera Lioy, 1864b: 78. Type-species, *Trineura mordellaria* Fallén (Brues, 1906a: 6).

americana Borgmeier, 1962a: 71.—Md.; Mass.
ehrmanni Aldrich *in* Brues, 1903: 353.—Pa.; Ont. to N.C.
mordellaria (Fallén).—Probably not Nearctic.
subsultans, authors, not Linnaeus.

Genus DIPLONEVRA Lioy

Diplonevra Lioy, 1864b: 77. Type-species, *Bibio florea* Fabricius (Enderlein, 1924: 272).
Diploneura, emend.

aberrans Borgmeier, 1962a: 73.—Iowa.
funebris (Meigen), 1830: 221 (*Phora*).—Europe; Idaho to Mass., s. to Calif. and Tex.
cimbicis Aldrich, 1892a: 143 (*Phora*).—S. Dak.
gaudialis (Cockerell), 1915: 351 (*Dohrniphora*).—Calif.

hamata Borgmeier, 1962a: 72.—Va.; Md.
alleni (Brues) of Brues, 1919b: 499, 501. Va. specimens only.
nitidula (Meigen), 1830: 221 (*Phora*).—Europe; Minn. to Maine, s. to Ind. and Va.
nitidifrons Brues, 1903: 347 (*Phora*).—N.Y., Mass., Pa.
concinna, authors, not Meigen.

Genus DOHRNIPHORA Dahl

Dohrniphora Dahl, 1898: 188. Type-species, *dohrni* Dahl (orig. des.).

castaneicoxa Borgmeier, 1960: 272.—Brazil; Okla.
cornuta (Bigot), 1857a: 348 (1857: 827) (*Phora*).—Cuba; entire N. Amer., cosmopolitan.
venusta Coquillett, 1895b: 107 (*Phora*).—Mass.
divaricata (Aldrich), 1896b: 437 (*Phora*).—St. Vincent I.; Bermuda.
incisuralis (Loew), 1866b: 52 (Cent. 7, no. 98) (*Phora*).—D.C.; Mass., s. to La. and Fla., also Cent. Amer.
perplexa (Brues), 1903: 350 (*Phora;* as *divaricata* var.).—Fla., Ga.

Genus BOROPHAGA Enderlein

Borophaga Enderlein, 1924: 277. Type-species, *Phora flavimana* Meigen (orig. des.)=*femorata* (Meigen).

REFERENCE: Schmitz, 1952b (partial key).

clavata (Loew), 1866b: 51 (Cent. 7, no. 95) (*Phora*).—D.C.; Kans. to Maine and Ga.
femorata (Meigen).—Not Nearctic.
fuscipalpis Schmitz, 1952b: 104.—Va.; Mass., Md., D.C.
okellyi Schmitz, 1937: 91.—Ireland; Alaska to Ont. and Maine, s. to Va., Europe.
verticalis Borgmeier, 1962a: 74.—Mo.; Alta. to Que., s. to Ariz. and D.C.
clavata, authors, not Loew.

Genus ABARISTOPHORA Schmitz

Abaristophora Schmitz, 1927b: 21. Type-species, *arctophila* Schmitz (Schmitz, 1927c: 64).

diversipennis Borgmeier, 1962a: 75.—Mont.

Genus STICHILLUS Enderlein

Stichillus Enderlein, 1924: 279. Type-species, *acutivertex* Enderlein (orig. des.)=*insperatus* (Brues).

Tressinus Schmitz, 1924b: 149. Type-species, *Hypocera johnsoni* Brues (orig. des.).

adamsi (Brues), 1924b: 156 (*Hypocera*).—Mo.; N.Y., N.J.
johnsoni (Brues), 1903: 352 (*Hypocera*).—N.J.; Va.
laeticornis Borgmeier, 1962a: 76.—Miss.
planipes Borgmeier, 1962a: 77.—N. Mex.
rectilineatus Schmitz, 1952b: 102.—Ga.

Genus CONICERA Meigen

Conicera Meigen, 1830: 226. Type-species, *atra* Meigen (mon.) = *dauci* (Meigen).

Subgenus CONICERA Meigen

dauci (Meigen), 1830: 223 (*Phora*).—Europe; Oreg. to Mass., s. to Calif. and Tenn., Japan.
atra Meigen, 1830: 226.—Europe.

Subgenus HYPOCERINA Malloch

Hypocerina Malloch, 1913i: 24 (as genus). Type-species, *barberi* Malloch (orig. des.).

aldrichii Brues, 1903: 379.—Idaho; Oreg.
barberi (Malloch), 1913i: 25 (*Hypocerina*).—Va.

Genus CONICEROMYIA Borgmeier

Coniceromyia Borgmeier, 1923: 338. Type-species, *epicantha* Borgmeier (orig. des.).

arizonensis Borgmeier, 1962a: 78.—Ariz.
pilipleura Borgmeier, 1962a: 77.—Fla.; Tex.

Genus PHORA Latreille

Phora Latreille, 1796: 169. Type-species, *Musca aterrima* Fabricius (sub. mon., Latreille, 1802: 464).
Trineura Meigen, 1803: 276. Type-species, *atra* Meigen (Brues, 1906a: 8) = *aterrima* (Fabricius).

REFERENCE: Schmitz and Wirth, 1954 (rev.).

aerea Schmitz, 1930: 60.—N.S.; Kans. to N.S., s. to Ind., Tenn., and Md.
americana Schmitz and Wirth, 1954: 124.—Mexico; Alaska, Oreg., Calif., Neotropical.

aterrima (Fabricius), 1794: 334 (*Musca*).—Europe; N.Y.
carlina Schmitz, 1930: 59.—N.S.
coangustata Schmitz, 1927a: 154 (n. name for *frontalis* Schmitz).—Calif.; Wash. to Mont., s. to Calif.
frontalis Schmitz, 1920b: 224 (preocc. Wood, 1909).—Calif.
cristipes Schmitz and Wirth, 1954: 120.—Calif.
holosericea Schmitz, 1920a: 121.—Europe; Canada.
occidentata Malloch, 1912b: 438.—Alaska, Wyo., N.H.; Calif., Colo., Maine.
stictica Meigen, 1830: 225.—Europe; Alaska to N.H., s. to N. Mex.
montana Brues, 1903: 378 (*Trineura*).—N. Mex.
tripliciseta Schmitz and Wirth, 1954: 116.—Alaska.
velutina Meigen.—Not Nearctic.
viridinota Brues, 1916a: 394.—Man.; Iowa, Mich.

Subfamily AENIGMATIINAE

Genus AENIGMATIAS Meinert

Platyphora Verrall, 1877: 259 (preocc. Gistel, 1857). Type-species, *lubbockii* Verrall (mon.).
Aenigmatias Meinert, 1890b: 213. Type-species, *blattoides* Meinert (orig. des., as gen. n., sp. n.)=*lubbockii* (Verrall).

The larvae are associated with ants and termites.

coloradensis (Brues), 1914: 79 (*Platyphora*).—Colo.; Mich.
curvinervis Borgmeier, 1962b: 458.—Calif.
eurynotus (Brues), 1914: 77 (*Platyphora*).—Mass.; Mich., Ont., Pa.
flavofemoratus (Malloch), 1915h: 353 (*Platyphora*).—Ill.; Calif.
schwarzii Coquillett, 1903b: 21.—Ariz.; Mont., Wyo.

Subfamily METOPININAE

Tribe BECKERININI

Genus BECKERINA Malloch

Beckerina Malloch, 1910: 17, 90. Type-species, *Phora umbrimargo* Becker (mon.).

REFERENCE: Malloch, 1923b (key).

aliena Malloch, 1924f: 356.—Md.; Mich.
luteola Malloch, 1919j: 256.—Ill.
orphnephiloides Malloch, 1912b: 441.—Md.
similata Malloch, 1923b: 32.—Md.

Tribe METOPININI

Genus WOODIPHORA Schmitz

Woodiphora Schmitz, 1925b: 73. Type-species, *Phora retroversa* Wood (orig. des.).

velutinipes (Brues), 1924b: 158 (*Aphiochaeta*).—Mo.

Genus MEGASELIA Rondani

Megaselia Rondani, 1856: 137. Type-species, *crassineura* Rondani (orig. des.) = *costalis* (Roser).

Megaselida, emend.

Subgenus MEGASELIA Rondani

agarici (Lintner), 1895: 399 (1896: 399) (*Phora*).—N.Y.; Mich. to Mass., s. to Kans. and S.C.

setacea Aldrich of Malloch, 1912b: 495.

aletiae (Comstock), 1880a: 208 (*Phora*).—Ala.; Calif. to N.Y., s. to Calif. and Fla.

fungorum Malloch, 1912b: 473 (*Aphiochaeta*).—Md.

aristalis (Malloch), 1914c: 57 (*Aphiochaeta*).—Ill.

aurea (Aldrich), 1896b: 437 (*Phora*).—St.Vincent I.; Fla., Neotropical.

barberi (Malloch), 1912b: 450 (*Aphiochaeta*).—N. Mex.

bisetulata (Malloch), 1915b: 65 (*Aphiochaeta*).—Ill.

borealis (Malloch), 1912b: 488 (*Aphiochaeta*).—B.C.; Oreg., N.Y.

brunnipes (Malloch), 1912b: 475 (*Aphiochaeta*).—Md.

cata (Melander and Brues), 1903: 16 (*Phora*).—Mass.

cavernicola (Brues), 1906b: 101 (*Aphiochaeta*).—Ind.; Mo. to Mass., s. to N. Mex. and Ala., common in caves.

cayuga (Malloch), 1912b: 474 (*Aphiochaeta*).—N.Y.; Mass., Md.

centralis (Brues), 1919a: 190 (*Aphiochaeta*).—Mich.

chaetoneura (Malloch), 1912b: 490 (*Aphiochaeta*).—Ga.; Man., Ohio, Tenn.

catana Curran, 1929a: 8 (*Aphiochaeta*).—Man. **N. syn.,** T. Borgmeier *in litt.*

conspicualis (Malloch), 1912b: 487 (*Aphiochaeta*).—Calif.

erecta (Wood), 1910: 202 (*Phora*).—England; N.S., Europe.

evarthae (Malloch), 1912b: 472 (*Aphiochaeta*).—Unknown; Mich.

fisheri (Malloch), 1912b: 463 (*Aphiochaeta*).—Md.

flava (Fallén), 1823b: 7 (*Trineura*).—Sweden; B.C., Mich., Europe.

flavinervis (Malloch), 1912b: 493 (*Aphiochaeta*).—Md.

fungicola (Coquillett), 1895b: 106 (*Phora*).—N. Mex.; N.Y.

fuscopedunculata (Malloch), 1912b: 498 (*Aphiochaeta*).—B.C.
giraudii (Egger), 1862: 1233 (*Phora*).—Austria; B.C., N.S., R.I., Europe.
dyari Malloch, 1912b: 493 (*Aphiochaeta*).—B.C.
incrassata (Schmitz), 1920a: 145 (*Aphiochaeta*).—Europe; Mich.
infumata (Malloch), 1912b: 490 (*Aphiochaeta*).—Calif.
inornata (Malloch), 1912b: 488 (*Aphiochaeta*).—N.Y.
iroquoiana (Malloch), 1912b: 476 (*Aphiochaeta*).—N.Y., Mich.; Mass., Md.
johannseni (Malloch), 1912b: 474 (*Aphiochaeta*).—N.Y.; Maine.
longipennis (Malloch), 1912b: 473 (*Aphiochaeta*).—La.; Ill.
lutea (Meigen), 1830: 220 (*Phora*).—Europe; Wis., Mich., N.S., La.
minuta (Aldrich), 1892a: 146 (*Phora*).—S. Dak.; Idaho to Maine, s. to Calif. and Fla.
minor, authors, not Zetterstedt.
modesta (Brues), 1919a: 193 (*Aphiochaeta*).—Wash.
nigra (Meigen), 1830: 218 (*Phora*).—Europe; B.C., Ohio, N.Y., N.J., Md., D.C.
albidihalteris Felt, 1898b: 228 (1898: 228) (*Phora*).—N.Y.
smithii Brues, 1909: 106 (*Aphiochaeta*).—N.J.
nubilipennis Schmitz, 1952a: 186.—Ind.
peregrina (Malloch), 1912b: 492 (*Aphiochaeta*).—D.C.; Md.
perplexa (Malloch), 1912b: 489 (*Aphiochaeta*).—B.C.
picta (Lehmann), 1822: 42 (also 1824: 244) (*Phora*).—Germany; Utah to N.S., s. to Va., Europe.
atlantica Brues, 1903: 362 (*Aphiochaeta*).—N.S., Pa., Mass.
platychira (Malloch), 1919f: 52 (*Aphiochaeta*).—Alaska.
pulicaria (Fallén), 1823b: 7 (*Trineura*).—Europe; Kans. to Maine, s. to Md.
ruficornis (Meigen), 1830: 218 (*Phora*).—Europe; N.H. to Md.
rufipes (Meigen), 1804: 313 (*Trineura*).—Europe; entire N. Amer., cosmopolitan.
rusticata (Malloch), 1912b: 489 (*Aphiochaeta*).—Oreg.; N.Y.
scalaris (Loew), 1866b: 53 (Cent. 7, no. 100) (*Phora*).—Cuba; Ind. to Mass., s. to Tex. and Fla., subtropic and tropic regions of world.
schwarzi (Malloch), 1912b: 517 (*Aphiochaeta*).—Md.
setacea (Aldrich), 1892a: 144 (*Phora*).—S. Dak.
straminea (Malloch), 1912b: 472 (*Aphiochaeta*).—N.Y.
straminipes (Malloch), 1912b: 474 (*Aphiochaeta*).—N.Y.
subpicta (Malloch), 1912b: 452 (*Aphiochaeta*).—Fla.; Brazil.

tertia (Brues), 1915: 134 (*Aphiochaeta;* n. name for *inaequalis* Malloch).—N.Y.; N.H., Mass.

inaequalis Malloch, 1912b: 464 (*Aphiochaeta;* preocc. Brunetti, 1912).—N.Y.

ursina (Malloch), 1912b: 476 (*Aphiochaeta*).—B.C.; Oreg.

Subgenus APHIOCHAETA Brues

Aphiochaeta Brues, 1903: 337 (as genus). Type-species, *Phora nigriceps* Loew (Brues, 1906a: 9).

aculeata (Schmitz), 1919a: 142 (*Aphiochaeta*).—Netherlands; Mich., Europe.

aequalis (Wood), 1909: 26 (*Phora*).—England; Ont., D.C., Va., Europe.

subciliata Malloch, 1913i: 26 (*Aphiochaeta*).—D.C., Va.

alaskensis (Malloch), 1919f: 52 (*Aphiochaeta*).—Alaska.

annulipes (Schmitz), 1921: 325 (*Aphiochaeta*).—Romania; Mass., Europe.

anomala (Malloch), 1912b: 484 (*Aphiochaeta*).—N.H.

arizonensis (Malloch), 1912b: 478 (*Aphiochaeta*).—Ariz.

atomella (Malloch), 1912b: 481 (*Aphiochaeta*).—Alaska, Sask.

beckeri (Wood), 1909: 115 (*Aphiochaeta*).—England; Idaho, Europe.

californiensis (Malloch), 1912b: 447 (*Aphiochaeta*).—Calif.

carlynensis (Malloch), 1912b: 468 (*Aphiochaeta*).—Va.; Mass., Md., Brazil.

cirriventris Schmitz, 1929a: 86.—Greenland; high mts. of cent. and n. Europe.

clara (Schmitz), 1921: 320 (*Aphiochaeta*).—Sweden; Greenland, n. Europe.

coaequalis (Schmitz), 1919b: 153 (*Aphiochaeta*).—Netherlands; Mich., Europe.

ciliata, authors, not Zetterstedt.

conglomerata (Malloch), 1912b: 445 (*Aphiochaeta*).—B.C.; Idaho.

crassipes (Wood), 1909: 59 (*Phora*).—England; N.S., Europe.

difficilis (Malloch), 1912b: 484 (*Aphiochaeta*).—Mass.; N.Y., N.C.

dilatata (Brues), 1919a: 183 (*Aphiochaeta*).—Idaho.

divergens (Malloch), 1912b: 480 (*Aphiochaeta*).—Md., D.C.; Ill.

fenestrata (Malloch), 1912b: 517 (*Aphiochaeta*).—D.C.

franconiensis (Malloch), 1912b: 479 (*Aphiochaeta*).—N.H.

groenlandica (Lundbeck), 1901: 307 (*Phora*).—Greenland; Alaska, B.C., Europe.

dubitata Malloch, 1912b: 480 (*Aphiochaeta*).—B.C.

johnsoni (Brues), 1916b: 175 (*Aphiochaeta*).—Maine.

marginalis (Malloch), 1912b: 457 (*Aphiochaeta*).—Mo.; Va.
capillaris Brues, 1919a: 189 (*Aphiochaeta*).—Va.
monticola (Malloch), 1912b: 479 (*Aphiochaeta*).—B.C.
nasoni (Malloch), 1914c: 58 (*Aphiochaeta*).—Ill.; Wash., Mass.
nigriceps (Loew), 1866b: 53 (Cent. 7, no. 99) (*Phora*).—D.C.; entire U.S., N.S., Europe, Japan.
projecta Becker, 1901: 56 (*Phora*).—Romania.
flavipalpis Malloch, 1913i: 25 (*Aphiochaeta*).—D.C.
submanicata Malloch, 1914e: 175 (*Aphiochaeta*).—Pa.
pallidiventris (Malloch), 1919d: 47 (*Aphiochaeta*).—Ill.
palpata (Brues), 1919a: 186 (*Aphiochaeta*).—N.J.; Ill., Va.
perdita (Malloch), 1912b: 459 (*Aphiochaeta*).—Miss.; Md., N.Y.
plebeia (Malloch), 1914c: 58 (*Aphiochaeta*).—Ill.
pleuralis (Wood), 1909: 117 (*Phora*).—England; Alaska to N.S., s. to Wash., Ill., and Mass., Palaearctic.
approximata Malloch, 1912b: 483 (*Aphiochaeta;* preocc. Brunetti, 1912).—Ill.
vulgata Malloch, 1912b: 483 (*Aphiochaeta*).—Mo., Maine.
secunda Brues, 1915: 132 (*Aphiochaeta;* n. name for *approximata* Malloch).—Ill.
pulla (Brues), 1919a: 187 (*Aphiochaeta*).—Idaho.
pusilla (Meigen), 1830: 218 (*Phora*).—Europe; N. Amer.
quadripunctata (Malloch), 1918l: 147 (*Aphiochaeta*).—Ill.
retardata (Malloch), 1912b: 482 (*Aphiochaeta*).—N. Mex.
scopalis (Brues), 1919a: 184 (*Aphiochaeta*).—Wash.
subatomella (Malloch), 1912b: 481 (*Aphiochaeta*).—N.Y.; ?B.C.
sublutea (Malloch), 1912b: 468 (*Aphiochaeta*).—N.H.; N.J.
submarginalis (Malloch), 1912b: 458 (*Aphiochaeta*).—Md.
subobscurata (Malloch), 1912b: 485 (*Aphiochaeta*).—N.H.
subpleuralis (Wood), 1909: 118 (*Phora*).—England; Kans., Idaho, Europe.
ventralis Borgmeier, 1963: 133.—Ariz.

Genus PHYSOPTERA Borgmeier

Physoptera Borgmeier, 1958: 356. Type-species, *Aphiochaeta vesiculata* Borgmeier (orig. des.).

apicinebula (Malloch), 1924f: 355 (*Aphiochaeta*).—Md.; Va.

Genus GYMNOPHORA Macquart

Gymnophora Macquart, 1835: 631. Type-species, *Phora arcuata* Meigen (mon.).

fastigiorum Schmitz, 1952a: 180.—Colo.

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luteiventris Schmitz, 1952a: 178.—Tex.; Wis. to N.H., s. to Tex. and Ga.
quartomollis, authors, not Schmitz.

subarcuata Schmitz, 1952a: 182.—Tenn.; Alaska, Minn. to Maine, s. to Tenn.
arcuata, authors, not Meigen.

Genus PLASTOPHORA Brues

Plastophora Brues, 1905: 551. Type-species, *beirne* Brues (orig. des.).

REFERENCE: Colyer, 1957 (habits; key spp. of world).

Some species are parasitic on diplopods.

arcuata (Malloch), 1912b: 460 (*Aphiochaeta*).—Md.; Mich.

juli Brues, 1908: 201.—Wis.; Mich., Pa., Md., Va., Mexico, Brazil.
xantippe Banks, 1911b: 212 (*Aphiochaeta*).—Va.

winnemana (Malloch), 1912b: 461 (*Aphiochaeta*).—Md.; ?Mass.

Genus PHALACROTOPHORA Enderlein

Phalacrotophora Enderlein, 1912c: 21. Type-species, *bruesiana* Enderlein (orig. des.).

The larvae are parasitic on beetles, bees, *Tremex*, and spiders.

Subgenus PHALACROTOPHORA Enderlein

epeirae (Brues), 1902b: 351 (*Phora*).—Tex.; Mich. to Que., s. to Mexico and Fla.
fasciata, authors, not Fallén.

halictorum (Melander and Brues), 1903: 14 (*Phora*).—Mass.; Wash., Ind.

Subgenus OMAPANTA Schmitz

Phalacrotophora, subg. **Omapanta** Schmitz, 1932: 117. Type-species, *appendicigera* Borgmeier (orig. des.).

longifrons (Brues), 1906b: 100 (*Aphiochaeta*).—Wis.; Kans., N.Y., Conn., Pa., Md.

Genus SYNEURA Brues

Syneura Brues, 1903: 383. Type-species, *Phora cocciphila* Coquillett (mon.).

The larvae are parasitic in scales of the genus *Icerya* in tropical and subtropical America.

cocciphila (Coquillett), 1895b: 106 (*Phora*).—Mexico; Ariz., Tex.

Genus RHYNCOPHOROMYIA Malloch

Rhyncophoromyia Malloch, 1923c: 143. Type-species, *trivittata* Malloch (orig. des.).

conica (Malloch), 1912b: 462 (*Aphiochaeta*).—D.C.; Md., Va.
proboscidea Malloch, 1912b: 477 (*Aphiochaeta*).—Md. **N. syn.,** T. Borgmeier *in litt.*

Genus TROPHITHAUMA Schmitz

Trophithauma Schmitz, 1925a: 40. Type-species, *portentum* Schmitz (orig. des.).

rostratum (Melander and Brues), 1903: 15 (*Phora*).—Mass.; Mich. to N.H., s. to Va.
bicolorata Malloch, 1912b: 486 (*Aphiochaeta*).—Md.

Genus APOCEPHALUS Coquillett

Apocephalus Coquillett *in* Pergande, 1901: 501. Type-species, *pergandei* Coquillett (orig. des.).

REFERENCE: Brues, 1924a (key).

Parasitic on ants.

Subgenus APOCEPHALUS Coquillett

analis Borgmeier, 1958: 318.—Brazil; Tex., Neotropical.
aridus Malloch, 1912b: 444.—Mexico (V.C.); Tex.
borealis Brues, 1924a: 41.—Maine.
coquilletti Malloch, 1912b: 443.—Tenn.; Tex., Pa.
disparicauda Borgmeier, 1962a: 79.—Va.
pergandei Coquillett *in* Pergande, 1901: 501.—Md.; Wash., Wis., D.C.
pictus Malloch, 1918l: 146.—Ill.
similis Malloch, 1912b: 444.—Ariz.

Subgenus MESOPHORA Borgmeier

Apocephalus, subg. **Mesophora** Borgmeier, 1937: 209. Type-species, *mortifer* Borgmeier (orig. des.).

The type-species is parasitic on *Chauliognathus fallax* Germar (Coleoptera).

antennatus Malloch, 1913b: 274.—Md.; Mich., Tenn.
wheeleri Brues, 1903: 373.—Wis.; Va.

Genus CREMERSIA Schmitz

Cremersia Schmitz, 1924a: 33. Type-species, *zikani* Schmitz (orig. des.).

REFERENCE: Borgmeier, 1961 (key).

Parasitic on ants.

adunca Borgmeier, 1961: 32.—Tex.; Mexico, Panama.
pilipes Borgmeier, 1961: 33.—Tex.
spinicosta (Malloch), 1912b: 442 (*Apocephalus*).—Tex.
coeca Greene, 1938: 184 (*Apocephalus*).—Tex.

Genus MYRMOSICARIUS Borgmeier

Myrmosicarius Borgmeier, 1928: 122. Type-species, *gracilipes* Borgmeier (orig. des.).
Attamyia Greene, 1938: 181. Type-species, *texana* Greene (orig. des.).

REFERENCE: Borgmeier, 1931 (rev.).

Parasitic on ants.

grandicornis Borgmeier, 1928: 124.—Brazil; Tex.
texanus (Greene), 1938: 182 (*Attamyia*).—Tex.

Genus AUXANOMMATIDIA Borgmeier

Auxanommatidia Borgmeier, 1924: 175. Type-species, *variegata* Borgmeier (orig. des.).

Unnamed sp.—Mich.

Genus PSEUDACTEON Coquillett

Pseudacteon Coquillett, 1907b: 208. Type-species, *crawfordi* Coquillett (orig. des.).

Parasitic on ants.

crawfordi Coquillett, 1907b: 208.—Tex.; La., ?Miss.
curriei (Malloch), 1912b: 501 (*Plastophora*).—B.C.
grandis Greene, 1941b: 183.—Jamaica; Miss.
onyx Steyskal, 1944b: 1.—Mich.
spatulatus (Malloch), 1912b: 502 (*Plastophora*).—Tex.

Genus METOPINA Macquart

Metopina Macquart, 1835: 666. Type-species, *Phora galeata* Haliday (mon.).

fenyesi Malloch, 1912b: 503.—Mexico; Ill.

Genus CATACLINUSA Schmitz

Cataclinusa Schmitz, 1927c: 73. Type-species, *bucki* Schmitz (orig. des.).

pachycondylae (Brues), 1903: 384 (*Metopina*).—Tex.

Genus PULICIPHORA Dahl

Puliciphora Dahl, 1897: 410. Type-species, *lucifera* Dahl (mon.).
Pachyneurella Brues, 1903: 382. Type-species, *Phora venata* Aldrich (mon.).

borinquenensis Wheeler, 1906: 269.—P.R.; Md., Tenn., Fla., Neotropical.
glacialis Malloch, 1912b: 507.—Mass.; B.C., Mich.
nudipalpis Malloch, 1912b: 504.—N. Mex.
occidentalis (Melander and Brues), 1903: 17 (*Stethopathus*).—Mass.; Md., Tenn.
palposa Malloch, 1912b: 505.—Calif.
sylvatica Brues, 1909: 107.—Wash. ?*Puliciphora.*
virginiensis Malloch, 1912b: 519.—Va.

Genus ACONTISTOPTERA Brues

Acontistoptera Brues, 1902a: 373. Type-species, *melanderi* Brues (mon.).

Associated with ants.

melanderi Brues, 1902a: 374.—Tex.

Genus XANIONOTUM Brues

Xanionotum Brues, 1902a: 376. Type-species, *hystrix* Brues (mon.).

hystrix Brues, 1902a: 377.—Tex.
mexicanum Borgmeier, 1932: 378.—Mexico; Ariz., Tex.
smithii Brues, 1936: 69.—Miss.; Ala.

Genus ECITOMYIA Brues

Ecitomyia Brues, 1901b: 347. Type-species, *wheeleri* Brues (orig. des.).

wheeleri Brues, 1901b: 347.—Tex.

Genus COMMOPTERA Brues

Commoptera Brues, 1901b: 344. Type-species, *solenopsidis* Brues (orig. des.).

solenopsidis Brues, 1901b: 344.—Tex.

Genus TROPHODEINUS Borgmeier

Trophodeinus Borgmeier, 1960: 312. Type-species, *analis* Borgmeier (orig. des.).

barberi Borgmeier, 1962a: 80.—Md.
pygmaeus Borgmeier, 1962a: 81.—Mich.

Genus LECANOCERUS Borgmeier

Lecanocerus Borgmeier, 1962a: 79. Type-species, *compressiceps* Borgmeier (orig. des.).

compressiceps Borgmeier, 1962a: 80.—Va.

Family PLATYPEZIDAE

(Clythiidae)

By Edward L. Kessel

Platypezids or "flat-footed flies" are encountered most frequently in damp woods where filtered sunshine reaches the low-growing vegetation. Here they run about on broad leaves in a characteristic zigzag, stop-and-go fashion. Others will be found hovering motionless in the air or running about on the damp sand of stream beds. The males sometimes dance in swarms, which the females enter to select their mates. Oviposition occurs on fungi, the female forcing her abdomen down into the pore or between the gills to lay her eggs. While only four of the world's twelve genera have been reared from fungi, it is presumed that all the species of the family are fungus-feeders. Late summer and autumn are the seasons of greatest abundance and the adults of some species are found only at these times.

REFERENCES: Meijere, 1901, 1911a (immature stages); Johnson, 1923a (rev., e. N.Amer.); Lundbeck, 1927 (biol., immature stages); Czerny, 1930a (key to genera, biol., immature stages); Hennig, 1952 (immature stages); Kessel, 1952b (key to genera); Kessel, 1961a (biol.).

Genus MELANDEROMYIA Kessel

Melanderomyia Kessel, 1960a: 93. Type-species, *kahli* Kessel (orig. des.).

kahli Kessel, 1960a: 93.—Pa.; Kans., Iowa, Ill., Ohio.

Genus MICROSANIA Zetterstedt

Cyrtoma, subg. **Microsania** Zetterstedt, 1837: 30. Type-species, *stigmaticalis* Zetterstedt (mon.).

Called smoke flies because of positive response to smoke, which was studied in *M. occidentalis* Malloch by Kessel (1947, 1960b).

imperfecta (Loew), 1866a: 179 (Cent. 6, no. 82) (*Platycnema*).—D.C.; Man., Mich., N.Y., Fla.
occidentalis Malloch, 1935c: 66.—Idaho; Alaska to Idaho and Calif.

Genus CALLOMYIA Meigen

Cleona Meigen, 1800: 30. Type-species, *Callomyia elegans* Meigen (Coquillett, 1910b: 525). Suppressed by I.C.Z.N., 1963b: 339.
Callomyia Meigen, 1804: 311. Type-species, *elegans* Meigen (mon.).
Callimyia, emend.
Calomyia, emend.

bertae Kessel, 1961c: 193.—N. Mex.
calla Kessel, 1949a: 141.—Calif.
clara Kessel, 1949a: 146.—Calif.; Wash., Oreg.
cleta Kessel, 1949a: 144.—Calif.
corvina Kessel, 1949a: 140.—Calif.
gilloglyorum Kessel, 1961d: 4.—Calif.
proxima Johnson, 1916a: 32.—N.H.
velutina Johnson, 1916a: 32.—N.Y.; Ont., Mass.
venusta Snow, 1894b: 151.—N. Mex.; Alaska, B.C., Nev., Maine, N.H.

Genus AGATHOMYIA Verrall

Agathomyia Verrall, 1901: 30. Type-species, *Callomyia antennata* Zetterstedt (Coquillett, 1910b: 504).

References: Hennig, 1952 (immature stages); Kessel, 1957 (biol.).

aestiva Kessel, 1949b: 217.—Calif.
alaskensis Kessel, 1961c: 217.—Alaska; B.C., Alta.
aquilonia Kessel, 1961c: 199.—Alta.; Y.T., B.C., Mont.

arossi Kessel, 1961c: 213.—Calif.
brooksi Johnson, 1923a: 57.—Mass.
canadensis Johnson, 1923a: 58.—Ont.
colei Kessel, 1961c: 195.—Md.; Mich., Pa.
cushmani Johnson, 1916a: 30.—N.H.; N.Y.
decolor Kessel, 1961c: 202.—Pa.
divergens (Loew), 1866a: 177 (Cent. 6, no. 77) (*Callomyia*).—Pa.; D.C.
dubia Johnson, 1916a: 28.—Mass.
fenderi Kessel, 1949b: 215.—Oreg.
fulva (Johnson), 1908b: 59 (*Callomyia*).—Maine; N.H.
laffooni Kessel, 1961c: 220.—B.C.; Iowa.
leechi Kessel, 1961c: 225.—Calif.
lucifuga Kessel, 1961c: 209.—Calif.; Wash.
lutea Cole *in* Cole and Lovett, 1919: 238.—Oreg.; Calif.
macneilli Kessel, 1961c: 222.—Calif.
monticola Johnson, 1923a: 57.—N.H.
nemophila Kessel, 1961c: 207.—Calif.
notata (Loew), 1866a: 177 (Cent. 6, no. 76) (*Callomyia*).—Pa.; Oreg. to Que., s. to Calif. and Va., also Brazil.
tenera Loew, 1869c: 176 (Cent. 9, no. 82) (*Callomyia*).—N.Y.
aldrichii Snow, 1894b: 152 (*Callomyia*).—Kans.
obscura Johnson, 1916a: 30 (as *vanduzeei* var.).—Mass.
perplexa Johnson, 1916a: 29.—N.Y.
pulchella (Johnson), 1908b: 58 (*Callomyia*).—Vt.; Mich., N.H., Mass., R.I.
stonei Kessel, 1961c: 215.—Alaska.
sylvania Kessel, 1961c: 204.—Calif.
talpula (Loew), 1869c: 175 (Cent. 9, no. 81) (*Callomyia*).—N.H.; Wash., Mass., N.Y.
vanduzeei Johnson, 1916a: 29.—N.Y.; Maine.

Genus PLATYPEZINA Wahlgren

Platypezina Wahlgren, 1910: 30. Type-species, *Platypeza connexa* Boheman (orig. des.).
Platypezoides Johnson, 1923a: 56. Type-species, *diversa* Johnson (orig. des.).

REFERENCE: Kessel, 1948 (review).

diversa (Johnson), 1923a: 56 (*Platypezoides*).—N.H.; Mich., N.Y., Maine, Conn., Pa.
johnsoni Kessel, 1961b: 188.—N.H.; Pa., N.Y.
pacifica Kessel, 1948: 54.—Calif.; B.C., Wash., Oreg.

Genus PROTOCLYTHIA Kessel

Protoclythia Kessel, 1950a: 257. Type-species, *californica* Kessel (orig. des.).

REFERENCE: Kessel, 1950a (review).

californica Kessel, 1950a: 259.—Calif.
carbonaria Kessel, 1950a: 263.—N.Y.; Kans., N.C.
pulchra (Snow), 1894b: 149 (*Platypeza*).—N. Mex.; Ariz.
umbrosa (Snow), 1894b: 148 (*Platypeza*).—N. Mex.

Genus PLATYPEZA Meigen

Clythia Meigen, 1800: 30. Type-species, *Platypeza fasciata* Meigen (Coquillett, 1910b: 525). Suppressed by I.C.Z.N., 1963b: 339.

Platypeza Meigen, 1803: 272. Type-species, *fasciata* Meigen (Blanchard *in* Audouin et al., 1849: pl. 170, fig. 7).

REFERENCE: Czerny, 1930a (immature stages; hosts include fungi of Polyporaceae and Agaricaceae).

abscondita Snow, 1895c: 205.—Idaho; Oreg.
agarici Willard, 1914: 167.—Calif.
anthrax Loew, 1869c: 176 (Cent. 9, no. 83).—N.Y.; Mich. to Que., s. to Ind. and N.C.
elongata Banks, 1915a: 215.—Va.
banksi Johnson, 1923a: 53.—Va.; Vt., Mass., Md.
cinerea Snow, 1894b: 150.—N. Mex.; Alaska to Que., s. to Calif., N. Mex., and N.Y.
coraxa (Kessel), 1950b: 77 (*Clythia*).—Calif.; B.C.
dymka (Kessel), 1961c: 191 (*Clythia*).—Calif.; B.C.
egregia Snow, 1894b: 150.—N. Mex.
flavicornis Loew, 1866a: 178 (Cent. 6, no. 79).—Pa.; Ont. to Mass., s. to Ark. and Ga.
minorata Banks, 1915a: 214.—Va.
submacula Banks, 1915a: 214.—Va.
mediana Banks, 1915a: 215.—Va.
nitida Banks, 1915a: 215.—Va.
hunteri (Kessel), 1959a: 19 (*Clythia*).—Alaska; B.C.
obscura Loew, 1866a: 178 (Cent. 6, no. 80).—Pa.; Kans., Mich., N.H.
polypori Willard, 1914: 167.—Calif.; Alaska to Que., s. to Calif. and N.Y.
infumata, authors, not Haliday.
pulla Snow, 1895c: 206.—N. Mex.; Mass.
taeniata Snow, 1894b: 149.—Ill.; Mich. to Maine, s. to Va.

unicolor Snow, 1895c: 206.—Idaho.
velutina Loew, 1866a: 178 (Cent. 6, no. 78).—Pa.; Mich. to Que., s. to Kans. and N.C.

Genus METACLYTHIA Kessel

Metaclythia Kessel, 1952a: 348. Type-species, *currani* Kessel (orig. des.).

currani Kessel, 1952a: 349.—Ont.; Wis.

Genus CALOTARSA Townsend

Calotarsa Townsend, 1894a: 50. Type-species, *ornatipes* Townsend (mon.)=*pallipes* (Loew).

REFERENCE: Kessel, 1963 (review).

calceata (Snow), 1894b: 146 (*Platypeza*).—N. Mex.
insignis Aldrich, 1906: 126.—Calif.; B.C., Oreg., w. Mont.
pallipes (Loew), 1866a: 179 (Cent. 6, no. 81) (*Platypeza*).—D.C.; S. Dak. to Que., s. to Ill. and N.C.
ornatipes Townsend, 1894a: 52.—Ill.

Superfamily SYRPHOIDEA

Family PIPUNCULIDAE

(Dorilaidae)

By D. Elmo Hardy

Pipunculids ("big-headed flies" or "big-eyed flies") are parasitic on Cicadellidae, Delphacidae, and possibly Cercopidae and some other families of Homoptera. They are evidently of considerable importance as an aid in control of some pest leafhopper species.

REFERENCES: Perkins, 1905 (biol.); Hardy, 1943c (rev.); Aczél, 1948 (monog.).

Subfamily CHALARINAE

Genus CHALARUS Walker

Chalarus Walker, 1834: 269. Type-species, *Cephalops spurius* Fallén (Westwood, 1840: 135).

latifrons Hardy, 1943c: 33.—Ariz.; B.C. to Mass., s. to Calif., N. Mex., and Va.
spurius (Fallén), 1816b: 16 (*Cephalops*).—Europe; Sask. to N.B., s. to Calif., Tex., and Va.

Genus VERRALLIA Mik

Verrallia Mik, 1899: 137. Type-species, *Cephalops aucta* Fallén (orig. des.).

Prothechus, authors, not Rondani. *Prothechus* Rondani (1856: 139) has been suppressed by I.C.Z.N. (1961a: 230), and remains a nomen dubium.

aucta (Fallén), 1817a: 61 (*Cephalops*).—Europe; S. Dak. to Mass. and Va.

virginica Banks, 1915b: 169.—Va.

csikii Aczél, 1940: 152 (n. name for *opacus* Williston).—Wash.

opacus Williston, 1886a: 295 (*Pipunculus*; preocc. Fallén, 1817).—Wash.

Genus JASSIDOPHAGA Aczél

Jassidophaga Aczél, 1939: 20. Type-species, *Pipunculus pilosus* Zetterstedt (orig. des.). Enderlein's earlier proposal (1936a: 129) invalid under Art. 25c of the Rules.

fasciata (Hardy), 1939: 16 (*Verrallia*).—Colo.; N. Mex.

pilosa (Zetterstedt), 1838: 579 (*Pipunculus*).—Europe: Que. to N.J.

Subfamily PIPUNCULINAE

Tribe NEPHROCERINI

Genus NEPHROCERUS Zetterstedt

Nephrocerus Zetterstedt, 1838: 578. Type-species, *lapponicus* Zetterstedt (mon.).

daeckei Johnson, 1903c: 107.—N.Y.; N.H. to Pa. and Md.

slossonae Johnson, 1915a: 55.—N.H.

Tribe PIPUNCULINI

Genus PIPUNCULUS Latreille

Dorilas Meigen, 1800: 31. Type-species, *Pipunculus campestris* Latreille (Coquillett, 1910b: 535). Suppressed by I.C.Z.N., 1963b: 339.

Dorylas, emend.

Pipunculus Latreille, 1802: 463. Type-species, *campestris* Latreille (mon.).

Cephalops Fallén, 1810a: 10. Type-species, *aeneus* Fallén (mon.) = *pratorum* (Fallén).

Subgenus PIPUNCULUS Latreille

alpinus Cresson, 1911: 306.—Vt.; Que., Maine, N.H., also Utah.
angus Cresson, 1911: 305.—N. Mex. ?=*fuscus* Loew.
apicarinus Hardy and Knowlton, 1939b: 114 (as *femoratus* var.)—Utah.
ater ater Meigen, 1824: 23.—Europe; N. Dak. to Que., s. to Calif., Tex., and Ga.
cingulatus Loew, 1866a: 176 (Cent. 6, no. 73).—D.C.
horvathi Kertész, 1907b: 579.—N.Y.
townsendi Malloch, 1912a: 292.—N. Mex.
hertzogi Rapp, 1943a: 118.—N.J.
fuscus, authors, not Loew.
ssp. **velutinus** Cresson, 1911: 300 (as *cingulatus* var.).—Pa.; Alta. to N.S., s. to Ariz., Iowa, and Pa.
banksi (Aczél), 1940: 152 (*Dorilas*; n. name for *terminalis* Banks).—Va.; Idaho to N.S., s. to Calif., Ohio, and Va.
terminalis Banks, 1915b: 168 (preocc. Thomson, 1869).—Va.
fuscus fuscus Loew, 1866a: 175 (Cent. 6, no. 71).—Md.; B.C. to Ont., s. to Calif., Kans., and Fla.
ssp. **nitidiventris** Loew, 1866a: 175 (Cent. 6, no. 72) (as sp.).—D.C.; B.C. to Que., s. to Ariz., Kans., and Va.
viduus Cresson, 1911: 301.—Vt.
sororius Cresson, 1911: 305.—Vt.
luteicornis Cresson, 1911: 307.—Maine. **N. syn.**
houghi houghi Kertész, 1900a: 244 (n. name for *lateralis* Walker).—N. Amer.; Kans. to Ont., s. to Fla.
lateralis Walker, 1852: 216 (preocc. Macquart, 1833).—N. Amer.
femoratus Cresson, 1911: 302.—Vt.
ssp. **curvitibiae** Hardy, 1939: 19 (as *femoratus* var.).—Ariz.
pallipes Johnson, 1903c: 107.—N.J.; B.C. to Que., s. to N. Mex. and Ga.
trichaetus Malloch, 1912a: 296.—N.H.; Utah, Wyo., Colo., S. Dak.
varius varius Cresson, 1911: 309.—Pa.; B.C. to N.B., s. to Utah, Mo., and Fla.
mainensis Cresson, 1911: 298.—Maine.
ssp. **phaethus** Hardy and Knowlton, 1939b: 123 (as var.).—Utah.

Subgenus EUDORYLAS Aczél

Eudorylas Aczél, 1940: 151 (as genus). Type-species, *Pipunculus opacus* Fallén (orig. des.).

aberratus Hardy and Knowlton, 1939a: 87.—Utah; Nev.
aequus aequus Cresson, 1911: 292.—Mass.; Utah to Mich. and Que., s. to Tex. and N.C.
longipes Hardy and Knowlton, 1939a: 88 (as var.).—Utah.
ssp. **argryofrons** Hardy and Knowlton, 1939a: 87 (as var.).—Utah.
oleous Rapp, 1943b: 223 (*Allomethus*).—Calif.
affinis Cresson, 1910: 283.—Que.; B.C. to N.S., s. to Calif., Okla., and N.C.
globosus Cresson, 1912: 453.—R.I.
alternatus Cresson, 1910: 286.—N. Mex.; Ariz.
apicalis Hardy and Knowlton, 1939a: 88.—Utah.
aquavicinus (Hardy), 1943c: 72 (*Dorilas*).—N. Mex.
arundani (Hardy), 1954: 122 (*Dorilas*).—Ga.
atlanticus Hough, 1899d: 80.—Mass.; Alta. to Que., s. to Utah, Calif., and Fla.
bidactylus (Hardy), 1943c: 80 (*Dorilas*).—Ariz.; Mich., N.Y., Mass.
bilobus (Hardy), 1947b: 148 (*Dorilas*).—N.Y.
caudatus Cresson, 1910: 289.—N.Y.; B.C., Ohio to Que., s. to Va.
discolor Banks, 1910: 290 (as var.).—N.Y.
cinctus cinctus Banks, 1915b: 169.—Va.; coastal, Va. to Fla.
ssp. **subtilis** (Hardy), 1943c: 84 (*Dorilas*).—Ariz.; N. Mex., Colo., Kans.
curtus (Hardy), 1943c: 85 (*Dorilas*).—Ariz.
dives (Hardy), 1947b: 149 (*Dorilas*).—Ind.
dreisbachi (Hardy), 1948a: 89 (*Dorilas*).—Mich.
fuscitarsis Adams, 1903a: 36.—N. Mex.; Calif., Utah.
grandis (Hardy), 1943c: 90 (*Dorilas*).—Ariz.
harmstoni Hardy and Knowlton, 1939b: 115.—Utah.
huachucanus (Hardy), 1943c: 95 (*Dorilas*).—Ariz.; Kans.
kansensis (Hardy), 1940b: 102 (*Dorilas*).—Kans.; B.C., Ariz., and N. Mex. to Colo. and Iowa.
lasiofemoratus Hardy and Knowlton, 1939b: 116.—Utah.
latipennis Banks, 1915b: 168.—Va.
lautus (Hardy), 1943c: 99 (*Dorilas*).—N. Mex.
loewii Kertész, 1900b: 270 (n. name for *fasciatus* Loew).—Tex.; Minn. to N.H., s. to Ariz., Kans., and Va.
fasciatus Loew, 1872a: 88 (Cent. 10, no. 59) (preocc. Roser, 1840).—Tex.
nigricornis Adams, 1903a: 36.—Mo.
semifasciatus Cresson, 1910: 288.—Mass.
michiganensis (Hardy), 1948a: 90 (*Dorilas*).—Mich.

minor Cresson, 1911: 293.—Conn.; Wash. to Que., s. to Calif., Tex., and N.C., Mexico.
cressoni Johnson of Hardy, 1943c: 104.
montivagus (Hardy), 1943c: 104 (*Dorilas*).—Colo.
nevadaensis (Hardy), 1943c: 106 (*Dorilas*).—Nev.
nigripes Loew, 1866a: 176 (Cent. 6, no. 75).—Pa.; Alaska, Idaho to Maine, s. to Calif. and Ga.
dubius Cresson, 1910: 284.—Maine.
winnemannae Malloch, 1912c: 655.—Md.
reipublicae Walker, 1849: 639.—N.Y.; Alta. to Ont., s. to Okla. and Fla.
albofasciatus Hough, 1899d: 85.—La.
sabroskyi (Hardy), 1943c: 112 (*Dorilas*).—Mich.
stainsi (Hardy), 1943c: 113 (*Dorilas*).—Utah; Calif.
stigmaticus stigmaticus Malloch, 1912a: 294.—B.C.; Que., Mich., Va.
ssp. **brachystigmaticus** Hardy and Knowlton, 1939a: 90 (as sp.).—Utah.
subopacus subopacus Loew, 1866a: 176 (Cent. 6, no. 74).—Wash.; Alta. and Wash. to N.H., s. to N. Mex., Kans., and N.C.
confraternus Banks *in* Cresson, 1910: 285.—N.Y.
occidentalis Malloch, 1912a: 291.—Alta.
ssp. **industrius** Knab, 1915a: 83 (as sp.).—Calif.; B.C. to Que., s. to Calif., Tex., and Ohio.
melanis Hardy and Knowlton, 1939b: 113 (as *confraternus* var.).—Utah.
tarsalis Banks in Cresson, 1911: 309.—N.Y.; Minn. to N.Y., s. to Kans. and Va., also Ariz.
vierecki Malloch, 1912c: 654.—Md.; Tex., Mass., N.C.

Subgenus CEPHALOSPHAERA Enderlein

Cephalosphaera Enderlein, 1936a: 129 (as genus). Type-species, *Pipunculus furcatus* Egger (mon.).

acuminatus Cresson, 1911: 297.—N. Mex.; B.C., Ariz., Kans.
appendiculatus Cresson, 1911: 296.—Vt.; Iowa, Vt. and N.H. to Ga.
biscaynei Cresson, 1912: 453.—Fla.; Kans., Mich., Va., Ala.
brevis Cresson, 1911: 303.—Vt.; Minn. to Que., s. to Kans. and Va.
eronis Curran, 1927i: 291.—B.C.
constrictus Banks *in* Cresson, 1911: 306.—N.C.; Man. to N.B., s. to Tex. and Fla.
maximus (Hardy), 1943c: 50 (*Cephalosphaera*).—Ariz.
stricklandi Curran, 1927i: 291.—Alta.; Mich., Colo., N. Mex.
tibialis (Hardy), 1943c: 53 (*Cephalosphaera*).—N. Mex.; Nev.

Genus ALLOMETHUS Hardy

Allomethus Hardy, 1943c: 128. Type-species, *brimleyi* Hardy (orig. des.).

brimleyi Hardy, 1943c: 128.—N.C.
mysticus Rapp, 1943b: 223.—Que. Unrecognized.

Genus TOMOSVARYELLA Aczél

Tomosvaryella Aczél, 1939: 22. Type-species, *Pipunculus sylvaticus* Meigen (orig. des.).

agnesea Hardy, 1940b: 103.—Kans.; Wash. to Idaho, s. to Calif., N. Mex., and Kans.
aliena Hardy, 1947b: 147 (n. name for *propinqua* Hardy).—B.C.; B.C. to Man., s. to Calif. and Tex.
propinqua Hardy, 1943c: 169 (preocc. Becker, 1913).—B.C.
appendipes (Cresson), 1911: 319 (*Pipunculus*).—S.C.; Calif. to Iowa and Vt., s. to Fla.
armata Hardy, 1940b: 106.—Ga.
beameri Hardy, 1940b: 107.—Kans.
bidens (Cresson), 1911: 320 (*Pipunculus*).—Calif.; Calif. to Kans. and Fla., s. to Mexico.
brevijuncta Hardy, 1943c: 155.—Calif.
columbiana (Kertész), 1915: 386 (*Pipunculus*; n. name for *trochanteratus* Malloch).—B.C.
trochanteratus Malloch, 1912a: 297 (*Pipunculus*; preocc. Becker, 1900).—B.C.
contorta (Hardy), 1939: 18 (*Pipunculus*).—Kans.; Calif. to Man., s. to Kans. and Ga.
coquilletti coquilletti (Kertész), 1907b: 582 (*Pipunculus*).—N.Y.; Alaska to Que., s. to Calif. and Fla.
proximus Cresson, 1911: 318 (*Pipunculus*).—Idaho.
nudus Rapp, 1943b: 223 (*Pipunculus*).—Que.
ssp. **flaviantenna** (Hardy and Knowlton), 1939b: 118 (*Pipunculus proximus* var.).—Utah; Wash., Idaho.
deformis Hardy, 1947b: 151.—Fla.
dissimilis Hardy, 1943c: 161.—Ariz.; N. Mex.
exilidens Hardy, 1943c: 162.—Ariz.; Calif., N. Mex.
floridensis Hardy, 1940b: 109.—Fla.
inconspicua (Malloch), 1912a: 295 (*Pipunculus*).—Alta.
lepidipes Hardy, 1943c: 166.—Nev.; B.C. to Sask. and Pa., s. to Calif. and Tex., S. Amer.
minacis Hardy, 1940b: 110.—Fla.; Keys only.
pauca Hardy, 1943c: 168.—Fla.; Ga.

quadradentis Hardy, 1943c: 172.—Calif.; Nev.
sachtlebeni (Aczél), 1940: 152 (*Pipunculus*; n. name for *unguiculatus* Cresson).—Va.; Sask. to Mich. and N.J., s. to Kans. and Fla.
unguiculatus Cresson, 1911: 319 (*Pipunculus*; preocc. Zeller, 1860).—Va.
similis (Hough), 1899d: 84 (*Pipunculus*).—Ga.; Utah to Pa., s. to Ariz., Okla., and Ga.
subnitens (Cresson), 1911: 316 (*Pipunculus*).—N. Mex.; Wyo., Calif.
subvirescens (Loew), 1872a: 87 (Cent. 10, no. 58) (*Pipunculus*).—Tex.; entire U.S. and Canada, Bermuda, Neotropical, Palaearctic.
aridus Williston, 1893d: 255 (*Pipunculus*).—Calif.
insularis Cresson, 1911: 317 (*Pipunculus*).—Bermuda.
albiseta Cresson, 1911: 318 (*Pipunculus*).—Bermuda.
knowltoni Hardy, 1939: 20 (*Pipunculus*).—Utah.
sylvatica (Meigen), 1824: 20 (*Pipunculus*).—Europe; B.C. to Que., s. to Calif. and Ga.
scoparius Cresson, 1911: 317 (*Pipunculus*).—Maine.
tangomus Rapp, 1943b: 224 (*Pipunculus*; as *nudus* var.).—Que.
toxodentis (Hardy and Knowlton), 1939b: 118 (*Pipunculus*).—Utah; Calif. and Wyo., s. to Tex.
translata (Walker), 1857: 150 (*Pipunculus*).—U.S. ?=*sachtlebeni*.
tumida Hardy, 1940b: 112.—Fla.; Calif. to Kans., Ga. and Fla.
turgida Hardy, 1940b: 113.—Ga.; Calif. to Sask. and Ohio, s. to Tex. and Ga.
utahensis (Hardy and Knowlton), 1939b: 122 (*Pipunculus*).—Utah; Sask. to Ont., s. to Calif. and N. Mex.
vagabunda (Knab), 1915a: 84 (*Pipunculus*).—Calif.; Wash. to Sask., Mich. and Va., s. to Calif. and Fla.
tenellus Hardy and Knowlton, 1939b: 121 (*Pipunculus*; as *trochanteratus* var.).—Utah.
wilburi (Hardy), 1939: 22 (*Pipunculus*).—Kans.; N. Mex., Wyo., Colo., Iowa, Mo.
xerophila Hardy, 1943c: 188.—N. Mex.; Calif., Ariz., Tex.

Genus DORYLOMORPHA Aczél

Tomosvaryella, subg. **Dorylomorpha** Aczél, 1939: 22. Type-species, *Pipunculus rufipes* Meigen (orig. des.).

atramontensis (Banks) *in* Cresson, 1911: 312 (*Pipunculus*).—N.C.
canadensis Hardy, 1943c: 133.—Sask.
caudelli (Malloch), 1912a: 298 (*Pipunculus*).—B.C.; Ont.

exilis (Malloch), 1912a: 295 (*Pipunculus*).—Alta.; Alta. to Mich., s. to Calif. and N. Mex.
flavomaculata (Hough), 1899d: 85 (*Pipunculus*).—Mass.; B.C., Calif., Ohio to N.B. and Pa.
occidens (Hardy), 1939: 17 (*Pipunculus;* as *atramontensis* var.).—Idaho; Alaska.
ornata Hardy, 1943c: 139.—B.C.; Alaska, s. to Wyo. and S. Dak.
tridentata Hardy, 1943c: 141.—Calif.; Alaska.
uncinata Hardy, 1943c: 142.—Nev.; Idaho, Colo.

Family SYRPHIDAE

By Willis W. Wirth, Yale S. Sedman, and Howard V. Weems, Jr.

The "flower flies" or "hover flies" of the family Syrphidae are typically medium-sized to large flies which are frequently strikingly marked with black or yellow bands or lunules; many mimic bees or wasps. The adults are habitual visitors of flowers and are considered of importance second only to some species of bees in the cross-pollination of many economic plants. The males are often seen hovering, almost motionless in the air, and dart swiftly aside when disturbed.

The eggs are oval, chalky white in color, with a reticulated pattern on the shell. They are deposited near the intended food of the larvae, those of the aphidophagous species singly, the others in masses of more than a hundred. The larvae present a diversity of forms, the classification of which has been studied mainly by Metcalf (1913, 1916b) and Heiss (1938), and recently in very fine revisions by Dixon (1960) and Hartley (1961). There are two principal types: (1) the primitive, usually saprophagous type in the subfamily Milesiinae, and (2) the carnivorous, usually aphidophagous type in the subfamily Syrphinae (Hartley, 1961). From the short-tailed saprophagous type have evolved various modifications such as the *Microdon*-type, sluglike larvae of the Microdontini, a short-tailed type found in bee or wasp nests or in cacti in the Volucellini, a pointed-tailed type fitted for piercing roots in the Chrysogastrini, the phytophagous larvae of the Cheilosiini, and the long-tailed or rat-tailed aquatic larvae of the Eristalini. Various special habits are discussed under the respective taxa. The puparium is usually pear-shaped or teardrop-shaped in the Syrphinae and barrel-shaped in the Milesiinae.

The classification and nomenclature of higher taxa in this family are in great need of critical review. An attempt has been made in this catalog to work out a new compromise system giving more weight to biology and immature stages, as proposed by Goffe (1952) and Hartley (1961), while at the same time preserving as much as possible the modern classification of adults used by Hull (1949b) and

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Coe (1953). This procedure has resulted mainly in the downgrading of the numerous aberrant subfamilies to tribal status.

Probably more problems of nomenclature have been left undecided in the Syrphidae than in any other family of Diptera. Most of these go back to the series of works by Meigen (1800, 1803, 1804) in which erratic and conflicting proposals of genera were finally in large part discarded as preliminary groping by Meigen himself in his definitive classification in the 1822 "Systematische Beschreibung." Nearly all syrphid taxonomists have followed Meigen (1822) in spite of the rising tide of priority adherents who have proposed from time to time to go back to earlier and nomenclaturally correct names. In this catalog we have attempted to determine which names are nomenclaturally correct, but if usage or practicality is overwhelmingly in favor of retention of incorrect names, we have adopted the latter with the statement that a proposal should be made to the I.C.Z.N. for their formal preservation.

REFERENCES: Williston, 1887c (basic rev. N. Amer. spp.); Verrall, 1901 (basic rev., Britain); Metcalf, 1913 (tax., biol., Ohio), 1916b (biol., immature stages, Maine), 1921 (genitalia); Lundbeck, 1916 (basic rev., Denmark); Shannon, 1921, 1922a, 1922b, 1923a (higher classif.); Jones, 1922 (tax., biol., Colo.); Campbell and Davidson, 1924 (biol., economic spp., Calif.); Sack, 1928–1932 (rev. Palaearctic Region); Fluke, 1929 (biol. spp. on pea aphid, keys, Wis.); Brues and Melander, 1932 (higher classif.); Johannsen, 1935 (immature stages of aquatic forms); Heiss, 1938 (tax. immature stages); Telford, 1939 (tax. and biol., Minn.); Shiraki, 1949 (higher classif.); Hull, 1949b (rev. genera of world); Goffe, 1952 (higher classif.); Coe, 1953 (general tax., keys, Britain); Dixon, 1960 (tax. immature stages, Britain); Hartley, 1961 (tax. immature stages, Britain); Glumac, 1961 (higher classif.).

Subfamily SYRPHINAE

Nearly all the larvae of the Syrphinae are aphidophagous or predaceous on small, soft-bodied Homoptera or on Thysanoptera. Syrphine larvae share with coccinellid beetles the role of the most important predators of our more destructive plant lice (Metcalf, 1913, 1916b; Jones, 1922; Fluke, 1929; Wadley, 1931; Telford, 1939).

Tribe SYRPHINI

REFERENCE: Fluke, 1950 (rev., based on male genitalia).

Genus SYRPHUS Fabricius

Syrphus Fabricius, 1775: 762. Type-species, *Musca ribesii* Linnaeus (Rondani, 1844b: 459). To preserve the long and almost universal usage of *Syrphus* in the sense of *Musca*

ribesii Linnaeus as type-species, the I.C.Z.N. should be asked to suspend the rules and suppress Curtis' (1839: pl. 753) designation of *Musca lucorum* Linnaeus and to place *Syrphus* Fabricius on the Official List of Generic Names with *Musca ribesii* Linnaeus as type-species.

Syrphidis Goffe, 1933: 78. Type-species, *Musca ribesii* Linnaeus (orig. des.).

REFERENCES: Fluke, 1933 (rev.), 1954 (key).

attenuatus Hine, 1922b: 144.—Alaska; Alaska to Man., s. to B.C. and Colo., also Wis., Maine.

autumnalis Fluke, 1954: 3.—Ont.; Alaska to Labr., s. to Wash., Utah, and Conn.

bigelowi Curran, 1924k: 288.—Ont.; Alaska to Que., s. to B.C. and Wis.

concavus (Say), 1823: 89 (1859b: 78) (*Scaeva*).—Pa. Unrecognized.

currani Fluke, 1939: 365.—Utah; Alaska to Calif. and Colo.

dimidiatus Macquart, 1834a: 537 (preocc. Fabricius, 1781).—Ga. Unrecognized, and therefore not renamed here because of possible synonymy with older species.

hinei Fluke, 1933: 73.—Alaska; Alta., Wis., Ont.

jonesi Fluke, 1949: 41 (as *ribesii* var.; n. name for *similis* Jones).—Colo.; Alaska to Labr., s. to B.C. and Colo.

similis Jones, 1917: 224 (preocc. Blanchard, 1852).—Colo.

knabi Shannon, 1916a: 200.—Md.; Wis. to Ont. and Maine, s. to Kans., Miss., and Fla.

opinator Osten Sacken, 1877: 327.—Calif.; B.C. to Alta. and Wyo., s. to Calif. and Tex.

philadelphicus Macquart, 1842: 153 (1842: 93).—Pa. Unrecognized, ?=*ribesii*.

rectus Osten Sacken, 1875c: 140.—N.Y., N.H.; Man. to Que. and Maine, s. to Colo., Mo., and N.C.

ribesii (Linnaeus), 1758: 593 (*Musca*).—Europe; Alaska to N.B., s. to Cent. Amer. and N.C., Eurasia.

torvus Osten Sacken, 1875c: 139.—Canada, Colo., N.H., Mass., R.I.; Alaska to Greenland, s. to Calif., N. Mex., and S.C., Eurasia.

transversalis Curran, 1921b: 155.—Ont.; Ont. and Que., s. to Wis. and D.C., also B.C.

vitripennis Meigen, 1822: 308.—Europe; Alaska to N.S., s. to Calif., Colo., and N.C., Europe, ?Mexico.

vittafrons Shannon, 1916a: 202 (as *ribesii* var.).—Md.; Man. to N.B., s. to Utah, Ind., and Fla.

Genus METASYRPHUS Matsumura

Metasyrphus Matsumura *in* Matsumura and Adachi, 1917a: 147. Type-species, *Syrphus corollae* Fabricius (orig. des.).

Posthosyrphus Enderlein, 1938: 204. Type-species, *Syrphus americanus* Wiedemann (orig. des.). Enderlein's description suggests that he misidentified *Eupeodes volucris* Osten Sacken as *americanus* Wiedemann, but we are accepting Fluke's (1950) interpretation as nomenclaturally correct.

REFERENCES: Fluke, 1933, 1952 (revs.).

aberrantis (Curran), 1925k: 90 (*Syrphus*).—Wash.; B.C., Alta., Oreg., Idaho.

americanus (Wiedemann), 1830: 129 (*Syrphus*).—N. Amer.; B.C. to Que., s. to Calif., Mexico, and Fla. Alleged preoccupation by *Musca americana* Swederus erroneous.

wiedemanni Johnson, 1919a: 32 (*Syrphus;* unjustified n. name for *americanus* Wiedemann).—N. Amer.

astutus Fluke, 1952: 15 (as *luniger* ssp.).—Colo.; Wash. to Mont., s. to Utah and Colo., also Ont.

canadensis (Curran), 1926d: 172 (*Syrphus*).—Man.; Alaska to Maine, s. to Wash. and Wis.

chillcotti Fluke, 1952: 20.—Man.; N.W.T., Que.

confertus Fluke, 1952: 7 (as *nitens* ssp.).—Wis.; Vt., Maine, Mass.

nitens, authors, not Zetterstedt.

curtus (Hine), 1922b: 145 (*Syrphus*).—Alaska; B.C.

daphne (Hull), 1925a: 280 (*Didea*).—B.C.

depressus Fluke, 1933: 97.—Alaska; Alaska and N.W.T. to Oreg., also Ont. and Que. to Mass.

flukei (Jones), 1917: 222 (*Syrphus*).—Colo.; Wash., Idaho, Mont., Wyo.

fumipennis (Thomson), 1869: 499 (*Syrphus*).—Calif.; Wash., Oreg., Nev.

gentneri Fluke, 1952: 19.—Oreg.; Wash., Calif., Utah.

lapponicus (Zetterstedt), 1838: 598 (*Scaeva*).—Sweden; Alaska to Greenland, s. to Calif., Tex., and Va., Europe.

agnon Walker, 1849: 579 (*Syrphus*).—Ont., N.S.

alcidice Walker, 1849: 579 (*Syrphus*).—Ont.

arcucinctus Walker, 1849: 580 (*Syrphus*).—Ont.

arcuatus, authors, not Fallén.

latifasciatus (Macquart), 1829: 242 (1829: 94) (*Syrphus*).—France; Alaska to Nfld., s. to Calif., Tex., and Pa., Europe.

abbreviatus Zetterstedt, 1849: 3136 (*Scaeva*).—Europe.

pallifrons Curran, 1925k: 172 (*Syrphus*).—Wis.

lebanoensis (Fluke), 1930: 139 (*Syrphus*).—B.C.; B.C. to Alta., s. to Wash., Ariz., and N. Mex.

luniger (Meigen), 1822: 300 (*Syrphus*).—Europe; Greenland, Eurasia.

marginatus (Jones), 1917: 222 (*Syrphus*).—Colo.

meadii (Jones), 1917: 223 (*Syrphus*).—Colo; B.C. to Ont., s. to Calif. and N. Mex.

medius (Jones), 1917: 224 (*Syrphus*).—Colo.; Oreg. to P.E.I., s. to Calif. and La.

montanus (Curran), 1925k: 174 (*Syrphus*).—Mont.; Calif., Utah, Colo.

montivagus (Snow), 1895d: 236 (*Syrphus*).—Colo.; Wash. to Alta., s. to Utah and N. Mex.

neoperplexus (Curran), 1925k: 93 (*Syrphus*).—Man.; Alaska, N. Dak., Ont.

nigrocomus Hull, 1943e: 48.—Wash.

nigroventris Fluke, 1933: 97.—Greenland.

ochrostomus (Zetterstedt), 1849: 3133 (*Scaeva*).—Europe; Alta., Ont., N.Y.

palliventris (Curran), 1925k: 173 (*Syrphus*).—Alta.; B.C. to Ont., s. to Calif.

perplexus (Osburn), 1910: 55 (*Syrphus*).—N. Amer. (12 states and provinces); Alaska to Labr., s. to Oreg., N. Mex., and N.C.

arcuatus, authors, not Fallén.

lundbecki, authors, not Soot-Ryen.

pingreensis (Fluke), 1930: 137 (*Syrphus*).—Colo.; Y.T. to Man., s. to Calif. and Colo., ?Wis., ?Md.

pomus (Curran), 1921c: 172 (*Syrphus*; as *americanus* var.).—Ont. (unpublished); Man. to Maine, s. to Okla. and Va.

rufipunctatus (Curran), 1925k: 180 (*Syrphus*).—B.C.; Wash., Colo.

sculleni Fluke, 1952: 12.—Oreg.; B.C. to Idaho, s. to Calif. and N. Mex.

snowi (Wehr), 1922b: 137 (=p. 19) (*Syrphus*; n. name for *ruficauda* Snow).—Colo.; B.C. to Idaho and Nebr., s. to Oreg., Ariz., and N. Mex.

ruficauda Snow, 1892: 36 (*Syrphus*; preocc. Bigot, 1883).—Colo.

snowi Curran, 1925k: 173 (*Syrphus*; n. name for *ruficauda* Snow).—Colo.

subsimus Fluke, 1952: 11.—Colo.; Alaska to Calif., also Colo. and N. Mex.

talus Fluke, 1933: 95.—Oreg.

venablesi (Curran), 1929d: 45 (*Syrphus*).—B.C.; Alaska to Alta., s. to Calif. and N. Mex.

vinelandi (Curran), 1921c: 172 (*Syrphus*; as *americanus* var.).—Ont., Wis.; Minn. to Ont. and Conn., s. to Kans. and Va.

vockerothi Fluke, 1952: 17 (as *luniger* ssp.).—N.W.T.; Alaska to Que., s. to Colo. and Md.

Genus EUPEODES Osten Sacken

Eupeodes Osten Sacken, 1877: 328. Type-species, *volucris* Osten Sacken (mon.).

volucris Osten Sacken, 1877: 329.—Calif., Nev., Utah, Colo.; B.C. to Ont., s. to Calif., Mexico, and La.

perpallidus Bigot, 1884a: 90 (*Syrphus*).—N. Amer.

braggii Jones, 1917: 221.—Colo. **N. syn.**

weldoni Jones, 1917: 221.—Colo. **N. syn.**

Genus SCAEVA Fabricius

Scaeva Fabricius, 1805: 248. Type-species, *Musca pyrastri* Linnaeus (Curtis, 1834: pl. 509).

Lasiopthicus Rondani, 1844b: 459. Type-species, *Musca pyrastri* Linnaeus (Rondani, 1856: 51).

Lasiophthicus, *Lasiophticus*, *Lasiopticus*, errors or emends.

Catabomba Osten Sacken, 1877: 326. Type-species, *Musca pyrastri* Linnaeus (mon.).

REFERENCE: Goffe, 1933 (syn.).

pyrastri (Linnaeus), 1758: 594 (*Musca*).—Europe; Alaska to Alta., s. to Calif., N. Mex., and Ark., Eurasia, n. and w. Africa.

affinis Say, 1823: 93 (1859b: 81).—Ark.

var. **unicolor** Curtis, 1834: pl. 509 (as sp.).—Britain; Oreg., Idaho, Utah.

selenitica (Meigen), 1822: 304 (*Syrphus*).—Europe; ?N.C. Introduced.

Genus DIDEA Macquart

Didea Macquart, 1834a: 508. Type-species, *fasciata* Macquart (mon.).

REFERENCE: Hull, 1925a (key).

alneti (Fallén), 1817a: 38 (*Scaeva*).—Europe; Alaska to Labr., s. to Colo. and N.S., Eurasia.

catalina (Curran), 1930f: 14 (*Syrphus*).—Ariz. Unrecognized.

fasciata Macquart, 1834a: 508.—France; B.C. to N.S., s. to Oreg., N. Mex., and N.C., Eurasia.

fuscipes Loew, 1863b: 318 (Cent. 4, no. 82).—Pa.

laxa Osten Sacken, 1875d: 66.—Mich., N.H., Maine; Alaska to Nfld., s. to Calif., Mexico, and N.C.

syrphoides Hull, 1925a: 278 (as var.).—Mich., N.Y. **N. syn.**

pacifica Lovett *in* Cole and Lovett, 1919: 246.—Oreg. Unrecognized.

Genus LEUCOZONA Schiner

Leucozona Schiner, 1860c: 214. Type-species, *Musca lucorum* Linnaeus (orig. des.). *Musca lucorum* Linnaeus was also the type-species validly designated by Curtis, 1839: pl. 753, for *Syrphus* Fabricius, but to preserve usage and prevent confusion the I.C.Z.N. should be asked to suspend the rules and designate *Musca ribesii* Linnaeus as type-species of *Syrphus* Fabricius (which see), and to place *Leucozona* Schiner on the Official List of Generic Names.

lucorum (Linnaeus), 1758: 592 (*Musca*).—Europe; Alaska to N.S., s. to Oreg., Colo., and N.Y., Eurasia.

americana Curran, 1923c: 38 (as var.).—Que. **N. syn.**

Genus DASYSYRPHUS Enderlein

Dasysyrphus Enderlein, 1938: 208. Type-species, *Scaeva albostriata* Fallén (orig. des.).

REFERENCE: Fluke, 1933 (key, as *amalopis* group).

amalopis (Osten Sacken), 1875c: 148 (*Syrphus*).—N.H.; Alaska to Que., s. to Calif., N. Mex., and N.C.

intrudens Osten Sacken, 1877: 326 (*Syrphus*).—Calif.

arcuatus (Fallén), 1817a: 42 (*Scaeva*).—Europe; Alaska to Que. and Mass., s. to Oreg., Europe.

venustus Meigen, 1822: 299 (*Syrphus*).—Europe.

lapponicus, authors, not Zetterstedt.

creper (Snow), 1895d: 234 (*Syrphus*).—Colo., N. Mex.; Wash. to Alta. and Nebr., s. to Calif. and N. Mex.

disgregus (Snow), 1895d: 233 (*Syrphus*).—N. Mex.; Idaho, Colo.

laticaudatus (Curran), 1925k: 176 (*Syrphus*).—B.C.

laticaudus (Curran), 1925k: 175 (*Syrphus*).—Ont.; Oreg., Utah, Mich., N.H., Que., N.B.

limatus (Hine), 1922b: 146 (*Syrphus*).—Alaska; Alaska to Que., s. to B.C. and Colo.

lotus (Williston), 1887c: 75 (*Syrphus*).—Ariz.; B.C. to Idaho and Colo., s. to Calif. and Mexico.

lunulatus (Meigen), 1822: 299 (*Syrphus*).—Europe; Greenland.

osburni (Curran), 1925k: 177 (*Syrphus*).—Ont.; Alaska to Labr., s. to Mass.

pacificus (Lovett) *in* Cole and Lovett, 1919: 245 (*Syrphus*).—Oreg.; Alaska to Alta., s. to Calif. and Utah.

pauxillus (Williston), 1887c: 74 (*Syrphus*).—N. Mex.; Y.T. to Alta., s. to Calif. and N. Mex., also Que.

reflectipennis (Curran), 1921b: 157 (*Syrphus*).—Ont.

Genus EPISTROPHE Walker

Epistrophe Walker, 1852: 242. Type-species, *conjungens* Walker (mon.)=*grossulariae* (Meigen).

REFERENCES: Metcalf, 1917b (biol., immature stages of *divisa*); Fluke, 1931 (biol., immature stages), 1933 (partial key, as *emarginatus* group), 1935 (partial key, combined with *Stenosyrphus* spp.); Goffe, 1944e (syn.).

divisa (Williston), 1882a: 311 (*Xanthogramma*).—Wash. Territory; Y.T. to Que. and Maine, s. to Wash., Colo., and Va.

disjunctus Williston, 1882a: 314 (*Syrphus*; preocc. Macquart, 1842).—Wash. Territory.

disjectus Williston, 1887c: 73 (*Syrphus;* n. name for *disjunctus* Williston).—Wash. Territory.

fragila Fluke, 1922: 237 (*Xanthogramma*).—Wis.

emarginata (Say), 1823: 91 (1859b: 79) (*Scaeva*).—Fla.; Man. to Que., s. to Nebr., Tex., and Fla.

aenea Jones, 1907b: 93 (*Xanthogramma*).—Nebr. **N. syn.**

felix (Osten Sacken), 1875d: 67 (*Xanthogramma*).—Ill., N.Y., Pa.; Minn. to Maine, s. to Nebr. and Va.

infuscatus Fluke, 1931: 297 (*Syrphus*).—Wis.

grossulariae (Meigen), 1822: 306 (*Syrphus*).—Europe; Alaska to Que., s. to Calif., Colo., and S.C., Eurasia.

lesueurii Macquart, 1842: 152 (1842: 92) (*Syrphus*).—Pa.

conjungens Walker, 1852: 242.—U.S.

melanis Curran, 1922f: 96 (*Syrphus;* as var.).—Ont. **N. syn.**

hunteri (Curran), 1925k: 171 (*Stenosyrphus*).—Man.; Alaska, Calif., Wis., Maine, Pa.

invigora (Curran), 1921c: 171 (*Syrphus*).—Ont.; Man. to Que. and Mass., s. to Miss. and Ga.

metcalfi (Fluke), 1933: 119 (*Metasyrphus*).—N.C.; Wis.

nitidicollis (Meigen), 1822: 308 (*Syrphus*).—Europe; Alaska to N.B., s. to Calif. and S.C., Europe.

protritus Osten Sacken, 1877: 328 (*Syrphus*).—Calif.

submarginalis (Curran), 1925k: 101 (*Stenosyrphus*).—Ont.; Alaska to Maine, s. to Calif. and Pa.

terminalis (Curran), 1925k: 98 (*Stenosyrphus*).—Ont.; Maine.

weborgi (Fluke), 1931: 299 (*Syrphus*).—Wis.; Mich., N.Y., Pa.

xanthostoma (Williston), 1887c: 86 (*Syrphus*).—Pa.; Alaska to N.S., s. to Idaho, Kans., and N.C.

Genus ISCHYROSYRPHUS Bigot

Ischyrosyrphus Bigot, 1882a: lxviii. Type-species, *Musca glaucia* Linnaeus (Verrall, 1901: 321).

velutinus (Williston), 1882a: 314 (*Syrphus*).—Oreg.; Alaska to Idaho and Calif.

tricolor Bigot, 1884a: 73.—Calif.

xylotoides (Johnson), 1916b: 80 (*Syrphus*).—Mass.; Vt., N.H., Conn., Va.

Genus MELANGYNA Verrall

Melangyna Verrall, 1901: 313. Type-species, *Melanostoma quadrimaculatum* Verrall (mon.).

Stenosyrphus Matsumura and Adachi, 1917b: 14. Type-species, *Scaeva lasiophthalma* Zetterstedt (orig. des.). **N. syn.** J.R. Vockeroth *in litt.*

Phalacrodira Enderlein, 1938: 205. Type-species, *Scaeva tarsata* Zetterstedt (orig. des.). **N. syn.,** J. R. Vockeroth *in litt.*

Petersina Enderlein, 1938: 205. Type-species, *lanata* Enderlein (orig. des.)=*groenlandica* (Nielsen). **N. syn.,** J. R. Vockeroth *in litt.*

Epistrophe, subg. *Meligramma* Frey, 1946a: 165. Type-species, *Scaeva guttata* Fallén (orig. des.). **N. syn.,** J. R. Vockeroth *in litt.*

References: Metcalf, 1917b (biol., immature stages of *triangulifer*, as *oronoensis*); Curran, 1925k (key); Fluke, 1935 (partial key, in *Epistrophe*); Goffe, 1944e (syn.).

abrupta (Curran), 1924p: 80 (*Epistrophe*).—N.H. **N. comb.**

albipunctata (Curran), 1925k: 104 (*Stenosyrphus*).—B.C., Wash., Idaho; Alaska to Nfld., s. to Wash., Colo., and Mich. **N. comb.**

arctica (Zetterstedt), 1838: 604 (*Scaeva*).—Europe; Alaska to Labr., s. to B.C. and Colo. **N. comb.**

glacialis Johnson, 1898: 18 (*Melanostoma*).—Alaska.

bimaculata (Lovett) *in* Cole and Lovett, 1919: 244 (*Syrphus*).—Oreg.; B.C., Wash. **N. comb.**

bulbosa (Fluke), 1954: 8 (*Stenosyrphus*).—N.W.T. **N. comb.**

cherokeenensis (Jones), 1917: 219 (*Melanostoma*).—Colo.; Alaska to Idaho, s. to Oreg. and Colo., also Ont. **N. comb.**

remotus Curran, 1925k: 108 (*Stenosyrphus*).—Oreg.

cincta (Fallén), 1817a: 45 (*Scaeva*).—Europe; Alaska, Alta., Oreg., Wis. to Que., s. to N.C., Europe. **N. comb.**

columbiae (Curran), 1925k: 110 (*Stenosyrphus*).—B.C.; Alaska to Wash. and Alta. **N. comb.**

flavosignatus Hull, 1930a: 139 (*Syrphus*).—B.C.

compositarum (Verrall), 1873: 254 (*Syrphus*).—Europe; Alaska to N. Mex. in Rocky Mts., also N.H., Nfld., Europe. **N. comb.**

conjuncta (Osburn), 1908: 7 (*Syrphus*).—B.C.; B.C. to Oreg. and Alta. **N. comb.**

melanderi Curran, 1925k: 103 (*Stenosyrphus*).—Wash.

coquilletti Sedman (for *gracilis* Coquillett).—Alaska. **N. name.**

gracilis Coquillett, 1900h: 432 (1904: 46) (*Syrphus;* preocc. Meigen, 1822).—Alaska.

currani (Fluke), 1935: 29 (*Epistrophe*).—Alaska; B.C.

diversipunctata (Curran), 1925k: 106 (*Stenosyrphus*).—Ont.; Wis., N.H., Que., Maine. **N. comb.**

fisherii (Walton), 1911: 319 (*Syrphus*).—Pa.; Wis. to Ont. and Maine, s. to N.C. **N. comb.**

garretti (Curran), 1925k: 109 (*Stenosyrphus*).—B.C.; Alaska to Man. and Calif. **N. comb.**

geniculata (Macquart), 1842: 161 (1842: 101) (*Syrphus*).—Nfld.; Alaska to Labr., s. to B.C., Colo., and N.Y. **N. comb.**

genualis (Williston), 1887c: 86 (*Syrphus*).—N.H.; Y.T. to N.S., s. to B.C., N. Mex., and Conn. **N. comb.**

groenlandica (Nielsen), 1910: 61 (*Catabomba*).—Greenland. **N. comb.,** J. R. Vockeroth *in litt.*

nigropilosa Curran, 1927b: 12 (*Epistrophe*).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

monachus Hull, 1930a: 140 (*Syrphus*).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

lanata Enderlein, 1938: 206 (*Petersina*).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

evanescens Enderlein, 1938: 207 (*Petersina;* as *lanata* var.).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

extrema Enderlein, 1938: 207 (*Petersina;* as *lanata* var.).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

flavifacies Enderlein, 1938: 207 (*Petersina;* as *lanata* var.).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

violaceiventris Enderlein, 1938: 207 (*Petersina;* as *lanata* var.).—Greenland. **N. syn.,** J. R. Vockeroth *in litt.*

guttata (Fallén), 1817a: 44 (*Scaeva*).—Europe; Alaska to Ariz. and N. Mex. **N. comb.**

habilis Snow, 1895d: 238 (*Xanthogramma*).—N. Mex.

imperialis (Curran), 1925k: 100 (*Stenosyrphus*).—Que.; Alaska to Que., s. to Wash. and Idaho. **N. comb.**

insolita (Osburn), 1908: 5 (*Syrphus*).—B.C.; Alaska to Labr., s. to Oreg. and Mont. **N. comb.**

johnsoni (Curran), 1924p: 79 (*Syrphus*).—N.H.; B.C. to N.S., s. to Colo. and N.H. **N. comb.**

lineola (Zetterstedt), 1843: 714 (*Scaeva*).—Europe; Alaska to Que., s. to Oreg., Colo., and N. Mex., Europe. **N. comb.**

macularis (Zetterstedt), 1843: 730 (*Scaeva*).—Europe: Alaska to Oreg. and Alta., Europe. **N. comb.**

maculifrons (Bigot), 1884a: 89 (*Syrphus*).—Oreg. Unrecognized, **N. comb.**

mallochi (Curran), 1923f: 74 (*Syrphus*; n. name for *interruptus* Malloch).—Alaska; N.W.T., Wash., Oreg., Que. **N. comb.**

interruptus Malloch, 1919f: 55 (*Syrphus*; as *sodalis* var.; preocc. Philippi, 1865).—Alaska.

mediaconstricta (Fluke), 1930: 135 (*Epistrophe*).—Colo. **N. comb.**

mentalis (Williston), 1887c: 72 (*Syrphus*).—Wash. Territory; Alaska to N.B., s. to Oreg., Colo., and Conn. **N. comb.**

nigrifacies (Curran), 1923d: 62 (*Stenosyrphus*).—Alta.; Alaska to Alta. and Oreg. **N. comb.**

nudifrons (Curran), 1925k: 104 (*Stenosyrphus*).—N.Y.; Wis., Labr. **N. comb.**

pullula (Snow), 1895d: 237 (*Syrphus*).—N. Mex.; Alaska to Alta., s. to N. Mex., also Maine. **N. comb.**

quinquelimbata (Bigot), 1884a: 91 (*Syrphus*).—Calif.; B.C. to Idaho, s. to Calif. and Colo. **N. comb.**

rectoides (Curran), 1921b: 159 (*Syrphus*).—B.C.; Alaska to Labr., s. to Calif. and Colo. **N. comb.**

semiinterrupta (Fluke), 1935: 21 (*Epistrophe*).—Ont.; Ont. to Labr., s. to N.C. **N. comb.**

sexquadrata (Walker), 1849: 586 (*Syrphus*).—Ont., N.S.; Alta. to Nfld. **N. comb.**

sodalis (Williston), 1887c: 74 (*Syrphus*).—Colo.; Alaska to Que., s. to Oreg. and Colo. **N. comb.**

subfasciata (Curran), 1925k: 111 (*Stenosyrphus*).—B.C., Alta., Wash., Idaho; Oreg. **N. comb.**

tarsata (Zetterstedt), 1838: 601 (*Scaeva*).—Europe; Alaska to Greenland, s. to Wash., Colo., and N.H., n. Europe.

adolescens Walker, 1849: 584 (*Syrphus*).—Ont., N.S.

dryadis Holmgren, 1869: 26 (*Scaeva*).—Spitzbergen.

contumax Osten Sacken, 1875c: 147 (*Syrphus*).—N.H.

bryantii Johnson, 1898: 17 (*Syrphus*).—Alaska.

tenuis (Osburn), 1908: 8 (*Xanthogramma*).—B.C.; Alaska to Que., s. to B.C., Colo., and N.J. **N. comb.**

triangulifera (Zetterstedt), 1843: 737 (*Scaeva*).—Europe; Minn. to N.S. and Mass., also Y.T., Alta., Colo., Europe.

oronoensis Metcalf, 1917b: 162 (*Syrphus*).—Maine.

umbellatarum (Fabricius), 1794: 307 (*Syrphus*).—Europe; Alaska to Nfld., s. to Ariz. and N.C., Europe. **N. comb.**

vittifacies (Curran), 1923b: 66 (*Stenosyrphus*).—N.H.; Pa., Norway. **N. comb.**

Genus MELISCAEVA Frey

Epistrophe, subg. **Meliscaeva** Frey, 1946a: 164. Type-species, *Scaeva cintella* Zetterstedt (orig. des.).

Episyrphus, authors, not Matsumura.

cinctella (Zetterstedt), 1843: 742 (*Scaeva*).—Europe; Alaska to Labr., s. to Calif., Colo., and N.C., Europe.

diversipes Macquart, 1850: 459 (1850: 155) (*Syrphus*).—Nfld.

diversifasciata (Knab), 1914b: 151 (*Syrphus*).—Calif., Ariz.; B.C. to Utah, s. to Calif. and Ariz., Mexico, Chile.

rubripleuralis Curran, 1921c: 172 (*Syrphus*).—Calif.

Genus MERCURYMYIA Fluke

Stenosyrphus, subg. **Mercurymyia** Fluke, 1950: 140. Type-species, *Syrphus caldus* Walker (orig. des.).

jactator (Loew), 1861c: 40 (*Syrphus*).—Cuba; Fla. **N. comb.,** J. R. Vockeroth *in litt.*

Genus ALLOGRAPTA Osten Sacken

Allograpta Osten Sacken, 1875d: 49. Type-species, *Scaeva obliqua* Say (mon.).

REFERENCES: Curran, 1932b (key); Fluke, 1942 (key).

cubana Curran, 1932b: 3.—Cuba; Fla.

exotica (Wiedemann), 1830: 136 (*Syrphus*).—Brazil; Oreg. to Nebr., s. to Calif. and S.C., Neotropical, Hawaii.

fracta Osten Sacken, 1877: 331.—Calif.

micrura (Osten Sacken), 1877: 330 (*Sphaerophoria*).—Calif.; Wash., Tex., Mexico, Ecuador.

picticauda Bigot, 1884a: 102 (*Sphaerophoria*).—Mexico.

obliqua (Say), 1823: 89 (1859b: 78) (*Scaeva*).—U.S.; Wash. to Que., s. to Calif. and Fla., also Hawaii, Bermuda, Neotropical.

securiferus Macquart, 1842: 160 (1842: 100) (*Syrphus*).—N. Amer.

bacchides Walker, 1849: 594 (*Sphaerophoria*).—Fla.

dimensus Walker, 1852: 235 (*Syrphus*).—U.S.

signatus Wulp, 1867: 144 (*Syrphus*).—Wis.

transversa (Hull), 1943c: 32 (*Sphaerophoria*).—Oreg.; Calif., Ariz., Tex., Mexico.

venusta Curran, 1927a: 5.—Virgin Is.; Fla.

Genus DOROS Meigen

Doros Meigen, 1803: 274. Type-species, *Syrphus conopseus* Fabricius (Westwood, 1840: 136).

aequalis Loew, 1863b: 318 (Cent. 4, no. 84).—Pa.; Wis. to Que., s. to N.C.

Genus XANTHOGRAMMA Schiner

Xanthogramma Schiner, 1860c: 215; 1861a: 318. Type-species, *Syrphus ornatus* Meigen (Williston, 1887c: 91)=*pedissequum* (Harris).

Philhelius Coquillett, 1910d: 378. Type-species, *Musca citrofasciata* De Geer (orig. des.). Coquillett attributed the name *Philhelius* to Stephens, 1841: 201, where it appeared only in a list of species in the vague combination "*Philhelius ornatus*." Neither was *Philhelius* validated in Verrall, 1901: 448, who merely mentioned it in a discussion of the synonymy of the genus *Xanthogramma*.

flavipes (Loew), 1863b: 318 (Cent. 4, no. 83) (*Doros*).—Pa.; Minn to Que., s. to Nebr. and N.C.

Genus SPHAEROPHORIA Lepeletier and Serville

Sphaerophoria Lepeletier and Serville *in* Latreille et al., 1828: 513. Type-species, *Musca scripta* Linnaeus (Rondani, 1844b: 458).

Melithreptus Loew, 1840: 577 (unjustified n. name for *Sphaerophoria* Lepeletier and Serville). Type-species, *Musca scripta* Linnaeus (aut.).

REFERENCE: Curran, 1930j (partial key, e. N. Amer.).

cleoae Metcalf, 1917a: 210.—Maine.
cranbrookensis Curran, 1921c: 173.—B.C.
cylindrica (Say), 1824b: pl. 11 (1859a: 22) (*Syrphus*).—Pa.; B.C. to N.B., s. to Calif. and Fla., Japan.
contigua Macquart, 1847: 78 (1847: 62).—Pa.
dubia Bigot, 1884a: 101.—Calif. Unrecognized.
guttulata Hull, 1942c: 20.—Idaho; Calif., Utah, Mexico.
infumata (Thomson), 1869: 501 (*Syrphus*).—Calif. Unrecognized.
interrupta Jones, 1917: 225.—Colo.; Utah, Wyo.
melanosa Williston, 1887c: 106.—Calif.; B.C. to Minn., s. to Calif. and N. Mex.
menthastri (Linnaeus), 1758: 594 (*Musca*).—Europe; Alaska to N.S., s. to Calif., N. Mex., and Va., Eurasia.
hieroglyphicus Meigen, 1822: 327 (*Syrphus*).—Europe.
nigratarsi Fluke, 1930: 143.—Colo.; Alaska to B.C., Alta. to N. Mex.
nigricauda Metcalf, 1913: 88.—Ohio.
novaeangliae Johnson, 1916b: 76.—Maine; Alaska, B.C., Wis. to Que., Maine, and Mass.
pyrrhina Bigot, 1884a: 101.—Calif. Unrecognized.
robusta Curran, 1930j: 62.—Maine; Alaska to N.S., s. to Calif., Colo., and Fla.
scripta, authors, not Linnaeus.
strigata Staeger, 1845b: 362.—Greenland; N.W.T., B.C., Alta.
sulphuripes (Thomson), 1869: 500 (*Syrphus*).—Calif.; Alaska to Calif., N. Mex., and Nebr., also Hawaii.

Genus MESOGRAPTA Loew

Mesogramma Loew, 1866a: 157 (Cent. 6, no. 47) (preocc. Stephens, 1850). Type-species, *parvula* Loew (Williston, 1887c: 98).

Mesograpta Loew, 1872a: 114 (Cent. 10, appendix) (n. name for *Mesogramma* Loew). Type-species, *Mesogramma parvula* Loew (aut.).

Although it is believed that most species of *Mesograpta* have the primitive aphidophagous habit of the Syrphinae, the only species whose feeding habits are definitely known, *polita* (Say), is phytophagous, feeding on corn pollen.

REFERENCES: Curran, 1930c, 1934e (keys); Hull, 1943a (rev.); Fluke, 1953b (syn.).

arethusa (Hull), 1945a: 185 (*Mesogramma*).—Fla.
basilaris (Wiedemann), 1830: 143 (*Syrphus*).—Brazil; Tex., Neotropical.
boscii (Macquart), 1842: 160 (1842: 100) (*Syrphus*).—Carolina; Tex. to Tenn. and N.C., s. to Fla., Antilles, Mexico.
gurges Walker, 1852: 236 (*Syrphus*).—U.S.
coalescens (Walker), 1852: 237 (*Syrphus*).—U.S. Unrecognized.
corbis (Walker), 1852: 236 (*Syrphus*).—U.S. Unrecognized.
floralis (Fabricius), 1798: 563 (*Syrphus*).—French Guiana; Fla., Neotropical.
duplicata, authors, not Wiedemann.
marginata (Say), 1823: 92 (1859b: 80) (*Scaeva*).—U.S.; B.C. to Que., s. to Calif., Cent. Amer., and Fla.
quintius Walker, 1852: 239 (*Syrphus*).—N. Amer.
limbiventris Thomson, 1869: 495 (*Syrphus*).—Calif.
parvula (Loew), 1866a: 157 (Cent. 6, no. 47) (*Mesogramma*).—Fla.; Wis., Tex.
planiventris (Loew), 1866a: 158 (Cent. 6, no. 49) (*Mesogramma*).—Fla.; N.C., Ga.
polita (Say), 1823: 88 (1859b: 77) (*Scaeva*).—U.S.; Minn. to Que., s. to Ariz. and Fla., Neotropical.
cingulatulus Macquart, 1850: 459 (1850: 155) (*Syrphus*).—Fla.
cingulatus, error.
hecticus Jaennicke, 1867: 398 (1868: 90) (*Syrphus*).—Ill.
slossonae (Curran), 1930c: 8 (*Mesogramma*).—Fla; Ecuador.
subannulata (Loew), 1866a: 157 (Cent. 6, no. 48) (*Mesogramma*).—Cuba; Fla., Antilles, Mexico and Cent. Amer.
teligera Fluke, 1953a: 125.—Ariz.
triradiata (Hull), 1942e: 48 (*Mesogramma*).—Panama; Tex.

Genus TOXOMERUS Macquart

Toxomerus Macquart, 1855: 112 (1855: 92). Type-species, *notatus* Macquart (orig. des.) = *geminatus* (Say).

The larvae are thought to be aphidophagous but no detailed life history studies have been made.

geminatus (Say), 1823: 92 (1859b: 80) (*Scaeva*).—U.S.; Minn. to Que., s. to Colo., Tex., and Fla.
privernus Walker, 1852: 225 (*Eumerus*).—U.S.
interrogans Walker, 1852: 238 (*Syrphus*).—N. Amer.
notatus Macquart, 1855: 113 (1855: 93).—Md.
jussiaeae Vigé, 1939: 66.—La.; Mo., Ill., Tenn., Miss.

occidentalis Curran, 1922a: 258.—B.C.; B.C. to Colo., s. to Calif. and Tex.

Tribe BACCHINI

Genus BACCHA Fabricius

Baccha Fabricius, 1805: 199. Type-species, *Syrphus elongatus* Fabricius (Curtis, 1839: pl. 737).

Bacchina Williston, 1896a: 86. Type-species, *Syrphus elongatus* Fabricius (present des.). **N. syn.**

The larvae of *Baccha* are effective predators of aphids, scale insects, and mealy bugs, including many of economic importance.

References: Osten Sacken, 1862c (biol.); Campbell and Davidson, 1924 (biol.); Curran, 1930a, 1941 (keys); Heiss, 1938 (immature stages); Hull, 1943b, 1949a (keys).

Subgenus BACCHA Fabricius

calypso Hull, 1944b: 60.—Fla.

costata Say, 1829: 161 (1859b: 357).—Ind.; Ont. to N.H., s. to La. and Fla.

costalis Wiedemann, 1830: 97.—Unknown.

tarchetius Walker, 1849: 549.—Ga.

cubana Hull, 1943b: 62, key (also 1944e: 30, descr.).—Cuba; Fla.

elongata (Fabricius), 1775: 768 (*Syrphus*).—Europe; Alaska to Que., s. to Calif., Ohio, and Va., Europe.

obscuricornis Loew, 1863a: 15 (Cent. 3, no. 26).—Alaska. **N. syn.**

cognata Loew, 1863a: 15 (Cent. 3, no. 27).—Wis. **N. syn.**

angusta Osten Sacken, 1877: 332.—Calif. **N. syn.**

tricincta Bigot, 1883a: 333.—Wash. Territory. **N. syn.**

lineata Macquart, 1846: 267 (1846: 139).—Yucatan or Tex.; Tex., Fla., Neotropical.

notata Loew, 1866b: 37 (Cent. 7, no. 65).—Cuba. **N. syn.**

tropicalis Townsend, 1897c: 172.—Tex.

parvicornis Loew, 1861c: 41.—Cuba; Fla., P.R.

Subgenus DIOPROSOPA Hull

Baccha, subg. **Dioprosopa** Hull, 1949a: 99 (also 1949b: 296). Type-species, *Syrphus clavatus* Fabricius (mon.).

clavata (Fabricius), 1794: 298 (*Syrphus*).—West Indies; Calif. to Nebr., Wis., and N.J., s. to Fla., Neotropical.

babista Walker, 1849: 549.—Ga.
quadrimaculata Ashmead, 1880: 70 (?*Conops*).—Fla.
bacchoides Bigot, 1883a: 326 (*Spazigaster*).—Rocky Mts.

Subgenus OCYPTAMUS Macquart

Ocyptamus Macquart, 1834a: 554 (as genus). Type-species, *fascipennis* Macquart (Coquillett, 1910b: 577)=*fuscipennis* Say.

fascipennis Wiedeman, 1830: 96.—Unknown; Man. to Que., s. to Tex. and Fla.
aurinota Walker, 1849: 548.—Mass. (as U.S.).

funebris (Macquart), 1834a: 554 (*Ocyptamus*).—Brazil; Tex., Neotropical.

fuscipennis Say, 1823: 100 (1859b: 86).—Pa.; Colo. to Wis. and Que., s. to Tex. and Fla., Cent. Amer., Antilles.
fascipennis Macquart, 1834a: 554 (*Ocyptamus;* preocc. Wiedemann, 1830).—Pa.
amissas Walker, 1849: 589 (*Syrphus*).—Ga.
peas Walker, 1849: 590 (*Syrphus*).—Unknown.
radaca Walker, 1849: 590 (*Syrphus*).—Fla.
lugens Loew, 1863a: 14 (Cent. 3, no. 24).—Wis.
longiventris Loew, 1866b: 38 (Cent. 7, no. 66) (*Ocyptamus*).—D.C.
fenestrata Hull, 1949a: 280, fig. 381 (as var.).—Unknown.
cylindrica, authors, not Fabricius.

gastrostacta (Wiedemann), 1830: 123 (*Syrphus*).—Brazil; Tex., Fla., Neotropical.
torva Williston, 1887c: 124.—Tex.

latiuscula (Loew), 1866b: 39 (Cent. 7, no. 68) (*Ocyptamus*).—Cuba; Fla., West Indies.

lemur Osten Sacken, 1877: 331.—Calif., N. Mex., Wyo.; B.C. to Wis., s. to Calif. and Tex.

loewi Sedman (for *scutellata* Loew).—Cuba; Fla., Neotropical. **N. name.**
scutellata Loew, 1866b: 39 (Cent. 7, no. 69) (*Ocyptamus*; preocc. Meigen, 1822).—Cuba.

Subgenus ORPHNABACCHA Hull

Orphnabaccha Hull, 1949a: 93 (as genus). Type-species, *Baccha coerula* Williston (orig. des.).

coerula Williston, 1891: 38.—Mexico (Guerrero); Tex.

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Subgenus XESTOPROSOPA Hull

Xestoprosopa Hull, 1949a: 94 (as genus). Type-species, *Baccha delicatula* Hull (orig. des.).

marmorata Bigot, 1883a: 333.—Mexico; Ariz.

Subgenus MIMOCALLA Hull

Baccha, subg. **Mimocalla** Hull, 1943b: 46. Type-species, *capitata* Loew (orig. des.).

nepenthe Hull, 1943d: 40.—Fla.

Genus SALPINGOGASTER Schiner

Salpingogaster Schiner, 1868: 344. Type-species, *pygophora* Schiner (orig. des.).

REFERENCE: Curran, 1932b, 1941 (keys).

punctifrons Curran, 1929f: 493.—Cuba; Fla.
texana Curran, 1932b: 6.—Tex.

Tribe MELANOSTOMATINI

The larvae of the Melanostomatini with known habits are transitional forms between the saprophagous and purely entomophagous types. Larvae of *Melanostoma* and *Platycheirus* have been observed feeding on aphids, small caterpillars, and other insects, as well as on decomposing plant material.

REFERENCES: Curran, 1930j (keys); Fluke, 1958 (rev. by male genitalia).

Genus XANTHANDRUS Verrall

Xanthandrus Verrall, 1901: 316. Type-species, *Musca comtus* Harris (Coquillett, 1910b: 620).

mexicanus Curran, 1930g: 9.—Mexico (Yucatan); Tex., Costa Rica.

Genus MELANOSTOMA Schiner

Melanostoma Schiner, 1860c: 213. Type-species, *Musca mellina* Linnaeus (orig. des.).

Pachysphyria Enderlein, 1938: 196. Type-species, *Scaeva ambigua* Fallén (orig. des.).

REFERENCES: Davidson, 1922 (biol.); Curran, 1930j (keys).

ambiguum (Fallén), 1817a: 47 (*Scaeva*).—Europe; B.C., Oreg.

angustatum Williston, 1887c: 50.—Wash. Territory; Alaska to Maine, s. to Oreg. and N.C.

concinnum Snow, 1895d: 229.—N. Mex., Colo.; Oreg. to Alta., s. to N. Mex.

dubium (Zetterstedt), 1838: 609 (*Scaeva*).—Europe; Utah, Colo., Mexico.

fallax Curran, 1923n: 271.—Alta.; B.C., Wis., Mich., Que.

latum Curran, 1922c: 276.—Y.T.; Y.T. and Alta., s. to Calif. and Colo.

lundbecki Collin, 1931: 68.—Greenland.

ambiguum, authors, not Fallén.

melanderi Curran, 1930j: 64.—Wash. (unpublished); B.C., Alta.

mellinum (Linnaeus), 1758: 594 (*Musca*).—Europe; Alaska to Que., s. to Wash. and Va., Europe.

montivagum Johnson, 1916b: 78.—N.H.; Ont. to Nfld., s. to N.Y.

pachytarse Bigot, 1884a: 80 (?*Melanostoma*).—Calif. Unrecognized.

pallitarse Curran, 1926b: 83.—Wis.; Man. to Ont., s. to Tenn.

parvum (Williston), 1882a: 307 (*Cheilosia*).—Oreg.; Colo.

ochripes Bigot, 1883a: 555 (?*Melanogaster*).—Oreg.

pictipes Bigot, 1884a: 78 (?*Melanostoma*).—Calif.; B.C. to N.S., s. to Calif. and Tenn.

pruinosa Bigot, 1884a: 79 (?*Melanostoma*).—Calif. **N. syn.**

mellinum, authors, not Linnaeus.

rufipes (Bigot), 1883a: 554 (?*Melanogaster*; preocc. Williston, 1882).—N. Amer. Unrecognized, and therefore not renamed here because of possible synonymy with older species.

willistoni Sedman (for *rufipes* Williston).—Wash. Territory; B.C. and Alta., s. to Calif. and Colo. **N. name.**

rufipes Williston, 1882a: 306 (*Cheilosia*; preocc. Macquart, 1828).—Wash. Territory.

Genus CARPOSCALIS Enderlein

Carposcalis Enderlein, 1938: 199. Type-species, *Syrphus stegnus* Say (orig. des.).

REFERENCE: Curran, 1930j (key, as *Melanostoma*, in part).

agens (Curran), 1931f: 253 (*Melanostoma*).—Man.; Sask., Colo., Que.

atra (Curran), 1925k: 114 (*Melanostoma*).—Colo. **N. comb.**

carinata (Curran), 1927b: 11 (*Melanostoma*).—Greenland; Alaska, Wash., Colo.

chaetopoda (Davidson), 1922: 35 (*Melanostoma*).—Calif.; Colo., Mexico.

chilosia (Curran), 1922c: 275 (*Melanostoma*).—Alta.; Wash. **N. comb.**

coerulescens (Williston), 1887c: 49 (*Melanostoma*).—Colo.; B.C. to Que., s. to Oreg., N. Mex., and Tenn.

confusa (Curran), 1925k: 112 (*Melanostoma*).—Ont.; Ont. to N.S., s. to N.J.

johnsoni (Jones), 1917: 220 (*Melanostoma*).—Colo. **N. comb.**

kelloggi (Snow), 1895d: 230 (*Melanostoma*).—Colo.; B.C. **N. comb.**

luteipennis (Curran), 1925k: 114 (*Melanostoma*).—Wash.; Utah, Colo. **N. comb.**

monticola (Jones), 1917: 220 (*Melanostoma*).—Colo.

nitidiventris (Curran), 1931f: 252 (*Melanostoma*).—Ont. **N. comb.**

obscura (Say), 1824b: pl. 11 (1859a: 23) (*Syrphus*).—Pa., Va.; Wash. to Labr., s. to Calif. and N.C.

ontario (Davidson), 1922: 37 (*Melanostoma*).—Ont. **N. comb.**

rostrata (Bigot), 1884a: 80 (?*Melanostoma*).—Calif.; Wash., N. Mex., Colo. **N. comb.**

squamulae (Curran), 1922c: 275 (*Melanostoma*).—B.C.; Alaska, Wash., Oreg.

stegna (Say), 1829: 163 (1859b: 358) (*Syrphus*).—Mexico; B.C. to Mont., s. to Calif., Tex., and Mexico.

tigrinum Osten Sacken, 1877: 323 (*Melanostoma*).—Calif.

trichopus (Thomson), 1869: 502 (*Syrphus*).—Calif.; Alaska and N.W.T., s. to Calif. and Colo.

Genus PLATYCHEIRUS Lepeletier and Serville

Platycheirus Lepeletier and Serville *in* Latreille et al., 1828: 513. Type-species, *Syrphus scutatus* Meigen (Westwood, 1840: 137).

Platychirus, emend.

REFERENCES: Curran, 1927b (key, males), 1930j (key, females).

aeratus Coquillett, 1900h: 430 (1904: 44).—Alaska; Oreg.

albimanus (Fabricius), 1781: 434 (*Syrphus*).—Europe; Alaska to Greenland, s. to Calif., Colo., and N.H., Europe.

ciliatus Bigot, 1884a: 74.—Calif.

amplus Curran, 1927b: 4.—Ont.; Alaska, Utah, Labr., Nfld.

angustatus (Zetterstedt), 1843: 762 (*Scaeva*).—Europe; Alaska to Que. and Maine, s. to Wash., Wis., and Md., Europe.

bigelowi Curran, 1927b: 5.—Ont.; Alaska.

chirosphena Hull, 1944c: 76.—B.C.

clypeatus (Meigen), 1822: 335 (*Syrphus*).—Europe; Alaska to Ont. and Mass., s. to Calif., Colo., and D.C., Eurasia.

discimanus Loew, 1871: 227.—Europe; B.C. to Que., s. to Oreg. and Maine.

erraticus Curran, 1927b: 7.—Ont.; B.C. to Labr., s. to Calif. and Fla.

hyperboreus, authors, not Staeger.

felix Curran, 1931e: 94.—Que.

femineus Curran, 1931f: 251.—Que.

flabellus Hull, 1944c: 75.—Wash.

frontosus Lovett *in* Cole and Lovett, 1919: 247.—Oreg.

groenlandicus Curran, 1927b: 10.—Greenland.

hyperboreus (Staeger), 1845b: 362 (*Syrphus*).—Greenland; Labr.

immarginatus (Zetterstedt), 1849: 3149 (*Scaeva*).—Europe; Sask. to Que., s. to Utah and N.J., Europe.

inversus Ide, 1926: 156.—Que.; Alaska, B.C., Colo., Labr., N.S.

modestus Ide, 1926: 155.—Que.; Alaska, Alta., Wis. to N.B., s. to Mass.

naso (Walker), 1849: 587 (*Syrphus*).—Ont.

nodosus Curran, 1923n: 272.—Alta.; Alaska to Que.

normae Fluke, 1939: 366.—Wis.; Ont., Que., P.E.I.

occidentalis Curran, 1927b: 9.—Wyo.; B.C., Utah, Colo.

pacilus (Walker), 1852: 240 (*Syrphus*).—N. Amer. Unrecognized.

palmulosus Snow, 1895d: 231.—Colo.; N.Mex.

pauper Hull, 1944c: 77.—Colo.

peltatoides Curran, 1923n: 274.—B.C.; Alaska to Wash. and Colo.

peltatus (Meigen), 1822: 334 (*Syrphus*).—Europe; Alaska to N.S., s. to Oreg., Colo., and N.J., Europe.

perpallidus Verrall, 1901: 290.—England; Alaska to N.B., s. to Utah and Mass., Europe.

podagratus (Zetterstedt), 1838: 606 (*Scaeva*).—Europe; Alta., Colo., Ont.

quadratus (Say), 1823: 90 (1859b: 79) (*Scaeva*).—U.S.; Alaska to Labr., s. to Calif. and S.C.

fuscanipennis Macquart, 1855: 115 (1855: 95) (*Syrphus*).—Md.

scamboides Curran, 1927b: 6.—Mich.; Wis. to Ont. and Va.

scambus (Staeger), 1843: 325 (*Syrphus*).—Europe; Alaska to Que., s. to Calif., Colo., and S.C., Europe.

chaetopodus Williston, 1887c: 59.—Wash. Territory.

scutatus (Meigen), 1822: 333 (*Syrphus*).—Europe; Alaska to Ont. and Maine, s. to B.C., Colo., and Mich., Europe.

tarsalis (Schummel) *in* Gravenhorst, 1837: 84 (*Syrphus*).—Europe; Alaska, B.C., Colo.

tenebrosus Coquillett, 1900h: 428 (1904: 42).—Alaska; B.C.

thylax Hull, 1944c: 78.—Que.

varipes Curran, 1923b: 65.—Maine; Ont., Que., Labr.

Genus PYROPHAENA Schiner

Cheilosia Panzer, 1809c, 108: 14. Type-species, *Syrphus rosarum* Fabricius (mon.).

Pyrophaena Schiner, 1860c: 213. Type-species, *Syrphus rosarum* Fabricius (orig. des.).

To prevent confusion, the I.C.Z.N. should be asked to suppress *Cheilosia* Panzer to preserve usage of *Cheilosia* Meigen 1822 (which see) and to place *Pyrophaena* Schiner on the Official List of Generic Names,

apicauda Curran, 1925k: 115 (as *granditarsis* var.).—Calif.; Idaho, Utah.

apicula (error) Curran, 1930j: 67.

digitalis Fluke, 1939: 367.—Colo.; Alta., Utah.

granditarsa (Forster), 1771: 99 (*Musca*).—Europe; Alaska to Que., s. to Oreg., Colo., and Pa., Europe.

ocymi Fabricius, 1794: 309 (*Syrphus*).—Europe.

rosarum (Fabricius), 1787: 341 (*Syrphus*).—Europe; Alaska, Wis. to N.S., s. to N.J., Europe.

var. **duplicata** Fluke, 1922: 228.—Wis.; Mich.

Tribe PARAGINI

Genus PARAGUS Latreille

Paragus Latreille, 1804: 194. Type-species, *Syrphus bicolor* Fabricius (mon.).

The larvae of *Paragus* are common predators of aphids, mostly of noneconomic species.

REFERENCES: Metcalf, 1911, Campbell and Davidson, 1924, Heiss, 1938 (biol., immature stages).

Subgenus PARAGUS Latreille

bicolor (Fabricius), 1794: 297 (*Syrphus*).—n. Africa; B.C. and Y.T. to Que., s. to Calif. and Va., Europe.

angustifrons Loew, 1863b: 309 (Cent. 4, no. 64).—Va.

transatlanticus Walker, 1849: 544.—N.Y. Unrecognized.

Subgenus PANDASYOPTHALMUS Stuckenberg

Paragus, subg. **Pandasyopthalmus** Stuckenberg, 1954: 100. Type-species, *longiventris* Loew (orig. des.).

tibialis (Fallén), 1817a: 60 (*Pipiza*).—Europe; B.C. to N.S., s. to Calif., Cent. Amer., and Fla., Eurasia, Africa, Australia.

dimidiatus Loew, 1863b: 308 (Cent. 4, no. 63).—D.C.

auricaudatus Bigot, 1883a: 540.—Calif.

Tribe PIPIZINI

The larvae of Pipizini are aphidophagous, preferring woolly or root aphids with waxy secretions, and attacking them both above and below ground. The larvae of *Neocnemodon vitripennis* (Meigen) have been found feeding on coccids in Europe. Several European species of *Neocnemodon* have been liberated in North America as balsam woolly aphid predators.

REFERENCES: Metcalf, 1916b (biol., immature stages); Curran, 1921a (rev.); Heiss, 1938 (biol., immature stages); Collin, 1952b (generic classif.); Delucchi and Pschorn-Walcher, 1955 (tax., biol.).

Genus PIPIZA Fallén

Pipiza Fallén, 1810a: 11. Type-species, *Musca noctiluca* Linnaeus (Curtis, 1837a: pl. 669).

atrata Curran, 1922i: 283.—B.C.
crassipes Bigot, 1883a: 557.—N. Amer. Unrecognized.
davidsoni Curran, 1921a: 377.—Calif.; Wash., N. Mex.
distincta Curran, 1921a: 375.—Calif.
femoralis Loew, 1866a: 152 (Cent. 6, no. 38).—Ill.; B.C. to Que., s. to Oreg., Nebr., and Va.
albipilosa Williston, 1887c: 28.—Pa.
festiva, authors, not Meigen.
grandifemoralis Curran, 1921a: 383.—Calif.; Colo., N. Mex.
latifrons Curran, 1921a: 378.—Calif.
macrofemoralis Curran, 1921a: 383.—Oreg.; Alaska to Alta., s. to Calif.
nigripilosa Williston of Fluke, 1949: 54.
nigripilosa Williston, 1887c: 28.—Pa.; Ont. to Que., s. to Ohio and N.C.
nigrotibiata Curran, 1924p: 81.—N.B.; N.Y., N.H., Mass.
oregona Lovett *in* Cole and Lovett, 1919: 246.—Oreg.; B.C. and Alta., s. to Calif. and Colo.
puella Williston, 1887c: 27.—N.H.; Colo., Ont.
quadrimaculata (Panzer), 1804: 19 (*Syrphus*).—Europe; Wash. and Alta. to Que. and Maine, s. to Colo. and N.C., Europe.
severnensis Curran, 1921a: 381.—Ont.
tricolor Curran, 1921a: 379.—Ont.; Alta., Que.
vanduzeei Curran, 1921a: 375.—Calif.; B.C.

Genus HERINGIA Rondani

Heringia Rondani, 1856: 53. Type-species, *Pipiza heringi* Zetterstedt (orig. des.).

Heryngia, error or emend.

californica (Davidson), 1917: 417 (*Pipiza*).—Calif.; B.C., Oreg., Utah.

canadensis Curran, 1921a: 354.—Ont.; Que.

comutata Curran, 1921a: 356.—Oreg.; B.C., Calif., Utah.

intensica Curran, 1921a: 355.—Ont.

salax (Loew), 1866a: 152 (Cent. 6, no. 39) (*Pipiza*).—Pa.; Alaska to Que., s. to Calif. and N.C.

radicum Walsh and Riley, 1869a: 83, footnote (*Pipiza*).—Ill.

pistica Williston, 1887c: 29 (*Pipiza*).—Conn.

Genus PARAPENIUM Collin

Parapenium Collin, 1952b: 85. Type-species, *Pipiza carbonaria* Zetterstedt (orig. des.).

Pipizella, authors, not Rondani.

Triglyphus, authors, not Loew.

REFERENCE: Curran, 1924a (rev.).

apisaon (Walker), 1849: 572 (*Chrysogaster*).—N.Y.; Alta. to Que., s. to Tex. and Va. **N. comb.**

modestus Loew, 1863b: 308 (Cent. 4, no. 62) (*Triglyphus*).—N.Y. **N. comb.**

nigribarba Loew, 1866a: 153 (Cent. 6, no. 40) (*Pipiza*).—N.Y. **N. comb.**

pulchella Williston, 1887c: 29 (*Pipiza*).—Conn., Mass. **N. comb.**

australe (Johnson), 1907b: 77 (*Pipiza*).—Fla.; Tex. **N. comb.**

banksi (Curran), 1921a: 349 (*Pipizella;* as *pulchella* ssp.).—Va.; Kans. to Wis. and N.J., s. to Tex. and Fla. **N. comb.**

nigritarse (Curran), 1924a: 341 (*Pipizella*).—Idaho; Wyo., Colo. **N. comb.**

occidentale (Townsend), 1897a: 140 (*Pipiza*).—N. Mex.; Ariz., Utah, S. Dak. **N. comb.**

pubescens (Loew), 1863b: 307 (Cent. 4, no. 61) (*Triglyphus*).—Wis.; Wis. to Que. and Maine, s. to N.C. **N. comb.**

recedens (Walker), 1852: 228 (*Chrysogaster*).—U.S.; Alta. to Maine, s. to Calif., Colo., and N.Y. **N. comb.**

fraudulenta Loew, 1866a: 153 (Cent. 6, no. 41) (*Pipiza*).—Ill. **N. comb.**

rufithoracicum (Curran), 1921a: 351 (*Pipizella*).—Calif.; Alta., Utah. **N. comb.**

simile (Curran), 1924a: 342 (*Pipizella*).—Mont.; Wis. **N. comb.**

Genus NEOCNEMODON Goffe

Cnemodon Egger, 1865: 573 (preocc. Schoenherr, 1823). Type-species, *latitarsis* Egger (Goffe, 1944c: 128).

Neocnemodon Goffe, 1944c: 128 (n. name for *Cnemodon* Egger). Type-species, *Cnemodon latitarsis* Egger (aut.).

albipleura (Curran), 1921a: 370 (*Cnemodon*).—Calif.

auripleura (Curran), 1921a: 369 (*Cnemodon*).—Oreg.; B.C. to Sask., s. to Calif. and Colo.

calcaratus (Loew), 1866a: 154 (Cent. 6, no. 42) (*Pipiza*).—N.Y.; B.C. to Que., s. to Kans. and Va.

carinatus (Curran), 1921a: 370 (*Cnemodon*).—Ont.; B.C. to Ont., s. to Wis.

cevelatus (Curran), 1921a: 362 (*Cnemodon*).—Ont.

corvallis (Curran), 1921a: 364 (*Cnemodon*).—Oreg.

coxalis (Curran), 1921a: 366 (*Cnemodon*).—Ont.; B.C. to N.S., s. to Wis. and Md.

elongatus (Curran), 1921a: 362 (*Cnemodon*).—Ont.; B.C. to Que., s. to Tex. and Md.

intermedius (Curran), 1921a: 360 (*Cnemodon*).—Ont.

latitarsis (Egger), 1865: 573 (*Cnemodon*).—Europe; ?N.B. Introduced.

longiseta (Curran), 1921a: 361 (*Cnemodon*).—Ont.; Que., N.Y.

lovetti (Curran), 1921a: 365 (*Cnemodon*).—Oreg.

myermus (Curran), 1921a: 371 (*Cnemodon*).—Ont.; Va.

nigricornis (Curran), 1922i: 284 (*Cnemodon*).—Alta.; N.W.T.

nudifrons (Curran), 1921a: 367 (*Cnemodon*).—Oreg.

ontarioensis (Curran), 1921a: 372 (*Cnemodon*).—Ont.; Wis.

pisticoides (Williston), 1887c: 29 (*Pipiza*).—N.H.; Alaska to Ont. and Maine, s. to N. Mex. and S.C.

placidus (Curran), 1921a: 364 (*Cnemodon*).—Oreg.

pubescens (Delucchi and Pschorn-Walcher), 1955: 504 (*Cnemodon*).—Germany; ?N.B. Introduced.

rita (Curran), 1921a: 366 (*Cnemodon*).—Oreg.; B.C. to Alta., s. to Calif. and Colo.

sinuosus (Curran), 1921a: 368 (*Cnemodon*).—Oreg.; Alta., Utah, Nebr.

squamulae (Curran), 1921a: 361 (*Cnemodon*).—Ont.; Que., Wis.

trochanteratus (Malloch), 1918o: 127 (*Cnemodon*).—Ill.

unicolor (Curran), 1921a: 359 (*Cnemodon*).—Ont.

venteris (Curran), 1921a: 371 (*Cnemodon*).—Ont.

Tribe CHRYSOTOXINI

Genus CHRYSOTOXUM Meigen

Antiopa Meigen, 1800: 32. Type-species, *Musca bicincta* Linnaeus (Coquillett, 1910b: 508). Suppressed by I.C.Z.N., 1963b: 339.

Chrysotoxum Meigen, 1803: 275. Type-species, *Musca bicincta* Linnaeus (Latreille, 1810: 443).

The biology of *Chrysotoxum* is very poorly known. The typically syrphine larvae have been taken from ant nests, debris in hollow trees, compost heaps, and under stones. Their structure indicates that they are probably carnivorous.

REFERENCES: Curran, 1924c (key); Shannon, 1926b (rev.); Curran, 1927g (syn.).

Subgenus PRIMOCHRYSOTOXUM Shannon

Chrysotoxum, subg. **Primochrysotoxum** Shannon, 1926b: 5. Type-species, *ypsilon* Williston (orig. des.).

chinook Shannon, 1926b: 6.—Wash.; Alaska to Mont., s. to Calif. and Colo.

villosulum Bigot of Curran, 1924c: 40.

coloradense Greene, 1918: 70.—Colo.; B.C. to Atla., s. to Oreg. and Colo.

derivatum Walker, 1849: 542.—Ont.; Alta., Mich.

fasciolatum (De Geer), 1776: 124 (*Musca*).—Europe; Alaska to N.B., s. to Wash., Wis., and Mass.

flavifrons Macquart, 1842: 77 (1842: 17).—Nfld. Unrecognized.

integre Williston, 1887c: 16.—Ariz.; B.C. to Idaho, s. to Calif., Mexico, and Tex.

columbianum Curran, 1927g: 206.—B.C. **N. syn.,** J. R. Vockeroth *in litt.*

laterale Loew, 1864a: 72 (Cent. 5, no. 42).—Nebr.; Alaska to Ont. and Maine, s. to Nev., Kans., and Ohio.

minor Curran, 1927g: 206.—Man.; B.C., Sask.

occidentale Curran, 1924c: 37.—B.C.; B.C. to Alta., s. to Calif. and Colo., also Wis.

perplexum Johnson, 1924: 99.—N.H.; Man. to N.S., s. to Colo. and N.C.

plumeum Johnson, 1924: 99.—N.J.; Man. to Que. and Mass., s. to Ga.

pubescens Loew, 1860b: 84.—Ill.; Alta. to Que., s. to Kans. and N.C.

currani Wehr, 1922b: 127 (=p. 9).—Nebr.

cuneatum Wehr, 1922b: 128 (=p. 10).—Nebr.

luteopilosum Curran, 1924c: 36.—Man.

radiosum Shannon, 1926b: 10.—Ind.; B.C. to Conn., s. to N. Mex. and N.J.
pubescens Loew of Curran, 1924c: 39.
ventricosum Loew, 1864a: 72 (Cent. 5, no. 44).—Wash.; Alaska to Ont., s. to Ariz. and N. Mex.
villosulum Bigot, 1883a: 323.—Wash. Territory. Unrecognized.
willistoni Curran, 1924c: 59 (as *integre* var.).—N. Mex.
ypsilon Williston, 1887c: 14.—N. Mex.; B.C. to Alta., s. to Oreg. and N. Mex.

Subfamily MILESIINAE

Tribe CHEILOSIINI

Genus CHEILOSIA Meigen

Cheilosia Meigen, 1822: 296 (preocc. Panzer, 1809). Type-species, *Eristalis scutellatus* Fallén (as Fabricius; Rondani, 1856: 51). In order to preserve usage for this economically important genus of phytophagous syrphids, the I.C.Z.N. should be asked to suppress *Cheilosia* Panzer, and to place *Cheilosia* Meigen on the Official List of Generic Names. See *Pyrophaena*.
Chilosia, emend.
Chilosia, subg. *Chilomyia* Shannon, 1922c: 127. Type-species, *occidentalis* Williston (orig. des.).

The larvae of *Cheilosia* are phytophagous and have been found breeding in the stems and roots of a variety of plants, including fungi. The larvae of some American species known as "bark maggots" cause a blemish called "black check" in timber of Western hemlock and other coniferous trees.

References: Burke, 1905 (biol., economics); Shannon, 1922c (rev.); Goffe, 1944d (syn.); Fluke and Hull, 1946 (rev., as *Chilomyia*), 1947 (rev., *Cartosyrphus*); Hull and Fluke, 1950 (rev.).

Subgenus CHEILOSIA Meigen

alaskensis Hunter, 1897: 124.—Alaska; B.C. to Oreg., also Ariz.
aldrichi Hunter, 1896b: 229.—Idaho; Oreg., Colo.
angelica Telford, 1939: 35.—Minn.; Alta., Mich., N.H.
atrocapilla Hull and Fluke, 1950: 361.—Wash.
baroni Williston, 1887c: 40.—Wash. Territory, Calif.; Wash., Oreg., Colo.
bicolorata Shannon, 1922c: 139.—Idaho; Alta.

bigelowi Curran, 1926d: 212.—Ont.; Alaska, Wash., Calif.
var. **callichroma** Hull and Fluke, 1950: 345 (as ssp.).—Calif.
borealis borealis Coquillett, 1900h: 426 (1904: 40).—Alaska; Alta., Oreg.
ssp. **nigroseta** Hull and Fluke, 1950: 334.—Colo.
browni Curran, 1931e: 96.—Que.
burkei Shannon, 1922c: 141.—Wash.; B.C., Oreg., Idaho, Colo.
canada Hull and Fluke, 1950: 338.—B.C.
catalina Shannon, 1922c: 137.—Ariz.
chalybescens Williston, 1893c: 76.—Calif.; Wash., Oreg.
chintimini Lovett *in* Cole and Lovett, 1921: 277.—Oreg.
chrysochlamys Williston, 1891: 8.—Mexico (Guerrero); Calif., ?Alaska, ?Colo.
cineralis Hull and Fluke, 1950: 317.—Ohio; Kans., Wis., Ill.
coerula Fluke and Hull, 1946: 343.—Wash.
columbiae Curran, 1922e: 69.—B.C.; Idaho.
consentiens Curran, 1926d: 211.—Ont.
cottrelli Telford, 1939: 36.—Minn.; Alta., Wash.
cratorhina Hull and Fluke, 1950: 332.—Oreg.
cynoprosopa Hull and Fluke, 1950: 350.—Wis.
dakota Hull and Fluke, 1950: 316.—S. Dak.; Minn.
decumbens Hull and Fluke, 1950: 345.—Idaho; Colo.
ferruginea Lovett *in* Cole and Lovett, 1919: 238.—Oreg.; B.C., Alta., Wash.
flavipennis Hull and Fluke, 1950: 316 (as *alaskensis* ssp.).—Oreg.
flavosericea Hull and Fluke, 1950: 353.—B.C.
florella Shannon, 1922c: 138.—Idaho; Alaska.
fuma Fluke and Hull, 1946: 341.—Oreg.
hermiona Hull and Fluke, 1950: 360.—Oreg.; Utah.
hesperia (Shannon), 1922c: 132 (*Cartosyrphus*).—Alaska; Alta.
hiantha Hull and Fluke, 1950: 356.—Colo.
hiawatha Shannon, 1922c: 138.—Mass.
hirsuta Hull and Fluke, 1950: 365.—Oreg.; Wash.
hoodiana (Bigot), 1883a: 552 (*Cartosyrphus*).—Oreg.; B.C. to Calif. and N. Mex.
petulca Williston, 1887c: 39.—Wash. Territory.
hunteri hunteri Curran, 1922d: 17.—Man.; Alta., Wash.
ssp. **nuda** Hull and Fluke, 1950: 330.—Alta.
ssp. **truncata** Hull and Fluke, 1950: 330.—Man.
julietta Shannon, 1922c: 140.—Idaho.
lasiophthalma Williston. 1882a: 306.—Colo.; Alaska to Oreg. and Colo., ?N.H.

livida Wehr, 1922b: 142 (=p. 24).—Colo.; Alta., Wash., Oreg., N. Mex.
var. **lintea** Fluke and Hull, 1946: 347.—Colo.
luna Hull and Fluke, 1950: 340.—Calif.
margarita Hull and Fluke, 1950: 318.—Wash.
meganosa Hull and Fluke, 1950: 325.—Wyo.
minnesotensis Telford, 1939: 36.—Minn.
montanipes Hull and Fluke, 1950: 334.—Colo.
nannomorpha Hull and Fluke, 1950: 338.—Colo.
nasica Hull and Fluke, 1950: 376.—Oreg.
nigrescens Hull and Fluke, 1950: 342.—Oreg.
nigroapicata Curran, 1926d: 173.—Ont.; Alta., N.B., N.H., N.C.
nigrobarba Hull and Fluke, 1950: 350.—Colo.
nigrofasciata Curran, 1926d: 174.—Ont.; Alta.
nigrovittata Lovett *in* Cole and Lovett, 1919: 239.—Oreg.; Wash.
nokomis Hull and Fluke, 1950: 318.—N.H.
obesa Hull and Fluke, 1950: 324.—Wash.; Alta., Wyo.
occidentalis Williston, 1882a: 305.—Calif.; Alaska to S. Dak., s. to Calif. and N. Mex.
orilliaensis Curran, 1922e: 67.—Ont.; Alta. to N.B., s. to Ill. and N.H.
pacifica Hunter, 1897: 127.—Calif. Unrecognized.
pikei Shannon, 1922c: 130 (as *aldrichi* var.).—Colo.; Utah., Wyo.
pilosipes Hull and Fluke, 1950: 337.—Colo.
pluto Hull and Fluke, 1950: 352.—B.C.
pontiaca Shannon, 1922c: 142.—N.H.; Que.
porcina Hull and Fluke, 1950: 326.—Oreg.
primoveris Shannon, 1915b: 168.—Md.; N.Y. and Mass. to Ohio and Va., ?Utah.
promethea Hull and Fluke, 1950: 321.—Calif.
punctulata Hunter, 1897: 128.—Nebr.
rhinoprosopa Hull and Fluke, 1950: 362.—N.H.
robusta Hine, 1922b: 144.—Alaska; Wash.
scilla Hull and Fluke, 1950: 320.—Calif.
seripila Hull and Fluke, 1950: 355.—Wash.; Oreg.
skinneri Johnson, 1903a: 101.—N. Mex.
sonoriana Shannon, 1922c: 136.—N. Mex.; Idaho.
speculum Hull and Fluke, 1950: 327.—Colo.
subchalybea Curran, 1923n: 276.—B.C.; Que.
swannanoa Brimley, 1925: 73.—N.C.
tantalus Hull and Fluke, 1950: 319.—Mich.
varipila Fluke and Hull, 1946: 338.—Alta.
variseta Fluke and Hull, 1946: 336.—Wash.; Mont., Calif., Colo.
yukonensis Shannon, 1922c: 129.—Alaska; B.C., Alta., Colo.

Subgenus CARTOSYRPHUS Bigot

Cartosyrphus Bigot, 1883a: 230 (as genus). Type-species, *Syrphus paganus* Meigen (Coquillett, 1910d: 376).

REFERENCE: Fluke and Hull, 1947 (rev.).

aesyctes (Walker), 1849: 591 (*Syrphus*).—Ont.
aescytes, error.
brevichaeta (Shannon), 1922c: 133 (*Cartosyrphus*).—Colo.; Wyo.
caltha (Shannon), 1922c: 133 (*Cartosyrphus*).—Ind.; Wis. to Mich., s. to Kans. and Ind.
capillata Loew, 1863b: 309 (Cent. 4, no. 65).—D.C.; Ill. to Ont., s. to Ga.
lamprurus Bigot, 1883a: 552 (*Cartosyrphus*).—N. Amer.
comosa Loew, 1863b: 309 (Cent. 4, no. 66.)—Man., Ont.; Wash. to Que., s. to Oreg., Colo., and N.J.
laevifrons Jones, 1907b: 90.—Nebr.
laevis (Bigot), 1883a: 553 (*Cartosyrphus*).—Wash. Territory; Wash. to Alta., s. to Oreg. and Colo.
latrans (Walker), 1849: 575 (*Syrphus*).—Ont.
leucoparea Loew, 1863b: 311 (Cent. 4, no. 69).—Carolina; Tenn., N.C., Ga.
lucta Snow, 1895d: 228.—Colo; Alta., N. Mex.
megatarsa Fluke and Hull, 1947: 246.—Colo.
ontario Curran, 1922g: 96 (also 1922h: 191) (error corrected, n. name for *rita* Curran, 1922e: 70).—Ont.; Ont. to N.B., s. to Wis. and N.Y.
rita Curran, 1922e: 70 (error, preocc. Curran, 1922e: 71).—Ont.
slossonae Shannon, 1922c: 144 (*Cartosyrphus*).—N.H.
pallipes Loew, 1863b: 311 (Cent. 4, no. 70).—D.C.; D.C. to Que., s. to Calif., Colo., and N.C.
platycera Hine, 1922b: 143.—Alaska.
kincaidia Shannon, 1922c: 142 (*Cartosyrphus*).—Alaska.
prima Hunter, 1896a: 92.—Pa.; Md., Miss., Ga., Fla.
pulchripes Loew, 1857d: 597.—Europe; B.C., Alta.
sensua Curran, 1922e: 19.—Ont.; N.J.
shannoni (Curran), 1923i: 198 (*Cartosyrphus*; n. name for *similis* Shannon).—Md.; Wis. to Maine, s. to N.C.
similis Shannon, 1916a: 196 (preocc. Michl, 1911).—Md.
sialia Shannon, 1922c: 132.—N.B.; Alta. to Que., s. to Oreg., Colo., and N.Y.
rita Curran, 1922e: 71.—Ont.
var. **alpinensis** Fluke and Hull, 1947: 228.—Colo.; Wash., Oreg.
var. **argentipila** Fluke and Hull, 1947: 230.—Wis.; Minn., N.H.

sororcula Williston, 1891: 9.—Mexico (Guerrero); Oreg. to Idaho, s. to Ariz., N. Mex., and Mexico.
tarda Snow, 1895d: 228.—Colo.
tristis Loew, 1863b: 312 (Cent. 4, no. 71).—Man.; Alaska to N.S., s, to Oreg., N. Mex., and Va.
longipilosus Wehr, 1922b: 143 (=p. 25) (*Cartosyrphus*).—Colo.
wisconsinensis Fluke and Hull, 1947: 232.—Wis.

Subgenus HIATOMYIA Shannon

Cartosyrphus, subg. **Hiatomyia** Shannon, 1922c: 127. Type-species, *Chilosia willistoni* Snow (orig. des.).

canadensis (Shannon), 1922c: 133 (*Cartosyrphus*).—B.C.; Alta., Wash., Utah.
chionthrix Hull and Fluke, 1950: 379.—Calif.
chrysothrix Hull and Fluke, 1950: 381.—Oreg.
coriacea Hull and Fluke, 1950: 384.—Oreg.
cyanea Hunter, 1896b: 228.—Idaho; Alaska, Wash., Oreg.
cyanescens Loew, 1863b: 310 (Cent. 4, no. 67).—Ill.; Wis. to Que., s. to Ill. and Va.
plumata Loew, 1863b: 310 (Cent. 4, no. 68).—Va.
gemini (Shannon), 1922c: 133 (*Cartosyrphus*).—Colo.; Wash.
hecate Hull and Fluke, 1950: 378.—Oreg.
hyacintha Hull and Fluke, 1950: 374.—Oreg.
idahoa Shannon, 1922c: 132.—Idaho.
var. **eunicea** Hull and Fluke, 1950: 383 (as ssp.).—Wash.
nigrocoerulea Lovett *in* Cole and Lovett, 1921: 279 (n. name for *pacifica* Lovett).—Oreg. ?=*cyanea*.
pacifica Lovett *in* Cole and Lovett, 1919: 240 (preocc. Hunter, 1897).—Oreg.
nigrocyanea Hull and Fluke, 1950: 385.—Calif.
niveifrons Hull and Fluke, 1950: 373.—Calif.
nyctichroma Hull and Fluke, 1950: 380.—Calif.
olivia Hull and Fluke, 1950: 385.—Oreg.
plumosa Coquillett *in* Baker, 1904: 25.—Nev.; B.C., Sask.
plutonia Hunter, 1897: 125.—Alaska; Alaska to Alta., s. to Wash., Nev., and Colo.
gracilis Hunter, 1897: 126.—Alaska.
rubroflava Hull and Fluke, 1950: 378.—Calif.
signatiseta Hunter, 1896b: 227.—Idaho; Wash., Oreg.
tessa Hull and Fluke, 1950: 381.—Calif.
townsendi Hunter, 1896a: 94.—Calif.; B.C. to Calif.

willistoni Snow, 1895d: 227 (n. name for *lugubris* Williston).—Calif.; B.C. to Calif. and Colo.

lugubris Williston, 1887c: 45 (preocc. Zetterstedt, 1838).—Calif.

Genus RHINGIA Scopoli

Rhingia Scopoli, 1763: 358. Type-species, *Conops rostrata* Linnaeus (mon.).

The larva of the European *Rhingia campestris* Meigen breeds in cow dung.

nasica Say, 1823: 94 (1859b: 81).—U.S.; Man. to N.B., s. to Colo. and Ga.

Genus FERDINANDEA Rondani

Ferdinandea Rondani, 1844a: 196. Type-species, *Conops cuprea* Scopoli (Rondani, 1856: 51).

Chrysoclamis Walker, 1851a: 279 (unjustified n. name for *Ferdinandea* Rondani). Type-species, *Conops cuprea* Scopoli (aut.).

Chrysochlamys, emend.

The larvae of the European species of *Ferdinandea* live in exuding sap of trees or in decaying wood.

REFERENCES: Shannon, 1924d (key); Hull, 1942d (rev.).

aenicolor Shannon, 1924d: 214.—Oreg.; N. Mex.

buccata (Loew), 1863b: 313 (Cent. 4, no. 72) (*Chrysochlamys*).—Va.; Wis., N.Y., Pa., N.J., Ga.

croesus (Osten Sacken), 1877: 341 (*Chrysochlamys*).—Utah; B.C. to Minn., s. to Calif. and N. Mex.

var. **midas** Hull, 1942d: 240.—Ariz.

dives (Osten Sacken), 1877: 340 (*Chrysochlamys*).—Ky.; B.C. to Que., s. to Mo. and Ga.

nigripes (Osten Sacken), 1877: 341 (*Chrysochlamys*).—Mass.; Alaska, Oreg., Alta., Wis., Que. to N.C.

Genus CYNORHINELLA Curran

Cynorhinella Curran, 1922d: 14. Type-species, *canadensis* Curran (orig. des.).

Apicomyia Shannon, 1922c: 122. Type-species, *Myolepta bella* Williston (orig. des.).

REFERENCES: Shannon, 1924a, Curran, 1925k (tax.).

bella (Williston), 1882a: 308 (*Myolepta*).—Wash., Oreg.; Alaska, B.C.

carbicolor Lovett, 1920: 51 (*Myolepta*).—Wash.

canadensis Curran, 1922d: 15.—B.C.
longinasus Shannon, 1924a: 124.—N.H.; Que., N.C.

Tribe MYOLEPTINI

The larvae of *Myolepta* breed in decaying wood, and the larvae of *Lejota aerea* (Loew) have been found under bark.

REFERENCES: Shannon, 1925d (key to genera); Fluke and Weems, 1956 (rev.).

Genus MYOLEPTA Newman

Myolepta Newman, 1838: 373. Type-species, *Musca luteola* Gmelin (mon.).
Myiolepta, emend.

Subgenus MYOLEPTA Newman

camillae Weems *in* Fluke and Weems, 1956: 5.—Fla.
lunulata Bigot, 1883a: 537.—Oreg.; Wash. to Calif. and Ariz.
californica Shannon, 1923a: 21.—Calif.
nigra Loew, 1872a: 84 (Cent. 10, no. 52).—Pa.; Minn. to Que., s. to Tex. and Ga.
tuberans Williston, 1887c: 225 (?*Xylota*).—Tex.
varipes Loew, 1869c: 174 (Cent. 9, no. 79).—Va.; Nebr. to Ont. and N.H., s. to Tex. and Ga.
pretiosa Hull, 1923: 295.—Miss.

Subgenus EUMYIOLEPTA Shannon

Eumyiolepta Shannon, 1921: 71 (as genus). Type-species, *Myolepta strigilata* Loew (orig. des.).

auricaudata Williston, 1891: 40.—Mexico (Guerrero); Ariz.
aurinota Hine, 1903a: 245.—Ariz.; Calif., N. Mex., Tex.
cornellia Shannon, 1923a: 20 (*Eumyiolepta*).—Ariz.
strigilata Loew, 1872a: 85 (Cent. 10, no. 54).—Tex.; Kans. to Wis. and Ont., s. to Ariz. and N.C.

Genus CHALCOSYRPHUS Curran

Chalcomyia, subg. **Chalcosyrphus** Curran, 1925k: 122. Type-species, *atra* Curran (orig. des.) = *depressus* (Shannon).

anomalus (Shannon), 1925a: 153 (*Chalcomyia*).—N.J. **N. comb.,** J. R. Vockeroth *in litt.*
aristatus (Johnson), 1929b: 374 (*Xylota*).—N.H. **N. comb.,** J. R, Vockeroth *in litt.*

depressus (Shannon), 1925a: 153 (*Chalcomyia*).—Idaho; Wash., Mo.
atra Curran, 1925k: 122 (*Chalcomyia*).—Mo.

Genus LEJOTA Rondani

Lejota Rondani, 1857: 176. Type-species, *Psilota ruficornis* Zetterstedt (Goffe, 1944a: 29).
Leiota, error or emend.
Chalcomyia Williston, 1885b: 133. Type-species, *Myolepta aerea* Loew (as *aera*; orig. des.).

REFERENCES: Shannon, 1925a (rev., as *Chalcomyia*), 1926c (key).

aerea (Loew), 1872a: 84 (Cent. 10, no. 53) (*Myolepta*).—Ill.; Nebr. to N.H., s. to Tex. and N.C.
cyanea (Smith), 1912: 119 (*Chalcomyia*).—N.H.; Alaska, B.C., Mich. Ont., Que.
calcitrans Curran, 1922b: 260 (*Chalcomyia*).—Ont.
bigelowi Curran, 1924g: 195 (*Cynorhina*).—Ont. **N. syn.,** J. R. Vockeroth *in litt.*

Genus LEPIDOMYIA Loew

Lepidomyia Loew, 1864a: 69 (Cent. 5, no. 38). Type-species, *calopus* Loew (mon.). Alleged preoccupation by *Lepidomya* Bigot, 1857, erroneous.
Lepidostola Mik, 1886: 278 (unjustified n. name for *Lepidomyia* Loew). Type-species, *Lepidomyia calopus* Loew (aut.).
Lepromyia Williston, 1887c: 31 (unjustified n. name for *Lepidomyia* Loew). Type-species, *Lepidomyia calopus* Loew (aut.).

REFERENCE: Hull, 1946 (rev., as *Lepidostola*).

micheneri (Fluke), 1953a: 126 (*Lepidostola*).—Tex. **N. comb.**

Tribe CHRYSOGASTRINI

Genus CHRYSOGASTER Meigen

Chrysogaster Meigen, 1800: 32. Type-species, *Eristalis solstitialis* Fallén (Coquillett, 1910b: 523). Suppressed by I.C.Z.N., (1963b: 339.).
Chrysogaster Meigen, 1803: 274. Type-species, *Musca coemiteriorum* Linnaeus (as *Syrphus coemiteriorum* Fabricius; Coquillett, 1910b: 523) ?=*solstitialis* (Fallén).

The larvae of *Chrysogaster* are aquatic. Those of the European *C. hirtella* Loew live among the roots of the aquatic grass *Glycera* and

pierce the roots with the spinelike posterior spiracles to obtain oxygen from the plant's intercellular spaces.

REFERENCES: Shannon, 1916c (rev.); Sedman, 1959 (male genitalia).

Subgenus CHRYSOGASTER Meigen

inflatifrons Shannon, 1916c: 107.—N.C.; Okla. to Conn. and Ga.
minuta Hull, 1945a: 215.—Wash.
nigripes Loew, 1863b: 307 (Cent. 4, no. 60).—N.Y.; Wis. to Que., s. to Nebr. and Ga.
antitheus Walker, 1849: 572.—N.Y. ?Synonym.
ustulata Loew, 1869c: 175 (Cent. 9, no. 80) (*Orthonevra*).—N.J.
nigrovittata (Loew), 1876: 323 (*Orthonevra*).—Calif.; Idaho.
pacifica Shannon, 1916c: 105.—Unknown (?Calif.) **N. syn.**
parva Shannon, 1916c: 104.—Colo.; B.C. to Alta., s. to Calif. and Colo.
robusta Shannon, 1916c: 103.—Calif.; ?Nebr.
sinuosa (Bigot), 1883a: 556 (*Orthonevra*).—Wash. Territory; B.C. to Idaho, s. to Calif. and Colo.
texana Shannon, 1916c: 108.—Tex.; Mich. to Ont., s. to Tex. and Ga.
greenei Shannon, 1916a: 195.—Va. **N. syn.**
ontario Curran, 1925k: 117.—Ont. **N. syn.**

Subgenus ORTHONEVRA Macquar

Orthonevra Macquart, 1829: 188 (1829: 40) (as genus). Type-species, *Chrysogaster elegans* Meigen (mon.).
Orthoneura, emend.
Cryptineura Bigot, 1859a: 308. Type-species, *hieroglyphica* Bigot (mon.) = *nitida* Wiedemann.

bellula Williston, 1882a: 304.—Wash. Territory, Calif.; Wash, to Idaho and S. Dak., s. to Calif., N. Mex., and Mexico.
nitida Wiedemann, 1830: 116.—N. Amer.; Wis. to Ont. and Mass., s. to Nebr., Ariz., and Fla., Neotropical.
aeneus Walker, 1849: 545 (*Paragus*).—Ohio.
hieroglyphica Bigot, 1859a: 308 (*Cryptineura*).—La.
nitidula Curran, 1925k: 116.—Ariz.
pictipennis (Loew), 1863b: 306 (Cent. 4, no. 58) (*Orthonevra*).—N.Y.; Colo. to Wis. and Que., s. to Kans. and S.C.
pulchella Williston, 1887c: 35.—Canada, N.H., Conn.; Sask. to Que., s. to Colo. and N.C.
stigmata Williston, 1882a: 303.—Calif.; B.C. to Idaho, s. to Calif. and Utah.
unicolor Shannon, 1916c: 106.—Nev.; Oreg.

Genus CHRYSOSYRPHUS Sedman

Chrysogaster, subg. *Barberiella* Shannon, 1922c: 122 (preocc. Poppius, 1914). Type-species, *chilosioides* Shannon (orig. des.).

Chrysosyrphus Sedman (for *Barberiella* Shannon). Type-species, *Chrysogaster chilosioides* Shannon (aut.). **N. name.**

REFERENCE: Fluke, 1949 (key, as *Barberiella*).

alaskensis (Shannon), 1922c: 124 (*Chrysogaster*).—Alaska. **N. comb.**
bigelowi (Curran), 1926b: 82 (*Chrysogaster*).—Ont. **N. comb.**
canadensis (Curran), 1933b: 6 (*Chrysogaster*).—Que. **N. comb.**
chilosioides (Shannon), 1922c: 122 (*Chrysogaster*).—Calif. **N. comb.**
ithaca (Shannon), 1925d: 107 (*Chrysogaster*).—N.Y. **N. comb.**
latus (Loew), 1863b: 306 (Cent. 4, no. 59) (*Chrysogaster*).—Ont.; Oreg., Idaho. Utah, Colo., Nebr. **N. comb.**
nigripennis (Williston), 1882a: 307 (*Cheilosia*).—Oreg.; B.C., Wash. **N. comb.**
infumatus Bigot, 1883a: 553 (*Cartosyrphus*).—Oreg.
versipellis (Williston), 1887c: 44 (*Cheilosia*).—Wash. Territory; B.C., Oreg. **N. comb.**

Genus BRACHYOPA Meigen

Brachyopa Meigen, 1822: 260. Type-species, *Musca conica* Panzer (Westwood, 1840: 137)=*panzeri* Goffe.

The larvae of *Brachyopa* live in sap exuding from trees.

REFERENCES: Lundbeck, 1916 (biol.); Curran, 1922h (rev.); Goffe, 1945b (type-sp.); Sedman, 1961 (male genitalia).

Subgenus BRACHYOPA Meigen

cinereovittata Bigot, 1883a: 537.—Calif.; B.C., Wash., Idaho.
basilaris Curran, 1922j: 255 (also 1925k: 120).—Wash. **N. syn.**
cynops Snow, 1892: 37.—Colo.
daeckei Johnson, 1917b: 360.—Pa.; Va.
diversa Johnson, 1917b: 361.—N.H.; Ont., Que., Maine, N.Y.
flavescens Shannon, 1915a: 144.—Va.; Ont. and Que. to Va.
gigas Lovett *in* Cole and Lovett, 1919: 243.—Wash.; B.C., Oreg., Calif., Idaho.
media Williston, 1882a: 308.—Calif.; Alaska to Que., s. to Calif., Man., and Va.
nigricauda Curran, 1922j: 255 (also 1925k: 121).—Conn. (unpublished). ?=*daeckei*.
notata Osten Sacken, 1875d: 68.—N.H.; Wis. to N.S., s. to Mo. and Ga., also B.C.

perplexa Curran, 1922f: 117.—Ont.; Ont. and Que., s. to Wis. and N.C.
punctipennis Curran, 1925k: 181.—Oreg.; Alaska to Que., s. to Calif.
rufiabdominalis Jones, 1917: 226.—Colo.; B.C., Wash., Man.
vacua Osten Sacken, 1875d: 51, 67(as *racua*, p. 67).—Que.; Ont. and Que., s. to Kans. and N.C., also B.C.

Subgenus HAMMERSCHMIDTIA Schummel

Hammerschmidtia Schummel *in* Gravenhorst, 1834: 739 (as genus). Type-species, *vittata* Schummel (mon.)=*ferruginea* (Fallén).
Eugeniamyia Williston, 1882b: 80. Type-species, *rufa* Williston (mon.)=*ferruginea* (Fallén).

ferruginea (Fallén), 1817a: 34 (*Rhingia*).—Europe; Alaska to Que., s. to Ariz., N. Mex., and Mass., Europe.
rufa Williston, 1882b: 80 (*Eugeniamyia*).—Wash. Territory.

Genus PSILOTA Meigen

Psilota Meigen, 1822: 256. Type-species, *anthracina* Meigen (mon.).

The early stages of *Psilota* are unknown.

buccata (Macquart), 1842: 167 (1842: 107) (*Pipiza*).—Carolina; Kans. to N.C., s. to Tex. and Fla.
flavidipennis Macquart, 1855: 117 (1855: 97).—Pa.; Okla., Tex., Fla.
thatuna Shannon, 1922b: 38.—Idaho; Calif.

Genus SPHEGINA Meigen

Sphegina Meigen, 1822: 193. Type-species, *Milesia clunipes* Fallén (Westwood, 1840: 136).

The larvae of the European *Sphegina clunipes* (Fallén) and *S. kimakowiczi* Strobl have been found in moist places under the bark of trees.

References: Malloch, 1922f (key); Cole, 1924a (rev.); Hull, 1935a (key).

armatipes Malloch, 1922a: 141.—Calif.; Wash., Idaho, Oreg.
var. **rufa** Malloch, 1922a: 142.—Calif.; Oreg.
biannulata Malloch, 1922a: 143.—Va.
brachygaster Hull, 1935a: 376.—N.Y.; Mich.
bridwelli Cole, 1924a: 42.—Oreg.
brimleyi Shannon, 1940: 118.—N.C.; N.H.

californica Malloch, 1922a: 144.—Calif.; Alta., Wash., Oreg.
campanulata Robertson, 1901: 284.—Ill.; Wis. to N.B., s. to S. Dak. and Va.
cressoni Hull, 1935a: 375.—Wash.; B.C.
flavimana Malloch, 1922a: 143.—Md.; Minn. to N.S., s. to Ind. and Ga., also Colo.
flavomaculata Malloch, 1922a: 141.—Va.; Pa., Md.
infuscata Loew, 1863a: 13 (Cent. 3, no. 23).—Alaska; Alaska to Man., s. to Ariz. and Nebr.
keeniana Williston, 1887c: 113.—Pa.; Wis. to N.B., s. to Ind. and N.C., ?Wash.
lobata Loew, 1863a: 12 (Cent. 3, no. 21).—Middle States; Wis. to Que., s. to Nebr., Ohio, and Ga., ?B.C., ?Oreg., ?Idaho.
lobulifera Malloch, 1922f: 269.—Md.; Vt.
melanderi Cole, 1924a: 43.—Wash.
monticola Malloch, 1922a: 142.—N.H.; Maine.
nigrimana Cole, 1924a: 41.—Calif.
notata Hull, 1935a: 377.—Wash.
occidentalis Malloch, 1922a: 142.—Wash.; Oreg., Calif.
perplexa Hull, 1935a: 377.—Que.
petiolata Coquillett, 1910a: 125.—N.H.; Ont. and Que., s. to Wis. and Mass.
pluto Hull, 1935a: 374.—B.C.; Calif.
punctata Cole *in* Cole and Lovett, 1921: 285.—Oreg.; B.C. to Idaho and Calif.
rufiventris Loew, 1863a: 13 (Cent. 3, no. 22).—N.Y.; Wis. to N.B., s. to N.C., ?Wash., ?Oreg.
vittata Cole, 1924a: 43.—Wash.

Genus NEOASCIA Williston

Ascia Meigen, 1822: 185 (preocc. Scopoli, 1777). Type-species, *Syrphus podagricus* Fabricius (Westwood, 1840: 136).
Neoascia Williston, 1887c: 111 (n. name for *Ascia* Meigen). Type-species, *Syrphus podagricus* Fabricius (aut.).

The available information indicates that the larvae of *Neoascia* are aquatic or semiaquatic scavengers.

REFERENCE: Curran, 1925i (rev.).

albipes (Bigot), 1883a: 328 (*Ascia*).—N. Amer.; Mich., Ohio, Mass. to Md.
conica Curran, 1925i: 56.—Alta.; Alaska, Man., Calif., Nev., N. Mex.
distincta Williston, 1887c: 112.—Mass.; Man. to Que., s. to Colo. and N.C.

globosa (Walker), 1849: 546 (*Ascia*).—N.Y.; Alaska to Que., s. to Calif. and Va.
macrofemoralis Curran, 1925i: 58.—Alaska; Alta., N. Dak.
metallica (Williston), 1882a: 315 (*Ascia*).—Oreg.; Alaska to Ont., s. to Oreg., Nev., and Colo.
quadrinotata Bigot, 1883a: 327 (*Ascia*).—Oreg.
nasuta Bigot, 1883a: 327 (*Ascia*).—Oreg.
minuta Curran, 1925i: 53.—Colo.; Nev.
sphaerophoria Curran, 1925i: 57.—Alta.; Alaska.
subchalybea Curran, 1925i: 53.—Que.
unifasciata Curran, 1925i: 55.—Man.; Alta., Utah, Wis.

Tribe CALLICERINI

Genus CALLICERA Panzer

Callicera Panzer, 1809a, 104: 17. Type-species, *Bibio aenea* Fabricius (mon.).

The larvae of the European *Callicera rufa* (Schummel) were found in water in a cavity in a pine tree.

REFERENCES: Curran, 1935b (key); Coe, 1938 (biol., immature stages).

auripila Metcalf, 1916a: 112 (as *johnsoni* var.).—N.C.; Miss.
duncani Curran, 1935b: 5.—Ariz.
johnsoni Hunter, 1896a: 87.—Pa.; Mich., N.Y. to N.C.
montensis Snow, 1892: 34.—Colo.; N. Mex.

Tribe PELECOCERINI

Genus PELECOCERA Meigen

Pelecocera Meigen, 1822: 340. Type-species, *tricincta* Meigen (mon.).
Euceratomyia Williston, 1884b: 185. Type-species, *pergandei* Williston (mon.).

pergandei (Williston), 1884b: 186 (*Euceratomyia*).—D.C.; N.Y. to Miss. and Ga.

Genus CHAMAESYRPHUS Mik

Chamaesyrphus Mik, 1895: 133. Type-species, *Rhingia scaevoides* Fallén (mon.).

REFERENCE: Curran, 1923a (key).

apichaetus Curran, 1923a: 60.—Calif.
willistonii (Snow), 1895b: 187 (*Pelecocera*).—N. Mex.; Ariz., Colo.

Tribe NAUSIGASTRINI

Genus NAUSIGASTER Williston

Nausigaster Williston, 1883a: 33. Type-species, *punctulata* Williston (mon.).

The larvae of *Nausigaster* have been reared in Brazil from a decaying stem of papaya holding rainwater.

REFERENCES: Curran, 1941 (key); Carrera, Lopes, and Lane, 1947 (biol., immature stages).

clara Curran, 1941: 255.—Tex.; Ariz.
curvinervis Curran, 1941: 256.—Ariz.; Tex.
geminata Townsend, 1897b: 25.—Tex.; Ariz., Mexico.
nova Curran, 1941: 256.—Ariz.
punctulata Williston, 1883a: 34.—N. Mex.; Ariz., Tex.
scutellaris Adams, 1904b: 446.—Ariz.; Calif.
texana Curran, 1941: 257.—Tex.
unimaculata Townsend, 1897b: 24.—Calif.; Ariz., Tex.

Tribe EUMERINI

Genus EUMERUS Meigen

Eumerus Meigen, 1822: 202. Type-species, *Syrphus tricolor* Fabricius (Curtis, 1839: pl. 749). Because of the great amount of economic and taxonomic literature which has appeared for this genus under this name, an application should be prepared for submission to the I.C.Z.N. to suppress the genus *Eumeros* Meigen, 1803 (changed to *Eumerus* by Meigen, 1804) and to place *Eumerus* Meigen, 1822, on the Official List of Generic Names. See *Xylota*.

Pumilio Schembi *in* Kertész, 1910: 313. Nomen nudum. Not Scudder, 1882.

Paragopsis Matsumura, 1916: 250. Type-species, *griseofasciatus* Matsumura (orig. des.) = *strigatus* (Fallén).

Microxylota Jones, 1917: 230. Type-species, *robii* Jones (orig. des.) = *strigatus* (Fallén).

Citabaena, authors, not Walker. *Citabaena* Walker, 1857, is a poorly understood Asian genus.

There is considerable literature on the biology, taxonomy, and economic importance of the larvae of *Eumerus*, known as "lesser bulb flies". The species are probably all associated with decaying plant tissue, and their feeding on healthy plants is questionable. The work

of Creager and Spruijt (1935) showed that it is necessary for larvae of *tuberculatus* Rondani to feed on the fungus of basal-rot in order to develop normally. The three North American species were introduced in commerce from Europe in onion, narcissus, and related bulbs.

REFERENCES: Collin, 1920 (tax., biol.); Hodson, 1927 (biol.); Smith, 1928 (rev.); Latta and Cole, 1933 (rev.); Martin, 1934 (biol.).

narcissi Smith, 1928: 139.—Calif.; Oreg., Ont., N.Y., Europe. Immigrant.

strigatus (Fallén), 1817a: 61 (*Pipiza*).—Europe; U.S. and Canada. Immigrant.

robii Jones, 1917: 231 (*Microxylota*).—Colo.

tuberculatus Rondani, 1857: 93.—Europe; Canada and n. U.S. Immigrant.

Tribe MICRODONTINI

REFERENCES: Curran, 1941 (key to genera); Greene, 1955 (immature stages).

Genus MICRODON Meigen

Microdon Meigen, 1803: 275. Type-species, *Musca mutabilis* Linnaeus (as *Mulio mutabilis* Fabricius; mon.).

Aphritis Latreille, 1804: 193. Type-species, *auropubescens* Latreille (sub. mon, Latreille, 1805: 358)=*mutabilis* (Linnaeus).

Dimeraspis Newman, 1838: 372. Type-species, *podagra* Newman (mon.)=*globosus* (Fabricius).

Mesophila Walker, 1849: 1157. Type-species, *Ceratophya fuscipennis* Macquart (mon.).

Microdon, subg. *Serichlamys* Curran, 1925k: 50. Type-species, *rufipes* Macquart (mon.). **N. syn.**

Due to their very peculiar, hemispherical shape, the larvae of *Microdon* were first described as molluscs, then as coccids. They usually have been found associated with nests of ants where they are believed to act as scavengers.

REFERENCE: Curran, 1925k (rev.).

Subgenus MICRODON Meigen

albipilis Curran, 1925k: 54.—Man.; Alta.

aurulentus (Fabricius), 1805: 185 (*Mulio*).—Carolina; Pa. to N.C., ?Neotropical.

basicornis Curran, 1925k: 79.—N.B.; Mich., N.Y., N.S.

champlaini Curran, 1925k: 71.—Pa.; Ont. to N.S., s. to Ohio and Va.

conflictus Curran, 1924o: 226.—Va.; Kans. to Mich. and Maine, s. to Tex. and Fla.

cothurnatus Bigot, 1883a: 320.—Wash. Territory; B.C. to N.B., s. to Calif. and N.C.

similis Jones, 1917: 219.—Colo.

cockerelli Jones, 1922: 17 (as *tristis* var.).—Colo.

tristis, authors, not Loew.

craigheadii Walton, 1912: 463.—Pa.; Kans., W. Va., Md., Ga.

laetus, authors, not Loew.

diversipilosus Curran, 1925k: 76.—Kans.; Wis., Ohio, La., N.C.

fuscipennis (Macquart), 1834a: 488 (*Ceratophya*).—Pa.; Minn. to Que., s. to Tex. and Fla.

agapenor Walker, 1849: 539.—Ga.

pachystylum Williston, 1887c: 8.—Ga.

globosus (Fabricius), 1805: 185 (*Mulio*).—Carolina; Man. to Que., s. to Fla.

podagra Newman, 1838: 373 (*Dimeraspis*).—Ill.

hutchingsi Curran, 1927f: 89.—Que.; Ont.

laetoides Curran, 1935b: 3.—Ariz.

laetus Loew, 1864a: 74 (Cent. 5, no. 46).—Cuba; Tex. to Md. and Fla., Antilles.

scitulus Williston, 1887c: 10.—Fla. **N. syn.**

lanceolatus Adams, 1903b: 222.—Kans.; Alta. to Mont., s. to N. Mex. and Kans.

coloradensis Cockerell and Andrews, 1916: 53.—Colo.

manitobensis Curran, 1924o: 227.—Man.; B.C. to N.S. and Maine.

marmoratus Bigot, 1883a: 320.—Calif.; B.C., Oreg., Utah.

megalogaster Snow, 1892: 34.—Unknown; Wis. and Ill. to Que., s. to Ga., ?Colo.

bombiformis Townsend, 1895a: 33.—Va.

modestus Knab, 1917: 139.—Nev.

ocellaris Curran, 1924o: 227.—Pa.; N.Y. to Maine, s. to S.C.

piperi Knab, 1917: 136.—Wash.; B.C. and Alta., s. to Oreg. and Mont.

pseudoglobosus Curran, 1924o: 226.—N.Y.; Man. to Vt., s. to Fla.

robustus Telford, 1939: 14.—Minn.

ruficrus Williston, 1887c: 7 (as *tristis* var.).—Conn.; Mich. to Maine, s. to Ga.

rufipes (Macquart), 1842: 71 (1842: 11) (*Aphritis*).—Pa.; Pa. to La. and Fla.

limbus Williston, 1887c: 8.—Fla.

scutifer Knab, 1917: 141.—Tex.; La., Ala., Fla.

senilis Knab, 1917: 139.—Calif.

tristis Loew, 1864a: 73 (Cent. 5, no. 45).—Va.; B.C. to Que. and Maine, s. to Fla.

viridis Townsend, 1895b: 610.—Mexico (Baja Calif.); B.C., Calif., ?Tenn., ?Fla.

xanthopilis Townsend, 1895b: 611.—Calif.; Wash., Colo.

Subgenus CHYMOPHILA Macquart

Chymophila Macquart, 1834a: 485 (as genus). Type-species, *splendens* Macquart (mon.)=*fulgens* Wiedemann.

Microdon, subg. *Eumicrodon* Curran, 1925k: 50. Type-species, *fulgens* Wiedemann (mon.). **N. syn.**

fulgens Wiedemann, 1830: 82.—Ga.; Pa., N.J., Fla.
splendens Macquart, 1834a: 486 (*Chymophila*).—Pa.
aurifex, authors, not Wiedemann.

Subgenus OMEGASYRPHUS Giglio-Tos

Omegasyrphus Giglio-Tos, 1891b: 4 (as genus). Type-species, *Microdon coarctatus* Loew (sub. mon., Giglio-Tos, 1892b: 3).

baliopterus Loew, 1872a: 86 (Cent. 10, no. 56).—Tex., Calif. to Kans. and Va., s. to Mexico and Fla.

coarctatus Loew, 1864a: 74 (Cent. 5, no. 47).—D.C.; Nebr. to D.C., s. to Mexico and Fla.

painteri Hull, 1922: 370.—Miss.; Tex., Fla.

pallipennis Curran, 1925k: 89.—Colo.; N. Mex., Tex.

Genus MIXOGASTER Macquart

Mixogaster Macquart, 1842: 74 (1842: 14). Type-species, *conopsoides* Macquart (orig. des.).

REFERENCE: Hull, 1954 (rev.).

breviventris Kahl, 1897: 137.—Kans.; Kans., Va. to Fla.

delongi Johnson, 1926b: 301.—Fla.

johnsoni Hull, 1941b: 162.—Mass.; Conn., N.J.

Genus RHOPALOSYRPHUS Giglio-Tos

Rhopalosyrphus Giglio-Tos, 1891b: 3. Type-species, *Holmbergia guentherii* Lynch Arribálzaga (sub. mon., Giglio-Tos, 1892b: 1).

REFERENCE: Capelle, 1956 (rev.).

carolae Capelle, 1956: 174.—Ariz.; Mexico.

Tribe VOLUCELLINI

REFERENCE: Curran, 1930e (key to genera).

Genus ORNIDIA Lepeletier and Serville

Ornidia Lepeletier and Serville, *in* Latreille et al., 1828: 786. Type-species, *Syrphus obesus* Fabricius (orig. des.).

REFERENCE: Curran, 1930e (key).

obesa (Fabricius), 1775: 763 (*Syrphus*).—Amer.; N. Mex., Tex., Fla., Neotropical. Immigrant throughout world tropics.

Genus VOLUCELLA Geoffroy

Volucella Geoffroy, 1762: 540. Type-species, *Musca pellucens* Linnaeus (Curtis, 1833: pl. 452). Validated by I.C.Z.N., 1957a: 85.

Temnocera Lepeletier and Serville *in* Latreille et al., 1828: 786. Type-species, *violacea* Lepeletier and Serville (orig. des.).

Atemnocera Bigot, 1882c: cxiv. Type-species, *Volucella scutellata* Macquart (mon.).

Camerania Giglio-Tos, 1892a: 45 (1893: 141). Type-species, *macrocephala* Giglio-Tos (Coquillett, 1910b: 517).

The larvae of most Temperate Zone species live as scavengers in the nests of bees or wasps, while the tropical American species live mostly in decomposing cacti.

REFERENCES: Johnson, 1916c (tax., *bombylans*); Gabritschevsky, 1924, 1926 (mimicry, *bombylans*); Curran, 1926h, 1930e, 1939b (keys).

Subgenus VOLUCELLA Geoffroy

abdominalis Wiedemann, 1830: 196.—Cuba; Fla., Bahama Is., Jamaica.

anastasia Hull, 1946: 270.—Miss.; Fla.

anna Williston, 1887c: 138.—Ariz.; N. Mex.

apicalis Loew, 1866a: 151 (Cent. 6, no. 36).—Cuba; Md., Neotropical.

apicifera Townsend, 1895a: 40.—N. Mex.; Calif., Ariz., Mexico.

clarki Curran, 1930e: 19.—Ariz. **N. syn.**

avida Osten Sacken, 1877: 333.—Calif.; B.C. to Calif. and Tex., Mexico.

barei Curran, 1925e: 255.—Tex.; Kans. to N.Y., s. to Tex. and Fla.

bombylans (Linnaeus), 1758: 591 (*Musca*).—Europe; Alaska to Nfld., s. to Calif. and Ga. The typical variety is not Nearctic.

var. **americana** Johnson, 1916c: 162 (as form).—U.S. (5 states, Maine to Pa.); Man. to N.B., s. to Tenn. and Ga.

var. **arctica** Johnson, 1916c: 163 (as form).—Labr.; Alaska to Nfld.

var. **evecta** Walker, 1852: 251 (as sp.).—U.S.; Alaska to Que., s. to Colo. and Va.

sanguinea Williston, 1887c: 136 (as *evecta* var.).—Unknown.

var. **plumata** (De Geer), 1776: 134 (*Musca;* as sp.).—Europe; Alaska to Nfld., s. to Calif., Mont., and N.Y., Europe.

facialis Williston, 1882a: 316.—Calif.

lateralis Johnson, 1916c: 162 (as *bombylans* form).—N.H., Maine, Nfld.

var. **rufomaculata** Jones, 1917: 227 (as sp.).—Colo.; B.C. to Alta. and Mont., s. to Oreg. and Colo.

comstocki Williston, 1887c: 138.—Ariz., N. Mex.; Utah to Wyo., s. to Ariz., Mexico, and Tex.

eugenia Williston, 1887c: 139.—Bahama Is., Fla.; Antilles.

fasciata Macquart, 1842: 82 (1842: 22).—Carolina; Alta. to N.Y., s. to Tex. and Fla.

florida Hull, 1941c: 278.—Fla. ?=*pusilla*.

fraudulenta Williston, 1891: 48.—Mexico (Guerrero); Calif. to Tex., s. to Cent. Amer.

haagii Jaennicke, 1867: 397 (1868: 89).—Mexico; Calif. to Tex. and Mexico.

setigera Osten Sacken, 1877: 334 (*Temnocera*).—N. Mex.

isabellina Williston, 1887c: 140.—Ariz.; Calif. to Colo., s. to Mexico.

lutzi Curran, 1930e: 18.—Ariz.; Calif., Tex.

macrocephala (Giglio-Tos), 1892a: 45 (1893: 141) (*Camerania*).—Mexico; Ariz.

lata Wiedemann of Williston, 1891: 45.

megacephala Loew of Williston, 1887c: 146.

megacephala (Loew), 1863b: 305 (Cent. 4, no. 57) (*Temnocera*).—Calif.; Mexico.

mexicana Macquart, 1842: 85 (1842: 25).—Mexico; s. Calif. to Tex., s. to Cent. Amer.

violacea Say, 1829: 166 (1859b: 360) (preocc. Lepeletier and Serville, 1828).—Mexico.

esuriens, authors, in part, not Fabricius.

nigra Greene, 1923: 165.—Fla.; B.C., s. Calif. to Ga., s. to Mexico and Fla.

esuriens, authors, in part, not Fabricius.

opalescens Townsend, 1901: 160.—N. Mex. Unrecognized.

pallens Wiedemann, 1830: 204.—Brazil; Ariz. to Fla., N.C., Neotropical.

sexpunctata Loew, 1861c: 38.—Cuba.

postica Say, 1829: 166 (1859b: 360).—Mexico; Calif. to Colo. and N. Mex., Mexico.

pusilla Macquart, 1842: 81 (1842: 21).—Cuba; Tex. to Fla.

vacua, authors, not Fabricius.

quadrata Williston, 1891: 46.—Mexico (Guerrero); Ariz.

satura Osten Sacken, 1877: 333.—Colo., Utah; Alta. to Wyo., s. to Calif. and Tex.

sternalis Curran, 1930e: 20.—Mexico (Baja Calif.); Ariz.

tamaulipana Townsend, 1898b: 51.—Tex.; La., Mexico, Cent. Amer., Hawaii (immigrant).

timberlakei Curran, 1926h: 63.—Tex. **N. syn.**

pusilla, authors, not Macquart.

tau Bigot, 1883a: 84.—Mexico; Oreg. to Colo., s. to Calif., Mexico, and Tex.

tricincta Bigot, 1875a: 477.—Mexico; Tex., Cent. Amer., Hawaii (immigrant).

unipunctata Curran, 1926h: 63.—West Indies (Desecheot I.); Tex., Neotropical.

vesiculana Curran, 1947b: 5.—Ariz.; Tex.

vesicularia Curran, 1947b: 4.—N.Y.; Wis. to Ont., s. to Okla. and Fla.

vesiculosa, authors, not Fabricius.

victoria Williston, 1887c: 145.—N. Mex.; s. Calif. to Colo. and La.

Subgenus COPESTYLUM Macquart

Copestylum Macquart, 1846: 252 (1846: 124) (as genus). Type-species, *flaviventris* Macquart (mon.)=*marginata* Say.

The larvae of the subgenus *Copestylum* live in cacti.

REFERENCES: Curran, 1927j, 1930e, 1935b (keys).

caudata (Curran), 1927j: 45 (*Copestylum*).—Alta.; B.C. to Sask., s. to Calif. and Tex.

lenta (Williston), 1887c: 152 (*Copestylum*; as *marginata* var.).—N. Mex. (unpublished); Idaho, Colo.

limbipennis (Williston), 1887c: 152 (*Copestylum*).—Mexico; Tex.

marginata Say, 1829: 167 (1859b: 360).—Mexico; Calif. to Colo., s. to Tex. and Mexico.

fax Townsend, 1895a: 42.—Colo.

inops Townsend, 1895a: 43.—Colo.

similis (Giglio-Tos), 1892c: 2 (*Copestylum*).—Mexico; N. Mex., Tex.

Subgenus VOLUCELLOSIA Curran

Volucellosia Curran, 1930e: 5 (as genus). Type-species, *Volucella fornax* Townsend (orig. des.).

fornax Townsend, 1895b: 613.—Mexico (Baja Calif.); Calif., Ariz.

Tribe SERICOMYIINI

Genus SERICOMYIA Meigen

Cinxia Meigen, 1800: 35. Type-species, *Musca lappona* Linnaeus (Coquillett, 1910b: 524). Suppressed by I.C.Z.N., 1963b: 339.

Sericomyia Meigen, 1803: 274. Type-species, *Musca lappona* Linnaeus (Latreille, 1810: 443).

Condidea Coquillett, 1907a: 75. Type-species, *lata* Coquillett (orig. des.).

The "rat-tailed" larvae of the European *Sericomyia silentis* (Harris) have been found in wet decomposing turf sods in a peat bog.

REFERENCES: Curran, 1923o, 1934c (keys).

arctica Schirmer, 1913: 221.—Lapland; N.W.T., Arctic Eurasia.

bifasciata Williston, 1887c: 154.—N.H.; Mich. to Nfld., s. to Pa.

carolinensis (Metcalf), 1917a: 209 (*Cinxia*).—N.C.; Miss., Ga.

chalcopyga Loew, 1863a: 12 (Cent. 3, no. 20).—Alaska; Alaska to Alta., s. to Oreg., Utah, and Mont.

chrysotoxoides Macquart, 1842: 79 (1842: 19).—Pa.; Wis. to Nfld., s. to Tenn. and S.C.

limbipennis Macquart, 1847: 74 (1947: 58).—N.S.

filia Walker, 1849: 596.—Ont., N.S.

cynocephala Hine, 1922b: 147.—Alaska,

lappona (Linnaeus).—Not Nearctic.

lata (Coquillett), 1907a: 75 (*Condidea*).—Mass.; B.C. to N.B., s. to Nebr. and W. Va.

militaris Walker, 1849: 595.—Ont., N.S.; B.C. to Nfld., s. to Oreg., N. Mex., and Pa.

calcarata Curran, 1923o: 141 (also 1925k: 182).—Mont. **N. syn.,** J. R. Vockeroth *in litt.*

slossonae Curran, 1934c: 4.—N.H.; N.Y.

sexfasciata Walker of Curran, 1923o: 136.

sexfasciata Walker, 1849: 596.—Ont.; Alaska to Nfld. and Maine.

transversa (Osburn), 1926: 51 (*Condidea*).—N. Dak.; N. Dak. to Labr. and Nfld.

Genus ARCTOPHILA Schiner

Arctophila Schiner, 1860c: 215. Type-species, *Syrphus bombiformis* Fallén (Williston, 1887c: 158).

flagrans Osten Sacken, 1875d: 69.—Colo.; Alaska to Alta., s. to Calif. and N. Mex.

harveyi Osburn, 1908: 9.—B.C.; Wash., Oreg.

Genus PYRITIS Hunter

Pyritis Hunter, 1897: 131. Type-species, *montigena* Hunter (orig. des.).

kincaidii (Coquillett), 1895e: 131 (*Volucella*).—Wash.; B.C. to Sask., s. to Oreg. and Mont.

montigena Hunter, 1897: 132.—Idaho; B.C.

Tribe MILESIINI

The usual larval habitat of the Milesinii is in rotten wood or under bark of trees, but some genera breed in exuding sap or rot holes of trees (*Blera*), or in decaying organic matter (*Syritta*, *Tropidia*). *Syritta pipiens* (Linnaeus) is one of the commonest and most widespread scavengers in semiliquid, rotting vegetable and animal material. Mimicry of aculeate Hymenoptera has become developed to a considerable extent in the genera placed toward the end of this tribe.

REFERENCE: Shannon, 1926a (partial rev.).

Genus XYLOTA Meigen

Zelima Meigen, 1800: 34. Type-species, *Musca segnis* Linnaeus (Coquillett, 1910b: 621). Suppressed by I.C.Z.N., (1963b: 339.).

Heliophilus Meigen, 1803: 273. Type-species, *Musca sylvarum* Linnaeus (as *Syrphus sylvarum* Fabricius; mon.).

Eumeros Meigen, 1803: 273. Type-species, *Musca segnis* Linnaeus (Coquillett, 1910b: 541).

Eumerus Meigen, 1804: xx, error or emend.

Eumenos Leach *in* Brewster, 1817: 160, error or emend.

Xylota Meigen, 1822: 211 (unjustified n. name for *Heliophilus* Meigen). Type-species, *Musca sylvarum* Linnaeus (aut.).

An application should be prepared for submission to the I.C.Z.N. to suppress *Heliophilus* Meigen, 1803, because of possible confusion

with the valid and widely used genus *Helophilus* Meigen, 1822, and to suppress *Eumeros* Meigen, 1803, because of possible confusion with the valid and economically important genus *Eumerus* Meigen, 1822, and to place *Xylota* Meigen, 1822, which has had long and almost universal usage, on the Official List of Generic Names.

REFERENCES: Shannon, 1926a (rev.); Curran, 1941 (key as *Heliophilus*).

Subgenus XYLOTA Meigen

analis Williston, 1887c: 226.—Calif., N. Mex.; B.C. to Colo., s. to Calif., N. Mex., and Mexico.

angustiventris Loew, 1866a: 164 (Cent. 6, no. 58).—Ill., Minn. to Que., s. to Kans., Miss., and Ga.

elongata Williston, 1887c: 234.—N.H., Pa.

annulifera Bigot, 1883a: 545.—N. Amer.; Alaska to Que., s. to Oreg., Tenn., and N.J.

argoi Shannon, 1926a: 38.—Wash.; B.C., Idaho, Colo., N. Mex.

artemita Hull, 1943e: 49.—Miss.; ?Ont.

atlantica Shannon, 1926a: 34 (as *naknek* var.).—Maine; B.C. to Que., s. to Wis. and Maine.

hesperia Shannon *in* Johnson, 1925b: 176 (as *hesperia atlantica*). Nomen nudum.

obscura, authors, not Loew.

barbata Loew, 1864a: 70 (Cent. 5, no. 40).—Alaska; Alaska to Alta., s. to Calif. and Colo.

bicolor Loew, 1864a: 70 (Cent. 5, no. 39).—Ill.; Nebr. to Ont. and Que., s. to Miss. and Fla.

bigelowi (Curran), 1941: 298 (*Heliophilus*).—Ont.; Alta. to Que., s. to Wis. and Mich.

florum, authors, not Fabricius.

confusa Shannon, 1926a: 30.—Maine; Minn., Mich.

ejuncida Say, 1824b: pl. 8 (1859a: 15).—Fla.; Minn. to Va., s. to Miss. and Fla.

viridaenea Shannon, 1926a: 33.—Ga.

flavifrons Walker, 1849: 557.—Ont.; Alaska to Labr., s. to B.C. and Pa.

communis Walker, 1849: 557.—Ont.

obscura Loew, 1866a: 162 (Cent. 6, no. 55).—Man.

flavitibia Bigot, 1883a: 546.—Calif.; Alaska to N.W.T., s. to Calif., N. Mex., and Nebr.

flukei (Curran), 1941: 294 (*Heliophilus*).—Wis.; Ont.

hinei (Curran), 1941: 297 (*Heliophilus*).—Que.; B.C. to N.B., s. to Oreg. and N.C.

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lovetti Curran, 1925b: 44 (n. name for *bivittata* Lovett).—Calif.; B.C. to Idaho and Calif.
bivittata Lovett, 1920: 52 (preocc. Bigot, 1883).—Calif.
oregona Curran, 1925b: 44.—Oreg.
micrura (Curran), 1941: 295 (*Heliophilus*).—Colo.; Alta.
mixta (Curran), 1941: 295 (*Heliophilus*).—N.H.
naknek Shannon, 1926a: 33.—Alaska; Alaska to Ont., s. to Oreg., Ariz., and S. Dak.
nebulosa Johnson, 1921c. 58.—Tex.; N. Mex., S. Dak.
notha Williston, 1887c: 228.—Colo.; Nev., Utah, N. Mex. ?= *subfasciata*.
ouelleti (Curran), 1941: 296 (*Heliophilus*).—Que.; Sask.
quadrimaculata Loew, 1866a: 163 (Cent. 6, no. 56).—Ill.; B.C. to Que., s. to Miss. and Fla.
ejuncida, authors, not Say.
rainieri Shannon, 1926a: 34.—Wash.; Oreg., Calif.
scutellarmata Lovett *in* Cole and Lovett, 1919: 241.—Oreg.; Colo.
segnis (Linnaeus), 1758: 595 (*Musca*).—Europe; Que., N.S., N.Y., Va.
stigmatipennis Lovett *in* Cole and Lovett, 1919: 242.—Oreg.
subfasciata Loew, 1866a: 164 (Cent. 6, no. 57).—Man.; Alaska to Que., s. to Oreg. and Va.
tuberculata (Curran), 1941: 294 (*Heliophilus*).—Ont.; Alta., Man., S. Dak., Que.

Subgenus XYLOTOMIMA Shannon

Xylotomima Shannon, 1926a: 15 (as genus). Type-species, *Xylota vecors* Osten Sacken (orig. des.).

althaea Hull, 1943c: 30.—S.C.
anthreas Walker, 1849: 556.—N.Y.; Man. to Que., s. to Nebr. and Ga.
facialis Coquillett, 1910a: 126.—Mich.
arctica (Curran), 1941: 293 (*Heliophilus*).—Man.
astarte Hull, 1943e: 50.—Miss.
azurea (Fluke), 1953a: 126 (*Heliophilus*).—N. Mex.; Mexico.
chalybea Wiedemann, 1830: 98.—Unknown; Minn. to Que., s. to Kans., Miss., and Ga.
purpurea Walker, 1849: 560.—Unknown.
curvaria (Curran), 1941: 290 (*Heliophilus*).—Que.; Alaska to N.S., s. to Calif., Colo., and N.Y.
curvipes, authors, not Loew.
dubia (Shannon), 1926a: 22 (*Xylotomima*).—Idaho; B.C.

libo Walker, 1849: 556.—N.S.; B.C. to N.S., s. to S. Dak. and N.C.
marginalis Williston, 1887c: 226.—N.H.
metallica Wiedemann, 1830: 102.—Ga.; Ill. to Md., s. to Tex. and Fla.
subtropica Curran, 1925b: 44.—Tenn.
nemorum (Fabricius), 1805: 192 (*Milesia*).—Europe; Alaska to N.S., s. to Calif. and Fla., Europe.
baton Walker, 1849: 554.—Fla., N.S. **N. syn.**
fraudulosa Loew, 1864a: 71 (Cent. 5, no. 41).—Wis., Ill. **N. syn.**
americana Shannon, 1926a: 21 (*Xylotomima*; as var.).—Calif. **N. syn.**
nigromaculata Jones, 1917: 229.—Colo. Unrecognized.
pigra (Fabricius), 1794: 295 (*Syrphus*).—Germany; B.C. to Que., s. to Calif., Fla., and Mexico, Europe.
haematodes Fabricius, 1805: 193 (*Milesia*).—Carolina.
rubbiginigaster Bigot, 1883a: 543.—Colo.
rubiginigaster, error.
plesia Curran, 1925b: 45.—N.B.; Ont. to N.S., s. to W. Va.
primavera Hull, 1944a: 37.—Miss.
satanica Bigot, 1883a: 546.—Calif.; B.C., Alta., Wash.
vecors Osten Sacken, 1875d: 69.—N.H.; Alaska to Nfld., s. to Wash., Colo., and N.C.

Subgenus XYLOTODES Shannon

Xylotodes Shannon, 1926a: 22 (as genus). Type-species, *Brachypalpus inarmatus* Hunter (orig. des.).

brevipilosa (Shannon), 1926a: 23 (*Xylotodes*).—Wash.; Idaho, Wyo., N. Mex.
carri (Curran), 1941: 291 (*Heliophilus*).—Alta.; Ont., ?Calif.
cascadensis Weems (for *pigra* Lovett).—Oreg.; B.C. to Alta., s. to Oreg. and Utah. **N. name.**
pigra Lovett *in* Cole and Lovett, 1919: 241 (*Brachypalpus*; preocc. Fabricius, 1794).—Oreg.
flexa (Curran), 1941: 292 (*Heliophilus*).—B.C.; Nebr., Md.
inarmata (Hunter), 1897: 142 (*Brachypalpus*).—Idaho; B.C. to Que., s. to Idaho and N.C.
apicaudus Curran, 1922f: 119 (*Brachypalpus*).—B.C.
metallifera Bigot, 1883a: 545.—Colo.; Alta. to Que., s. to Colo., Miss., and Ga.
rileyi Williston, 1887c: 222 (*Brachypalpus*).—N.C.
ontario (Curran), 1941: 292 (*Heliophilus*).—Ont.; Alaska, Alta., Man.

parva (Williston), 1887c: 222 (*Brachypalpus*).—Colo.; B.C. and N.W.T. to Oreg. and Colo.
sacajaweae (Shannon), 1926a: 24 (*Xylotodes*).—Wash.; Utah.

Genus BRACHYPALPUS Macquart

Brachypalpus Macquart, 1834a: 523. Type-species, *tuberculatus* Macquart (Rondani, 1844b: 456)=*valgus* (Panzer).

margaritus Hull, 1946: 271.—Miss.
oarus (Walker), 1849: 558 (*Xylota*).—N.Y.; Man. to N.B., s. to Kans. and N.C.
frontosus Loew, 1872a: 83 (Cent. 10, no. 50).—D.C.
trifasciatus Hull, 1944a: 39.—Wash.

Genus CALIPROBOLA Rondani

Caliprobola Rondani, 1844b: 455. Type-species, *Syrphus speciosus* Rossi (as *Milesia speciosa* Fabricius; Rondani, 1856: 47).
Calliprobola, emend.
Chrysosomidia Curran, 1934a: 261. Type-species, *Caliprobola crawfordi* Shannon (orig. des.). **N. syn.**

REFERENCE: Shannon, 1916c (rev.).

aepalia (Walker), 1849: 557 (*Xylota*).—Ga.; Que., N.J., Tenn., N.C.
sorosis Williston, 1887c: 223 (*Brachypalpus*).—Ga.
aldrichi Shannon, 1916c: 111.—Wash.; B.C., Oreg., Idaho, Calif.
crawfordi Shannon, 1916c: 112.—Wash.; B.C. to Idaho and Calif.
opaca Shannon, 1916c: 110.—Wash.; Alaska, B.C.
pulchra (Williston), 1882b: 79 (?*Brachypalpus*).—Wash., Oreg.; B.C. to Idaho and Oreg.
aerea Bigot, 1883a: 352.—Wash. Territory.

Genus TEUCHOCNEMIS Osten Sacken

Teuchocnemis Osten Sacken, 1875d: 58. Type-species, *Pterallastes lituratus* Loew (Williston, 1887c: 199).

bacuntius (Walker), 1849: 563 (*Milesia*).—Ga.; N.Y. to Tex. and Fla.
lituratus (Loew), 1863b: 317 (Cent. 4, no. 81) (*Pterallastes*).—Pa.; Wis. to Que., s. to Mo. and Ga.

Genus SYRITTA Lepeletier and Serville

Syritta Lepeletier and Serville *in* Latreille et al., 1828: 808. Type-species, *Musca pipiens* Linnaeus (as *Xylota pipiens* Meigen; mon.).

pipiens (Linnaeus), 1758: 594 (*Musca*).—Europe; B.C. to Nfld., s. to Calif. and Fla., Eurasia, Africa.

proxima Say, 1824b: pl. 8 (1859a: 16) (*Xylota*).—Pa, Va.

Genus Acrochordonodes Bigot

comstocki (Williston), 1882a: 326 (*Senogaster*).—Unknown (as N.Y., error).=*dentipes* (Fabricius), not Nearctic.

Genus TROPIDIA Meigen

Tropidia Meigen, 1822: 346. Type-species, *Eristalis milesiformis* Fallén (Curtis, 1832: pl. 401)=*scita* (Harris).

REFERENCE: Shannon, 1926a (rev.).

albistylum Macquart, 1847: 76 (1847: 60).—N. Amer.; Mich. to N.J., s. to Okla., Tex., and Fla.

calcarata Williston, 1887c: 208.—Mich.; Wis. to Que., s. to Ind. and S.C.

coloradensis (Bigot), 1883a: 544 (*Xylota*).—Colo.

incana Townsend, 1895a: 52.—Colo.

mamillata Loew, 1861b: 343 (Cent. 1, no. 68).—Ill.; Nebr., Kans., N.C.

montana Hunter, 1896d: 305 (n. name for *nigricornis* Hunter).—Idaho; Oreg.

nigricornis Hunter, 1896c: 215 (preocc. Philippi, 1865).—Idaho.

pygmaea Shannon, 1926a: 10.—Utah.

quadrata (Say), 1824b: pl. 8 (1859a: 14) (*Xylota*).—Pa.; B.C. to Nfld., s. to Calif., La., and N.C.

Genus PTERALLASTES Loew

Pterallastes Loew, 1863b: 317 (Cent. 4, no. 80). Type-species, *thoracicus* Loew (Osten Sacken, 1878c: 250).

thoracicus Loew, 1863b: 317 (Cent. 4, no. 80).—Pa.; Wis. to N.Y., s. to Nebr., Miss., and Ga.

Genus HADROMYIA Williston

Hadromyia Williston, 1882b: 78. Type-species, *grandis* Williston (mon.).

grandis Williston, 1882b: 79.—Wash. Territory; B.C. to Oreg. and Idaho.

morissoni Bigot, 1883a: 355 (*Brachypalpus*).—Wash. Territory.
morrisoni, error.

Genus CRIOPRORA Osten Sacken

Crioprora Osten Sacken, 1878c: 251. Type-species, *Pocota alopex* Osten Sacken (Williston, 1887c: 217).

REFERENCE: Williston, 1887c (key).

alopex (Osten Sacken), 1877: 338 (*Pocota*).—Calif.; B.C. to Calif.
amithaon (Walker), 1849: 567 (*Milesia*).—N.C. Unrecognized.
cyanella (Osten Sacken), 1877: 339 (*Pocota*).—Calif.; B.C., Oreg.
cyanogaster (Loew), 1872a: 83 (Cent. 10, no. 51) (*Brachypalpus*).—Pa.; Colo., Wis., Que., N.J.
femorata Williston, 1882a: 329.—Wash. Territory; B.C. to Mont., s. to Calif. and Colo.

Genus POCOTA Lepeletier and Serville

Pocota Lepeletier and Serville *in* Latreille et al., 1828: 518. Type-species, *Milesia apicata* Meigen (mon.)=*apiformis* (Schrank).

bomboides Hunter, 1897: 141.—Calif.; B.C. to Idaho and Calif.

Genus BLERA Billberg

Blera Billberg, 1820: 118. Type-species, *Musca fallax* Linnaeus (Johnson, 1911: 73).
Criorhina, subg. *Cynorhina* Williston, 1887c: 209. Type-species, *Milesia analis* Macquart (orig. des.).

REFERENCES: Curran, 1925k, 1953b (keys as *Cynorhina*).

analis (Macquart), 1842: 139 (1842: 79) (*Milesia*).—N. Amer.; S. Dak. to Que. and Maine, s. to N.J.
armillata armillata (Osten Sacken), 1875d: 68 (*Criorhina*).—Que.; Alaska to Que., s. to Calif. and N.H.
ssp. **hunteri** (Curran), 1925k: 136 (*Cynorhina;* as var.).—Man.; Alaska, Utah.
ssp. **pacifica** (Curran), 1953b: 14 (*Cynorhina*).—Wash.; B.C., Oreg., Idaho.
badia (Walker), 1849: 559 (*Xylota*).—N.Y.; Minn. to Que., s. to Ga.
intersistens Walker, 1849: 615 (*Eristalis*).—N.Y.
banksi (Hull), 1945b: 72 (*Cynorhina*).—Maine. **N. comb.**
confusa Johnson, 1913c: 294.—Maine; B.C. to N.S., s. to Colo. and N.C.

flukei (Curran), 1953b: 13 (*Cynorhina*).—Wash.; Alaska to Oreg. and Idaho. **N. comb.**

garretti (Curran), 1924g: 194 (*Cynorhina*).—B.C.; Alta., Mont. **N. comb.**

humeralis (Williston), 1882a: 330 (*Criorhina*).—Wash. Territory; Wash. and Idaho to Calif.

johnsoni (Coquillett), 1894c: 125 (*Criorhina*).—Wash.; Oreg.

metcalfi (Curran), 1925k: 132 (*Cynorhina*).—N.C. **N. comb.**

nigra (Williston), 1887c: 214 (*Criorhina*).—N.H.; Wash. to Nfld., s. to N.C.

nigripes (Curran), 1925k: 128 (*Cynorhina*).—B.C.; Wash., Wis. **N. comb.**

notata (Wiedemann), 1830: 109 (*Milesia*).—Ga.; Pa. and N.J. to Fla.
profusus Walker, 1849: 578 (*Syrphus*).—Ga.

pictipes (Bigot), 1883a: 354 (*Caliprobola*).—Carolina; Mich. to N.Y. s. to Tex. and N.C.

robusta (Curran), 1922d: 14 (*Cynorhina*).—B.C.; Wash., Mont. **N. comb.**

scitula (Williston), 1882a: 331 (*Criorhina*).—Wash. Territory; Alaska to Calif. and Idaho.

umbratilis (Williston), 1887c: 212 (*Criorhina*).—Conn.; Nebr. to N.Y. and Nfld., s. to Tex. and Ga.

Genus CRIORHINA Meigen

Penthesilea Meigen, 1800: 35. Type-species, *Musca ruficauda* De Geer (sub. mon., Bezzi *in* Hendel, 1908b: 67; misident.) = *ranunculi* (Panzer). Suppressed by I.C.Z.N., 1963b: 339.

Criorhina Meigen, 1822: 236. Type-species, *Syrphus asilicus* Fallén (Westwood, 1840: 136).

Criorrhina, emend.

Brachymyia Williston, 1882b: 77. Type-species, *lupina* Williston (Coquillett, 1910b: 516).

REFERENCE: Curran, 1925k (rev.).

aurea Lovett *in* Cole and Lovett, 1919: 248.—Idaho; B.C., Oreg.

caudata Curran, 1925k: 151.—B.C.; Wash., Oreg., Idaho.

coquilletti Williston, 1892a: 145.—Calif.; B.C., Wash.

grandis Lovett *in* Cole and Lovett, 1921: 291.—Oreg.; Wash.

kincaidi Coquillett, 1901h: 611.—Wash.; Alaska to Oreg. and Idaho.

latipilosa Curran, 1925k: 149.—Mont.; Oreg., Ont.

luna Lovett *in* Cole and Lovett, 1919: 249.—Oreg.; Alaska to Oreg.

lupina (Williston), 1882b: 77 (*Brachymyia*).—Calif.; Oreg.

mystaceae Curran, 1925k: 144.—N.S.

nigripes (Williston), 1882b: 78 (*Brachymyia*).—Calif.; B.C. to Calif. and Idaho.

nigriventris Walton, 1911: 318.—Pa.; B.C., Man. to N.S., s. to Va.

intermedia Johnson, 1917c: 153.—N.H., Mass. **N. syn.,** J. R. Vockeroth *in litt.*

maritima Curran, 1924i: 252.—N.S. **N. syn.,** J. R. Vockeroth *in litt.*

aurata Curran, 1925k: 146 (as *verbosa* var.).—Pa. **N. syn.,** J. R. Vockeroth *in litt.*

quadriboscis Lovett *in* Cole and Lovett, 1919: 250.—Oreg.

tricolor Coquillett, 1900h: 436 (1904: 50).—Alaska; Alaska to Calif.

verbosa (Walker), 1849: 568 (*Milesia*).—N. Amer.; Man. to N.S., s. to Ohio and N.C.

Genus SOMULA Macquart

Somula Macquart, 1847: 73 (1847: 57). Type-species, *decora* Macquart (orig. des.).

REFERENCE: Curran, 1925k (rev.).

decora Macquart, 1847: 73 (1847: 57).—Pa.; Minn. to N.B., s. to Tex. and Ga., also Calif.

mississippiensis Hull, 1922: 371.—Miss.; N.C.

marivirginiae Brimley, 1923: 278.—N.C.

Genus MERAPIOIDUS Bigot

Merapioidus Bigot, 1879b: 1 (=50). Type-species, *villosus* Bigot (mon.).

villosus Bigot, 1879b: 1 (=50).—Ga.; Ohio and Pa. to Ga.

Genus SPHECOMYIA Latreille

Sphecomyia Latreille *in* Bory, 1829: 545 (also Latreille, 1829: 495). Type-species, *Chrysotoxum vittatum* Wiedemann (Coquillett, 1910b: 607).

REFERENCES: Shannon, 1925c, Curran, 1932b (keys).

brevicornis Osten Sacken, 1877: 341.—Calif.; B.C. to Idaho, s. to Calif.

vespiformis, authors, not Gorski.

dyari Shannon, 1925c: 43.—Calif.

nasica Osburn, 1908: 13.—B.C.; Wash., Oreg.

occidentalis Osburn, 1908: 12.—B.C., Wash.; Idaho.

pattonii Williston, 1882a: 328.—Wash. Territory; B.C. to Idaho and Calif.

calorhina Bigot, 1883a: 353 (*Caliprobola*).—Wash. Territory.

vittata (Wiedemann), 1830: 87 (*Chrysotoxum*).—Unknown; Man. to Que., s. to N. Mex. and Fla.

ornatus Wiedemann, 1830: 91 (*Psarus*).—Ga.

Genus SPILOMYIA Meigen

Tritonia Meigen, 1800: 33 (preocc. Cuvier, 1798). Type-species, *Musca vespiformis* Linnaeus (Coquillett, 1910b: 617). Suppressed by I.C.Z.N., 1963b: 339.

Spilomyia Meigen, 1803: 273. Type-species, *Musca diophthalma* Linnaeus (as *Syrphus diophthalmus* Fabricius; Coquillett, 1910b: 607; misident.)=*saltuum* (Fabricius).

Mixtemyia Macquart, 1834a: 491. Type-species, *Paragus quadrifasciatus* Say (mon.).

REFERENCES: Curran, 1951 (key); Vockeroth, 1958 (partial key).

citima Vockeroth, 1958: 287.—B.C.; Wash. Territory.

crandalli Curran, 1951: 7.—Ariz.

foxleei Vockeroth, 1958: 284.—B.C.

fusca Loew, 1864a: 67 (Cent. 5, no. 34).—Pa.; Minn. to N.S., s. to Ga.

hamifera Loew, 1864a: 66 (Cent. 5, no. 33).—Pa.; Wis. to Nfld., s. to Miss. and Fla.

interrupta Williston, 1882a: 327.—Wash. Territory; B.C. to Calif. and Colo.

kahli Snow, 1895d: 245.—N. Mex.; Ariz., Tex., Mexico.

xanthocauda Curran, 1935b: 6.—Ariz.

liturata Williston, 1887c: 245.—N. Mex.; Wash. to Idaho, s. to Ariz. and N. Mex.

longicornis Loew, 1872a: 82 (Cent. 10, no. 49).—Mass., Pa., Tex.; Minn. to Que., s. to Tex., Mexico, and Fla.

quadrifasciata (Say), 1824a: 377 (1859a: 257) (*Paragus*).—Northwest Territory (U.S.); Alta. to N.B., s. to Kans. and N.J.

texana Johnson, 1921c: 57.—Tex.; La., Ala., Ga.

Genus TEMNOSTOMA Lepeletier and Serville

Temnostoma Lepeletier and Serville *in* Latreille et al., 1828: 518. Type-species, *Milesia bombylans* Fabricius (Coquillett, 1910b: 612).

REFERENCES: Curran, 1930j (key), 1939d (rev.); Shannon, 1939 (rev.); Krivosheina and Mamajev, 1962 (immature stages).

acrum Curran, 1939d: 2.—Conn.; Man. to N.S., s. to Kans. and Va.
bombylans, authors, in part, not Fabricius.

alternans Loew, 1864a: 68 (Cent. 5, no. 37).—Pa.; Sask. to N.S., s. to Ohio and Ga.

balyras (Walker), 1849: 577 (*Syrphus*).—N.Y.; Man. to N.B., s. to Miss. and Ga.
bombylans, authors, in part, not Fabricius.

barberi Shannon, 1939: 219.—N.C.; Minn. to Maine, s. to Ill. and Fla.

excentricum (Harris), 1862: 609 (*Milesia*).—Mass.; Wis. to Que., s. to Tenn. and N.C.

obscurum Loew, 1864a: 67 (Cent. 5, no. 35).—Sask.; B.C., Mich., Ont., Que.

pictulum Williston, 1887c: 251.—Pa.; Ohio to N.Y., s. to Miss. and Fla.
greenei Shannon, 1939: 221.—Md. **N. syn.**

trifasciatum Robertson, 1901: 285.—Ill.; Minn. to Que., s. to Tenn. and Fla.

venustum Williston, 1887c: 253.—N.H.; Mich. to Que., s. to N.C.
nipigonense Curran, 1923m: 269.—Ont. **N. syn.,** J. R. Vockeroth *in litt.*

vespiforme (Linnaeus), 1758: 593 (*Musca*).—Europe; Alaska to Que., s. to N. Mex. and Tenn.
aequale Loew, 1864a: 68 (Cent. 5, no. 36).—Ont.
apiforme, authors, not Fabricius.

Genus MILESIA Latreille

Milesia Latreille, 1804: 194. Type-species, *Musca diophthalma* Linnaeus (Rondani, 1844b: 455).

Sphixea Rondani, 1844b: 455. Type-species, *Eristalis fulminans* Fabricius (mon.) = *semiluctifera* (Villers).

Sphyxea, error.

REFERENCE: Hull, 1924 (rev.).

bella Townsend, 1897a: 142.—N. Mex.; Ariz.
mida Moodie, 1905: 138.—Ariz.

scutellata Hull, 1924: 280.—Miss.; La. to N.C. and Fla.

virginiensis (Drury), 1773: 71, pl. 37, fig. 6 (index to vol. 2, p. [2]) (*Musca*).—Va.; Minn. to Ont., s. to Tex. and Fla.
trifasciatus Hausmann, 1799: 37 (*Syrphus*).—N. Amer.
ornata Fabricius, 1805: 188.—Carolina.
fulvifrons Bigot, 1883a: 341 (*Sphixea*).—Ga.

Tribe CERIOIDINI

In the tribe Cerioidini we find some of the most remarkable examples of the mimicry of Hymenoptera in the Diptera, bringing to a climax a tendency, which has been expressed in different degrees in various tribes and genera of Syrphidae. The larvae of *Ceriana* have been found in the exuding sap of ulcerated trees.

REFERENCE: Shannon, 1925b (rev.).

Genus CERIANA Rafinesque

Ceria Fabricius, 1794: 277 (preocc. Scopoli, 1763). Type-species, *clavicornis* Fabricius (Latreille, 1810: 443) = *conopsoides* (Linnaeus).

Cina Fabricius, 1798: 557. Unavailable name cited in generic synonymy.

Ceriana Rafinesque, 1815: 131 (n. name for *Ceria* Fabricius). Type-species, *Ceria clavicornis* Fabricius (aut.) = *conopsoides* (Linnaeus).

Cerioides Rondani, 1850b: 211. Unavailable name cited in synonymy of *Sphiximorpha* Rondani.

Ceriodes, error.

Sphiximorpha Rondani, 1850b: 212. Type-species, *Ceria subsessilis* Illiger (orig. des.).

Sphyximorpha, error.

Because there is conflicting usage between *Cerioides* and *Sphiximorpha*, it is preferable to change to the correct name under the rules, *Ceriana*, hitherto unused.

REFERENCES: Curran, 1925k (rev.), 1941 (key); Goffe, 1945a (syn.).

abdominalis (Curran), 1925k: 26 (*Cerioides*).—Ariz. **N. comb.**

aldrichi (Hull), 1935b: 99 (*Cerioides*).—Calif. **N. comb.**

cylindrica (Curran), 1921c: 175 (*Ceria*).—Calif. **N. comb.**

durani (Shannon), 1925b: 62 (*Cerioides*).—Calif. (unpublished). **N. comb.**

durani Davidson, 1926: 40 (*Cerioides*).—Calif. **N. syn., n. comb.**

loewii (Williston), 1887c: 260 (*Ceria*).—Ariz. **N. comb.**

ontarioensis (Curran), 1921c: 174 (*Ceria*).—Ont.; Wis., Md. **N. comb.**

schnablei (Williston), 1892b: 76 (*Ceria*).—Mexico (V.C.); Tex. **N. comb.**

signifera (Loew), 1853: 18 (*Ceria*).—Mexico; Minn. to N.Y. and Mass., s. to Tex., Mexico, and Fla. **N. comb.**
willistoni Kahl, 1897: 141 (*Ceria*).—Kans. **N. comb.**

Genus TENTHREDOMYIA Shannon

Tenthredomyia Shannon, 1925b: 50. Type-species, *Ceria abbreviata* Loew (orig. des.).

abbreviata (Loew), 1864a: 75 (Cent. 5, no. 48) (*Ceria*).—Pa.; B.C. and N.W.T. to Que., s. to Colo. and Fla.
proxima Curran, 1924o: 228 (*Cerioides*).—Ont.
mime Hull, 1935b: 100.—La.
pictula (Loew), 1853: 17 (*Ceria*).—Southern States. Unrecognized.
snowi (Adams), 1904b: 447 (*Sphiximorpha*).—Ariz.; Calif.
tridens (Loew), 1872a: 86 (Cent. 10, no. 57) (*Ceria*).—Calif.; Wash. and Idaho to Calif. and Tex.
ancoralis Coquillett, 1902a: 196 (*Sphiximorpha*).—N. Mex. **N. syn.**

Genus POLYBIOMYIA Shannon

Polybiomyia Shannon, 1925b: 56. Type-species, *schwarzi* Shannon (orig. des.).

REFERENCE: Shannon, 1925b (key).

bellardii Shannon, 1925b: 59.—Tex.
capitis (Curran), 1925k: 27 (*Cerioides*).—Mexico; Tex.
engelhardti Shannon, 1925b: 60.—Ariz.
festiva Hull, 1930c: 178.—Tex.
macquarti Shannon, 1925b: 59 (n. name for *scutellata* Williston).—Mexico; Tex.
scutellata Williston, 1887c: 265 (*Ceria;* preocc. Macquart, 1842).—Mexico.
pedicellata (Williston), 1887c: 264 (*Ceria*).—Mexico; Ariz., Tex., Fla.
reinhardi Hull, 1930c: 180.—Tex.
sayi Shannon, 1925b: 61.—Ariz.
townsendi (Snow), 1895d: 246 (*Ceria*).—N. Mex.; Calif., Ariz., Tex.

Genus MONOCEROMYIA Shannon

Cerioides, subg. **Monoceromyia** Shannon, 1922b: 41. Type-species, *Ceria tricolor* Loew (mon.).

floridensis (Shannon), 1922b: 41 (*Cerioides;* as *tricolor* var.).—Fla.

Tribe MERODONTINI

Genus MERODON Meigen

Lampetia Meigen, 1800: 34. Type-species, *Syrphus clavipes* Fabricius (Coquillett, 1910b: 557). Suppressed by I.C.Z.N., 1963b: 339.

Merodon Meigen, 1803: 274. Type-species, *Syrphus clavipes* Fabricius, as *curvipes* (error by Meigen) (Westwood, 1840: 137).

The phytophagous habits and short-tailed structure of the larvae of *Merodon* warrant the exclusion of this genus from the Eristalini and recognition of a separate tribe along the lines proposed by Goffe (1952: 114). The larvae of the narcissus bulb fly, *Merodon equestris* (Fabricius), a species widely spread by commerce, are important primary pests of Narcissus and other bulbs.

REFERENCES: Hodson, 1932, Doucette et al., 1942 (biol., economics).

equestris (Fabricius), 1794: 292 (*Syrphus*).—Europe; B.C. to Calif., Wis. to N.B. and Ga. Immigrant from Europe.
narcissi Fabricius, 1805: 239 (*Eristalis*).—Europe.
transversalis Meigen, 1822: 354.—Europe.
validus Meigen, 1822: 365.—Europe.

Tribe ERISTALINI

The larvae of Eristalini are aquatic and of the long-tailed type. Those of *Eristalis* and *Helophilus* are very commonly found in large numbers breeding in putrid or stagnant water or in moist excrement, and are called "rat-tailed maggots" or "mousies." Other genera breed in wet rot holes in trees, bromeliads, and other accumulations of water.

Genus HELOPHILUS Meigen

Helophilus Meigen, 1822: 368. Type-species, *Musca pendula* Linnaeus (Curtis, 1832: pl. 429). See *Eristalis* and *Xylota* for discussion of confused nomenclature.

REFERENCE: Curran and Fluke, 1926 (rev.).

Subgenus HELOPHILUS Meigen

alaskensis Fluke, 1949: 50.—Alaska.
borealis Staeger, 1845b: 359.—Greenland; Alaska to Greenland, s. to Oreg., Colo., and N.Y., n. Europe.
glacialis Loew, 1846a: 121.—Labr.

dychei Williston *in* Hunter, 1897: 136.—Alaska.
bruesi Graenicher, 1910b: 40.—Wis.

fasciatus Walker, 1849: 605.—Ont.; B.C. to Que., s. to Calif., Mexico, and Fla.
similis Macquart, 1842: 124 (1842: 64) (preocc. Curtis, 1832).—Ga.
decisus Walker, 1849: 614 (*Eristalis*).—Ont.
sussurans Jaennicke, 1867: 402 (1868: 94).—Ill.

frater (Walker), 1849: 613 (*Eristalis*).—Ont. Unrecognized.

groenlandicus (Fabricius), 1780: 208 (*Tabanus*).—Greenland; Alaska to Greenland, s. to B.C., Colo., and N.H.
bilineatus Curtis, 1835b: lxxviii.—Arctic Amer.
latro Walker, 1849: 607.—Ont., N.S.
androclus Walker, 1849: 612 (*Eristalis*).—Ont.
chalepus Walker, 1852: 247 (*Eristalis*).—Canada.
arcticus, authors, not Zetterstedt.

hybridus Loew, 1846a: 141.—Europe; Alaska to N.S., s. to B.C., Utah, N. Dak., and N.H., Europe.
novaescotiae Macquart, 1847: 76 (1847: 60).—N.S.
latitarsis Hunter, 1897: 134.—Minn.

intentus Curran and Fluke, 1926: 223.—Sask.; Alaska to B.C. and Sask.
pendulus, authors, not Linnaeus.

latifrons Loew, 1863b: 313 (Cent. 4, no. 73).—Nebr.; Alaska to Labr., s. to Calif., Mexico, and Fla.
trivittatus, authors, not Fabricius.

neoaffinis Fluke, 1949: 49.—Alaska.

obscurus Loew, 1863b: 314 (Cent. 4, no. 74).—Colo.; Alaska to Que., s. to B.C., Colo., and N.Y.

pilosus Hunter, 1897: 137.—B.C. Unrecognized.

stricklandi Curran, 1927f: 90.—Alta.; N.W.T., Man.

Subgenus ANASIMYIA Schiner

Helophilus, subg. **Anasimyia** Schiner, 1864: 108. Type-species, *Musca transfuga* Linnaeus (Coquillett, 1910b: 506).
Lejops, authors, not Rondani.

According to A. A. Stackelberg, *in litt.*, the European *Mallota vittata* Meigen, type-species of *Lejops* Rondani, is subgenerically distinct from any other species formerly placed in this subgenus.

bilinearis Williston, 1887c: 295.—Colo.; Alta. to Que., s. to Colo. and N.J., also Wash.

chrysostomus (Wiedemann), 1830: 174 (*Eristalis*).—Ga.; Minn. to Ont. and Mass., s. to Colo. and Fla.

colei Wirth (for *borealis* Cole).—Alaska (St. Paul I.). **N. name.**
borealis Cole, 1921: 170 (*Pterallastes;* preocc. Staeger, 1845).—Alaska (St. Paul I.). **N. comb.**
distinctus Williston, 1887c: 192.—Conn., Pa., Va.; Wis. to Mass., s. to Va.
grisescens (Hull), 1943c: 31 (*Lejops*).—N.J. **N. comb.**
lunulatus Meigen, 1822: 370.—Europe; Alaska to Que., s. to Wash., Colo., and N.J., Europe.
hamatus Loew, 1863b: 316 (Cent. 4, no. 79).—Hudson Bay Territory.
orion (Hull), 1943e: 51 (*Lejops*).—Miss.; Ga. **N. comb.**
perfidiosus (Hunter), 1897: 139 (*Pterallastes*).—B.C.; Alaska to Man., s. to Calif. and Colo.
relictus (Curran and Fluke), 1926: 256 (*Lejops*).—Ont.; Wis. to N.B., s. to Colo., Miss., and N.C. **N. comb.**

Subgenus PARHELOPHILUS Girschner

Helophilus, subg. **Parhelophilus** Girschner, 1897: 604. Type-species, *Syrphus frutetorum* Fabricius (Curran and Fluke, 1926: 230).

anniae Brimley, 1923: 278.—N.C.; Que. to Ga.
currani (Fluke), 1953a: 128 (*Parhelophilus*).—La. **N. comb.**
divisus Loew, 1863b: 316 (Cent. 4, no. 78).—D.C.; Mich. to Ont., s. to Ind. and Fla.
flavifacies Bigot, 1883a: 344.—Md. ?=*divisus.*
integer Loew, 1863b: 314 (Cent. 4, no. 76).—N.Y.; Ont. and Que. to N.C.
laetus Loew, 1863b: 315 (Cent. 4, no. 77).—N.Y., Wis.; B.C. to Que., s. to N. Mex. and N.C.
aureopilis Townsend, 1895a: 51.—Mich.
obsoletus Loew, 1863b: 314 (Cent. 4, no. 75).—Hudson Bay Territory; Alaska to Ont. and Maine, s. to B.C. and Wis.
porcus (Walker), 1849: 551 (*Eumerus*).—Ont.; B.C. to N.B., s. to Wis. and Md.
rex (Curran and Fluke), 1926: 234 (*Parhelophilus*).—Ont.; B.C. to Ont., s. to Colo. and N.Y. **N. comb.**

Subgenus EURIMYIA Bigot

Eurimyia Bigot, 1883b: xx (as genus). Type-species, *rhingioidis* Bigot (mon.)=*lineatus* (Fabricius).
Eurhimyia, emend. or error.

stipatus Walker, 1849: 602.—N.Y.; Alaska to Que., s. to Wash., Iowa, and N.J.

anausis Walker, 1849: 603.—Ont.

conostomus Williston, 1887c: 193.—Conn., Mass., Ill., Canada.

lineatus, authors, not Fabricius.

Subgenus LUNOMYIA Curran and Fluke

Lunomyia Curran and Fluke, 1926: 252 (as genus). Type-species, *Tropidia cooleyi* Seamans (orig. des.).

brooksi (Curran), 1927f: 90 (*Parhelophilus*).—Man.; Alta., Minn., Wis. **N. comb.**

pollinaria Fluke, 1939: 373 (*Lunomyia*).—Wis. **N. comb.**

cooleyi (Seamans), 1917: 342 (*Tropidia*).—Mont.; Oreg. to Sask., s. to Calif., Colo., and S. Dak.

modestus Williston, 1887c: 192 (preocc. Wiedemann, 1818).—Wyo.

Genus ASEMOSYRPHUS Bigot

Asemosyrphus Bigot, 1882c: cxxviii. Type-species, *oculiferus* Bigot (Aldrich, 1933b: 168)=*mexicanus* (Macquart).

REFERENCES: Curran and Fluke, 1926 (rev.); Curran, 1939c (rev.).

polygrammus (Loew), 1872a: 85 (Cent. 10, no. 55) (*Helophilus*).—Calif.; B.C. to Mont., s. to Calif., Mexico, and Colo.

mexicanus, authors, not Macquart.

Genus ARCTOSYRPHUS Frey

Arctosyrphus Frey, 1918b: 15. Type-species, *nitidulus* Frey (orig. des.).

willingii (Smith), 1912: 118 (*Helophilus*).—Sask.; B.C. and N.W.T. to Man. and N. Dak. **N. comb.**

canadensis Curran, 1922f: 94 (*Asemosyrphus*).—Sask. **N. comb.**

Genus MALLOTA Meigen

Mallota Meigen, 1822: 377. Type-species, *Syrphus fuciformis* Fabricius (Rondani, 1844b: 452).

Imatisma Macquart, 1842: 127 (1842: 67). Type-species, *Eristalis posticatus* Fabricius (orig. des.).

REFERENCES: Curran, 1930j, 1940 (keys), 1953b (syn.).

albipilis Snow, 1895d: 244.—N. Mex.; Kans., Tex.
diversipennis Curran, 1922d: 16.—Unknown (?Canada). **N. syn.,** J. R. Vockeroth *in litt.*
bautias (Walker), 1849: 600 (*Merodon*).—Ga.; Wis. to Que., s. to Colo., Tex., and Fla.
facialis Hunter, 1896a: 100.—Nebr. **N. syn.,** J. R. Vockeroth *in litt.*
flavoterminata Jones, 1917: 228.—Colo.
cimbiciformis, authors, not Fallén.
dentipes Williston *in* Lintner, 1883: 211 (as *cimbiciformis* var.). Nomen nudum.
bequaerti Hull, 1956: 24.—Tex.; Ariz., Mexico.
bipartita (Walker), 1849: 599 (*Merodon*).—Ga. Unrecognized.
illinoensis Robertson, 1901: 284.—Ill.; Nebr., Kans., Wis., ?N.C.
mississippensis Hull, 1946: 268.—Miss.
palmerae Jones, 1917: 229.—Colo.; N. Mex.
posticata (Fabricius), 1805: 237 (*Eristalis*).—Carolina; Minn. to Que., s. to Kans. and Fla.
coactus Wiedemann, 1830: 165 (*Eristalis*).—Unknown.
balanus Walker, 1849: 600 (*Merodon*).—N.Y.
barda (in part) Say, 1829: 163 (1859b: 357) (*Milesia*). Male only.
sackeni Williston, 1882a: 324.—Wash. Territory; B.C., Wash., Oreg., Idaho, Utah.
columbiae Curran, 1922d: 15.—B.C.
separata Hull, 1945a: 184.—Miss.

Genus POLYDONTOMYIA Williston

Polydonta Macquart, 1850: 448 (1850: 144) (preocc. Fischer, 1807). Type-species, *bicolor* Macquart (orig. des.)=*curvipes* (Wiedemann).
Triodonta Williston, 1885b: 136 (n. name for *Polydonta* Macquart, but preocc. Bory, 1827). Type-species, *Polydonta bicolor* Macquart (aut.)=*curvipes* (Wiedemann).
Polydontomyia Williston, 1896a: 89. Type-species, *Merodon curvipes* Wiedemann (Coquillett, 1910b: 593).

curvipes (Wiedemann), 1830: 149 (*Merodon*).—N. Amer.; Alaska to Man., s. to Calif., Mexico, and Nebr., also e. Que. and N.S., s. to N.J.
albiceps Macquart, 1846: 260 (1846: 132) (*Helophilus*).—N.S.
morosus Walker, 1849: 599 (*Merodon*).—N.S.
bicolor Macquart, 1850: 448 (1850: 144) (*Polydonta*).—N.S.

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Genus MEROMACRUS Rondani

Plagiocera Macquart, 1842: 119 (1842: 59) (preocc. Klug, 1834). Type-species, *Milesia crucigera* Wiedemann (Coquillett, 1910b: 591) = *acutus* (Fabricius).

Meromacrus Rondani, 1848: 70. Type-species, *ghiliani* Rondani (mon.).

REFERENCE: Hull, 1942a (rev.).

acutus (Fabricius), 1805: 189 (*Milesia*).—Carolina; Va. to Fla. and Tex., Neotropical.

crucigera Wiedemann, 1830: 105 (*Milesia*).—Ga.

draco Hull, 1942a: 3.—Guatemala; Ariz., Tex., Cent. Amer.

gloriosus Hull, 1941a: 166.—N. Mex.; Tex.

ruficrus (Wiedemann), 1830: 105 (*Milesia*).—Cuba; Fla., Jamaica.

Genus ERISTALIS Latreille

Tubifera Meigen, 1800: 34. Type-species, *Musca tenax* Linnaeus (Coquillett, 1910b: 618). Suppressed by I.C.Z.N., 1963b: 339.

Elophilus Meigen, 1803: 274. Type-species, *Musca tenax* Linnaeus (as *Eristalis tenax* Fabricius; Latreille, 1810: 443).

Elophila Meigen, 1804: xx, error.

Helophila Fabricius, 1805: 232, error. In specific synonymy of *Eristalis flavicinctus*.

Helophilus Fabricius, 1805: 233, 234, 238, error. In specific synonymies of *Eristalis pendulus*, *nemorum*, and *tenax*.

Helophilus Leach *in* Brewster, 1817: 159, emend.

Eristalis Latreille, 1804: 194. Type-species, *Musca tenax* Linnaeus (Curtis, 1832: pl. 432).

Eristaloides Rondani, 1844b: 453. Type-species, *Musca tenax* Linnaeus (Coquillett, 1910b: 540).

Eristalomya Rondani, 1857: 38. Type-species, *Musca tenax* Linnaeus (orig. des.).

Eristalomyia, error or emend.

An application should be prepared for submission to the I.C.Z.N. to suppress *Elophilus* Meigen, 1803, and the emendation *Helophilus* Leach, 1817, because of possible confusion with the valid genus *Helophilus* Meigen, 1822, and to preserve the long and almost universal usage of *Eristalis* Latreille in syrphid literature by placing this name on the Official List of Generic Names.

REFERENCES: Hull, 1925b (rev.); Curran, 1930d (key); Goffe, 1944b (nomenclature); Telford, 1949 (key); Bean, 1949 (rev., male genitalia).

Subgenus ERISTALIS Latreille

agrorum (Fabricius), 1787: 335 (*Syrphus*).—West Indies; La., Fla., Neotropical.
cubensis Macquart, 1842: 102 (1842: 42).—Cuba.
albifrons Wiedemann, 1830: 189.—Brazil; La. to Fla. and N.C., Neotropical.
albiceps Macquart, 1842: 116 (1842: 56).—Carolina.
alhambra Hull, 1925b: 39.—Calif.; Ariz.
anthophorinus (Fallén), 1817a: 28 (*Syrphus*).—Europe; Alaska to Maine, s. to Calif., N. Mex., and Mass., Europe.
anthorinus, error.
montanus Williston, 1882a: 322.—Wyo.
perplexus Hull, 1925b: 22 (as var.).—Unknown.
arbustorum (Linnaeus), 1758: 591 (*Musca*).—Europe; Wis. to Labr., s. to Kans. and S.C. Immigrant.
bardus (Say), 1829: 163 (1859b: 357) (*Milesia*).—Ind.; Alaska to N.B., s. to Calif., Colo., and N.C. ?=*oestraceus*.
flavipes Walker, 1849: 633.—Ont., N.S.
melanostomus Loew, 1866a: 173 (Cent. 6, no. 69).—Oreg., Minn.
var. **rufipilis** Hull, 1925b: 23 (as *flavipes* var.).—Alaska, Oreg., Idaho, Wis.
basilaris Macquart, 1834a: 502.—Ga. Unrecognized.
bastardii Macquart, 1842: 95 (1842: 35).—N. Amer.; Alta. to Nebr., s. to Ill. and Va.
nebulosus Walker, 1849: 616.—Ont., N.S., N.Y.
semimetallicus Macquart, 1850: 444 (1850: 140).—N.S.
bellardii Jaennicke 1867: 400 (1868: 92).—Mexico; Ariz., Neotropical.
beltrami Telford, 1949: 40.—Unknown. Unrecognized.
brousii Williston, 1882a: 323.—Mass.; Alaska to N. S., s. to B.C., N. Mex., and Va.
androclus, authors, not Walker.
meigenii, authors, not Wiedemann.
compactus Walker, 1849: 619.—Ont.; Alaska to N.S., s. to Colo. and N.H.
atriceps Loew, 1866a: 169 (Cent. 6, no. 64).—N.H.
dimidiatus Wiedemann, 1830: 180.—N. Amer.; Alta. to N.S., s. to Kans. and N.C.
niger Macquart, 1834a: 505.—N. Amer.
chalybeus Macquart, 1842: 115 (1842: 55).—Carolina.
lherminierii Macquart, 1842: 115 (1842: 55).—Carolina.
inflexus Walker, 1849: 617.—Ont., N.S.
incisuralis Macquart, 1850: 443 (1850: 139).—N. Amer.

duncani Curran, 1935b: 7.—Ariz.; Calif., Nev.

everes Walker, 1852: 246.—N. Amer. Unrecognized.

hirtus Loew, 1866a: 170 (Cent. 6, no. 66).—Calif.; Alaska to Wis., s. to Calif., N. Mex., and Kans.

temporalis Thomson, 1869: 490.—Calif.

alpha Hull, 1925b: 299 (as *temporalis* var.).—Alta.

beta Hull, 1925b: 299 (as *temporalis* var.).—Alta.

inflatus Macquart, 1834a: 507.—N. Amer. Unrecognized.

inornatus Loew, 1866a: 172 (Cent. 6, no. 68).—Man.; B.C. to Nfld., s. to Nebr. and Maine.

latifrons Loew, 1866a: 169 (Cent. 6, no. 65).—Mexico; B.C. to N.S., s. to Calif., Mexico, and Fla.

stipator Osten Sacken, 1877: 336.—Calif., N. Mex., Colo.

maculipennis Townsend, 1897e: 93 (as var.).—N. Mex.

mellissoides Hull, 1925b: 19.—B.C.; Oreg.

nemorum (Linnaeus), 1758: 591 (*Musca*).—Europe; Wash. and Oreg. to Que., s. to Colo. and Conn., Eurasia.

neomorum, error.

nitidus Wehr, 1922b: 151 (=p. 33) (preocc. Wulp, 1884).—Colo. Unrecognized, and therefore not renamed here because of possible synonymy with older species.

obscurus Loew, 1866a: 171 (Cent. 6, no. 67).—Man.; Alaska to Que., s. to Wash., N. Mex., and Mich.

occidentalis Williston, 1882a: 322.—Wash. Territory; Alaska to Minn., s. to Calif.

oestraceus (Linnaeus), 1758: 592 (*Musca*).—Europe; Colo., Ont.

oestriformis Walker, 1849: 573 (*Syrphus*).—Ont.

parens Bigot, 1880a: 216.—N. Amer. Unrecognized.

pilosus Loew, 1866a: 174 (Cent. 6, no. 70).—Greenland; Alaska, N.W.T., Man., Labr.

pusillus Macquart, 1842: 114 (1842: 54).—Mexico; Tex., Neotropical.

tricolor Jaennicke, 1867: 400 (1868: 92).—Mexico.

rufiventris Macquart, 1846: 257 (1846: 129).—Colombia; Tex., Neotropical.

rupium Fabricius, 1805: 241.—Europe; B.C. to N.Y., s. to Oreg. and Colo.

saxorum Wiedemann, 1830: 158.—Ga.; Wyo. to N.Y., s. to Colo. and Fla.

pervagus Walker, 1849: 618.—U.S.

scutellaris (Fabricius), 1805: 190 (*Milesia*).—S. Amer.; N. Mex., Neotropical.

rileyi Williston, 1887c: 178 (*Doliosyrphus*).—N. Mex.

tenax (Linnaeus), 1758: 591 (*Musca*).—Europe; Alaska to Labr., s. to Calif. and Fla., cosmopolitan. Immigrant

testaceicornis Macquart, 1850: 442 (1850: 138).—Mexico; Calif., Ariz., Neotropical.
obsoletus, authors, not Wiedemann.
texanus Hull, 1925b: 28.—Tex.; Calif., N. Mex., Fla.
transversus Wiedemann, 1830: 188.—N. Amer.; Mont. to N.S., s. to Utah, Tex., and Fla.
vittatus Macquart, 1834a: 307.—N. Amer.
philadelphicus Macquart, 1842: 94 (1842: 34).—N. Amer.
pumilus Macquart, 1842: 117 (1842: 57).—N. Amer.
zonatus Bigot, 1880a: 217.—N. Amer.
triangularis Giglio-Tos, 1892c: 6.—Mexico; Calif., Neotropical.
vinetorum (Fabricius), 1798: 562 (*Syrphus*).—West Indies; Wis. to Pa., s. to Tex. and Fla., Neotropical.

Subgenus LATHYROPHTHALMUS Mik

Lathyrophthalmus Mik, 1897: 114 (as genus). Type-species, *Conops aeneus* Scopoli (orig. des.).

aeneus (Scopoli), 1763: 356 (*Conops*).—Europe; Calif. to Minn. and Ont., s. to Tex. and Va., Eurasia, Africa, Bermuda, Hawaii.
cuprovittatus Wiedemann, 1830: 190.—N. Amer.
sincerus Walker, 1849: 611.—U.S.

Unplaced Species of Syrphidae

americana Swederus, 1787: 288 (*Musca;* preocc. Fabricius, 1775).—N. Amer. ?=*Eristalis bardus*.
tomentosa Osten Sacken, 1878c: 136 (*Musca*). Nomen nudum, error for *Musca* (*Syrphus*) *americana* Swederus in catalog citation.
bicruciatum Bigot, 1884a: 79 (?*Melanostoma*).—Calif.
monoculus Swederus, 1787: 287 (*Musca*).—N. Amer.
sexmaculatus Palisot de Beauvois, 1819: 224 (*Syrphus*).—Hispaniola, Southern States.
vivax Fabricius, 1780: 206 (*Musca*).—Greenland.

Family CONOPIDAE

By Sidney Camras

Conopids are solitary internal parasites, mainly of Hymenoptera. The adults, often called thick-headed flies, are common on flowers.

References: Kröber, 1919a, b, (biol., cat., keys); Parsons, 1948 (synopsis, N. Amer.); Camras and Hurd, 1957 (keys, Calif.).

Subfamily CONOPINAE

Tribe CONOPINI

Genus CONOPS Linnaeus

Conops Linnaeus, 1758: 604. Type-species, *flavipes* Linnaeus (Curtis, 1831: pl. 377).

REFERENCE: Camras, 1955 (rev.).

Subgenus ASICONOPS Chen

Conops, subg. **Asiconops** Chen, 1939: 170. Type-species, *aureomaculatus* Kröber (orig. des.).

bermudensis Parsons, 1940: 28.—Bermuda.

Genus PHYSOCONOPS Szilády

Physoconops Szilády, 1926b: 588. Type-species, *Conops brachyrhynchus* Macquart (orig. des.; misident.) = *obscuripennis* (Williston).

REFERENCE: Camras, 1955 (rev.).

Subgenus PACHYCONOPS Camras

Physoconops, subg. **Pachyconops** Camras, 1955: 161. Type-species, *Conops bulbirostris* Loew (orig. des.).

brachyrhynchus (Macquart), 1843a: 172 (1843: 15) (*Conops*).—N. Amer.; Wyo. to Mass., s. to N. Mex., Mexico, and Fla.

xanthopareus Williston, 1882c: 332 (*Conops*).—Tex., Mass., Conn.

xanthostomus (error) Banks, 1916: 200.

fenestratus Kröber, 1915b: 134 (*Conops*).—Nebr.

bulbirostris (Loew), 1853: 30 (*Conops*).—N. Amer. (Osten Sacken, 1878c: 140); Ind. to N.J., s. to Tex. and Fla., mainland s. to Paraguay.

excisus (Wiedemann), 1830: 234 (*Conops*).—Ga.; Colo. to N.Y., s. to Okla. and Fla.

sugens Wiedemann, 1830: 236 (*Conops*).—Unknown.

floridanus Camras, 1955: 163.—Fla.; N.C.

gracilis (Williston), 1885e: 377 (*Conops*).—Ariz.; Calif. and Colo. s. to Mexico and Tex., also Colombia.

townsendi Camras, 1955: 170 (n. name for *auratus* Townsend).—N. Mex.; Calif., Ariz., Tex.

auratus Townsend, 1901: 161 (*Conops;* preocc. Walker, 1871). N. Mex.

Subgenus GYROCONOPS Camras

Physoconops, subg. **Gyroconops** Camras, 1955: 174. Type-species, *Conops sylvosus* Williston (orig. des.).

sylvosus (Williston), 1882c: 329 (*Conops*).—Mass., Conn.; Colo. to N.H., s. to Calif., Mexico, and Fla.
arizonicus Banks, 1916: 191 (*Conops*).—Ariz.

Subgenus PHYSOCONOPS Szilády

analis (Fabricius), 1805: 175 (*Conops*).—S. Amer.; Tex. to Paraguay.
angustifrons Williston, 1892c: 44 (*Conops*).—Brazil.

discalis (Williston), 1892b: 80 (*Conops*).—Mexico; Utah, Ariz., N. Mex., Kans., Tex., s. to Argentina.
semifuscus Banks, 1916: 192 (*Conops*; as *brachyrhynchus* var.).—N. Mex.

fronto (Williston), 1885e: 378 (*Conops*).—Kans.; Wash. and Alta. to Mass., s. to Calif., Mexico, and Fla.
pulchellus Kröber, 1915b: 134 (*Conops*).—S.C.
argentifacies Van Duzee, 1927a: 574 (*Conops*).—Idaho.
fraterculus Van Duzee, 1927a: 575 (*Conops*).—Idaho.
rubicundulus Van Duzee, 1927a: 576 (*Conops*).—Idaho.

nigrimanus (Bigot), 1887a: 38 (*Conops*).—Ga.; Nebr. to N.J., s. to Tex. and Fla.
striatifrons Kröber, 1915b: 132 (*Conops*).—Ga., Nebr.
limuva Brimley, 1927: 235 (*Conops*).—N.C.

obscuripennis (Williston), 1882c: 328 (*Conops*).—S.C.; B.C. to Mass., s. to Tex. and Fla.
foxi Van Duzee, 1927a: 574 (*Conops*).—Wash.
brachyrhynchus, authors, not Macquart.

Tribe PHYSOCEPHALINI

Genus PHYSOCEPHALA Schiner

Physocephala Schiner, 1861b: 137. Type-species, *Conops rufipes* Fabricius (orig. des.).

REFERENCE: Camras, 1957 (rev.).

burgessi (Williston), 1882c: 337 (*Conops*).—Calif.; B.C. and Alta., s. to Calif. and Tex.
brevirostris Van Duzee, 1927a: 579.—Calif.

floridana Camras, 1957: 214.—Fla.; La., Ga.
analis, authors, not Fabricius.

furcillata (Williston), 1882c: 336 (*Conops*).—N.H.; Alta. to N.S., s. to Wis. and Pa., also Mexico, ?Calif.
lucida Van Duzee, 1931: 284.—Ont.
marginata (Say), 1823: 82 (1859b: 73) (*Conops*).—Mo.; B.C. to N.H., s. to Calif. and Fla.
dakotensis Van Duzee, 1934: 317.—N. Dak.
stylifer Van Duzee, 1934: 318.—N. Dak.
sagittaria (Say), 1823: 83 (1859b: 73) (*Conops*).—Pa.; N. Dak. to Mass., s. to N. Mex. and Fla.
aethiops Walker, 1849: 671 (*Conops*).—N. Amer.
dimidiata Walker, 1852: 254 (*Conops*).—Unknown.
genualis Loew, 1853: 32 (*Conops*).—Ky.
castanoptera Loew, 1853: 33 (*Conops*).—Ga., Carolina.
ruficornis Van Duzee, 1934: 316.—N. Dak.
texana (Williston), 1882c: 338 (*Conops*).—Tex.; B.C. to Que., s. to Mexico, also ?Ga.
affinis Williston, 1882c: 339 (*Conops*).—Wash.
ochreiceps Bigot, 1887a: 39 (*Conops*).—Ga. (?error).
humeralis Van Duzee, 1927a: 580.—Idaho.
simulans Van Duzee, 1927a: 581 (as *humeralis* ssp.).—Calif.
aurifacies Van Duzee, 1927a: 581.—Calif.
buccalis Van Duzee, 1927a: 582.—Utah.
rubida Van Duzee, 1934: 315.—Oreg.
tibialis (Say), 1829: 171 (1859b: 363) (*Conops*).—Ind.; Wis. to Mass., s. to Tex. and Fla.
nigricornis Wiedemann, 1830: 236 (*Conops*).—Pa.
fulvipennis Macquart, 1843a: 170 (1843: 13) (*Conops*).—Ga.
lugubris Macquart, 1843a: 173 (1843: 16) (*Conops*).—Unknown.

Subfamily MYOPINAE

Genus ZODION Latreille

Zodion Latreille, 1796: 162. Type-species, *Myopa cinerea* Fabricius (sub. mon., Latreille, 1802: 444).

REFERENCES: Camras, 1943 and 1944 (rev.).

abitus Adams, 1903a: 33.—Kans., Mass.; Idaho to Que., s. to Ariz. and Fla.
bicolor Adams, 1903a: 35.—Kans.
albonotatum Townsend, 1897c: 175.—Tex.; Ariz., N. Mex., Mexico, Guatemala.

americanum Wiedemann, 1830: 242.—Uruguay; Wash. and Alta. to N.S., s. to Uruguay, also West Indies.
nanellum Loew, 1866b: 42 (Cent. 7, no. 75).—D.C.
pygmaeum Williston, 1885e: 381.—Calif.
albifacies Van Duzee, 1927a: 588.—Ariz.
anale Kröber, 1915a: 113.—Chile; Calif. to Ill. to Ga., s. to Chile.
californicum Camras, 1954: 165.—Calif.
cinereiventre Van Duzee, 1927a: 585.—Calif.; B.C. to P.E.I., s. to Calif. and N.C.
cyanescens Camras, 1943: 188.—N.C.; Ill. to N.J., s. to Miss. and Fla.
fulvifrons Say, 1823: 83 (1859b: 74).—Md., Pa.; Canada, U.S., Mexico.
abdominalis Say, 1823: 84 (1859b: 74).—Nebr.
rubrifrons Robineau-Desvoidy, 1830: 247 (*Myopa*).—Pa.
bistria Walker, 1849: 679 (*Myopa*).—N. Amer.
lativentre Graenicher, 1910a: 26.—Wis.
obscurum Banks, 1916: 194.—Calif.
sayi Banks, 1916: 194.—Va.
reclusum Banks, 1916: 195.—Calif.
bilineata Van Duzee, 1927a: 586.—Oreg.
intermedium Banks, 1916: 193.—Pa.; B.C. to N.S., U.S., Mexico.
occidentale Banks, 1916: 194.—Oreg.
nigrifrons Kröber, 1915a: 97.—Calif.; Oreg.
hirtipes Van Duzee, 1927a: 587.—Calif.
obliquefasciatum (Macquart), 1846: 269 (1846: 141) (*Myopa*).—Tex.; Wash. and Alta. to Wis., s. to Calif. and La., Mexico, Guatemala.
leucostoma Williston, 1885e: 380.—Kans., Ariz., Mont.
tectura Adams, 1903a: 35 (*Myopa*).—Unknown.
perlongum Coquillett, 1902a: 199.—Colo., N. Mex., Mexico; Idaho to Maine, s. to Calif., Mexico, and N.C.
pictulum Williston, 1885e: 379.—N. Mex.; Ariz., Colo.
triste Bigot, 1887a: 203.—Calif.; Wash., Idaho, Utah.

Genus ROBERTSONOMYIA Malloch

Robertsonomyia Malloch, 1919n: 205. Type-species, *Zodion palpalis* Robertson (orig. des.).

REFERENCE: Camras, 1944 (review, in *Zodion*); Parsons, 1948 (synopsis).

palpalis (Robertson), 1901: 284 (*Zodion*).—Ill.; Wyo. to Va., s. to Ariz., Mexico, and Ga.
scapularis Adams, 1903a: 34 (*Zodion*).—Ariz.

parva (Adams), 1903a: 33, 34 (*Zodion*; as *parvis*, p. 34).—Ariz.; Nev., Wyo., and Nebr., s. to Ariz. and N. Mex.
lovetti Van Duzee, 1934: 323 (*Zodion*).—Colo.

Genus MYOPA Fabricius

Myopa Fabricius, 1775: 798. Type-species, *Conops buccatus* Linnaeus (Curtis, 1838: pl. 677). Latreille (1810: 444) designated *Conops ferrugineus* Linnaeus (as "*Myopa ferruginea*, F."), which is the type of *Sicus* Scopoli, 1763, a different genus. Long-standing usage is maintained here, and the case has been submitted to the International Commission on Zoological Nomenclature.
Gonirhyncus Rondani, 1856: 58. Type-species, *dispar* Rondani (orig. des.) = *occulta* Wiedemann.

REFERENCE: Camras, 1953 (rev.).

bohartorum Camras, 1953: 107.—Calif.
castanea (Bigot), 1887a: 207 (*Gonirhyncus*).—Nev.; Calif.
clausa Loew, 1866b: 41 (Cent. 7, no. 72).—Maine; B.C. to Maine, s. to Calif. and Va.
curticornis Kröber, 1916: 32.—Colo., Calif.; Wash. to Wyo., s. to Calif. and Ariz., also Mich.
flavopilosa Kröber, 1916: 30.—Colo.; Alta., Wis. and Ill., sw. to Calif.
varians Banks, 1916: 196 (as *vesiculosa* var.).—Nebr.
longipilis Banks, 1916: 197.—Wash.; B.C. and Utah, sw. to Calif.
melanderi Banks, 1916: 197.—Wash.; Idaho, Oreg., Calif.
perplexa Camras, 1953: 103.—Calif.; Wash. and Idaho, s. to Calif. and Ariz.
plebeia Williston, 1885e: 384.—Ariz.
rubida (Bigot), 1887a: 206 (*Glossigona*).—Colo.; B.C. to Wyo., s. to Calif. and Colo.
aperta Röder, 1889: 5 (as *clausa* var.).—B.C., Nev.
seminuda Banks, 1916: 198.—Oreg.
vesiculosa Say, 1823: 80 (1859b: 72).—Pa.; B.C. to Que., s. to Calif. and Fla.
apicalis Walker, 1849: 679.—N. Amer.
conjuncta Thomson, 1869: 515.—Calif.
maculifrons Bigot, 1887a: 206 (*Glossigona*).—Nev.
utahensis Stains and Knowlton, 1939: 51.—Utah.
vicaria Walker, 1849: 679.—N.S.; Alaska to N.S., s. to Calif. and Ga.
pilosa Williston, 1885e: 383.—Calif.
virginica Banks, 1916: 198.—Va.; S. Dak. to Ont. and Vt., s. to Ark. and N.C.

willistoni Banks, 1916: 197 (n. name for *pictipennis* Williston).—Calif.; Wash., Oreg., Nev., Ariz., Mexico.
pictipennis Williston, 1885e: 382 (preocc. Robineau-Desvoidy, 1830).—Calif.

Genus THECOPHORA Rondani

Thecophora Rondani, 1845a: 15. Type-species, *Myopa atra* Fabricius (Rondani, 1856: 58).
Thecomyia, error.
Occemya Robineau-Desvoidy, 1853a: 92, 130. Type-species, *Myopa atra* Fabricius (orig. des.).
Occemyia and *Oncomyia*, emend.
Eccemyia, error.

REFERENCE: Camras, 1945 (rev.).

abbreviata (Loew), 1866b: 41 (Cent. 7, no. 73) (*Oncomyia*).—D.C.; Utah, Mont. to N.B., s. to Ill. and N.C. **N. comb.**
melanopoda Williston, 1885e: 393 (*Oncomyia;* as *modesta* var.).—N.H.
longicornis (Say), 1823: 81 (1859b: 72) (*Myopa*).—Mo.; Alaska and Y.T. to N.B., s. to Calif. and Ga. **N. comb.**
infuscipes Van Duzee, 1927a: 592 (*Oncomyia*).—Ont.
luteipes (Camras), 1945: 220 (*Occemya*).—Wash.; B.C. to Colo., sw. to Calif. **N. comb.**
modesta (Williston), 1883c: 96 (*Oncomyia*).—Wash.; B.C. to Sask., s. to Calif. and N. Mex. **N. comb.**
basalis Van Duzee, 1927a: 586 (*Zodion*).—Idaho. **N. syn., n. comb.**
nigra (Van Duzee), 1927a: 596 (*Oncomyia*).—Oreg.; Wash., Idaho, Calif., N. Mex., Maine. **N. comb.**
nigripes (Camras), 1945: 218 (*Occemya*).—Ont.; B.C. to N.S., s. to Mexico and Ga., Guatemala. **N. comb.**
occidensis (Walker), 1849: 676 (*Zodion*).—Ohio; Y.T., B.C. to Que., s. to Calif., Mexico, and Ga. **N. comb.**
loraria Loew, 1866b: 41 (Cent. 7, no. 74) (*Oncomyia*).—N.H.
baroni Williston, 1883c: 97 (*Oncomyia*).—Calif.
brevirostris Van Duzee, 1927a: 593 (*Oncomyia*).—Wash.
aequalis Van Duzee, 1927a: 594 (*Oncomyia*).—Calif.
terminalis Van Duzee, 1927a: 594 (*Oncomyia*).—Oreg.
bimacula Curran, 1933b: 7 (*Zodion*).—Ont.
frontalis Van Duzee, 1934: 322 (*Oncomyia*).—Wash.

propinqua (Adams), 1903a: 32 (*Oncomyia*).—Unknown; B.C. to N.S., s. to Calif. and Ala. **N. comb.**
angusticornis Van Duzee, 1927a: 589 (*Zodion*).—Calif.
angusticornis Van Duzee, 1927a: 595 (*Oncomyia*).—Idaho.
longipalpis Van Duzee, 1934: 321 (*Oncomyia*).—Wash.

Subfamily DALMANNIINAE

Genus DALMANNIA Robineau-Desvoidy

Dalmannia Robineau-Desvoidy, 1830: 248. Type-species, *Myopa punctata* Fabricius (Rondani, 1856: 59).

REFERENCE: Bohart, 1938 (rev.).

blaisdelli Cresson, 1919: 190.—Colo.; Oreg., Calif., Idaho, Wyo.
heterotricha Bohart, 1938: 134.—Calif.
nigriceps Loew, 1866b: 40 (Cent. 7, no. 71).—Va.; Colo. to Que., s. to Ga.
pacifica Banks, 1916: 199.—Oreg.; Calif., Utah.
hirsuta Van Duzee, 1927a: 591.—Oreg.
picta Williston, 1883c: 94.—N. Mex.; B.C. to Colo., s. to Calif. and N. Mex.
vitiosa Coquillett, 1892e: 150.—Calif.; Idaho to N.H., s. to Calif. and Ga.

Subfamily STYLOGASTRINAE

Genus STYLOGASTER Macquart

Stylogaster Macquart, 1835: 38. Type-species, *Conops stylatus* Fabricius (mon.).
Stylomyia Westwood, 1852: 268. Type-species, *leonum* Westwood (Coquillett, 1910b: 610).

REFERENCES: Aldrich, 1930b (rev.); Curran, 1942a (rev.).

biannulata (Say), 1823: 81 (1859b: 72) (*Myopa*).—Pa.; Nebr. to R.I., s. to Tex. and Fla.
confusa Westwood, 1852: 269 (*Stylomyia*).—Unknown.
stylata, authors, not Fabricius.
neglecta Williston, 1883c: 91.—Conn.; Nebr. to Mass., s. to Ariz. and Ga.

Unplaced Species of Conopidae

flaviceps Macquart, 1843a: 172 (1843: 15) (*Conops*).—N. Amer.

Division SCHIZOPHORA
Section ACALYPTRATAE
Superfamily MICROPEZOIDEA

Family MICROPEZIDAE

(Tylidae, Calobatidae)

By George C. Steyskal

The family Micropezidae is of cosmopolitan distribution, but largely in the Tropics. The biology of the few species for which it is known indicates saprophagous habits.

Cardiacephala triluminata Cresson, *Grallipeza nigrinotata* Hennig, and *G. ornatithorax* (Enderlein), all described from South America, have not been included. The known distribution of these species indicates that the single records of the first from Pennsylvania and of the others from California are based on mislabeled specimens.

REFERENCES: Hennig, 1934, 1935a,b, 1936 (rev., biol.); Cresson, 1938a (rev., biol.); Aczél, 1951 (anat.).

Subfamily CALOBATINAE

Genus CNODACOPHORA Czerny

Trepidaria, subg. **Cnodacophora** Czerny, 1930b: 4. Type-species, *Calobata adusta* Loew (Cresson, 1938a: 343).

nasoni (Cresson), 1914c: 459 (*Calobata*).—Ill.; Alaska, Wash. and Alta. to Que., s. to Colo. and N.Y.

Genus COMPSOBATA Czerny

Trepidaria, subg. **Compsobata** Czerny, 1930b: 5. Type-species, *Musca cibaria* Linnaeus (Cresson, 1938a: 332).

Paracalobata, authors, not Hendel.

Subgenus COMPSOBATA Czerny

univitta (Walker), 1849: 1049 (*Calobata*).—N.Y., Ont.; B.C. to Que., s. to Calif., N. Mex., Ill., Md. **N. comb.**

univittata, error or emend.

albiceps Wulp, 1883: 50 (*Calobata*).—Que.

agilis Harris, 1835: 600 (*Calobata*). Nomen nudum.

Subgenus TRILOPHYROBATA Hennig

Trepidaria, subg. **Trilophyrobata** Hennig, 1938a: 9. Type-species, *commutata* Czerny (orig. des.).

kennicotti (Banks), 1926: 43 (*Calobata*).—Man.; Mich. **N. comb.**

microfulcrum (James), 1946: 129 (*Paracalobata*).—Colo.; Ariz. **N. comb.**

mima (Hennig), 1936: 134 (*Trepidaria*).—Colo., Alta., Wash.: B.C. to Sask., s. to Calif. and Colo. **N. comb.**

pallipes (Say), 1823: 97 (1859b: 84) (*Calobata*).—Mo.; Alaska, Alta. to N.B., s. to Nev., Mo., and N.J. **N. comb.**

alesia Walker, 1849: 1048 (*Calobata*).—Ont. **N. comb.**

Subfamily MICROPEZINAE

Genus MICROPEZA Meigen

Tylos Meigen, 1800: 31. Type-species, *Musca corrigiolata* Linnaeus (Coquillett, 1910b: 618). Suppressed by I.C.Z.N., 1955b: 267.

Micropeza Meigen, 1803: 276. Type-species, *Musca corrigiolata* Linnaeus (mon.).

Subgenus MICROPEZA Meigen

abnormis Cresson, 1938b: 72.—Ariz.

ambigua Cresson, 1908: 3 (as *turcana* var.).—N. Mex.; Calif., Ariz.

atra Cresson, 1938b: 74.—Ariz.; N. Mex.

compar Cresson, 1938b: 73.—Ariz.; N. Mex.

lineata Van Duzee, 1926e: 2.—Utah; Alta. to Man., s. to Calif., N. Mex., and Nebr.

nitidor Cresson, 1938a: 319 (n. name for *nitidus* Hennig).—Ariz.

nitidus Hennig, 1936: 212 (*Tylos*; preocc. Robineau-Desvoidy, 1830).—Ariz.

setaventris Cresson, 1938b: 74.—Utah; Utah and N. Dak., s. to Calif. and N. Mex.

turcana Townsend, 1893c: 136.—Ariz.; Alta. to Man., s. to Ariz. and Kans.

jamesi Cresson, 1935b: 229.—Colo.

ventralis Cresson, 1930c: 356.—Mexico (D.F.); Ariz.

Subgenus NERIOCEPHALUS Enderlein

Neriocephalus Enderlein, 1922a: 160 (as genus). Type-species, *Micropeza appendiculata* Schiner (orig. des.).

Metopobrachia Enderlein, 1922a: 161. Type-species, *Micropeza obscura* Bigot (orig. des.).

Cliopeza Enderlein, 1922a: 162. Type-species, *Calobata pectoralis* Wiedemann (orig. des.).
Tylus, subg. *Neotylus* Hendel, 1932b: 121. Type-species, *Micropeza brasiliensis* Schiner (orig. des.).
Tylos, subg. *Protylos* Aczél, 1949: 238. Type-species, *Micropeza stigmatica* Wulp (orig. des.).

bisetosa Coquillett, 1902e: 177.—Ariz.; N. Mex.
californica Van Duzee, 1926e: 1.—Calif.
producta Walker, 1849: 1056.—Ga.; Fla., Cuba, Panama.
ruficeps Wulp, 1897: 365.—Mexico (Son.); Calif., Ariz.
flaviventris Cole, 1923a: 477.—Baja Calif.
stigmatica Wulp, 1897: 366.—Mexico; Ariz., Kans., Tex., s. to Argentina.
texana Cresson, 1938b: 75.—Tex.

Subfamily TAENIAPTERINAE

Genus CALOBATINA Enderlein

Calobatina Enderlein, 1922a: 194.—Type-species, *texana* Enderlein (orig. des.).
Meganeria Cresson, 1926: 271. Type-species, *geometroides* Cresson (orig. des.).

geometra (Robineau-Desvoidy), 1830: 736 (*Neria*).—Carolina. Unrecognized.
geometroides (Cresson), 1926: 271 (*Meganeria;* n. name for *varipes* Johnson).—Fla.; Mo. and Ky., s. to Tex. and Fla.
varipes Johnson, 1895a: 306 (*Calobata;* preocc. Walker, 1856).—Fla.
texana Enderlein, 1922a: 194.—Tex.; Pa.
daeckei Cresson, 1926: 272 (*Meganeria*).—Pa.

Genus GRALLIPEZA Rondani

Grallipeza Rondani, 1850a: 180. Type-species, *Calobata unimaculata* Macquart (orig. des.).
Systellapha Enderlein, 1922a: 189. Type-species, *ornatithorax* Enderlein (orig. des.).

nebulosa (Loew), 1866b: 48 (Cent. 7, no. 89) (*Calobata*).—Fla.; Ga., La., Haiti, Cuba, Costa Rica.
baracoa Cresson, 1926: 265 (*Systellapha*).—Cuba.

Genus HOPLOCHEILOMA Cresson

Hoplocheiloma Cresson, 1926: 272. Type-species, *Musca fasciata* Fabricius (orig. des.).

Gymnosphen Frey, 1927: 71. Type-species, *macropyga* Frey (orig. des.).

fasciatum (Fabricius), 1775: 781 (*Musca*).—West Indies; Fla. to Brazil.

Genus RAINIERIA Rondani

Rainieria Rondani, 1843: 40. Type-species, *Calobata calceata* Fallén (orig. des.).

Tanipoda Rondani, 1856: 116. Type-species, *Calobata calceata* Fallén (orig. des.).

Tanypoda, emend.

antennaepes (Say), 1823: 97 (1859b: 83) (*Calobata*).—Pa.; Alta. to N.S., s. to Tex. and Fla.

antennipes, error or emend.

var. **brunneipes** (Cresson), 1938b: 76 (*Taeniaptera;* as sp.).—D.C.; Ont. to Que., s. to Mich. and Va.

Genus TAENIAPTERA Macquart

Taeniaptera Macquart, 1835: 491. Type-species, *trivittata* Macquart (mon.).

Grallopoda Rondani, 1850a: 178, 180. Type-species, *Calobata albimana* Macquart (orig. des.)=*trivittata* Macquart.

Grallomya Rondani, 1850a: 180. Type-species, *Calobata tarsata* Wiedemann (orig. des.).

lasciva (Fabricius), 1798: 564 (*Musca*).—French Guiana; Calif., Tex., Ga., Fla., Neotropical.

trivittata Macquart, 1835: 491.—N. Amer.; N.Y. to Fla. and Tex., also Mich.

albimana Macquart, 1843a: 402 (1843: 245) (*Calobata*).—Pa. (here restricted; Java, Australia, Cuba also in the mixed series).

valida Walker, 1852: 390 (*Calobata*).—U.S.

divaricata Cresson, 1914c: 459.—Ga.

Unplaced Species of Micropezidae

atripes Robineau-Desvoidy, 1830: 738 (*Neria*).—Carolina.

carolinensis Robineau-Desvoidy, 1830: 738 (*Neria*).—Carolina.

Family NERIIDAE

By George C. Steyskal

The family Neriidae, largely tropical, is closely related to the Micropezidae. *Odontoloxozus* has been reared in Texas from decaying roots of papaya.

REFERENCES: Hennig, 1937 (rev.).; Cresson, 1938a (rev.); Aczél, 1951 (anat.).

Genus ODONTOLOXOZUS Enderlein

Odontoloxozus Enderlein, 1922a: 158. Type-species, *punctulatus* Enderlein (orig. des.)=*longicornis* (Coquillett).

longicornis (Coquillett), 1904f: 188 (*Nerius*).—Tex.; Calif., Ariz., Mexico, Costa Rica.
punctulatus Enderlein, 1922a: 158.—Mexico.

Genus ONCOPSIA Enderlein

Oncopsia Enderlein, 1922a: 152. Type-species, *mexicana* Enderlein (orig. des.)=*flavifrons* (Bigot).
Cerantichir Enderlein, 1922a: 155. Type-species, *Nerius flavifrons* Bigot (orig. des.).
Brachycrotaphus Czerny, 1932: 301. Type-species, *Nerius flavifrons* Bigot (orig. des.).

flavifrons (Bigot), 1886a: 372 (*Nerius*).—Mexico; Ariz., Neotropical.
mexicana Enderlein, 1922a: 153.—Mexico.

Superfamily NOTHYBOIDEA

Family DIOPSIDAE

By Curtis W. Sabrosky

The small family Diopsidae, including the curious stalk-eyed flies, is confined to the Old World Tropics except for one relict species in eastern North America. Little is known of the habits, but apparently the larvae breed in decaying plant material. Adults of our species are usually collected near water, sitting on rocks or on skunk cabbage or other vegetation.

REFERENCE: Lavigne, 1962 (biol., immature stages).

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Genus SPHYRACEPHALA Say

Sphyracephala Say, 1828: pl. 52 (1859a: 116). Type-species, *Diopsis brevicornis* Say (mon.).

brevicornis (Say), 1817a: 23 (1859b: 3) (*Diopsis*).—Pa.; Minn. to Que., s. to Colo. and N.C.
bicornis (error) Peterson, 1916: 183.
subbifasciata Fitch, 1855: 774 (1856: 70).—Ill., N.Y.

Family PSILIDAE

By G. E. Shewell

The family Psilidae occurs in the Holarctic, Ethiopian, and Oriental Regions. It is poorly represented in South America, and is unknown in the Australian Region except for the introduced pest *Psila rosae* (Fabricius), the carrot rust fly, in New Zealand and southern Australia.

The family is probably most closely related to the Micropezidae-Tanypezidae-Megamerinidae complex, the genus *Megamerina* Rondani having in several respects a striking resemblance to *Chyliza* Fallén.

The larvae are phytophagous, living in the roots and stems of plants and under the bark of trees to which they gain access through wounds. Known wild hosts in North America are *Lupinus*, *Pinus*, and *Ulmus*, and in Europe, *Carex*, *Juncus*, *Neottia*, *Orobanche*, *Scabiosa*, and *Spiraea*. The adults rest on foliage and herbage and are mostly shade-loving. The most injurious species is the carrot rust fly ("carrot fly" of European literature).

REFERENCE: Melander, 1920b (rev.).

Subfamily PSILINAE

Genus LOXOCERA Meigen

Loxocera Meigen, 1803: 275. Type-species, *Musca ichneumonea* Linnaeus (mon.).

REFERENCE: Capelle, 1953 (rev.).

californica Capelle, 1953: 106.—Calif.; ?Tenn.
collaris Loew, 1869c: 184 (Cent. 9, no. 97).—D.C.; Wis. to N.S., s. to N.C., also Wash., Oreg., Idaho, Mont.
cylindrica cylindrica Say, 1823: 98 (1859b: 84).—Pa.; s. Man. to N.S., s. to Kans. and N.C.
pleuritica Loew, 1869b: 38 (Cent. 8, no. 65).—Conn.
atricornis Harris, 1835: 600. Nomen nudum.
ssp. **obsoleta** Johnson, 1920: 16 (as var.).—e. U.S. (7 States); Iowa to Vt., s. to Tex. and S.C.

ssp. **pectoralis** Loew, 1869b: 38 (Cent. 8, no. 64) (as sp.).—D.C.; Nebr. to s. Que., s. to Tex. and N.C.

fumipennis Coquillett, 1901h: 617.—Kans.; s. Sask. to Iowa, s. to Ariz. and Tex.

microps Melander, 1920b: 92.—Wash.; Alaska, s. B.C.

Genus PSILA Meigen

Psila Meigen, 1803: 278. Type-species, *Musca fimetaria* Linnaeus (aut.).

Psilomyia Latreille, 1829: 525 (unjustified n. name for *Psila* Meigen). Type-species, *Musca fimetaria* Linnaeus (Westwood, 1840: 146).

Subgenus CHAMAEPSILA Hendel

Chamaepsila Hendel, 1917: 37 (as genus). Type-species, *Musca rosae* Fabricius (orig. des.).

atrata Melander, 1920b: 96.—Idaho; Alta., Oreg., Mont., Wis. ?=*washingtona*.

dimidiata Loew, 1869b: 40 (Cent. 8, no. 69).—Red River of the North; Alaska to Nfld., s. to Ariz. and Maine.

bicolor, authors, not Meigen.

levis Loew, 1869b: 40 (Cent. 8, no. 71).—N.H.; Alaska to n. Que., s. to B.C. and Maine, also N.C.

microcera Melander, 1920b: 95.—Oreg.; Wash. to Calif., s. Alta., Sask., Utah.

nigricornis Meigen, 1826: 359.—Germany; B.C. Immigrant.

rosae (Fabricius), 1794: 356 (*Musca*).—Germany (Kiel); n. B.C. and s. Alta., s. to Utah and Colo., also Wis. to Nfld., s. to Ill. and Md., Europe, s. Australia, and New Zealand. Immigrant, N. Amer. and Australian Region.

sternalis Loew, 1869b: 40 (Cent. 8, no. 70).—Middle States; Wis. to s. Que., s. to Iowa, Ill., and N.C.

washingtona Melander, 1920b: 96.—Wash.; Alaska to Wash.

Subgenus PSEUDOPSILA Johnson

Pseudopsila Johnson, 1920: 17 (as genus). Type-species, *Loxocera fallax* Loew (orig. des.). **N. status.**

angustata Cresson, 1919: 193.—N.Y.; s. Man., Mich., and Ill. to Vt. and Conn., also Tenn.

bivittata Loew, 1869b: 39 (Cent. 8, no. 67).—Conn.; Mich. to se. Canada and Maine, s. to Ga.

dorsalis Harris *in* Johnson, 1925c: 98 (*Loxocera*). Nomen nudum.

collaris Loew, 1869b: 39 (Cent. 8, no. 68).—Conn.; Wis. to N.S., s. to Ga.

fallax (Loew), 1869c: 185 (Cent. 9, no. 98) (*Loxocera*).—Canada; s. Ont. to N.S., s. to N.Y., also Ind. **N. comb.**

lateralis Loew, 1860b: 81.—D.C.; S. Dak. to Mass., s. to Tex. and Ga.

colorata Melander, 1920b: 95.—Tex. **N. syn.**

perpolita (Johnson), 1920: 18 (*Pseudopsila*).—Maine, N.H.; s. B.C. to s. Que., s. to Minn. and Mich. **N. comb.**

Subgenus TETRAPSILA Frey

Tetrapsila Frey, 1925: 48 (as genus). Type-species, *Psila obscuritarsis* Loew (orig. des.).

frontalis Coquillett, 1901h: 617.—N.H.; s. Ont. and Que., Maine, Vt., Mass., Mich.

Subfamily CHYLIZINAE

Genus CHYLIZA Fallén

Chyliza Fallén, 1820d: 6.—Type-species, *Musca leptogaster* Panzer (Westwood, 1840: 146).

Tetradiscus Bigot, 1886a: 370. Type-species, *pictus* Bigot (Coquillett, 1910b: 613)=*apicalis* Loew.

annulipes Macquart, 1835: 380.—France; Mass., Va., Europe.

apicalis Loew, 1860b: 82.—D.C.; Colo. to se. Canada, s. to La. and Ga., also Mexico.

pictus Bigot, 1886a: 370 (*Tetradiscus*).—Rocky Mts.

erudita Melander, 1920b: 99.—Mass.; s. B.C., Alta., se. Canada, N.Y., Vt., N.C.

leguminicola Melander, 1920b: 99.—Oreg.; s. B.C.

nigroviridis Walker, 1861: 330.—U.S. Unrecognized.

notata Loew, 1869c: 185 (Cent. 9, no. 99).—D.C.; s. B.C., Wash., Idaho, Mich., se. Canada, s. to Tenn. and N.C.

robusta Coquillett *in* Baker, 1904: 28.—Nev.; Calif.

scrobiculata Melander, 1920b: 98.—Wash.; s. B.C., Oreg.

similis Johnson, 1913a: 85.—Fla.

Subfamily STRONGYLOPHTHALMYIINAE

Genus STRONGYLOPHTHALMYIA Heller

Strongylophthalmus Hendel, 1902a: 179 (preocc. Faust, 1894). Type-species, *Chyliza ustulata* Zetterstedt (orig. des.).

Strongylophthalmyia Heller, 1902: 226 (n. name for *Strongylophthalmus* Hendel). Type-species, *Chyliza ustulata* Zetterstedt (aut.).

angustipennis Melander, 1920b: 100.—Wash.; B.C. to N.S., s. to Wyo., Mich., and Mass.

longula Johnson, 1921a: 14 (*Psila*).—Mass. **N. syn., n. comb.**

Unplaced Species of Psilidae

metallica Walker, 1849: 1045 (*Chyliza*).—n. Ont.
quadrilinea Walker, 1861: 329 (?*Loxocera*).—U.S.

Family TANYPEZIDAE

By George C. Steyskal

The family Tanypezidae is principally Neotropical in distribution but is also represented in Europe. The larvae are unknown.

Genus TANYPEZA Fallén

Tanypeza Fallén, 1820d: 4. Type-species, *longimana* Fallén (mon.).

longimana Fallén.—Not Nearctic.
luteipennis Knab and Shannon, 1916: 34.—Ill.; Alta. to Maine, s. to Ill. and N.Y.
picticornis Knab and Shannon, 1916: 35.—Va.; Mich., N.Y., Md.

Superfamily TEPHRITOIDEA

Family RICHARDIIDAE

By George C. Steyskal

The habits of all stages are poorly known. Larvae seem to be associated with decaying vegetable matter, and adults have been caught in fruit-fly traps. The family is principally Neotropical in distribution.

The genus *Epiplatea* Loew is not Nearctic; for *dohaniani* Johnson, see *Automola* Loew, and for *scutellaris*, see *Curranops* Harriot (Otitidae).

REFERENCE: Steyskal, 1958c (rev.).

Genus AUTOMOLA Loew

Automola Loew, 1873b: 118. Type-species, *Ortalis atomaria* Wiedemann (Coquillett, 1910b: 512).

rufa Cresson, 1906: 282.—N. Mex.; Ariz., Tex., Mexico.
dohaniani Johnson, 1921c: 58 (*Epiplatea*).—Tex.

Genus CONICEPS Loew

Coniceps Loew, 1873b: 177. Type-species, *niger* Loew (mon.).

niger Loew, 1873b: 178.—Tex.; S. Dak., Kans.

Genus ODONTOMERA Macquart

Odontomera Macquart, 1843a: 372 (1843: 215). Type-species, *ferruginea* Macquart (mon.).

ferruginea Macquart, 1843a: 372 (1843: 215).—Unknown; N.J., s. to Fla., Cent. and S. Amer.
dorotheae Brimley, 1925: 74.—N.C.
limbata Steyskal, 1958c: 304.—Fla.; S.C.

Genus SEPSISOMA Johnson

Sepsisoma Johnson, 1900b: 327. Type-species, *flavescens* Johnson (mon.).

REFERENCE: Steyskal, 1961a (key).

flavescens Johnson, 1900b: 327.—N.J.; Kans. and N.Y., s. to N.C.
minimum Steyskal, 1961a: 85.—Kans.
sabroskyi Steyskal, 1961a: 83.—Kans.

Family OTITIDAE

(Ortalidae, Ulidiidae, Pterocallidae)

By George C. Steyskal

The principal distribution of the family Otitidae is in the Holarctic and Neotropical Regions. The larvae of most species are saprophagic, although a few, such as *Tritoxa flexa* and *Tetanops myopaeformis*, attack living plant tissue.

REFERENCES: Hennig, 1939, 1940 (monog. Palaearctic spp.); Steyskal, 1961b (generic rev.).

Subfamily OTITINAE

Genus CALLOPISTROMYIA Hendel

Callopistria Loew, 1873b: 140 (preocc. Hübner, 1816). Type-species, *Platystoma annulipes* Macquart (mon.).

Callopistromyia Hendel, 1907a: 98 (n. name for *Callopistria* Loew). Type-species, *Platystoma annulipes* Macquart (aut.).

annulipes (Macquart), 1855: 141 (1855: 121) (*Platystoma*).—Md.; Utah to Maine, s. to Kans., Ohio, and Ga.

Genus CEPHALIA Meigen

Cephalia Meigen, 1826: 293. Type-species, *nigripes* Meigen (Rondani, 1856: 115)=*rufipes* Meigen.

Myrmecomya Robineau-Desvoidy, 1830: 721. Type-species, *formicaria* Robineau-Desvoidy (Coquillett, 1910b: 573)=*rufipes* Meigen.

Myrmecomyia, error or emend.

flavoscutellata Becker, 1900: 60.—Siberia; N.W.T.

fulvicornis Bigot, 1886a: 386.—Calif. Unrecognized.

maculipennis Bigot, 1886a: 385.—Rocky Mts. Unrecognized.

rufipes Meigen, 1826: 294.—Europe; Ariz., N. Mex.

Genus CEROXYS Macquart

Meckelia Robineau-Desvoidy, 1830: 714 (preocc. Leuckart, 1828). Type-species, *Oscinis elegans* Robineau-Desvoidy (Coquillett, 1910b: 564)=*hortulanus* (Rossi).

Ceroxys Macquart, 1835: 437. Type-species, *Musca urticae* Linnaeus (Westwood, 1840: 149).

Ceratoxys Rondani, 1861a: 10 (n. name for *Meckelia* Robineau-Desvoidy). Type-species, *Oscinis elegans* Robineau-Desvoidy (aut.)=*hortulanus* (Rossi).

Anacampta Loew, 1868b: 7. Type-species, *Musca urticae* Linnaeus (Loew, 1873b: 58).

Ortalis, authors, not Fallén.

latiusculus (Loew), 1873b: 130 (*Anacampta*).—Calif.; B.C. and Mont., s. to Calif. and Tex., also N.C. and Mexico, immigrant to Samoa and Hawaii.

Genus CURRANOPS Harriot

Curranops Harriot, 1942b: 249. Type-species, *Tetanops apicalis* Cole (orig. des.).

REFERENCE: Steyskal, 1962b (rev.).

apicalis (Cole) *in* Cole and Lovett, 1921: 328 (*Tetanops*).—Oreg.; Wash. to Calif.

scutellaris (Coquillett), 1900d: 25 (*Epiplatea*).—Calif.; Oreg.

Genus DELPHINIA Robineau-Desvoidy

Delphinia Robineau-Desvoidy, 1830: 719. Type-species, *thoracica* Robineau-Desvoidy (mon.) = *picta* (Fabricius).

Camptoneura Macquart, 1843a: 357 (1843: 200). Type-species, *Musca picta* Fabricius (orig. des.).

picta (Fabricius), 1781: 452 (*Musca*).—N. Amer.; Minn. to Maine, s. to Kans. and Fla.

conica Fabricius, 1805: 318 (*Tephritis*).—N. Amer.

thoracica Robineau-Desvoidy, 1830: 720.—Carolina.

nigriventris Macquart, 1855: 144 (1855: 124) (*Urophora*).—Md.

Genus DIACRITA Gerstäcker

Diacrita Gerstäcker, 1860: 195. Type-species, *costalis* Gerstäcker (mon.).

REFERENCE: Steyskal, 1947b (rev.).

costalis Gerstäcker, 1860: 197.—Mexico; s. Calif. to Tex.

aemula Loew, 1873b: 114.—Calif.

plana Steyskal, 1947b: 151.—N. Mex.; Colo.

Genus DYSCRASIS Aldrich

Dyscrasis Aldrich, 1932b: 7. Type-species, *hendeli* Aldrich (orig. des.).

hendeli Aldrich, 1932b: 8.—Tex.; Ariz., Mexico.

Genus HAIGIA Steyskal

Haigia Steyskal, 1961b: 406. Type-species, *nevadana* Steyskal (orig. des.).

nevadana Steyskal, 1961b: 406.—Nev.; Wash.

Genus HERINA Robineau-Desvoidy

Herina Robineau-Desvoidy, 1830: 724. Type-species, *liturata* Robineau-Desvoidy (Rondani, 1856: 109)=*germinationis* (Rossi).

Tephronota Loew, 1868b: 6. Type-species, *Ortalis gyrans* Loew (Loew, 1873b: 57)=*tristis gyrans* (Loew).

REFERENCE: McAlpine, 1951 (rev.).

canadensis (Johnson), 1902b: 144 (*Tephronota*).—Que.; B.C. to N.B., s. to Nebr., Ill., and Mass.

narytia (Walker), 1849: 1020 (*Trypeta*).—Fla.; N.H. to Fla., Bahama Is.

nigribasis McAlpine, 1951: 312.—Man.; B.C., Wyo.

ruficeps Wulp, 1867: 156.—Wis.; Ont. to N.S., s. to Tex. and Va.

humilis Loew, 1873b: 123 (*Tephronota*).—N.Y., Tex., Va.

Genus HIATUS Cresson

Hiatus Cresson, 1906: 280. Type-species, *fulvipes* Cresson (mon.).

fulvipes Cresson, 1906: 281.—N. Mex.

Genus IDANA Loew

Idana Loew, 1873b: 115. Type-species, *Ortalis marginata* Say (mon.).

marginata (Say), 1830: 183 (1859b: 368) (*Ortalis*).—Ind.; Mich. and Ind. to Mass., s. to Va.

Genus MELIERIA Robineau-Desvoidy

Melieria Robineau-Desvoidy, 1830: 715. Type-species, *gangrenosa* Robineau-Desvoidy (Rondani, 1856: 108)=*crassipennis* (Fabricius).

REFERENCE: Steyskal, 1962a (rev.).

cana (Loew), 1858b: 374 (*Ortalis*).—Europe; Alaska to P.E.I., s. to Ariz., Kans., and Ind., Palaearctic.

obscuricornis Loew, 1873b: 126 (*Ceroxys*).—Nebr.

occidentalis Coquillett *in* Baker, 1904: 29.—Nev.; B.C. to Minn., s. to Calif. and Tex.

ochricornis (Loew), 1873b: 126 (*Ceroxys*).—Wis.; Alaska and Calif. to N.B.

picta (Meigen), 1826: 276 (*Ortalis*).—England; Alaska, Europe.

sabuleti Steyskal, 1962a: 253.—Mich.

similis (Loew), 1873b: 127 (*Ceroxys*).—Conn.; B.C. to N.S., s. to Ohio and Conn.

Genus MYIOMYRMICA Steyskal

Myiomyrmica Steyskal, 1961b: 404. Type-species, *Cephalia fenestrata* Coquillett (orig. des.).

fenestrata (Coquillett), 1900d: 24 (*Cephalia*).—Kans.; Iowa, Wis., Ill.

Genus MYRMECOTHEA Hendel

Myrmecothea Hendel, 1910b: 310. Type-species, *Cephalia myrmecoides* Loew (sub. mon., Hendel, 1914f: 16).

myrmecoides (Loew), 1860b: 83 (*Cephalia*).—D.C.; N.Y. to Vt., s. to S.C.

Genus NOTOGRAMMA Loew

Notogramma Loew, 1868a: 289. Type-species, *cimiciforme* Loew (mon.).

cimiciforme Loew, 1868a: 289.—Cuba; Tex., Cent. and S. Amer., Hawaii, Mariana Is., Caroline Is.

purpuratum Cole, 1923a: 474.—Mexico (Baja Calif.); Calif. to Colo. and Tex., s. to Guatemala, Jamaica, Cuba.

stigma (Fabricius).—Not Nearctic.

Genus OTITES Latreille

Otites Latreille, 1804: 196. Type-species, *porcus* Latreille (as *Musca porca* Bosc; mon.) =*formosa* (Panzer).

Ortalimyia Curran, 1934a: 284. Type-species, *Ortalis snowi* Cresson (orig. des.).

REFERENCE: Hendel, 1911 (key, as *Ortalis*).

bimaculata (Hendel), 1911: 22 (*Ortalis*).—Colo.; N.W.T., s. to n. Calif. and Colo. **N. comb.**

longicauda Hendel, 1913: 635 (*Ortalis*).—Nev. **N. syn.**

carbona Cresson, 1914c: 458 (*Tetanops*).—Wyo. **N. syn.**

erythrocephala (Hendel), 1911: 23 (*Ortalis*).—Calif. **N. comb.**

pyrrhocephala (Loew), 1876: 335 (*Anacampta*).—Calif.; Nev. **N. comb.**

snowi Cresson, 1924a: 234 (*Ortalis*).—Kans.; Calif., Utah, N. Mex. **N. comb.**

stigma (Hendel), 1911: 23 (*Ortalis*).—Colo., S. Dak.; B.C. to Man., s. to Colo. and Nebr. **N. comb.**

Genus PSEUDOTEPHRITIS Johnson

Stictocephala Loew, 1873b: 61 (preocc. Stål, 1869). Type-species, *Ortalis vau* Say (orig. des.).

Pseudotephritis Johnson, 1902b: 144 (n. name for *Stictocephala* Loew). Type-species, *Ortalis vau* Say (aut.).

REFERENCE: Steyskal, 1961b, 1962a (revs.).

Subgenus PSEUDOTEPHRITIS Johnson

approximata Banks, 1914c: 138, 185 (as *appoximata*, p. 138).—Va.; Iowa, Mich., and Pa., s. to Miss and Va.

corticalis (Loew), 1873b: 136 (*Stictocephala*).—N.Y.; Alta. to Conn., s. to Ohio and Va., also U.S.S.R.

vau (Say), 1830: 184 (1859b: 369) (*Ortalis*).—Ohio; B.C. to Que., s. to Tex. and Va.

conjuncta Johnson, 1921a: 15 (as var.).—Maine.

var. **californica** Steyskal, 1962a: 260 (as form).—Calif.

var. **idahoana** Steyskal, 1962a: 260 (as form).—Wash., Idaho.

var. **metzi** Johnson, 1915c: 49 (as sp.).—N.Y.; Minn. to Maine, s. to Va.

Subgenus PSEUDOTEPHRITINA Malloch

Pseudotephritina Malloch, 1931c: 5 (as genus). Type-species, *Stictocephala cribellum* Loew (orig. des.).

cribellum (Loew), 1873b: 134 (*Stictocephala*).—Nebr.; Mont. to Pa., s. to N. Mex. and Miss.

cribrum Loew, 1873b: 135 (*Stictocephala*).—Middle States.

inaequalis Malloch, 1931c: 5.—Colo.; Wash. to Ind., s. to Calif. and Tex.

var. **davisensis** Steyskal, 1962a: 262 (as form).—Wash., Idaho, Calif., Nev., Kans., Tex.

Genus PTEROCALLA Rondani

Pterocalla Rondani, 1848: 83. Type-species, *Dictya ocellata* Fabricius (mon.).

strigula Loew, 1873b: 133.—Ga.; Man. to Maine, s. to N. Mex. and Ga.

Genus SEIOPTERA Kirby

Ortalis Fallén, 1810a: 17 (preocc. Merrem, 1786). Type-species, *Musca vibrans* Linnaeus (Westwood, 1840: 149).

Seioptera Kirby *in* Kirby and Spence, 1817: [305]. Type-species, *Musca vibrans* Linnaeus (mon.).

Seoptera, emend.

Myodina Robineau-Desvoidy, 1830: 727. Type-species, *Musca urticae* Fabricius (mon.) = *vibrans* (Linnaeus).

REFERENCE: Steyskal, 1956a (rev.).

albipes Cresson, 1919: 192.—Pa.; Mich. to Que., s. to Kans. and Ga.
currani Harriot, 1942a: 196.—N.Y.
colon Loew, 1868a: 296.—Ill., N.Y.; Ill. to Vt., s. to Miss.
costalis (Walker), 1849: 995 (*Ortalis*).—Ont.
dubiosa Johnson, 1921a: 15.—Maine; Man.
vibrans (Linnaeus), 1758: 599 (*Musca*).—Europe; B.C. to N.S., s. to Oreg., Colo., and D.C., Palaearctic.

Genus TETANOPS Fallén

Tetanops Fallén, 1820c: 2. Type-species, *myopinus* Fallén (mon.).
Terelliosoma Rondani, 1856: 109. Type-species, *heryngii* Rondani (orig. des.) = *flavescens* (Macquart).

The North American records of *rufifrons* may refer to an undescribed species.

REFERENCE: Harriot, 1942b (key).

Subgenus TETANOPS Fallén

cazieri Harriot, 1942b: 250.—n. Calif.; Oreg.
integer Loew, 1873b: 121.—Ill.; N. Dak. to Ont., s. to N. Mex. and Tex.
luridipennis Loew, 1873b: 119.—Nebr.; N. Dak. to Mass., s. to Ariz. and Fla.
magdalenae Cresson, 1924a: 233.—N. Mex.; Ariz.
rufifrons Wulp, 1899: 391.—Mexico; N. Mex., ?Kans.

Subgenus EURYCEPHALOMYIA Hendel

Eurycephala Röder, 1881: 211 (preocc. Laporte, 1833). Type-species, *myopaeformis* Röder (mon.).
Eurycephalomyia Hendel, 1907a: 98 (as genus; n. name for *Eurycephala* Röder). Type-species, *myopaeformis* Röder (aut.).

REFERENCE: Gojmerac, 1956 (descr., biol. *myopaeformis*).

myopaeformis (Röder), 1881: 212 (*Eurycephala*).—Calif.; B.C. to Man., s. to Calif. and N. Mex.
polita Coquillett, 1900d: 22.—Colo.
aldrichi Hendel, 1911: 20.—Idaho.

Subgenus PSAEROPTERELLA Hendel

Psaeropterella Hendel, 1914b: 158 (as genus). Type-species, *macrocephala* Hendel (orig. des.). **N. status.**

macrocephala (Hendel), 1914b: 159 (*Psaeropterella*).—Calif. **N. comb.**

punctifrons (Hendel), 1914b: 160 (*Psaeropterella*).—B.C. **N. comb.**

Genus TETROPISMENUS Loew

Tetropismenus Loew, 1876: 333, 334. Type-species, *hirtus* Loew (mon.).

Califortalis Curran, 1934a: 284. Type-species, *hirsutifrons* Curran (orig. des.)=*hirtus* Loew. **N. syn.**

hirtus Loew, 1876: 333.—Calif.

hirsutifrons Curran, 1934a: 284 (*Califortalis*).—Calif. **N. syn.**

Genus TRITOXA Loew

Tritoxa Loew, 1873b: 102. Type-species, *Trypeta flexa* Wiedemann (Coquillett, 1910b: 617).

REFERENCES: Chittenden, 1927 (bionomics, *flexa*); Manis, 1941 (bionomics, morphology *flexa*); Harriot, 1942c (key).

cuneata Loew, 1873b: 107.—Nebr.; Oreg., Alta., and Nebr., s. to Calif. and N. Mex.

flexa (Wiedemann), 1830: 483 (*Trypeta*).—Ga.; Man. and N. Dak. to Conn., s. to Ill. and Ga.

arcuata Walker, 1852: 383 (*Trypeta*).—U.S.

incurva Loew, 1873b: 104.—Ill.; Wis. to Conn., s. to Colo., Tex., and Ga.

pollinosa Cole *in* Cole and Lovett, 1919: 252.—Oreg.; Wash., Colo.

ra Harriot, 1942c: 23.—Calif.

Genus TUJUNGA Steyskal

Tujunga Steyskal, 1961b: 405. Type-species, *mackenziei* Steyskal (orig. des.).

mackenziei Steyskal, 1961b: 405.—Calif.

Genus ULIDIOTITES Steyskal

Ulidiotites Steyskal, 1961b: 406. Type-species, *dakotana* Steyskal (orig. des.).

dakotana Steyskal, 1961b: 406.—S. Dak.; Nebr.

Subfamily ULIDIINAE

Genus ACROSTICTA Loew

Acrosticta Loew, 1868a: 293. Type-species, *scrobiculata* Loew (Coquillett, 1910b: 503).

apicalis (Williston), 1896c: 375 (*Euxesta*).—St. Vincent I.; D.C. to Fla., Neotropical, Pacific Is., Ghana (cent. Africa).

compta (Cole), 1912b: 158 (*Euxesta*).—Calif. **N. comb.**

similis Johnson, 1919d: 165 (*Ulidia*).—Calif.

dichroa Loew, 1874b: 384.—Calif.

fulvipes Coquillett, 1900d: 24.—Calif.

rubida (Loew), 1876: 337 (*Ulidia*).—Calif.; Mexico (Baja Calif.). **N. comb.**

rufiventris Hendel, 1910a: 52.—Tex.; Calif., Fla., Cent. Amer., West Indies.

Genus CHAETOPSIS Loew

Chaetopsis Loew, 1868a: 315. Type-species, *Ortalis aenea* Wiedemann (Coquillett 1910b: 521).

Most of the published locality records of *aenea, fulvifrons,* and *massyla* are unreliable.

REFERENCE: Curran, 1928d (rev.).

aenea (Wiedemann), 1830: 462 (*Ortalis*).—La.; Mich., R.I., s. to La. and Fla.

trifasciata Say, 1830: 184 (1859b: 368) (*Ortalis*).—U.S.

apicalis apicalis Johnson, 1900b: 326.—N.J., Fla.; Mass. to Tenn. and Fla.

ssp. **duplicata** Johnson, 1921a: 16 (as sp.).—Maine; Maine to Mass. **N. status.**

debilis Loew, 1868a: 318.—Cuba; Kans., Tex. and Mexico to Fla., Cuba, ?Bermuda.

trifasciata Say, 1831: 19 (*Trypeta*; preocc. Say, 1830).—La.

fulvifrons (Macquart), 1855: 145 (1855: 125) (*Urophora*).—Md.; Wis. to R.I., s. to Calif. and Fla.

aenea Wulp, 1867: 157 (*Trypeta*; preocc. Wiedemann, 1830).—Wis.

magna Cresson, 1924a: 241.—Kans.

massyla (Walker), 1849: 992 (*Ortalis*).—N. Amer.; Alta. to Maine and Mass., s. to N. Mex.

quadrifasciata Curran, 1928d: 80.—P.R.; Fla.

Genus EUMETOPIELLA Hendel

Eumetopia Macquart, 1847: 103 (1847: 87) (preocc. Westwood, 1837). Type-species, *rufipes* Macquart (orig. des.).

Eumetopiella Hendel, 1907a: 98 (n. name for *Eumetopia* Macquart). Type-species, *Eumetopia rufipes* Macquart (aut.).

rufipes (Macquart), 1847: 104 (1847: 88) (*Eumetopia*).—Pa.; Wis. to Mass., s. to Kans. and Fla.

varipes (Loew), 1866a: 181 (Cent. 6, no. 87) (*Eumetopia*).—Cuba; Mexico to Fla.

Genus EUXESTA Loew

Euxesta Loew, 1868a: 297. Type-species, *Ortalis notata* Wiedemann (Coquillett, 1910b: 543).

Aloceuxesta Hendel, 1936b: 78. Type-species, *Euxesta spoliata* Loew (orig. des.). **N. syn.**

Euxestina Enderlein, 1937b: 438 (preocc. Curran, 1934). Type-species, *Musca costalis* Fabricius (orig. des.).

The genus *Euxesta* is widespread and among the most commonly encountered of the ulidiine genera. Many published records of *notata* may refer to *anna*, *pechumani*, or undescribed species.

REFERENCE: Curran, 1935b (key).

abana Curran, 1935b: 13.—Utah; N. Mex.

abdominalis Loew, 1868a: 307.—Cuba; Cent. Amer., Fla., Bermuda, West Indies.

alternans Loew, 1868a: 308.—?Cuba, ?Brazil; Bermuda, Neotropical.

anna Harriot, 1942c: 25.—Calif.

annonae (Fabricius), 1794: 358 (*Musca*).—West Indies; Fla., Bermuda, Neotropical.

quadrivittata Macquart, 1835: 456 (*Urophora*).—Cuba.

basalis (Walker), 1852: 373 (*Ortalis*).—U.S.; Ga., Fla., Bahama Is.

bicolor (Cresson), 1906: 285 (*Acrosticta*).—Tex.

brookmani Harriot, 1942c: 24.—Calif.

contorta Curran, 1935b: 16.—Utah.

eluta Loew, 1868a: 312.—Cuba; Tex., Fla , Mexico, West Indies, S. Amer.

fervida Curran, 1935b: 14.—Utah; Idaho, Nev., N. Mex.

knowltoni Curran, 1935b: 15.—Utah. **N. syn.**

juncta Coquillett, 1904e: 95.—Nicaragua; Tex., Bahama Is., P.R.

lutzi Curran, 1935b: 16.—Colo.; Nev. to Kans. and Tex.

magdalenae Cresson, 1924a: 240.—N. Mex.; Wyo.

minor Cresson, 1906: 286.—N. Mex.

nigriceps Curran, 1935b: 19.—Utah.

nitidiventris Loew, 1873b: 157.—Tex.; Calif., Nebr., and Ga., s. through Neotropical Region, Galapagos Is., also Italy.

notata (Wiedemann), 1830: 462 (*Ortalis*).—N.Y., Ga.; Calif. and Mexico (Baja Calif.) to Wis. and Vt., s. to Fla., also Bahama Is., Galapagos Is.

pechumani Curran, 1938: 4.—N.Y.; Mich. to N.Y., s. to Ariz. and Fla.

pulchella Cresson, 1906: 287.—N. Mex.; Utah.

pusio Loew, 1868a: 299.—Cuba; Bermuda, Jamaica.

quaternaria Loew, 1868a: 302.—Cuba; Tex. to Fla., s. to Cent. Amer., West Indies, and Bahama Is.

rubida Curran, 1935b: 13.—Utah; Idaho.

sanguinea Hendel, 1913: 635.—Utah; N. Mex.

scoriacea Loew, 1876: 336.—Tex.; Mass., s. to Tex. and Fla., Bahama Is.

scutellaris Curran, 1935b: 17.—Utah.

spoliata Loew, 1868a: 298.—Cuba; Tex., Fla., Cent. and S. Amer.

stigmatias Loew, 1868a: 310.—Cuba; Fla., Mexico, West Indies, S. Amer.

thomae Loew, 1868a: 306.—St. Thomas I.; Tex., Fla., Cent. Amer., West Indies.

willistoni Coquillett, 1900d: 24 (n. name for *spoliata* Williston).—Calif.; Ariz.

spoliata Williston, 1893d: 257 (preocc. Loew, 1867).—Calif.

xeres Curran, 1935b: 17.—Utah; N. Mex.

Genus HOMALOCEPHALA Zetterstedt

Homalocephala Zetterstedt, 1838: 749. Type-species, *albitarsis* Zetterstedt (mon.).

Psairoptera Wahlberg, 1839: 18. Type-species, *biumbrata* Wahlberg (Zetterstedt, 1847: 2264) = *albitarsis* Zetterstedt.

Psaeroptera, error or emend.

The larvae live under the bark of various kinds of trees. *H. apicalis* has been reared from the sap of *Pinus monticola* in Montana.

REFERENCE: Hennig, 1940 (key).

albitarsis Zetterstedt, 1838: 749.—Europe; Alaska to N.S., s. in mts. to Ariz. and N. Mex.

nubecula Johnson, 1921a: 14 (*Chyliza*).—Maine. **N. syn.**

apicalis (Wahlberg), 1839: 21 (*Psairoptera*).—Europe; Alaska, B.C., Mont.

bipunctata (Loew), 1854: 22 (?*Psairoptera*).—Europe; Oreg., Ont., N.H.

diopsides Walker, 1849: 995 (*Ortalis*).—Ont. **N. syn.**

similis (Resson), 1924a: 236 (*Psairoptera*).—Sask.; Alaska, Alta. to Que., s. in mts. to Ariz.

Genus OEDOPA Loew

Oedopa Loew, 1868a: 287. Type-species, *capito* Loew (mon.).

ascriptiva Hendel, 1909: 267.—Colo.; Utah.

capito Loew, 1868a: 287.—Nebr.; Utah to Nebr., s. to Ariz. and Kans.

Genus PAROEDOPA Coquillett

Paroedopa Coquillett, 1900d: 22. Type-species, *punctigera* Coquillett (orig. des.).

punctigera Coquillett, 1900d: 23.—Ariz., N. Mex.; Tex.

Genus PHYSIPHORA Fallén

Physiphora Fallén, 1810a: 11. Type-species, *Chrysomyza splendida* Fallén (aut.)=*demandata* (Fabricius).

Chrysomyza Fallén, 1817c: 3 (unjustified n. name for *Physiphora* Fallén. Type-species, *splendida* Fallén (mon.)=*demandata* (Fabricius).

Cliochloria Enderlein, 1927: 103. Type-species, *Musca aenea* Fabricius (orig. des.).

REFERENCES: Knab, 1916b (distribution, biol., *aenea*); Hennig, 1940 (rev.); Séguy, 1941 (key).

aenea (Fabricius), 1794: 335 (*Musca*).—Asia; Calif., Mich., La., Ala., Ga., Mexico, S. Amer., Australia.

demandata (Fabricius), 1798: 564 (*Musca*).—Europe; B.C. to Mass., s. to Calif. and S.C., Mexico, S. Amer., Asia, Africa.

Genus STENERETMA Loew

Steneretma Loew, 1873b: 186. Type-species, *laticauda* Loew (mon.).

laticauda Loew, 1873b: 187.—Tex.; Kans., N.C.

Genus STENOMYIA Loew

Stenomyia Loew, 1868a: 320. Type-species, *tenuis* Loew (mon.).

REFERENCE: Cresson, 1913 (key).

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hendeli (Johnson), 1913a: 83 (*Chaetopsis*).—N.J., Ga.; N.Y. (Long I.) to Ga.

nasoni Cresson, 1913: 320.—Ill.; Ariz. to Mass., s. to Fla.

tenuis Loew, 1868a: 321.—Tex., Ga.; Kans. to Mass., s. to Tex. and Fla.

tenuissima (Hendel), 1910a: 28 (*Euxesta*).—Ga.; Man. to N.J., s. to Utah and Fla., Bahama Is., Cuba.

fasciapennis Cresson, 1913: 320.—Minn. **N. syn.**

brooksi Johnson, 1926b: 301 (*Chaetopsis*).—Fla. **N. syn., n. comb.**

Genus STICTOMYIA Bigot

Stictomyia Bigot, 1885d: clxvi. Type-species, *longicornis* Bigot (mon.).

REFERENCE: Hunter, Pratt, and Mitchell, 1913 (habits, *longicornis*).

longicornis Bigot, 1885d: clxvi.—Mexico; Calif. to Tex.

punctata Coquillett, 1900d: 23.—N. Mex.; Tex.

Genus TEXASA Steyskal

Texasa Steyskal, 1961b: 407. Type-species, *chaetifrons* Steyskal (orig. des.).

chaetifrons Steyskal, 1961b: 407.—Tex.

Genus ZACOMPSIA Coquillett

Zacompsia Coquillett, 1901b: 15. Type-species, *fulva* Coquillett (orig. des.).

fulva Coquillett, 1901b: 15.—Tex., La.; Tex. to S.C., s. to Fla.

Unplaced Genus and Species of Otitidae

Prionella Robineau-Desvoidy, 1830: 759. Type-species, *beauvoisii* Robineau-Desvoidy (Coquillett, 1910b: 594).

beauvoisii Robineau-Desvoidy, 1830: 760.—?U.S. Unrecognized.

villosa Robineau-Desvoidy, 1830: 760.—?U.S. Unrecognized.

Unplaced Species of Otitidae

philadelphica Robineau-Desvoidy, 1830: 715 (*Meckelia*).—Pa.

Family PLATYSTOMATIDAE

(Platystomidae)

By George C. Steyskal

Most of the platystomatids are found in the Old World Tropics. The species are small to large, and usually handsome. The biology of very few of the species is known. They seem to be saprophagous.

REFERENCES: Hendel, 1914a (cat.), 1914f (rev.); Steyskal, 1961b (rev.).

Genus AMPHICNEPHES Loew

Amphicnephes Loew, 1873b: 83. Type-species, *pertusus* Loew (mon.) = *pullus* (Wiedemann).

fasciola Coquillett, 1900d: 21.—Kans.; Ariz.

pullus (Wiedemann), 1830: 506 (*Trypeta*).—Unknown; Mich. to Mass., s. to Tex. and Fla.

pertusus Loew, 1873b: 84.—Carolina, D.C., Conn.

Genus POGONORTALIS Hendel

Pogonortalis Hendel *in* Meijere, 1911b: 370. Type-species, *uncinata* Meijere (mon.).

doclea (Walker), 1849: 1035 (*Trypeta*).—Australia; Calif., also Java.

Genus RIVELLIA Robineau-Desvoidy

Rivellia Robineau-Desvoidy, 1830: 729. Type-species, *herbarum* Robineau-Desvoidy (Rondani, 1869: 8, 28; 1869: 8, 28) = *syngenesiae* (Fabricius).

REFERENCE: Namba, 1956 (rev.).

atriventris Hendel, 1914f: 182.—Ga.

australis Namba, 1956: 32.—Ariz.

bipars (Walker), 1861: 326 (*Ortalis*).—Tasmania (as U.S., error). Not Nearctic.

boscii Robineau-Desvoidy, 1830: 730.—Carolina; Ark., N.C. to Fla.

brevifasciata Johnson, 1900b: 326.—N.J.; Colo. to Mass., s. to Miss. and Ga.

cognata Cresson, 1919: 191.—Pa.; S. Dak. to Mass., s. to Kans. and Fla.

colei Namba, 1956: 71.—Minn.; Minn. to Conn., s. to La. and Tenn.

conjuncta Loew, 1873b: 88.—Md.; Kans. to Mass., s. to Tex. and La., also Mexico (V.C.).

coquilletti Hendel, 1914f: 155 (n. name for *basilaris* Coquillett).—Colo.; Mont., Man., and Minn., s. to Colo. and Iowa.
basilaris Coquillett, 1900d: 21 (preocc. Wiedemann, 1830).—Colo.
flavimana Loew, 1873b: 92.—Nebr.; Man. to Que., s. to Nebr. and N.Y.
floridana Johnson, 1900a: 247.—Fla.
imitabilis Namba, 1956: 43.—Ga.; Mich.
inaequata Namba, 1956: 62.—Fla.; N.J., also Tex. to Fla.
interrupta (Macquart), 1835: 459 (*Urophora*).—N. Amer. Unrecognized.
maculosa Namba, 1956: 35.—Ga.; Alta., also Ala., N.C. to Fla.
melliginis (Fitch), 1855: 769 (1856: 65) (*Tephritis*).—N.Y.; Minn., Ont., and Mass., s. to Iowa and S.C.
metallica (Wulp), 1867: 154 (*Herina*).—Wis.; Minn. to Ont., s. to Mo. and Va.
micans Loew, 1873b: 94.—Tex.; Mont. and S. Dak., s. to Calif. and Tex.
michiganensis Namba, 1956: 58.—Mich.
munda Namba, 1956: 40.—Kans.; S. Dak. and Minn., s. to Tex.
occulta Wulp, 1898: 382.—Mexico; Ariz., N. Mex., also Costa Rica.
otroeda (Walker), 1849: 992 (*Ortalis*).—N. Amer. Unrecognized.
pallida Loew, 1873b: 95.—D.C.; Minn. to R.I., s. to D.C.
quadrifasciata (Macquart), 1835: 433 (*Herina*).—N. Amer.; Mont. to Que., s. to Tex. and Fla.
rufitarsis (Macquart), 1855: 143 (1855: 123) (*Herina*).—Md. Unrecognized.
severini Blanton, 1937: 139.—S. Dak.; Idaho to Ind., s. to Utah, Kans., and Iowa.
socialis Namba, 1956: 68.—Iowa; Ill.
steyskali Namba, 1956: 64.—Mich.; Minn. to N.Y., s. to Tex. and Fla.
succinata (Wiedemann), 1830: 526 (*Dacus*).—Unknown; Fla., ?S. Africa.
tersa Namba, 1956: 31.—N. Mex.; Ariz., also Mexico (V.C.).
texana Namba, 1956: 52.—Tex.; Ark.
vaga Namba, 1956: 50.—Fla.; Alta., Iowa to N.C., s. to Tex. and Fla.
variabilis Loew, 1873b: 91.—D.C.; Ont. and Que., s. to Ill. and Fla.
viridulans Robineau-Desvoidy, 1830: 729.—N. Amer.; Iowa to Mass., s. to Miss. and Ga.
winifredae Namba, 1956: 44.—Minn.; Utah to Que., s. to Kans. and Ga.

Genus SENOPTERINA Macquart

Senopterina Macquart, 1835: 453. Type-species, *Dacus brevipes* Fabricius (mon.).

Stenopterina, emend.

Bricinnia Walker, 1861: 324. Type-species, *flexivitta* Walker (mon.).

Briciniella Giglio-Tos, 1893b: 13. Type-species, *cyanea* Giglio-Tos (mon.).

REFERENCE: Shewell, 1962 (rev.).

brevipes (Fabricius), 1805: 272 (*Dacus*).—Cent. Amer. Probably not Nearctic.

caerulescens Loew, 1873b: 97.—Tex.

foxleei Shewell, 1962: 197.—B.C.; Idaho, Colo., Kans., Ill., La.

mexicana (Macquart), 1843a: 365 (1843: 208) (*Herina*).—Mexico; Ariz., Tex.

varia Coquillett, 1900d: 25.—Fla.

bicolor Johnson, 1900a: 246.—Fla.

Family PYRGOTIDAE

By George C. Steyskal

The family Pyrgotidae is worldwide in distribution. Its members are largely nocturnal in habit and, as far as known, parasitic on scarabaeid beetles. No modern revision of the North American species is available. However, Aczél's revision (1956a-c) of the Central and South American forms contains a wealth of general information and and excellent bibliography.

Genus PYRGOTA Wiedemann

Pyrgota Wiedemann, 1830: 580. Type-species, *undata* Wiedemann (mon.).

Oxycephala Macquart, 1843a: 354 (1843: 197). Type-species, *fuscipennis* Macquart (mon.)=*undata* Wiedemann.

fenestrata (Macquart), 1851: 254 (1851: 281) (*Oxycephala*).—Amer.; Carolina to Fla.

vespertilio Gerstäcker, 1860: 189.—Carolina. **N. syn.**

undata Wiedemann, 1830: 581.—N. Amer.; Man. to Que., s. to Tex. and Fla.

nigripennis Gray *in* Griffith and Pidgeon, 1832: 779 (pl. 125, fig. 5) (*Myopa*).—Unknown.

fuscipennis Macquart, 1843a: 355 (1843: 198) (*Oxycephala*).—N. Amer.

pterophorina Gerstäcker, 1860: 190.—Carolina. **N. syn.**

Genus PYRGOTELLA Curran

Pyrgotella Curran, 1934a: 270. Type-species, *Pyrgota chagnoni* Johnson (orig. des.).

chagnoni (Johnson) 1900a: 246 (*Pyrgota*).—Que.; Minn., Ont., and Que., s. to N.C.

Genus SPHECOMYIELLA Hendel

Sphecomyiella Hendel, 1933a: 1. Type-species, *Sphecomyia valida* Harris (mon.).

maculipennis (Macquart) 1846: 338 (1846: 210) (*Oxycephala*).—Tex.; Ky. to Md., s. to Tex. and Fla. **N. comb.**

filiola Loew, 1876: 332 (*Pyrgota*).—Tex. **N. syn.**

debilis Osten Sacken, 1877: 343 (*Pyrgota*).—Ky.

valida (Harris), 1841: 410 (*Sphecomyia*).—Mass.; Minn. to Ont. and Mass., s. to Fla.

millepunctata Loew, 1854: 22 (*Pyrgota*).—Carolina, D.C., N.Y., Ill.

Family TEPHRITIDAE

(Trypetidae, Trupaneidae)

By Richard H. Foote

Females of most species of Tephritidae oviposit in living, healthy plant tissue and their larvae live and feed in various parts of the plant. Some form stem and root galls, a very few mine leaves, while others develop in fleshy fruits and in the seeds and ovaries of various flowers, principally composites. The larvae of fruit flies of the greatest economic importance develop within fleshy fruits and vegetables, their eggs being inserted directly beneath the epidermis. They take a heavy toll of these plant products in commercial plantings over the entire world and constitute one of the most economically important families of the Diptera. A supergeneric classification of the family was proposed by Hering; it has not been adopted in this catalog because the Nearctic genera have not been studied adequately.

REFERENCES: Snodgrass, 1924 (larval morphology); Greene, 1929 (larval tax.); Benjamin, 1934 (adult tax., principally Fla.); Curran, 1934a (key to genera); Phillips, 1946 (larval tax.); Hering, 1947 (subfamilies and tribes); Peterson, 1951 (larval tax.); Christenson and Foote, 1960 (biol.).

Genus TOXOTRYPANA Gerstäcker

Toxotrypana Gerstäcker, 1860: 191. Type-species, *curvicauda* Gerstäcker (mon.).

Mikimyia Bigot, 1884c: xxix. Type-species, *furcifera* Bigot (mon.) = *curvicauda* Gerstäcker.

The single species is the well-known papaya fruit fly of the New World. It is commonly found in both wild and cultivated papayas and has also been recorded from mango, the only other known host.

REFERENCES: Knab and Yothers, 1914 (biol.); Benjamin, 1934 (descr.); Baker et al., 1944 (biol., descr., distribution).

curvicauda Gerstäcker, 1860: 194.—Virgin Is. (St. John); s. Tex. and Fla., s. to Brazil, West Indies, Bahama Is.

furcifera Bigot, 1884c: xxix (*Mikimyia*).—Brazil.

Genus RHYNENCINA Johnson

Rhynencina Johnson, 1922: 24. Type-species, *longirostris* Johnson (orig. des.).

Aleomyia Phillips, 1923: 123. Type-species, *alpha* Phillips (orig. des.) = *longirostris* Johnson.

longirostris Johnson, 1922: 24.—Pa.; Md., Ga.

alpha Phillips, 1923: 124 (*Aleomyia*).—Md. **N. syn.**

Genus UROPHORA Robineau-Desvoidy

Euribia Meigen, 1800: 36. Type-species, *Musca cardui* Linnaeus (Hendel, 1927a: 41). Suppressed by I.C.Z.N., 1963b: 339.

Urophora Robineau-Desvoidy, 1830: 769. Type-species, *sonchi* Robineau-Desvoidy (Westwood, 1840: 149) = *cardui* (Linnaeus).

REFERENCE: Bezzi, 1923 (rev.).

formosa (Coquillett), 1894b: 71 (*Trypeta*).—Calif.; Oreg., Idaho, Ariz.

caurina Doane, 1899: 182 (*Rhagoletis*).—Oreg. **N. syn.**

grindeliae (Coquillett), 1908: 146 (*Rhagoletis*).—Tex.; Calif., Colo.

jaceana (Hering), 1935: 169 (*Euribia*).—Poland; Nfld., N.S.

rufipes (Curran), 1932c: 2 (*Aleomyia*).—Ariz.

timberlakei Blanc and Foote, 1961: 81.—Calif.

Genus CALLACHNA Aldrich

Callachna Aldrich, 1929a: 11. Type-species, *Trypeta gibba* Loew (orig. des.).

gibba (Loew), 1873b: 260 (*Trypeta*).—Tex.; Mich. to Pa., s. to Tex. and La.

Genus PERONYMA Loew

Peronyma Loew, 1873b: 250. Type-species, *Trypeta sarcinata* Loew (orig. des.).

Tomoplagina Curran, 1932e: 14. Type-species, *maculata* Curran (orig. des.)=*sarcinata* (Loew).

REFERENCE: Benjamin, 1934 (descr.).

sarcinata (Loew), 1862b: 218 (Cent. 2, no. 73) (*Trypeta*).—Carolina; N.C., s. to Ala. and Fla.

maculata Curran, 1932e: 14 (*Tomoplagina*).—Fla.

Genus PROCECIDOCHARES Hendel

Oedaspissolidago Patton, 1897: 247. Type-species, *Trypeta atra* Loew (mon.). [In the interest of stability, the author has applied to the I.C.Z.N. for suppression of this valid name.]

Procecidochares Hendel, 1914e: 91 (also 1914c: 42). Type-species, *Trypeta atra* Loew (orig. des.).

Oedaspis, authors, not Loew.

REFERENCE: Aldrich, 1929a (rev.).

anthracina (Doane), 1899: 180 (*Oedaspis*).—Idaho; Oreg. to Mich., s. to Calif. and Ariz.

atra (Loew), 1862b: 219 (Cent. 2, no. 74) (*Trypeta*).—N.Y.; Kans. to Maine, s. to Fla.

setigera Coquillett, 1899e: 262 (*Oedaspis*).—Va.

australis Aldrich, 1929a: 9 (as *atra* var.).—Tex.; S.C., Fla.

blantoni Hering, 1940d: 12.—Oreg.

flavipes Aldrich, 1929a: 5.—Mexico (Socorro I. in Baja Calif.); Calif.

grindeliae Aldrich, 1929a: 6.—Calif.; Colo.

minuta (Snow), 1894a: 164 (*Oedaspis*).—Mont.; Wash. to Mich., s. to Calif. and Tex.

montana (Snow), 1894a: 163 (*Oedaspis*).—Mont.

pleuralis Aldrich, 1929a: 9.—Ariz.

polita (Loew), 1862c: 77 (*Trypeta*).—Miss., Wash.; Wash., Kans. to Mass., s. to Miss. and Fla.
stonei Blanc and Foote, 1961: 77.—Calif.

Genus PROCECIDOCHAROIDES Foote

Procecidocharoides Foote, 1960c: 671. Type-species, *Trypeta penelope* Osten Sacken (orig. des.).

caliginosus Foote, 1960c: 674.—N. Mex.
flavissimus Foote, 1960c: 672.—Calif.
penelope (Osten Sacken), 1877: 346 (*Trypeta*).—N.Y.; Mich., Ill., Ohio, Pa., Mass., N.J.
pullatus Foote, 1960c: 673.—Ariz.; N. Mex.

Genus EUTRETA Loew

Icaria Schiner, 1868: 276 (preocc. Saussure, 1853). Type-species, *Trypeta sparsa* Wiedemann (orig. des.).
Eutreta Loew, 1873b: 276. Type-species, *Trypeta sparsa* Wiedemann (Coquillett, 1910b: 543).

REFERENCE: Curran, 1932e (key, descrs.).

angusta Banks, 1926: 44.—Tex.
baccharis (Coquillett), 1894b: 73 (*Trypeta*).—Calif.; s. Calif. to Kans., s. to n. Mexico.
fasciata Adams, 1904b: 449 (*Icterica*).—Ariz.
diana (Osten Sacken), 1877: 347 (*Trypeta*).—Mo.; Wash. to Mont., s. to Calif. and Mo.
var. **tricolor** Snow, 1894a: 168.—Mont.
facialis Curran, 1932e: 17.—Mont.
frontalis Curran, 1932e: 16.—N.C.; Nev. to N.Y., s. to Tex. and N.C.
hespera Banks, 1926: 44.—Calif., Colo.; Nev., N. Mex., Tex.
jonesi Curran, 1932e: 19.—Oreg.; Oreg. to Wyo., s. to Calif. and Nev.
longicornis Snow, 1894a: 168.—Mont.; Idaho.
oregona Curran, 1932e: 18.—Oreg.; Calif., Nev.
pacifica Curran, 1932e: 17.—Calif.; Colo., Ariz., Tex.
pollinosa Curran, 1932e: 18.—Oreg.; Wash. and Idaho, s. to Calif. and Utah.
rotundipennis (Loew), 1862c: 79 (*Trypeta*).—Middle States; Kans. to Md., s. to N.C.
simplex Thomas, 1914: 425.—Colo.
sparsa (Wiedemann), 1830: 492 (*Trypeta*).—Unknown; Colo. to Maine, s. to La. and N.C.
caliptera Say, 1830: 187 (1859b: 370) (*Trypeta*).—Ind.
calyptera, error or emend.

latipennis Macquart, 1843a: 357 (1843: 200) (*Platystoma*).—Unknown.
novaeboracensis Fitch, 1855: 771 (1856: 67) (*Acinia*).—N.Y.
cribripennis Harris *in* Johnson, 1925c: 97 (*Trypeta*). Nomen nudum.

Genus CRYPTOTRETA Blanc and Foote

Cryptotreta Blanc and Foote, 1961: 82. Type-species, *Eurosta pallida* Cole (orig. des.).

pallida (Cole), 1923a: 472 (*Eurosta*).—Mexico (Baja Calif.); Calif.

Genus PARACANTHA Coquillett

Paracantha Coquillett, 1899e: 264. Type-species, *Trypeta culta* Wiedemann (orig. des.).
Carphotricha, authors, not Loew.
Scriptotricha (error) Cockerell, 1889a: 1.

REFERENCE: Malloch, 1941a (rev.).

culta (Wiedemann), 1830: 486, 680 (*Trypeta;* as *cutta*, p. 486).—Ga.; Wash. to Del., s. to Calif. and Fla.
fimbriata Macquart, 1843a: 385 (1843: 228) (*Acinia*).—Carolina.
sarnia Walker, 1849: 1029 (*Trypeta*).—Unknown.
cultaris (Coquillett), 1894b: 72 (*Trypeta*).—s. Calif.; Wash. to Nebr., s. to Calif. and Tex.
forficula Benjamin, 1934: 31.—Fla.
genalis Malloch, 1941a: 40.—Calif.; Idaho and Mont., s. to Calif. and Tex.
gentilis Hering, 1940a: 54.—Wyo.; Oreg. to Mont., s. to Calif. and Tex.
mimetica Malloch, 1941a: 41.—Oreg.
elongata Malloch, 1941a: 41 (as *mimetica* var.).—N. Mex.
marginepunctata (Macquart), 1835: 464 (*Carphotricha*).—Pa. Unrecognized.

Genus EUROSTA Loew

Eurosta Loew, 1873b: 280. Type-species, *Trypeta solidaginis* Fitch (Coquillett, 1910b: 543) ?=*asteris* (Harris).
Eurostina Curran, 1932e: 4. Type-species, *Trypeta latifrons* Loew (orig. des.).

The larvae form galls in roots and stems of a wide variety of plants. The species appear to be rather host-specific, and each forms a gall of characteristic appearance on its host-plant group.

REFERENCES: Phillips, 1923 (key); Benjamin, 1934 (descrs. Fla. spp.).

asteris (Harris), 1841: 417 (*Tephritis;* preocc. Haliday, 1838).—Mass. Unrecognized.

comma (Wiedemann), 1830: 478 (*Trypeta*).—Ky.; Colo. to Maine, s. to n. Fla.

alvea Walker, 1849: 1027 (*Trypeta*).—N. Amer. (as Australia, error; Hardy, 1959c: 208).

dertona Walker, 1849: 1028 (*Trypeta*).—N. Amer. (Hardy, 1959c: 213).

conspurcata Doane, 1899: 186.—Wash.; N.Y., N.H., Mass., N.J.

donysa (Walker), 1849: 1007 (*Trypeta*).—Unknown; Fla.

nicholsoni Benjamin, 1934: 27.—Fla.

elsa Daecke, 1910: 342.—N.Y., Md.; Maine to Md.

fenestrata Snow, 1894a: 169.—Ariz.; Fla.

latifrons (Loew), 1862c: 89 (*Trypeta*).—Carolina; Wis. to Maine, s. to N.C.

cribrata Wulp, 1867: 158 (*Trypeta*).—Wis.

confusa Curran, 1934a: 293 (*Eurostina*). Nomen nudum.

reticulata Snow, 1894a: 170.—Mont.; Mont. to N.H., s. to Colo. and Pa.

solidaginis (Fitch), 1855: 771 (1856: 67) (*Acinia*).—N.Y.; s. N.W.T. to Maine, s. to B.C. and Kans. ?=*asteris*.

var. **fascipennis** Curran, 1923p: 302.—Ont.; Sask., Pa.

var. **subfasciata** Curran, 1923p: 302.—B.C.

Genus ACIDOGONA Loew

Acidogona Loew, 1873b: 285. Type-species, *Trypeta melanura* Loew (orig. des.).

REFERENCE: Benjamin, 1934 (descr.).

melanura (Loew), 1873b: 283 (*Trypeta*).—D.C.; Mass. to Fla.

Genus JAMESOMYIA Quisenberry

Jamesomyia Quisenberry, 1949a: 49. Type-species, *Trypeta geminata* Loew (orig. des.).

geminata (Loew), 1862b: 220 (Cent. 2, no. 75) (*Trypeta*).—Pa.; Mich. to N.H., s. to Mo. and W. Va.

Genus XANTHOMYIA Phillips

Xanthomyia Phillips, 1923: 140. Type-species, *Trypeta platyptera* Loew (orig. des.).

nora (Doane), 1899: 184 (*Eutreta*).—Idaho; Colo.

platyptera (Loew), 1873b: 306 (*Trypeta*).—Conn.; Mich. to Vt., s. to Ohio and Va., ?Colo.

Genus XENOCHAETA Snow

Xenochaeta Snow, 1894a: 166. Type-species, *dichromata* Snow (orig. des.).

REFERENCE: Foote, 1960h (rev.).

aurantiaca (Doane), 1899: 185 (*Eutreta*).—Wash.
dichromata Snow, 1894a: 166.—Oreg.; Wash., Calif.

Genus ACINIA Robineau-Desvoidy

Acinia Robineau-Desvoidy, 1830: 775. Type-species, *jaceae* Robineau-Desvoidy (Rondani, 1871b: 4; 1871: 4)=*corniculata* (Zetterstedt).

REFERENCE: Benjamin, 1934 (descr.).

picturata (Snow), 1894a: 173 (*Tephritis*).—Fla.; s. Calif. to Fla., N.Y. to Ga., Mexico, West Indies.
fucata, N. Amer. authors, not Fabricius.

Genus ICTERICA Loew

Icterica Loew, 1873b: 287. Type-species, *Trypeta seriata* Loew (Coquillett, 1910b: 555).

REFERENCES: Phillips, 1923 (key, descrs.); Steyskal and Foote, 1962 (notes).

circinata (Loew), 1873b: 288 (*Trypeta*).—N.Y.; Wis., N.J.
seriata (Loew), 1862c: 84 (*Trypeta*).—Middle States; Nebr. to Maine, s. to Ariz. and N.J.
sericata, error.

Genus ACROTAENIA Loew

Acrotaenia Loew, 1873b: 274. Type-species, *Trypeta testudinea* Loew (orig. des.).

REFERENCE: Foote, 1960h (distribution, descr.).

testudinea (Loew), 1873b: 272 (*Trypeta*).—Cuba; Fla.

Genus OXYNA Robineau-Desvoidy

Oxyna Robineau-Desvoidy, 1830: 755. Type-species, *Musca parietina* Linnaeus (Rondani, 1856: 110).

REFERENCE: Quisenberry, 1949c (rev.).

aterrima (Doane), 1899: 187 (*Eurosta*).—Colo.; Oreg., Utah, Calif.
palpalis (Coquillett), *in* Baker, 1904: 30 (*Tephritis*).—Nev.; Wash. and Idaho, s. to Calif. and Utah.
utahensis Quisenberry, 1949c: 73.—Utah; Wash., Calif.

Genus EUARESTA Loew

Euaresta Loew, 1873b: 296. Type-species, *Trypeta festiva* Loew (Coquillett, 1910b: 540).
Camaromyia Hendel, 1914e: 95. Type-species, *Trypeta bullans* Wiedemann (orig. des.).
Euaresta, subg. *Setigeresta* Benjamin, 1934: 50. Type-species, *Trypeta aequalis* Loew (orig. des.).

REFERENCE: Quisenberry, 1950 (rev.).

aequalis (Loew), 1862c: 86 (*Trypeta*).—Pa.; s. Canada, throughout U.S.
gemella Coquillett, 1902e: 181 (*Tephritis*).—N. Mex.
bella (Loew), 1862c: 88 (*Trypeta*).—Wash., N.Y.; s. Canada, throughout U.S.
bellula Snow, 1894a: 172.—Ariz.; Wash. and Idaho, s. to s. Calif. and Tex.
stelligera Coquillett, 1894b: 74 (*Trypeta*).—s. Calif.
bullans (Wiedemann), 1830: 506 (*Trypeta*).—Uruguay; Calif., Chile, Brazil, Uruguay, s. Africa, Australia.
adspersa Coquillett *in* Baker, 1904: 30.—Calif.
wolffi Cresson, 1931a: 5 (*Tephritis*).—s. Calif.
festiva (Loew), 1862c: 86 (*Trypeta*).—Pa.; Idaho to Conn., s. to Colo. and N.C.
jonesi Curran, 1932c: 9.—Oreg.; Wash.
stigmatica Coquillett, 1902e: 180.—Ariz.; Mont. to Mich., s. to Calif. and Tex.
tapetis (Coquillett), 1894b: 75 (*Trypeta*).—N. Mex.; Wash. to Kans., s. to Calif. and N. Mex.

Genus PAROXYNA Hendel

Paroxyna Hendel, 1927a: 146. Type-species, *Trypeta tessellata* Loew (orig. des.).
Ensina, authors, not Robineau-Desvoidy.

albiceps (Loew), 1873b: 302 (*Trypeta*).—Canada, Maine; Mich. ne. U.S.
euryptera Loew, 1873b: 304 (*Trypeta*).—N.Y.
americana Hering, 1944: 11 (as *difficilis* ssp.).—Colo; Calif.
franciscana Hering, 1947: 5.—Calif.

clathrata (Loew), 1862c: 80 (*Trypeta*).—Middle States; throughout U.S.
coloradensis Quisenberry, 1949b: 85.—Colo.
corpulenta (Cresson), 1907a: 103 (*Tephritis*).—N. Mex.; Calif.
distincta Quisenberry, 1949b: 85.—Colo.
dupla (Cresson), 1907a: 102 (*Tephritis*).—N. Mex.
fibulata (Wulp), 1900: 421 (*Tephritis*).—Mexico; N. Mex., ?Utah.
genalis (Thomson), 1869: 585 (*Trypeta*).—Calif.
maculifemorata Hering, 1947: 6.—Wash.
murina (Doane), 1899: 189 (*Tephritis*).—Wash.; Oreg., Calif., N. Mex.
pallidipennis (Cresson), 1907a: 104 (*Tephritis*).—Colo.; Calif.
snowi Hering, 1944: 8 (n. name for *obscuripennis* Snow).—Oreg.; Calif.
obscuripennis Snow, 1894a: 174 (*Tephritis;* preocc. Loew, 1850).—Oreg. (Foote, 1962: 176).
tenebrosa (Coquillett), 1899e: 264 (*Tephritis*).—Colo.
variabilis (Doane), 1899: 188 (*Tephritis*).—Wash.; Oreg., Calif.

Genus DIOXYNA Frey

Dioxyna Frey, 1945: 62. Type-species, *Trypeta sororcula* Wiedemann (orig. des.).

picciola (Bigot), 1857a: 347 (1857: 824) (*Acinia*).—Cuba; Calif. to Fla., s. to Costa Rica and Cuba.
humilis Loew, 1862c: 81 (*Trypeta*).—Cuba.
aurifera Thomson, 1869: 585 (*Trypeta*).—Calif.
sororcula, authors, not Wiedemann.
thomae (Curran), 1928d: 70 (*Ensina*).—Virgin Is. (St. Thomas I.); Fla., West Indies.

Genus TRUPANEA Schrank

Trupanea Guettard, 1762: 170–173. Unavailable name (author not binominal).
Trupanea Schrank, 1795: 147. Type-species, *radiata* Schrank (mon.) = *stellata* (Fuessley).
Trypanea, emend.
Urellia Robineau-Desvoidy, 1830: 774. Type-species, *calcitrapae* Robineau-Desvoidy (Coquillett, 1910b: 618) = *stellata* (Fuessley).

Larvae develop in the ovaries of various flowers, principally composites.

References: Malloch, 1942 (rev.); Foote, 1960g (rev.).

actinobola (Loew), 1873b: 326 (*Trypeta*).—Tex.; Idaho to Mass., s. to Calif., n. Mexico, and Fla.

ageratae Benjamin, 1934: 56.—Fla.

arizonensis Malloch, 1942: 15.—Ariz.; Calif., Tex., Mexico (Baja Calif.).

bisetosa (Coquillett), 1899e: 266 (*Urellia*).—N. Mex.; Idaho and Wyo., s. to Calif. and Tex.

californica Malloch, 1942: 17.—Calif.; Wash. to Colo., s. to Calif. and Tex.

microsetulosa Malloch, 1942: 17.—Calif.

conjuncta (Adams), 1904b: 451 (*Urellia*).—Ariz.; Calif.

dacetoptera Phillips, 1923: 148.—N.Y.; Mich., Maine to Fla.

eclipta Benjamin, 1934: 57.—Fla.

femoralis (Thomson), 1869: 582 (*Trypeta*).—Calif.; Wyo., Kans.

occidentalis Adams, 1904b: 452 (*Urellia*).—Calif.

imperfecta (Coquillett), 1902e: 181 (*Urellia*).—Ariz.; Calif., Nev.

jonesi Curran, 1932e: 6.—Oreg.; Oreg. to Mont., s. to Calif. and Tex.

microstigma Curran, 1932e: 7.—Oreg.

maculigera Foote, 1960g: 13.—Calif.

mevarna (Walker), 1849: 1023 (*Trypeta*).—Fla.; Kans., R.I. to Ala. and Fla.

maverna, error.

solaris Loew, 1862c: 84 (*Trypeta*).—Ga.

daphne, authors, not Wiedemann.

nigricornis (Coquillett), 1899e: 266 (*Urellia*).—Colo.; Oreg. to Wyo., s. to Calif. and N. Mex.

pseudovicina Hering, 1947: 12 (n. name for *texana* Hering).—Tex.; Calif., Ariz., N. Mex.

texana Hering, 1942: 29 (preocc. Malloch, 1942).—Tex.

radifera (Coquillett), 1899e: 267 (*Urellia*).—Ariz.; Alta. and Mont., s. to Calif. and Tex.

hebes Curran, 1932e: 9.—Wyo.

signata Foote, 1960g: 22.—Calif.; Oreg., Nebr., Ariz., Tex.

texana Malloch, 1942: 13.—Tex.; Ariz. to Okla. and La.

vicina (Wulp), 1900: 427 (*Urellia*).—Mexico; Calif. to La., s. to Mexico (D.F.).

wheeleri Curran, 1932e: 7.—Calif.; Utah to Mexico (Baja Calif.) and N. Mex.

Genus TEPHRITIS Latreille

Tephritis Latreille, 1804: 196. Type-species, *Musca arnicae* Linnaeus (Cresson, 1914b: 278).

Trupanea, subg. *Tephritoides* Benjamin, 1934: 58. Type-species, *Euaresta subpura* Johnson (orig. des.).

REFERENCES: Quisenberry, 1951 (rev.); Foote, 1960e (key, distribution).

angustipennis (Loew), 1844b: 382 (*Trypeta*).—Scandinavia; Alaska, sw. Canada, N.Y. to Maine, Holarctic.

araneosa (Coquillett), 1894b: 74 (*Trypeta*).—Calif.; Wash. to Mich., s. to Calif. and Ga.

aldrichii Doane, 1899: 192 (*Urellia*).—S. Dak.

pacifica Doane, 1899: 192 (*Urellia*).—Oreg.

arizonaensis Quisenberry, 1951: 62.—Ariz.; Calif.

arizonensis, emend. or error.

californica Doane, 1899: 190.—Calif.; n. Mexico.

candidipennis Foote, 1960e: 82.—Calif.; Oreg., Mich.

labecula Foote, 1959a: 13.—Utah; Calif., Nev., Wyo.

michiganensis Quisenberry, 1951: 68.—Man.; Mich.

opacipennis Foote, 1960e: 74.—Calif.

ovatipennis Foote, 1960e: 81.—Calif.

pura (Loew), 1873b: 320 (*Trypeta*).—Mass.; Man., Minn., Mich., Maine to Fla.

tribulis Harris, 1835: 600 (*Trypeta*). Nomen nudum.

rufipennis Doane, 1899: 190.—Calif.

signatipennis Foote, 1960e: 77.—Calif.; Nev.

stigmatica (Coquillett), 1899e: 266 (*Urellia*).—Colo.; Wash. to Mont., s. to Calif. and Tex.

subpura (Johnson), 1909b: 114 (*Euaresta*).—N.J.; N.Y. to Fla.

webbii Doane, 1899: 189.—Idaho; Idaho to Man. and Minn., s. to Calif. and Nev.

Genus DYSEUARESTA Hendel

Dyseuaresta Hendel, 1928a: 368. Type-species, *Euaresta adelphica* Hendel (orig. des.).

REFERENCE: Benjamin, 1934 (descr.).

mexicana (Wiedemann), 1830: 511 (*Trypeta*).—Mexico; Ariz., Tex., Fla., West Indies.

Genus NEOTEPHRITIS Hendel

Neotephritis Hendel, 1935b: 54. Type-species, *Trypeta finalis* Loew (orig. des.).

REFERENCE: Foote, 1960f (rev.).

finalis (Loew), 1862b: 222 (Cent. 2, no. 78) (*Trypeta*).—Calif.; Wash. and Alta. to Va., s. to Calif., n. Mexico, and Ga.
affinis Snow, 1894a: 172 (*Tephritis*).—Wash., Mont., Calif.
inornata (Coquillett), 1902e: 181 (*Tephritis*).—N. Mex.; Utah and Colo., s. to Calif. and Tex.
rava Foote, 1960f: 150.—Ariz.

Genus EUARESTOIDES Benjamin

Trupanea, subg. **Euarestoides** Benjamin, 1934: 57. Type-species, *Trypeta abstersa* Loew (orig. des.).

REFERENCE: Foote, 1958 (rev.).

abstersus (Loew), 1862b: 221 (Cent. 2, no. 77) (*Trypeta*).—N. Amer.; N.Y. to Fla.
acutangulus (Thomson), 1869: 583 (*Trypeta*).—Calif.; Alta. to Mich., s. to Calif. and n. Mexico.
arnaudi Foote, 1958: 291.—Calif.; Ariz.
flavus (Adams), 1904b: 450 (*Urellia*).—Ariz.; N. Mex.

Genus MYLOGYMNOCARENA Foote

Mylogymnocarena Foote, 1960h: 111. Type-species, *Urellia apicata* Thomas (orig. des.).

apicata (Thomas), 1914: 428 (*Urellia*).—Colo.

Genus METATEPHRITIS Foote

Metatephritis Foote, 1960h: 110. Type-species, *fenestrata* Foote (orig. des.).
fenestrata Foote, 1960h: 110.—Wyo.

Genus MYOLEJA Rondani

Myoleja Rondani, 1856: 112. Type-species, *Tephritis lucida* Fallén (orig. des.).
Myiolia, error or emend.
Pseudeuleia Hering, 1940c: 16. Type-species, *Aciura limata* Coquillett (orig. des.).
Aciura, in part, authors, not Robineau-Desvoidy.

REFERENCE: Blanc and Foote, 1961 (key).

limata (Coquillett), 1899e: 263 (*Aciura*).—Mass.; Mich., Mass. to Fla.
nigricornis (Doane), 1899: 183 (*Aciura*).—Pa.; Mich. to Maine, s. to Fla.
unifasciata Blanc and Foote, 1961: 73.—Calif.

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Genus ACIURINA Curran

Aciurina Curran, 1932e: 9. Type-species, *trixa* Curran (orig. des.).
Aciura, in part, authors, not Robineau-Desvoidy.
Tephrella, authors, not Bezzi.

REFERENCES: Curran, 1932e (key); Bates, 1935 (rev., as *Tephrella*).

aplopappi (Coquillett), 1894b: 72 (*Trypeta*).—s. Calif.; Ariz.
bigeloviae (Cockerell), 1890c: 324 (*Trypeta*).—Colo.; Utah, Ariz., N. Mex.
bigeloviae Townsend, 1893k: 49 (*Eurosta*).—Colo.
var. **disrupta** (Cockerell), 1890c: 324 (*Trypeta*).—Colo.
ferruginea (Doane), 1899: 182 (*Aciura*).—Wash.; Wash. to Wyo., s. to Calif. and N. Mex.
lutea (Coquillett), 1899e: 264 (*Aciura*).—Utah; Nev.
maculata (Cole) *in* Cole and Lovett, 1919: 252 (*Aciura*).—Oreg.; Wash., Calif.
pacifica Curran, 1932e: 10.—Wash.
notata (Coquillett), 1899e: 262 (*Trypeta*).—N. Mex.
opaca (Coquillett), 1899e: 263 (*Aciura*).—Nev.; Colo.
johnsoni Thomas, 1914: 426 (*Acidia*).—Colo.
semilucida (Bates), 1935: 111 (*Tephrella*).—Wash.
thoracica Curran, 1932e: 11.—Calif.; Ariz.
trilitura Blanc and Foote, 1961: 75.—Calif.
trixa Curran, 1932e: 11.—Utah; Idaho and Mont., s. to Calif. and N. Mex.

Genus VALENTIBULLA Foote and Blanc

Valentibulla Foote and Blanc, 1959: 149. Type-species, *Trypeta californica* Coquillett (orig. des.).

californica (Coquillett), 1894b: 73 (*Trypeta*).—s. Calif.; Nev., Utah.
mundula Coquillett, 1899e: 265 (*Euaresta*).—Utah.
munda (Coquillett), 1899e: 265 (*Euaresta*).—Nev.; Idaho, Mont., Colo.
euarestoides Bates, 1935: 106 (*Tephrella*).—Colo.
thurmanae Foote *in* Foote and Blanc, 1959: 154.—Calif.

Genus XANTHACIURA Hendel

Xanthaciura Hendel, 1914e: 86. Type-species, *Trypeta chrysura* Thomson (orig. des.).
Tetraciura Hendel, 1914e: 90. Type-species, *quadrisetosa* Hendel (orig. des.).

Aciura, subg. *Eucosmoptera* Phillips, 1923: 131. Type-species, *tetraspina* Phillips (Bates, 1933: 55).
Aciura, in part, authors, not Robineau-Desvoidy.

REFERENCE: Benjamin, 1934 (descrs.).

connexionis Benjamin, 1934: 45.—Fla.
brevinervis Malloch, 1933c: 269. Nomen nudum.
insecta (Loew), 1862c: 72 (*Trypeta*).—Cuba; Tex. to N.C., s. to Fla., n. Mexico, West Indies, Bahama Is.
tetraspina (Phillips), 1923: 132 (*Aciura*).—Mo.; Utah to Ind., s. to n. Mexico and Fla.

Genus STENOPA Loew

Stenopa Loew, 1873b: 234. Type-species, *Trypeta vulnerata* Loew (orig. des.).

REFERENCE: Quisenberry, 1949b (descr.).

affinis Quisenberry, 1949b: 87.—Colo.; Ariz.
vulnerata (Loew), 1873b: 232 (*Trypeta*).—Mass.; throughout U.S.

Genus ORELLIA Robineau-Desvoidy

Orellia Robineau-Desvoidy, 1830: 765. Type-species, *flavicans* Robineau-Desvoidy (mon.)=*punctata* (Schrank).

REFERENCE: McFadden and Foote, 1961 (rev.).

occidentalis (Snow), 1894a: 163 (*Trypeta*).—Colo.; B.C. and Mont., s. to Calif. and Tex.
straminea Doane, 1899: 179 (*Trypeta*).—Wash.
palposa (Loew), 1862c: 74 (*Trypeta*).—Wis.; Oreg. to Nfld., s. to Calif. and Ga.
ruficauda (Fabricius), 1794: 353 (*Musca*).—France; B.C. to Nfld., s. to Calif.
florescentiae, authors, not Linnaeus.
undosa (Coquillett), 1899e: 262 (*Trypeta*).—Colo.; Idaho, Wyo., Calif.

Genus PARATERELLIA Foote

Paraterellia Foote, 1960a: 121. Type-species, *Trypeta varipennis* Coquillett (orig. des.).

superba Foote, 1960a: 123.—Calif.; Utah, Colo., Ariz.
varipennis (Coquillett), 1902e: 180 (*Trypeta*).—Ariz.; Oreg., Calif., Nev., N. Mex.
versatilis Curran, 1932e: 13 (*Trypeta*).—Oreg.
ypsilon Foote, 1960a: 124.—Calif.

Genus NEASPILOTA Osten Sacken

Aspilota Loew, 1873b: 286 (preocc. Förster, 1862). Type-species, *Trypeta alba* Loew (Coquillett, 1910b: 511).

Neaspilota Osten Sacken, 1878c: 192 (n. name for *Aspilota* Loew). Type-species, *Trypeta alba* Loew (aut.).

Aspilomyia Hendel, 1907a: 98 (n. name for *Aspilota* Loew). Type-species, *Trypeta alba* Loew (aut.).

REFERENCE: Quisenberry, 1949b (key).

achilleae Johnson, 1900b: 328.—N.J., Pa., Ga.; Maine to Fla.

alba (Loew), 1861b: 345 (Cent. 1, no. 72) (*Trypeta*).—Pa.; Mont. to R.I., s. to N. Mex. and N.C.

albidipennis (Loew), 1861b: 345 (Cent. 1, no. 73) (*Trypeta*).—Pa.; Mich., Mass., Conn., N.J.

albipennis, error.

brunneostigmata Doane, 1899: 187.—Wash.; Oreg., Calif., N. Mex.

brunneistigma, error.

dolosa Benjamin, 1934: 39.—Fla.

punctistigma Benjamin, 1934: 38.—Fla.

signifera Coquillett, 1894b: 73.—s. Calif.; Ariz.

vernoniae (Loew), 1861b: 346 (Cent. 1, no. 74) (*Trypeta*).—Pa.; Mich. to Mass., s. to Kans. and Fla.

viridescens Quisenberry, 1949b: 82.—Colo.

wilsoni Blanc and Foote, 1961: 78.—Calif.

Genus CERATITIS Macleay

Ceratitis Macleay, 1829: 482. Type-species, *citriperda* Macleay (mon.)=*capitata* (Wiedemann).

The single species treated below is not now known to occur on the continent north of Nicaragua. On three previous occasions, however, outbreaks of this fly have threatened the commercial citrus growing region of Florida.

REFERENCES: Newell, 1930 (summary, 1928 Fla. infestation); Steiner et al., 1961 (summary, 1956 Fla. infestation).

capitata (Wiedemann), 1824: 55 (*Trypeta*).—East Indies (probably error); Bermuda, Nicaragua, Costa Rica, Brazil, Argentina, Uruguay, Peru, Azores, Canary Is., Mediterranean, Africa, Madagascar, Mauritius, Zanzibar, Australia, Hawaii.

Genus ANASTREPHA Schiner

Anastrepha Schiner, 1868: 263. Type-species, *Dacus serpentinus* Wiedemann (orig. des.).

Several *Anastrepha* species, especially *ludens*, the Mexican fruit fly, are inimical to commercial fruit growers throughout the tropical and subtropical Americas. The genus is of primary economic importance.

References: Stone, 1942 (rev.); Baker et al., 1944 (biol., *ludens* and others, descrs.).

chiclayae Greene, 1934b: 167.—Peru; s. Tex., n. Mexico to Panama.
distincta Greene, 1934b: 149.—Peru; s. Tex. to Peru and Brazil.
edentata Stone, 1942: 48.—Fla.; P.R.
fraterculus (Wiedemann), 1830: 524 (*Dacus*).—Brazil; s. Tex. to Chile and Argentina, also Trinidad, British Guiana, Tobago.
unicolor Loew, 1862c: 70 (*Trypeta*).—Colombia.
interrupta Stone, 1942: 62.—Fla.
lathana Stone, 1942: 105.—Mexico; s. Tex.
limae Stone, 1942: 67.—Panama; s. Tex.
ludens (Loew), 1873b: 223 (*Trypeta*).—Mexico; s. Tex., n. Mexico to Costa Rica.
mombinpraeoptans Seín, 1933: 187 (as *fraterculus* var.).—P.R.; s. Tex., Fla., Neotropical.
acidusa, authors, not Walker.
nigrifascia Stone, 1942: 91.—Fla.
ocresia (Walker), 1849: 1016 (*Trypeta*).—Jamaica; Fla., Cuba, Hispaniola.
tricincta Loew, 1873b: 225 (*Trypeta*).—Haiti.
serpentina (Wiedemann), 1830: 521 (*Dacus*).—Brazil; s. Tex. to Peru, also Trinidad, British Guiana.
spatulata Stone, 1942: 61.—Mexico; s. Tex. to Panama.
striata Schiner, 1868: 264.—S. Amer.; s. Tex., Neotropical.
suspensa (Loew), 1862c: 69 (*Trypeta*).—Cuba; s. Fla., Greater Antilles.
zuelaniae Stone, 1942: 82.—Panama Canal Zone; s. Tex. to Panama.

Genus LUCUMAPHILA Stone

Lucumaphila Stone, 1939b: 340. Type-species, *sagittata* Stone (orig. des.).

dentata Stone, 1939b: 343.—Mexico; s. Tex.
sagittata Stone, 1939b: 347.—Mexico; s. Tex.

Genus PSEUDODACUS Hendel

Anastrepha, subg. **Pseudodacus** Hendel, 1914e: 97. Type-species, *daciformis* Bezzi (orig. des.).

REFERENCE: Stone, 1939a (rev.).

bicolor Stone, 1939a: 288.—Tex.; Mexico (Morelos).
pallens (Coquillett), 1904c: 35 (*Anastrepha*).—Tex.; s. Tex. to Honduras.

Genus RHAGOLETIS Loew

Rhagoletis Loew, 1862a: 44. Type-species, *Musca cerasi* Linnaeus (mon.).
Zonosema Loew, 1862a: 43. Type-species, *Trypeta meigenii* Loew (Coquillett, 1910b: 622).

The larvae of *Rhagoletis* species attack commercially grown cherries, apples, walnuts, and roses, as well as many wild fruits in the United States and Canada.

REFERENCES: Illingworth, 1912 (biol., *pomonella*); Cresson, 1929 (rev.); Curran, 1932c (key); Boyce, 1935 (biol., *completa*); Pickett, 1937 (tax., males); Balduf, 1959 (biol., *basiola*).

basiola (Osten Sacken), 1877: 348 (*Trypeta*).—Mass.; Alaska to Maine, s. to Calif. and N.C.
setosa Doane, 1899: 178 (*Spilographa*).—Idaho.
flavonotata Macquart of Loew, 1873b: 244.
berberis Curran, 1932c: 8.—Oreg.; Wash. to Calif.
boycei Cresson, 1929: 413.—Ariz.
cingulata cingulata (Loew), 1862c: 76 (*Trypeta*).—Middle States; Mich. to N.H., s. to Fla.
ssp. **indifferens** Curran, 1932c: 8 (as sp.).—Oreg.; Wash. and Idaho to Calif.
completa Cresson, 1929: 412 (as *suavis* ssp.).—Calif.; Minn. to Calif. and Tex.
fausta (Osten Sacken), 1877: 346 (*Trypeta*).—N.H.; B.C. to Que., s. to Calif. and N.Y.
intrudens Aldrich, 1909: 70.—B.C.
juglandis Cresson, 1920b: 65.—Ariz.; Calif., N. Mex.
mendax Curran, 1932c: 7.—Maine; N.S., N.J.
pomonella (Walsh), 1867: 343 (*Trypeta*).—Ill.; e. N. Dak. to N.S., s. to e. Tex. and Fla.
albiscutellata Harris, 1835: 600 (*Trypeta*). Nomen nudum.
ribicola Doane, 1898: 69.—Unknown; Wash., Idaho, Mont., Calif.
striatella Wulp, 1899: 408.—Mexico; N. Mex., ?Wis., ?Ill.

suavis (Loew), 1862c: 75 (*Trypeta*).—Middle States; Minn. to Mass., s. to Ala. and N.C.

tabellaria (Fitch), 1855: 770 (1856: 66) (*Tephritis*).—N.Y.; B.C. to Maine, s. to Calif. and Ariz.

juniperinus Marcovitch, 1915: 171.—N.Y.

zephyria Snow, 1894a: 164.—s. Calif.; B.C., Wash., Oreg.

symphoricarpi Curran, 1924d: 63.—B.C.

Genus RHAGOLETOIDES Foote

Rhagoletoides Foote, 1960d: 145. Type-species, *Spilographa latifrons* Wulp (orig. des.).

latifrons (Wulp), 1899: 407 (*Spilographa*).—Mexico; Ariz. to Mexico (V.C.).

Genus ZONOSEMATA Benjamin

Zonosemata Benjamin, 1934: 17. Type-species, *Trypeta electa* Say (orig. des.).

REFERENCE: Foote, 1960h (rev.).

electa (Say), 1830: 185 (1859b: 369) (*Trypeta*).—Ind.; Okla. to Ont. and s. to e. Tex. and Fla.

flavonotata Macquart, 1855: 145 (1855: 125) (*Tephritis*).—Md.

vittigera (Coquillett), 1899e: 261 (*Zonosema*).—Tex.; Ariz. to e. Tex., s. to Mexico, ?Calif.

Genus RHAGOLETOTRYPETA Aczél

Rhagoletotrypeta Aczél, 1950: 313. Type-species, *xanthogastra* Aczél (orig. des.).

Unnamed sp.—N.J.

Genus OEDICARENA Loew

Oedicarena Loew, 1873b: 247. Type-species, *Trypeta tetanops* Loew (orig. des.).

REFERENCE: Foote, 1960h (rev.).

persuasa (Osten Sacken), 1877: 344 (*Trypeta*).—Colo.; Kans., Tex.

Genus GYMNOCARENA Hering

Gymnocarena Hering, 1940b: 4. Type-species, *Oedicarena diffusa* Snow (orig. des.).

REFERENCE: Foote, 1960h (rev.).

bicolor Foote, 1960h: 113.—Ariz.
diffusa (Snow), 1894a: 161 (*Oedicarena*).—Kans.; Wash. to N. Dak., s. to Ariz. and N. Mex.
tricolor (Doane), 1899: 191 (*Euaresta*).—S. Dak.; Wis.

Genus STRAUZIA Robineau-Desvoidy

Strauzia Robineau-Desvoidy, 1830: 718. Type-species, *inermis* Robineau-Desvoidy (Coquillett, 1910b: 609)=*longipennis* (Wiedemann).
Straussia, emend.

Studies are now underway to determine the exact status of the seven varieties described by Loew.

REFERENCE: Phillips, 1923 (descrs.).

longipennis (Wiedemann), 1830: 483 (*Trypeta*).—N. Amer.; Mont. to Maine, s. to Calif. and N.C.
inermis Robineau-Desvoidy, 1830: 718.—Pa.
armata Robineau-Desvoidy, 1830: 719.—Pa.
trimaculata Macquart, 1843a: 383 (1843: 226) (*Tephritis*).—N. Amer.
cornigera Walker, 1849: 1010 (*Trypeta*).—N. Amer.
cornifera Walker, 1849: 1011 (*Trypeta*).—U.S.
sepentaria Harris, 1835: 600 (*Trypeta*). Nomen nudum.
septenaria, *serpentaria*, errors.
var. **arculata** (Loew), 1873b: 242 (*Trypeta*).—Ill.; Mont., Colo.
var. **confluens** (Loew), 1873b: 241 (*Trypeta*).—Conn.
var. **intermedia** (Loew), 1873b: 241 (*Trypeta*).—Unknown; N.Y.
var. **longitudinalis** (Loew), 1873b: 240 (*Trypeta*).—N.Y.; Colo., Pa., Conn., N.C.
var. **perfecta** (Loew), 1873b: 239 (*Trypeta*).—Unknown; Conn., Kans.
var. **typica** (Loew), 1873b: 239 (*Trypeta*).—Pa.; Calif., Kans., Conn.
var. **vittigera** (Loew), 1873b: 241 (*Trypeta*).—Nebr.; Mont., Calif., Kans., Ill.

Genus TRYPETA Meigen

Trypeta Meigen, 1803: 277. Type-species, *Musca artemisiae* Fabricius (Coquillett, 1910b: 618).
Spilographa Loew, 1862a: 39. Type-species, *Trypeta hamifera* Loew (Coquillett, 1910b: 607).

REFERENCE: Foote, 1960b (rev.).

angustigena Foote, 1960b: 258.—Calif.

flaveola Coquillett, 1899f: 345.—Commander Is.; Alaska.
fractura (Coquillett), 1902g: 125 (*Spilographa*).—N. Mex.; Calif., Ariz.
inaequalis (Coquillett) *in* Baker, 1904: 29 (*Spilographa*).—Nev.; Wyo., Colo.
maculosa (Coquillett), 1899e: 261 (*Spilographa*).—Colo.; N. Mex.
dubia Johnson, 1903a: 102 (?*Zonosema*).—N. Mex.
sigma (Phillips), 1923: 129 (*Acidia*).—Md.; Pa.
tortilis Coquillett, 1894b: 71.—Wash.; N. Mex., Mich.

Genus EULEIA Walker

Euleia Walker, 1836: 81. Type-species, *Musca onopordinis* Fabricius (mon.)=*heraclei* (Linnaeus).
Acidia, authors, not Robineau-Desvoidy.

Euleia fratria, the parsnip leaf miner, is of considerable economic importance in the United States. A Palaearctic representative, *heraclei* (Linnaeus), does great damage by mining celery leaves and stalks.

REFERENCE: R. H. Foote, 1959b (rev.).

fratria (Loew), 1862c: 67 (*Trypeta*).—U.S.; Ont., Que., throughout U.S.
liogaster Thomson, 1869: 578 (*Trypeta*).—Calif.
uncinata (Coquillett), 1899e: 260 (*Acidia*).—Alaska (Pribilof Is.); Alaska.

Genus EPOCHRA Loew

Epochra Loew, 1873b: 238. Type-species, *Trypeta canadensis* Loew (mon.).
Epochroa, error.

REFERENCE: Foote, 1959c (tax.).

canadensis (Loew), 1873b: 235 (*Trypeta*).—Canada; B.C. to Maine, s. to Calif. and N.Y.
lunifera Hering, 1940d: 5.—Wash.

Genus CHETOSTOMA Rondani

Chetostoma Rondani, 1856: 112. Type-species, *curvinerve* Rondani (orig. des.).
Chaetostoma, emend.

REFERENCE: Blanc, 1959 (tax.).

californicum Blanc, 1959: 202.—Calif.; Man., Colo.

rubidum (Coquillett), 1899e: 260 (*Epochra*).—Colo.; Calif.
elizabethae Quisenberry, 1949b: 81.—Colo.

Genus TOMOPLAGIA Coquillett

Plagiotoma Loew, 1873b: 252 (preocc. Dujardin, 1841). Type-species, *Trypeta obliqua* Say (Coquillett, 1910b: 591).
Tomoplagia Coquillett, 1910b: 591, 615 (n. name for *Plagiotoma* Loew). Type-species, *Trypeta obliqua* Say (aut.).

REFERENCE: Aczél, 1955 (rev.).

cressoni Aczél, 1955: 347.—Calif.; Ariz., N. Mex., Tex.
obliqua (Say), 1830: 186 (1859b: 370) (*Trypeta*).—Ind.; Nebr. to N.Y., s. to Ariz., n. Mexico, and Fla., also Cuba.

Superfamily SCIOMYZOIDEA

Family HELCOMYZIDAE

By George C. Steyskal

The few species of Helcomyzidae are found on seashores in northern Eurasia, northern North America, and the Antarctic, developing in rotting seaweed.

REFERENCE: Steyskal, 1958a (rev.).

Genus HELCOMYZA Curtis

Helcomyza Curtis, 1825: pl. 66. Type-species, *ustulata* Curtis (orig. des.).
Actora Meigen, 1826: 403. Type-species, *aestuum* Meigen (mon.)= *ustulata* Curtis.
Macromelanderia Curran, 1934a: 382. Type-species, *Helcomyza mirabilis* Melander (mon.).

mirabilis Melander, 1920a: 309.—Wash.; Oreg.

Genus HETEROCHEILA Rondani

Heterostoma Rondani, 1856: 104 (preocc. Hartmann, 1843). Type-species, *Heteromyza buccata* Fallén (orig. des.).
Heterocheila Rondani, 1857: 13 (n. name for *Heterostoma* Rondani). Type-species, *Heteromyza buccata* Fallén (aut.).
Oedoparea Loew, 1862e: 10. Type-species, *Heteromyza buccata* Fallén (mon.).
Pseudosciomyza Malloch, 1923i: 214. Type-species, *Dryomyza hannai* Cole (orig. des.).

buccata (Fallén), 1820e: 2 (*Heteromyza*).—Sweden; ?N.S., Europe.
hannai (Cole), 1921: 174 (*Dryomyza*).—Alaska; Wash., Oreg.
nudiseta Curran, 1933b: 8.—Oreg.

Family ROPALOMERIDAE

(Rhopalomeridae)

By Richard H. Foote

The family Ropalomeridae is distributed throughout the Tropics and Subtropics of the New World. Adults of the single North American species are attracted to fresh exudates of various kinds of palm trees. Nothing is known about larvae or larval habitats.

REFERENCE: Malloch, 1941b (key to genera).

Genus RHYTIDOPS Lindner

Rhytidops Lindner, 1930: 135. Type-species, *chacoensis* Lindner (mon.).

floridensis (Aldrich), 1932b: 10 (*Kroeberia*).—Fla.
floridana (error) Malloch, 1941b: 51.

Family COELOPIDAE

(Phycodromidae)

By J. R. Vockeroth

All species of Coelopidae, or seaweed flies, are restricted to seacoasts. The known larvae live in decaying seaweed. *Coelopa frigida* (Fabricius) in Europe consists of at least two morphologically indistinguishable species (Remmert, 1959), and the same could be true of Nearctic *frigida*.

REFERENCES: Aldrich, 1929b (rev.); Malloch, 1933a (key to genera); Egglishaw, 1960 (biol., immature stages).

Genus COELOPA Meigen

Coelopa Meigen, 1830: 8. Type-species, *Musca frigida* Fabricius (mon.; misident.)=*pilipes* Haliday.

Subgenus COELOPA Meigen

stejnegeri Aldrich, 1929b: 5.—St. Paul I. (Bering Sea); is. of Bering Sea, s. Alaska, Vancouver I.

Subgenus FUCOMYIA Haliday

Coelopa, subg. **Fucomyia** Haliday, 1838: 186. Type-species, *Musca frigida* Fabricius (Westwood, 1840: 144).

frigida (Fabricius), 1805: 307 (*Musca*).—Norway; n. Man., Southampton I., cent. Labr., s. to R.I., is. of N. Atlantic, Europe, and China.
gravis Haliday, 1833: 167.—Ireland.
parvula Haliday, 1833: 167.—Ireland.
nitidula Zetterstedt, 1847: 2473.—Scandinavia.
eximia Stenhammar, 1854: 318 (1855: 60).—Norway.

nebularum Aldrich, 1929b: 5.—St. Paul I. (Bering Sea); is. of Bering Sea, s. Alaska, Vancouver I.

Subgenus NEOCOELOPA Malloch

Coelopa, subg. **Neocoelopa** Malloch, 1933a: 345. Type-species, *vanduzeei* Cresson (orig. des.).

vanduzeei Cresson, 1914c: 457.—Calif.; s. Alaska to s. Calif.

Genus COELOPINA Malloch

Coelopina Malloch, 1933a: 350. Type-species, *Coelopa anomala* Cole (mon.).

anomala (Cole), 1923a: 470 (*Coelopa*).—Mexico (Baja Calif.); Calif.

Family DRYOMYZIDAE

By George C. Steyskal

The small family Dryomyzidae contains species often abundant in moist woods. The immature stages are unknown.

REFERENCES: Steyskal, 1957 (rev.), 1958a (male terminalia).

Genus DRYOMYZA Fallén

Dryomyza Fallén, 1820b: 15. Type-species, *anilis* Fallén (Zetterstedt, 1846: 2082).

Dryope Robineau-Desvoidy, 1830: 618. Type-species, *communis* Robineau-Desvoidy (Coquillett, 1910b: 536)=*flaveola* (Fabricius).

Neuroctena Rondani, 1868b: 56 (1868: 254). Type-species, *Dryomyza anilis* Fallén (mon.).

anilis Fallén, 1820b: 16.—Europe; Alaska to Labr., s. to Oreg., Ill., and W. Va.
pallida Day, 1881: 89.—Conn.

bergi Steyskal, 1957: 60.—Alaska.
ferruginea Melander, 1920a: 311.—Vt.; Maine, N.H. ?=*flaveola*.
flaveola (Fabricius), 1794: 343 (*Musca*).—Europe; Alaska to N.S., Kans., N.Y., Pa., Maine.
dayi Cresson, 1920a: 34.—N.Y.
melanderi Steyskal, 1957: 63 (n. name for *maculipennis* Melander).—Alaska, Idaho; B.C., Que.
maculipennis Melander, 1920a: 311 (preocc. Macquart, 1850).—Alaska, Idaho.
setosa (Bigot), 1886a: 386 (?*Odontomera*).—Wash.; Alaska and Y.T. to N. Mex., also n. Que.
fumida Coquillett, 1901h: 616 (*Neuroctena*).—N. Mex.
simplex Loew, 1862c: 128.—Middle States; Mich. to Maine, s. to e. Tenn. and Ga.
ruthae Brimley, 1925: 75 (*Neuroctena*).—N.C.

Genus OEDOPARENA Curran

Oedoparena Curran, 1934a: 383. Type-species, *Oedoparea glauca* Coquillett (mon.).

glauca (Coquillett), 1900h: 458 (1904: 72) (*Oedoparea*).—Alaska; Alaska to Calif.

Family SEPSIDAE

By George C. Steyskal

The members of the small family Sepsidae are found most often upon excrement and carrion, but also upon many other kinds of decaying animal and vegetable matter. Owing perhaps to their habits, many species have a very broad distribution.

References: Melander and Spuler, 1917 (rev.); Steyskal, 1943b (key to genera); Hennig, 1949 (monog. Palaearctic spp., including many Holarctic spp.).

Genus DECACHAETOPHORA Duda

Decachaetophora Duda, 1926: 27. Type-species, *Sepsis aeneipes* Meijere (mon.).

aeneipes (Meijere), 1913a: 119 (*Sepsis*).—Formosa; B.C. to s. Calif., n. India to Japan.

Genus MEROPLIUS Rondani

Meroplius Rondani, 1874: 170 (1874: 4). Type-species, *Nemopoda stercoraria* Robineau-Desvoidy (orig. des.).

stercorarius (Robineau-Desvoidy), 1830: 745 (*Nemopoda*).—Europe; B.C. to Que., s. to Wash., Utah, and Fla., also Asia.
minuta Wiedemann, 1830: 468 (*Sepsis*).—N.Y.

Genus NEMOPODA Robineau-Desvoidy

Nemopoda Robineau-Desvoidy, 1830: 743. Type-species, *putris* Robineau-Desvoidy (Rondani, 1874: 170, 178; 1874: 4, 12)=*nitidula* (Fallén).

aterrima Bigot, 1886a: 390.—Calif. Unrecognized.
coeruleifrons Macquart, 1847: 110 (1847: 94).—Pa. Unrecognized.
caeruleiformis (error) Aldrich, 1905: 620.
nitidula (Fallén), 1820c: 21 (*Sepsis*).—Europe; Alta. to Que., s. to Mich. and Va.
cylindrica Fabricius, 1794: 336 (*Musca*; preocc. De Geer, 1776).—Europe.
obscuripennis Bigot, 1886a: 392.—Calif. Unrecognized.

Genus ORYGMA Meigen

Orygma Meigen, 1830: 6. Type-species, *luctuosum* Meigen (mon.).
Eugenacephala Johnson, 1922: 22. Type-species, *salsa* Johnson (orig. des.)=*luctuosum* Meigen.

luctuosum Meigen, 1830: 6.—Europe; Greenland, Labr. to Mass.
salsa Johnson, 1922: 22 (*Eugenacephala*).—Mass.
ruficeps Curran, 1925a: 25 (*Eugenacephala*).—Labr.

Genus PALAEOSEPSIS Duda

Sepsis, subg. **Palaeosepsis** Duda, 1926: 43. Type-species, *haemorrhoidalis* Schiner (Hennig, 1949: 61).

pleuralis (Coquillett), 1904c: 35 (*Sepsis*).—Tex.
pusio (Schiner), 1868: 262 (*Sepsis*).—S. Amer.; Tex., Fla., West Indies, S. and Cent. Amer.
insularis Williston, 1896c: 431 (*Sepsis*).—St. Vincent I.

Genus SALTELLA Robineau-Desvoidy

Saltella Robineau-Desvoidy, 1830: 746. Type-species, *nigripes* Robineau-Desvoidy (Westwood, 1840: 147).
Pandora Haliday, 1833: 169 (preocc. Brugière, 1797, perhaps also 1792). Type-species, *Piophila scutellaris* Fallén (Hennig, 1949: 27)=*sphondylii* (Schrank).

Pseudopandora Rapp, 1946b: 500 (n. name for *Pandora* Haliday). Type-species, *Piophila scutellaris* Fallén (aut.)=*sphondylii* (Schrank).

sphondylii (Schrank), 1803: 149 (*Trupanea*).—Germany; Wash. to Que., s. to Calif. and Md., Europe.
scutellaris Fallén, 1820e: 10 (*Piophila*).—Europe.
ruficoxa Macquart, 1835: 481 (*Nemopoda*).—France.
nigerrima Rondani, 1874: 179 (1874: 13).—Italy.
parmensis Rondani, 1874: 179 (1874: 13).—Italy.

Genus SEPSIS Fallén

Sepsis Fallén, 1810a: 17. Type-species, *Musca cynipsea* Linnaeus (Curtis, 1829: pl. 245).
Sepsidimorpha Frey, 1908: 584. Type-species, *Sepsis loewi* Hendel (mon.)=*pilipes* Wulp.

biflexuosa Strobl, 1893a: 225.—Europe; B.C. to Que., s. to N. Mex., Ill., and N.J., also Mexico, Hawaii, Canary Is.
signifera Melander and Spuler, 1917: 26.—Pa.
curvitibia Melander and Spuler, 1917: 28 (as *signifera* var.).—Wash.
brunnipes (Melander and Spuler), 1917: 33 (*Sepsidimorpha*; as *secunda* var.).—Pa.; Kans. **N. comb., n. status.**
cynipsea (Linnaeus),—Probably not Nearctic.
ecalcarata Thomson, 1869: 588.—Calif. Unrecognized.
flavimana Meigen, 1826: 288.—Europe; Alaska, Mich.
simplex Goetghebuer and Bastin, 1925: 129.—Europe.
fulvicoxalis (Bigot), 1886a: 390 (*Nemopoda*).—Calif., Cuba. Unrecognized.
luteipes Melander and Spuler, 1917: 29.—Europe, N. Amer.
neocynipsea Melander and Spuler, 1917: 28.—N. Amer. (14 States and provinces); Alaska to Que., s. to Calif. and Ala., also Europe, Asia.
melanderi Duda, 1926: 61, 135 (as var.).—N. Amer.
pectoralis Macquart of Melander and Spuler, 1917: 23.
piceipes (Melander and Spuler), 1917: 33 (*Sepsidimorpha*; as *secunda* var.).—Idaho. **N. comb., n. status.**
punctum (Fabricius), 1794: 351 (*Musca*).—Europe; Alaska to Que., all U.S., Bermuda, Mexico, n. Africa.
similis Macquart, 1851: 269 (1851: 296).—N. Amer.
hecate Melander and Spuler, 1917: 22 (as *violacea* var.).—Colo.
violacea, authors, not Meigen.
referens Walker, 1849: 999.—N. Amer. Unrecognized.

secunda (Melander and Spuler), 1917: 32 (*Sepsidimorpha*).—Wash. **N. comb.**

vicaria Walker, 1849: 998.—Fla.; Alaska to Que., all U.S., Mexico, also Bermuda.

pyrrhosoma Melander and Spuler, 1917: 25.—Ind., Pa. **N. syn.**

violacea Meigen, 1826: 289.—Europe. Questionably distinct from *punctum*; if distinct, probably not Nearctic.

Genus THEMIRA Robineau-Desvoidy

Themira Robineau-Desvoidy, 1830: 745. Type-species, *pilosa* Robineau-Desvoidy (Rondani, 1874: 170, 178; 1874: 4, 12)=*putris* (Linnaeus).

Cheligaster Macquart, 1835: 479. Type-species, *Musca putris* Linnaeus (Coquillett, 1910b: 522).

REFERENCE: Steyskal, 1946 (key).

Subgenus THEMIRA Robineau-Desvoidy

arctica (Becker), 1915: 67 (*Cheligaster*).—U.S.S.R. (Polar Urals); N.W.T., Greenland, Labr.

flavicoxa Melander and Spuler, 1917: 46.—N.Y.; Ill. to Conn.

latitarsata Melander and Spuler, 1917: 45 (as *incisurata* var.).—Wash.; Wash. to Vt., s. to Oreg. and Pa.

maculitarsis Curran, 1929a: 10.—Man.; Que.

malformans Melander and Spuler, 1917: 46.—Hudson Bay; also n. Europe.

nigricornis (Meigen), 1826: 291 (*Sepsis*).—Europe; Ill., Mass., Conn., N.H.

notmani Curran, 1927c: 2.—N.Y.

pusilla (Zetterstedt), 1847: 2295 (*Sepsis*).—Sweden; Wash.

incisurata Melander and Spuler, 1917: 44.—Wash.

putris (Linnaeus), 1758: 597 (*Musca*).—Sweden; B.C. to Que., s. to Calif., Ill., and N.Y., also Asia.

Subgenus ENICITA Westwood

Enicopus Walker, 1833: 253 (preocc. Stephens, 1830). Type-species, *Sepsis annulipes* Meigen (mon.).

Sepsis, subg. **Enicita** Westwood, 1840: 148 (n. name for *Enicopus* Walker). Type-species, *annulipes* Meigen (aut.).

annulipes (Meigen), 1826: 292 (*Sepsis*).—Europe; Que., Maine, Mich., also Asia.

elegantipes Ouellet, 1940: 226 (*Enicita*).—Que.

bispinosa (Melander and Spuler), 1917: 40 (*Enicita*).—Tex.

Subgenus ENICOMIRA Duda

Enicomira Duda, 1926: 27 (as genus). Type-species, *Sepsis minor* Haliday (mon.).

minor (Haliday), 1833: 170 (*Sepsis*).—Ireland; Idaho to Que., s. to Mich. and N.Y., also Asia, Africa.

Family SCIOMYZIDAE

(Tetanoceridae)

By George C. Steyskal

Flies of the worldwide family Sciomyzidae are, as far as known, parasitic or predaceous on fresh-water snails. The most recent revisions of the family (1920) are superseded in part by modern revisions of genera.

REFERENCES: Cresson, 1920a (rev.); Melander, 1920a (rev.); Berg, 1953, 1961 (biol.); Foote, 1961a (keys and distribution, nw. spp.); Steyskal, 1961c (key, genera of Sciomyzinae).

Subfamily SCIOMYZINAE

Genus ATRICHOMELINA Cresson

Atrichomelina Cresson, 1920a: 40 (as *Achaetomelina*, p. 30). Type-species, *Sciomyza pubera* Loew (orig. des.).

pubera (Loew), 1862c: 106 (*Sciomyza*).—Middle States; Wash. and Alta. to Ont., s. to Calif., Mexico (D.F.), and Fla.

Genus COLOBAEA Zetterstedt

Colobaea Zetterstedt, 1837: 53 (also 1838: 762). Type-species, *Opomyza bifasciella* Fallén (as *bifasciata*, in 1837; mon.).

americana Steyskal, 1954a: 61.—Que.; Man., N.Y.

Genus OIDEMATOPS Cresson

Oidematops Cresson, 1920a: 36. Type-species, *ferrugineus* Cresson (orig. des.).

ferrugineus Cresson, 1920a: 36.—Vt.; Mich. to New England.

Genus PHERBELLIA Robineau-Desvoidy

Pherbellia Robineau-Desvoidy, 1830: 695. Type-species, *vernalis* Robineau-Desvoidy (mon.) = *schoenherri* (Fallén).

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Melina Robineau-Desvoidy, 1830: 695 (preocc. Retzius, 1799). Type-species, *riparia* Robineau-Desvoidy (mon.) = *dubia* (Fallén).

This genus is still in part a residuum. When a thoroughgoing study of the genitalia of the species of the Holarctic Region is made, doubtless many of the species will have to be segregated under some of the many generic names that have been proposed by Hendel, Sack, and Enderlein.

REFERENCE: Steyskal, 1961c (key, *fuscipes* group).

albocostata (Fallén), 1820b: 12 (*Sciomyza*).—Europe; Alaska to Maine, s. to B.C., Colo., and Conn.

albovaria (Coquillett), 1901h: 616 (*Sciomyza*).—N.Y., N.H., N.C.; Mich., Ind., Maine.

annulipes (Zetterstedt), 1846: 2113 (*Sciomyza*).—Europe; Que., N.Y.

beatricis Steyskal, 1949a: 178.—Mich.; Ind., Ohio, Miss.

brunnipes (Meigen), 1838: 364 (*Sciomyza*).—Europe; Idaho, Wyo.

footei Steyskal, 1961c: 409.—Idaho.

fusca (Cresson), 1920a: 43 (*Melina*).—N. Dak.

spadix Cresson, 1920a: 42 (*Melina;* alternate name for *fusca*).—N. Dak.

fuscipes (Macquart).—Not Nearctic.

griseola (Fallén), 1820b: 14 (*Sciomyza*).—Europe; Wash. to Mont., s. to Utah, and Mich. to Que. and N.Y., Europe.

grisescens (Meigen), 1830: 20 (*Sciomyza*).—Europe; throughout s. Canada and U.S.

humilis Loew, 1876: 330 (*Sciomyza*).—Tex.

guttata (Coquillett), 1901h: 615 (*Sciomyza*).—Tex.; Colombia.

idahoensis Steyskal, 1961c: 411.—Idaho; Wash., Oreg.

luctifera (Loew), 1861b: 345 (Cent. 1, no. 71) (*Sciomyza*).—Pa.; Ind., Ohio, Ont.

nana (Fallén), 1820b: 15 (*Sciomyza*).—Europe; Alaska to Que., s. to Mexico (D.F.) and Fla.

transducta Walker, 1861: 320 (*Sciomyza*).—N. Amer.

obtusa (Fallén), 1820b: 13 (*Sciomyza*).—Europe; Calif., Nev., Alta., Ill., Que., N.J.

oregona Steyskal, 1961c: 411.—Oreg.

quadrata Steyskal, 1961c: 412.—Mich.; Idaho, N. Dak., N.Y.

schoenherri schoenherri (Fallén).—Not Nearctic.

ssp. **maculata** (Cresson), 1920a: 48 (*Melina;* as sp.).—Ill.; Alaska to Nfld., s. to Colo., Ill., and N.Y.

seticoxa Steyskal, 1961c: 414.—Mich.; Nebr., N.Y.

similis (Cresson), 1920a: 44 (*Melina;* as *vitalis* var.).—Wis.; D.C.
tenuipes (Loew), 1872a: 99 (Cent. 10, no. 80) (*Sciomyza*).—Middle States; Alaska, B.C., S. Dak., Mich., Maine, Va.
trabeculata (Loew), 1872a: 100 (Cent. 10, no. 81) (*Sciomyza*).—Tex.; N. Mex., Mexico (V.C., D.F.).
trivittata (Cresson), 1920a: 50 (*Melina*).—Nebr.; S. Dak., Wis., Ill., Ind., Tex.
ventralis (Fallén), 1820b: 14 (*Sciomyza*).—Europe; Wash., Oreg., Idaho.
vitalis (Cresson), 1920a: 43 (*Melina*).—Calif.; B.C., Idaho, Maine.
palustris Melander, 1920a: 316 (*Melina*).—Idaho. **N. syn.**

Genus PTEROMICRA Lioy

Pteromicra Lioy, 1864a: 1012. Type-species, *Sciomyza glabricula* Fallén (mon.).
Dichrochira Hendel, 1901b: 199. Type-species, *Sciomyza glabricula* Fallén (present des.).

REFERENCES: Steyskal, 1954d (rev.); B.A. Foote, 1959a (key).

albicalceata (Cresson), 1920a: 39 (*Dichrochira*).—Mass.; N.H., Maine, Conn.
anopla Steyskal, 1954d: 260.—Mich.; Sask.
apicata (Loew), 1876: 331 (*Sciomyza*).—N.W.T.
glabricula (Fallén), 1820b: 15 (*Sciomyza*).—Europe; Alaska (Popof I.).
angustipennis Staeger, 1845a: 40 (*Sciomyza*).—Unknown.
inermis Steyskal, 1956c: 76.—N.Y.; S. Dak.
leucopeza (Meigen), 1838: 380 (*Opomyza*).—Europe; ?S. Dak., ?N.H., ?Mass. Amer. records on females only, which may be *steyskali*.
leucothrix Melander, 1920a: 313.—Wash.; Idaho.
melanothrix Melander, 1920a: 313.—Wyo.
nigrimana (Meigen), 1830: 14 (*Sciomyza*).—Europe; Man. to Que., s. to Wash. and Pa.
pleuralis Cresson, 1920a: 39 (*Dichrochira*).—Pa.
pectorosa (Hendel), 1902c: 61 (*Dichrochira*).—Europe; Calif., Man., S. Dak., Mich., N.Y.
perissa Steyskal, 1958b: 271.—Colo.
similis Steyskal, 1954d: 266.—N.Y.; Mich., Que.
sphenura Steyskal, 1954d: 268.—Mich.; S. Dak., D.C.
steyskali B.A. Foote, 1959a: 14.—N.Y.; Iowa.

Genus SCIOMYZA Fallén

Sciomyza Fallén, 1820b: 11. Type-species, *simplex* Fallén (Westwood, 1840: 145).

Bischofia Hendel, 1902c: 52. Type-species, *Sciomyza simplex* Fallén (Coquillett, 1910b: 514).

REFERENCES: Steyskal, 1954c (key); B. A. Foote, 1959b (key, biol.).

aristalis (Coquillett), 1901h: 617 (*Dryomyza*).—Ont.; Ont. to Maine, s. to Mich. and Mass.
dryomyzina Zetterstedt, 1846: 2094.—Europe; Alaska, Idaho, Nfld.
simplex Fallén, 1820b: 12.—Europe; Alaska to Man., s. to Oreg. and Mich.
varia (Coquillett), 1904a: 12 (*Bischofia*).—Que.; Mich., Ont.

Subfamily TETANOCERINAE

Genus ANTICHAETA Haliday

Antichaeta Haliday, 1838: 187. Type-species, *Tetanocera vittata* Haliday (mon.)=*analis* (Meigen).
Lioya Enderlein, 1939: 205. Type-species, *Sciomyza atriseta* Loew (orig. des.).

REFERENCES: Steyskal, 1960a (rev.); Foote, 1961b (partial key).

Subgenus ANTICHAETA Haliday

analis (Meigen).—Not Nearctic.
borealis Foote, 1961b: 161.—Idaho; N.Y.
canadensis (Curran), 1923n: 277 (*Pteromicra*).—Alta.; Alta. to Que., also Idaho, Wis., Mich.
fulva Steyskal, 1960a: 20.—N.Y.; Idaho.
melanosoma Melander, 1920a: 318.—Wis.; Idaho, N. Dak. to Que., N.Y., and Ohio, also Utah.
robiginosa Melander, 1920a: 317.—Mont.; Wash., Oreg., Calif., N.S.
testacea Melander, 1920a: 318.—Mont.; Idaho, Utah, S. Dak., N. Mex.

Subgenus PARANTICHAETA Enderlein

Parantichaeta Enderlein, 1936a: 145 (as genus). Type-species, *Antichaeta bisetosa* Hendel (mon.).

johnsoni (Cresson), 1920a: 51 (*Hemitelopteryx*).—N.H.; Ont., N.Y., Mass.

Genus DICTYA Meigen

Dictya Meigen, 1803: 277. Type-species, *Musca umbrarum* Linnaeus (I.C.Z.N. designation will be applied for, to avoid confusion in the literature by preserving *Dictya* in its universally accepted meaning).

Monochaetophora Hendel, 1900: 355. Type-species, *Musca umbrarum* Linnaeus (mon.).

American specimens of the genus were long identified as *umbrarum* (Linnaeus), but none identical with European material has been examined from North America.

REFERENCE: Steyskal, 1954b (rev.).

atlantica Steyskal, 1954b: 524.—Va.; Mich. to Que., s. to Mo. and Va.

borealis Curran, 1932a: 6.—Man.; Sask. to Ont., s. to Tex. and N.C.

brimleyi Steyskal, 1954b: 526.—N.C.; N.C. to Fla.

confusa Malloch *in* Wray, 1950: 32. Nomen nudum.

expansa Steyskal, 1938a: 9.—Mich.; B.C. to Que., s. to Tex. and Ga.

floridensis Steyskal, 1954b: 528.—Fla.; N.C. to Fla.

gaigei Steyskal, 1938a: 9.—Mich.

hudsonica Steyskal, 1954b: 530.—n. Que.

incisa Curran, 1932a: 6.—Ariz.; Wash., Utah, N. Mex.

iron Steyskal, 1960b: 38.—Miss.

laurentiana Steyskal, 1954b: 532.—Que.; Ont. to Que., s. to Mich. and Va.

lobifera Curran, 1932a: 6.—Fla.; Mich. to N.J., s. to Fla., also Cuba.

montana Steyskal, 1954b: 534.—Calif.; B.C. to Sask., s. to Calif. and Ariz.

oxybeles Steyskal, 1960b: 40.—S.C.; N.S. to Miss., near coast.

pictipes (Loew), 1859b: 292 (*Tetanocera*).—D.C.; Sask. to Ont., s. to Colo., Ill., and N.C.

ptyarion Steyskal, 1954b: 522.—N.C.; N.C. to Fla.

sabroskyi Steyskal, 1938a: 8.—Kans.; S. Dak. to Mich., s. to Tex.

stricta Steyskal, 1938a: 10.—La.; B.C. to N.B., s. to Kans., Tex., Miss., N.C.

texensis Curran, 1932a: 6.—Tex.; Idaho to Mass., s. to Ariz. and S.C.

umbrarum (Linnaeus).—Not Nearctic.

umbroides Curran, 1932a: 4.—Alta.; Alaska to Nfld., s. to Colo. and Mich.

currani Steyskal, 1939: 78.—Que.

Genus DICTYACIUM Steyskal

Dictyomyia Cresson, 1920a: 82 (preocc. Tavares, 1919). Type-species, *Tetanocera ambigua* Loew (orig. des.).

Dictyacium Steyskal, 1956c: 78 (n. name for *Dictyomyia* Cresson). Type-species, *Tetanocera ambigua* Loew (aut.).

ambiguum (Loew), 1864a: 97 (Cent. 5, no. 95) (*Tetanocera*).—Maine; Ont. to N.B., s. to S. Dak. and Maine.

firmum Steyskal, 1956c: 79.—Sask.; Sask. to Ont., s. to Colo., Mich., W. Va.

Genus ELGIVA Meigen

Elgiva Meigen, 1838: 365. Type-species, *Musca cucularia* Linnaeus (Rondani, 1856: 106).

Ilione Haliday *in* Curtis, 1837b: 280, 288. Nomen nudum.

Ilione Hendel (ex Haliday), 1901a: 141. Type-species, *Musca cucularia* Linnaeus (present des.).

Hedroneura Hendel, 1902b: 265. Type-species, *Musca cucularia* Linnaeus (mon.).

REFERENCE: Steyskal, 1954c (key).

connexa (Steyskal), 1954c: 60 (*Hedroneura*).—Alaska; Alaska to w. Ont., s. to Oreg. and N. Dak. **N. comb.**

sundewalli Kloet and Hincks, 1945: 391 (n. name for *rufa* Panzer).—Europe; Alaska to N.S., s. to Oreg., Nev., and N.Y. Previous uses of *sundewalli* are unavailable, as citations in synonymy.

rufa Panzer, 1798: 17 (*Musca*; preocc. Scopoli, 1763).—Europe.

lineata Day, 1881: 88 (*Tetanocera*; preocc. Fallén, 1820).—Conn.

Genus EUTHYCERA Latreille

Euthycera Latreille, 1829: 529. Type-species, *Musca chaerophylli* Fabricius (mon.).

arcuata (Loew), 1859b: 292 (*Tetanocera*).—Middle States; S. Dak. to to Ont., s. to Tex. and N.C.

flavescens Loew, 1847a: 123 (*Tetanocera*; preocc. Robineau-Desvoidy, 1830).—Carolina.

flavipes (error) Gibson, 1917: 157 (*Tetanocera*).

uniformis Cresson, 1920a: 74 (as var.; n. name for *flavescens* Loew).—Carolina.

borealis Cresson, 1920a: 74.—N.C.

cribraria Harris, 1835: 600 (*Tetanocera*). Nomen nudum.

Genus HEDRIA Steyskal

Hedria Steyskal, 1954a: 62. Type-species, *mixta* Steyskal (orig. des.).

mixta Steyskal, 1954a: 63.—N.W.T.; Alta., Sask., Minn., Wis., Mich., Maine.

Genus HOPLODICTYA Cresson

Hoplodictya Cresson, 1920a: 67. Type-species, *Tetanocera setosa* Coquillett (orig. des.).

REFERENCE: Neff and Berg, 1962 (biol., immature stages).

kincaidi (Johnson), 1913d: 449 (*Tetanocera*).—Bermuda.

setosa (Coquillett), 1901h: 615 (*Tetanocera*).—Mass., Ga.; Atlantic coast, Maine to Ga.

spinicornis (Loew), 1866a: 181 (Cent. 6, no. 86) (*Tetanocera*).—Cuba; Wash. to Guatemala, and N.J. to Fla. and Cuba, also Ill., Tex., and Miss.

acuticornis Wulp, 1897: 358 (*Tetanocera*).—Mexico. **N. syn.**

Genus LIMNIA Robineau-Desvoidy

Limnia Robineau-Desvoidy, 1830: 684. Type-species, *limbata* Robineau-Desvoidy (Cresson, 1920a: 75) = *unguicornis* (Scopoli).

This genus is in need of revision. Preliminary work on male genitalia has shown that more species exist than available names, and, that type examination will be necessary to establish identities. Except for *boscii* and *shannoni*, which are distinctive, only type localities are cited.

armipes Melander, 1920a: 324 (as *saratogensis* var.).—Wash.

boscii (Robineau-Desvoidy), 1830: 690 (*Pherbina*).—Carolina; Alaska to Nfld., s. to Colo. and N.C.

combinata Loew, 1859b: 295 (*Tetanocera*).—Middle States.

sparsa Loew, 1862c: 117 (*Tetanocera*).—Middle States.

inopa Adams, 1904b: 448 (*Tetanocera*).—Wash.

brevicostalis Melander, 1920a: 323 (as *costalis* var.).—Idaho.

georgiae Melander, 1920a: 324.—Ga.

loewi Steyskal (for *costalis* Loew).—Ill. **N. name.**

costalis Loew, 1862c: 118 (*Tetanocera*; preocc. Walker. 1837).—Ill.

louisianae Melander, 1920a: 325.—La.

ottawensis Melander, 1920a: 324 (as *saratogensis* var.).—Ont.

pubescens (Day), 1881: 86 (*Tetanocera*).—Wash.
saratogensis (Fitch), 1855: 772 (1856: 68) (*Tetanocera*).—N.Y.
septentrionalis Melander, 1920a: 325 (as *louisianae* var.).—D.C.
severa Cresson, 1920a: 80 (as *saratogensis* var.).—Calif.
shannoni Cresson, 1920a: 78.—Md.
vittata Melander, 1920a: 323 (as *costalis* var.).—Wash., Idaho, Mont.

Genus PHERBECTA Steyskal

Pherbecta Steyskal, 1956c: 82. Type-species, *limenitis* Steyskal (orig. des.).
limenitis Steyskal, 1956c: 83.—N.Y.; Ont.

Genus POECILOGRAPHA Melander

Poecilomyia Melander, 1913b: 58 (preocc. Hendel, 1911). Type-species, *Sapromyza decora* Loew (mon.).
Poecilographa Melander, 1913d: 205 (n. name for *Poecilomyia* Melander). Type-species, *Sapromyza decora* Loew (aut.).
decora (Loew), 1864a: 97 (Cent. 5, no. 96) (*Sapromyza*).—N.Y.; S. Dak. to Que., s. to Colo. and N.J.

Genus RENOCERA Hendel

Renocera Hendel, 1900: 333. Type-species, *stroblii* Hendel (Cresson, 1920a: 51)=*fuscinervis* (Zetterstedt).

REFERENCE: Curran, 1933d (key).

amanda Cresson, 1920a: 53.—Maine; Ont. and Que., s. to Mich. and Maine.
brevis (Cresson), 1920a: 58 (*Chaetomacera*).—N.Y.
cyathiformis Melander, 1920a: 319.—Wash.; Alaska, Idaho, Colo., Mich.
bergi Steyskal, 1954c: 64.—Alaska. **N. syn.**
johnsoni Cresson, 1920a: 53.—Maine; Alaska to Alta., s. to Idaho and Colo.
longipes (Loew), 1876: 328 (*Sciomyza*).—N.H.; Que., New England, N.Y., Pa., W. Va.
pacifica Curran, 1933d: 9.—Oreg.
quadrilineata Melander, 1920a: 320.—Mont.

Genus SEPEDON Latreille

Sepedon Latreille, 1804: 196. Type-species, *Syrphus sphegeus* Fabricius (mon.).

REFERENCE: Steyskal, 1951c (rev.).

anchista Steyskal, 1956c: 87.—Mont.; Sask., Idaho.

armipes Loew, 1859b: 298.—Middle States; B.C. to Nfld., U.S., except s. Calif. and Fla.

bifida Steyskal, 1951c: 280.—Calif.

borealis Steyskal, 1951c: 283.—Idaho; Alaska, B.C. to Nfld., s. to Calif., Ill., and Pa.

fuscipennis fuscipennis Loew, 1859b: 299.—Middle States; Alaska to Nfld., s. to Oreg., Colo., Tex., and Ga.

ssp. **floridensis** Steyskal, 1951c: 290.—Fla.; La.

lignator Steyskal, 1951c: 286.—Mich.; B.C. to Nfld., s. to Mont., Mich., and Maine.

macropus Walker, 1849: 1078.—Jamaica; Tex., Mexico, Cent. and S. Amer.

nigriventris Wulp, 1897: 359.—Mexico.

melanderi Steyskal, 1951c: 282.—Wash.

neili Steyskal, 1951c: 286.—Mich.; Idaho and Man. to Ont., s. to Utah and N.C.

praemiosa Giglio-Tos, 1893b: 8.—Mexico; B.C. to Alta., s. to Mexico, N. Mex., and Kans.

pacifica Cresson, 1914c: 457.—Calif.

pusilla Loew, 1859b: 299.—Middle States; Ind. to Md., s. to Ky. and Ga.

spinipes spinipes (Scopoli).—Not Nearctic.

ssp. **americana** Steyskal, 1951c: 277.—Mich.; Alaska, B.C. to Que., s. to Oreg., Utah, Ohio, and N.Y.

tenuicornis Cresson, 1920a: 84.—D.C.; Ont. and Que., s. to Tex. and Fla.

Genus TETANOCERA Duméril

Tetanocera Duméril, 1800: 439 (as "Tétanocère"). Type-species, *Musca elata* Fabricius (I.C.Z.N. designation, and validation of the generic name from 1800, will be applied for, to avoid confusion in the literature by preserving the long accepted meaning of the genus).

Chaetomacera Cresson, 1920a: 54.—Type-species, *Musca elata* Fabricius (orig. des.).

REFERENCE: Steyskal, 1959a (rev.)

annae Steyskal, 1938a: 5.—Mich.; B.C., Ont., Minn. to N.H.

bergi Steyskal, 1954c: 66.—Alaska; B.C. to Man.
brevihirta Steyskal, 1959a: 77.—Alaska.
clara Loew, 1862c: 109.—N.Y.; Wis. to Que. and N.H., s. to Ill. and Ga.
elata (Fabricius).—Probably not Nearctic.
ferruginea Fallén, 1820b: 9.—Europe; Alaska to Nfld., s. to Oreg., Colo., Ill., and N.J.
triangularis Loew, 1861b: 344 (Cent. 1, no. 69).—Ont.
huronensis Steyskal, 1938a: 6.—Mich.
iowensis Steyskal, 1938a: 4.—Iowa; Mo., Ohio.
latifibula Frey, 1924: 51.—Europe; Alaska to Alta., s. to Wash., Utah, S. Dak.
hespera Steyskal, 1959a: 71.—Utah.
loewi Steyskal, 1959a: 68.—Mich.; Wis. and Ind. to Ont. and N.Y.
mallochi Steyskal, 1959a: 75.—Man.; Alaska to Labr., s. to Alta. and N.H.
melanostigma Steyskal, 1959a: 80.—N.Y.; Ont., Que., Mich., N.H.
mesopora Steyskal, 1959a: 70.—Colo.; Sask. to Nfld., s. to Colo. and N.Y.
parvipyga Malloch *in* Jaques, 1939: 283. Nomen nudum.
montana Day, 1881: 87.—Wyo.; Alaska and Y.T. to Que., s. to Idaho and N.Y., also Europe.
borealis Frey, 1924: 51.—Europe.
ornatifrons Frey, 1924: 51.—Europe. **N. syn.**
nanciae Brimley, 1925: 75 (as *vicina* ssp.).—N.C.; Alaska to Nfld., s. to Nev., N. Mex., and N.C.
nigricosta Rondani, 1868b: 25 (1868: 223).—Europe; Alaska to N.S., s. to N. Mex., Mich., and N.H.
phyllophora Melander, 1920a: 330.—Wash.
obtusifibula Melander, 1920a: 328.—Wash.; B.C. to Que., s. to Calif. and Idaho.
oxia Steyskal, 1959a: 80.—Mich.; Alta., Sask., Mont., Nfld.
plebeja Loew, 1862c: 120.—Middle States; Alaska to Labr. and Nfld., s. to Calif., N. Mex., Ill., N.C.
plumosa Loew, 1847b: 201.—Alaska. Unrecognized.
robusta Loew, 1847b: 197.—Europe; Alaska to Nfld., s. to N. Mex., Colo., and Mich.
papillifera Melander, 1920a: 329.—Wash.
rotundicornis Loew, 1861b: 344 (Cent. 1, no. 70).—Ont.; Alaska to Nfld., s. to Oreg., Ill., and N.Y.
silvatica Meigen, 1830: 41.—Europe; Alaska to Labr., s. to B.C. and S. Dak., also Ariz.
soror Melander, 1920a: 328.—Wash.; Wash. to Mont., s. to Nev.

spirifera Melander, 1920a: 330.—Mont.; Y.T., B.C. to Man., s. to Wyo. and S. Dak.
stricklandi Steyskal, 1959a: 90.—Alta.
struthio Walker, 1849: 1086.—Ont. Unrecognized.
unicolor Loew, 1847b: 199.—Europe; Alaska to Nfld., s. to Ariz., Iowa, and Maine.
valida Loew, 1862c: 110.—Unknown; B.C. to Nfld., s. to N. Mex. and Pa.
reticulata Harris *in* Johnson, 1925c: 95. Nomen nudum.
vicina Macquart, 1843a: 337 (1843: 180).—Europe; B.C. to Nfld., s. to Ariz., Colo., and N.C.

Genus TRYPETOPTERA Hendel

Trypetoptera Hendel, 1900: 352. Type-species, *Musca punctulata* Scopoli (Cresson, 1920a: 66).

canadensis (Macquart), 1843a: 338 (1843: 181) (*Tetanocera*).—Canada; B.C. to Que., s. to Utah, Ill., and N.C.
pallida Loew, 1859b: 294 (*Tetanocera*).—Middle States.

Unplaced Species of Sciomyzidae

antica Walker, 1852: 400 (*Sciomyza*).—U.S.
parallela Walker, 1852: 401 (*Sciomyza*).—U.S.

Superfamily LAUXANIOIDEA

Family LAUXANIIDAE

(Sapromyzidae)

By G. E. Shewell

The family Lauxaniidae is worldwide in distribution, with a rich tropical element. The classification is at present somewhat artificial. No suitable subfamily or tribal divisions have yet been proposed, and a natural arrangement of genera is not attempted.

The larvae are saprophagous, living under fallen leaves, in straw and other vegetable trash, in bird nests, and in similar situations. In Europe, larvae of *Calliopum* have been found in large numbers in stems of overwintered clover where they had evidently eaten out the root collars. Adults are normally shade-loving, and are found in woodlands and in dense vegetation by water, sometimes on flowers. They

are often attracted to light and occasionally to traps baited for fruit flies or flesh flies.

REFERENCES: Hendel, 1908a (monog., cat.), 1925 (key, world genera); Meijere, 1909 (biol., European spp.); Melander, 1913b (rev.); Malloch and McAtee, 1924b (rev., e. U.S.); McAtee, 1927 (biol.); Shewell, 1938 (rev., e. Canada).

Genus CALLIOPUM Strand

Lauxania, subg. *Calliope* Westwood, 1840: 151 (preocc. Gould, 1836). Type-species, *Lauxania scutellata* Meigen (orig. des.) = *aeneum* (Fallén).

Halidayella Hendel, 1925: 107 (n. name for *Calliope* Westwood, but preocc. Dalla Torre, 1897). Type-species, *Lauxania scutellata* Meigen (aut.) = *aeneum* (Fallén).

Calliopum Strand, 1928: 48 (n. name for *Calliope* Westwood). Type-species, *Lauxania scutellata* Meigen (aut.) = *aeneum* (Fallén).

blaisdelli (Cresson), 1920b: 66 (*Sapromyza*).—Calif. **N. comb.**

elisae (Meigen), 1826: 297 (*Lauxania*).—Europe; ?Wash., ?N.S.

livingstoni (Coquillett), 1898d: 278 (*Sapromyza*).—s. B.C.; Calif., Nev.

vanduzeei Cresson, 1920b: 67 (*Sapromyza*).—Calif. **N. comb.**

nigerrimum (Melander), 1913b: 71 (*Calliope*).—Calif.

pacificum (Cole), 1912b: 158 (*Lauxania*).—Calif. **N. comb.**

quadrisetosum (Thomson), 1869: 569 (*Lauxania*).—Calif.; B.C., Wash., Idaho.

Genus CAMPTOPROSOPELLA Hendel

Camptoprosopella Hendel, 1907b: 223. Type-species, *melanoptera* Hendel (orig. des.) = *dolorosa* (Williston).

REFERENCE: Shewell, 1939a (key).

acuticornis Shewell, 1939a: 150.—S. Dak.

angulata Shewell, 1939a: 147.—Md.

antennalis (Fitch), 1856a: 532 (1856: 300) (*Chlorops*).—N.Y. Unrecognized.

borealis Shewell, 1939a: 143.—s. Ont.; Canadian and Transition Zones from latitude 60° to Colo. and N.Y.

cincta (Loew), 1861b: 349 (Cent. 1, no. 81) (*Sapromyza*).—Cuba; ?s. Fla.

confusa Shewell, 1939a: 148.—s. Ont.; s. Man. to N.S., s. to Tex. and N.C.

decolor Shewell, 1939a: 149.—Tex.; Tenn.

diversa Curran, 1926a: 13.—P.R.; Fla.
dolorosa (Williston) *in* Adams, 1903a: 37 (*Pachycerina*).—Colo.; Ariz., N. Mex., Mexico.
gracilis Shewell, 1939a: 145.—Va.; Md., D.C., Miss.
imitatrix Shewell, 1939a: 147.—Mexico; Tex.
maculipennis Malloch, 1923j: 47.—Ariz.; Nicaragua.
mallochi Shewell, 1939a: 146.—Md.; D.C., Va.
media Shewell, 1939a: 150.—Mexico; Tex.
ocellaris (Townsend), 1892g: 303 (*Sapromyza*).—N. Mex.; Kans. to s. Ont. and N.J., s. to N. Mex. and Ga.
inaequalis Shewell, 1939a: 148.—Tex.
plumata (Wulp), 1867: 159 (*Sapromyza*).—Wis. Unrecognized.
resinosa (Wiedemann), 1830: 456 (*Sapromyza*).—Ga. **N. comb.**
setipalpis Shewell, 1939a: 145.—D.C.; Tenn., Va.
slossonae Shewell, 1939a: 146.—N.H.; Mo., N.C.
texana Shewell, 1939a: 151.—Tex.; La.
verticalis (Loew), 1861b: 349 (Cent. 1, no. 82) (*Pachycerina*).—Fla.; Ga.
claripennis Coquillett, 1898d: 280 (*Pachycerina;* as *clavipennis*).—Fla.
vulgaris (Fitch), 1856a: 532 (1856: 300) (*Chlorops*).—N.Y. Unrecognized.

Genus DEUTOMINETTIA Hendel

Deutominettia Hendel, 1925: 106, key (1926: 125, descr.). Type-species, *pulchrifrons* Hendel (orig. des.).

REFERENCE: Malloch, 1928a (key).

geniseta (Malloch), 1926: 16 (*Minettia*).—Costa Rica; Tex.

Genus HOMONEURA Wulp

Homoneura Wulp, 1891a: 213. Type-species, *picea* Wulp (mon.).
Sapromyza, subg. *Sapromyzosoma* Malloch, 1920d: 127 (preocc. Lioy, 1864). Type-species, *citreifrons* Malloch (mon.).
Sapromyzama, error.
Mallochomyza Hendel, 1925: 112 (n. name for *Sapromyzosoma* Malloch). Type-species, *Sapromyza citreifrons* Malloch (aut.).
Homoneura, subg. *Tarsohomoneura* Hendel, 1933b: 76. Type-species, *Sapromyza americana* Wiedemann (orig. des.).

REFERENCES: Malloch and McAtee, 1924b (key, e. U.S.); Shewell, 1938 (key, e. Canada).

aequalis (Malloch), 1914a: 36 (*Sapromyza*).—Ill.; Sask., S. Dak., Nebr., Vt., Va.

americana (Wiedemann), 1830: 453 (*Sapromyza*).—N. Amer. (as Brazil, error); S. Dak. to N.S., s. to Tex. and Ga.

compedita Loew, 1861b: 347 (Cent. 1, no. 76) (*Sapromyza*).—Pa.

bispina (Loew), 1861b: 348 (Cent. 1, no. 79) (*Sapromyza*).—Nebr.; s. Alta. to N.S., s. to Kans. and N.C.

bispinosa, error.

cilifera (Malloch), 1914a: 33 (*Sapromyza*).—Ill.; Md.

citreifrons (Malloch), 1920d: 127 (*Sapromyza*).—Ill.; Ont. to Maine, s. to Ill. and n. Ga.

conjuncta (Johnson), 1914a: 22 (*Sapromyza*).—R.I.; s. Ont. and Que., s. to Ill. and S.C.

disjuncta (Johnson), 1914a: 22 (*Sapromyza*).—R.I.; s. Ont. to N.S., s. Mo. and Fla.

similata Malloch, 1914a: 30 (*Sapromyza*).—Ill.

fraterculus (Malloch), 1920d: 128 (*Sapromyza*).—Mont.; s. Alta. to s. Ont., s. to Nebr. and Ga.

fraterna (Loew), 1861b: 347 (Cent. 1, no. 77) (*Sapromyza*).—Pa.; s. Man. to s. Que., s. to Kans. and N.C.

fuscibasis (Malloch), 1920d: 126 (*Sapromyza*).—Ill.; Ill. to sw. Ont. and N.J., s. to Miss. and Fla.

harti (Malloch), 1914a: 32 (*Sapromyza*).—Ill.; s. Alta. to s. Ont., also Wyo., Kans., Okla.

houghii (Coquillett), 1898d: 277 (*Sapromyza*).—Mass.; s. Sask. to P.E.I., s. to S. Dak. and Ga.

imitatrix (Malloch), 1920d: 128 (*Sapromyza*).—N.J.; Conn., s. to La. and Fla.

inaequalis (Malloch), 1914a: 35 (*Sapromyza*).—Ill.; s. parts of B.C., Alta., and Sask.

incerta (Malloch), 1914a: 36 (*Sapromyza*).—Md.; s. Man. to se. Canada and N.H., s. to Mo. and n. Ga.

lamellata (Becker), 1895: 204 (*Sapromyza*).—Russia; Y.T. to e. Que., s. to Mass., Holarctic.

deceptor Malloch *in* Malloch and McAtee, 1924b: 24 (*Sapromyzosoma*).—N.H. **N. syn.**

armata Shewell, 1939b: 264 (preocc. Malloch, 1925).—s. Alta. **N. syn.**

cactifera Shewell, 1940: 86 (n. name for *armata* Shewell).—s. Alta. **N. syn.**

littoralis (Malloch), 1915a: 47 (*Sapromyza*).—Mich.; n. Alta. to P.E.I., s. to s. N.Y.

melanderi (Johnson), 1914a: 21 (*Sapromyza*).—Mass.; Alaska to Que., s. to S. Dak. and N.J.

notata (Fallén).—Not Nearctic. N. Amer. records refer to spp. of *fraterna* group.

nubila (Melander), 1913b: 74 (*Minettia*).—Ill.; sw. Ont., Kans., Ark., N.C., Va.

nubilifera (Malloch), 1920d: 126 (*Sapromyza*).—Ill.; Ind., Tenn., Md.

occidentalis (Malloch), 1920d: 127 (*Sapromyza*).—Calif.; s. B.C., Utah, Ariz., N. Mex.

var. **nudifemur** (Malloch) *in* Malloch and McAtee, 1924b: 24 (*Sapromyzosoma;* as sp.).—s. B.C.

ornatipes (Johnson), 1914a: 20 (*Sapromyza*).—Mass.; se. Que., N.Y., N.C., n. Ga.

pernotata (Malloch), 1920d: 128 (*Sapromyza*).—Ill.; s. Sask. to N.S., s. to Wis. and N.Y.

philadelphica (Macquart), 1843a: 348 (1843: 191) (*Sapromyza*).—Pa.; S. Dak. and s. Man. to se. Canada and Maine, s. to La. and Ga.

seticauda (Malloch), 1914a: 34 (*Sapromyza*).—Ill.; s. Alta., se. Canada, Iowa, Mo., Md., Va.

setitibia Shewell, 1940: 86 (n. name for *praeapicalis* Shewell).—s. Alta.; S. Dak., Kans.

praeapicalis Shewell, 1939b: 264 (preocc. Malloch, 1925).—s. Alta.

severini Shewell, 1939b: 265.—N.W.T.; s. Alaska and Y.T. to n. Man., s. to Utah, Minn., and s. Ont.

sheldoni (Coquillett), 1898d: 277 (*Sapromyza*).—N.Y.; s. Ont., s. Que., Maine, Mass.

tenuispina (Loew), 1861b: 349 (Cent. 1, no. 80) (*Sapromyza*).—Nebr.; Nebr. to N.H., s. to Tex. and N.C.

Genus LAUXANIA Latreille

Lauxania Latreille, 1804: 196. Type-species, *Musca cylindricornis* Fabricius (mon.).

REFERENCE: Malloch and McAtee, 1924b (key).

albiseta Coquillett, 1898d: 280.—Calif.

cylindricornis (Fabricius), 1794: 332 (*Musca*).—France; Alaska and Canada at treeline, s. to Ariz. and Fla., Holarctic.

nigrimana Coquillett, 1902e: 179.—Ariz.; Y.T. to Ariz.

Genus LAUXANIELLA Malloch

Lauxaniella Malloch *in* Malloch and McAtee, 1924b: 9. Type-species *Lauxania femoralis* Loew (orig. des.).

femoralis (Loew), 1861b: 353 (Cent. 1, no. 89) (*Lauxania*).—Ga.; Kans., Tenn., Pa., N.J. to N.C.

manuleata (Loew), 1861b: 352 (Cent. 1, no. 88) (*Lauxania*).—Pa.; Ariz., N.C., Ga.

opaca (Loew), 1861b: 350 (Cent. 1, no. 84) (*Lauxania*).—Fla.; Tenn., N.J., N.C., S.C.

signatifrons (Coquillett), 1904f: 189 (*Lauxania*).—Tex.; Ariz.

trivittata (Loew), 1861b: 353 (Cent. 1, no. 90) (*Lauxania*).—Ga.; Tenn. and Md., s. to La. and Fla.

facialis Coquillett, 1898d: 280 (*Lauxania*).—Fla., Ga.

Genus LYCIELLA Collin

Lycia Robineau-Desvoidy, 1830: 637 (preocc. Hübner, 1823). Type-species, *flava* Robineau-Desvoidy (Coquillett, 1910b: 563)=*rorida* (Fallén).

Lyciella Collin, 1948: 237 (n. name for *Lycia* Robineau-Desvoidy). Type-species, *Lycia flava* Robineau-Desvoidy (aut.)= *rorida* (Fallén).

REFERENCE: Shewell, 1938 (key, *Sapromyza* part, e. Canada).

annulata (Melander), 1913b: 73 (*Minettia*).—Wash. (here restricted); Alaska to Que., s. to Oreg. **N. comb.**

annularis Melander, 1913d: 205 (*Minettia;* unjustified n. name for *annulata* Melander).—Wash. **N. comb.**

ouelleti Shewell, 1938: 115 (*Sapromyza*).—s. Que. **N. syn., n. comb.**

aspinosa (Shewell), 1938: 116 (*Sapromyza*).—s. Que.; s. Ont. **N. comb.**

browni (Curran), 1933b: 8 (*Sapromyza*).—s. Ont.; Wis. to N.B., s. to Ga. **N. comb.**

currani (Shewell), 1938: 118 (*Sapromyza*).—s. Que.; s. Ont., N.Y. **N. comb.**

discolor (Cresson), 1920b: 67 (*Sapromyza*).—Calif.; Oreg. **N. comb.**

fusciventris Malloch, 1923j: 53 (*Sapromyza*).—Calif. **N. syn.**

novaescotiae (Shewell), 1938: 118 (*Sapromyza*).—N.S.; s. Ont., s. Que., N.H., N.C., Ga. **N. comb.**

obtusilamellata (Malloch), 1923j: 52 (*Sapromyza*).—Md.; Maine, N.H., Vt., Mass., Pa. **N. comb.**

pictiventris (Malloch), 1923j: 52 (*Sapromyza*).—Va.; Ill., Tenn., Md., N.C., Ga. **N. comb.**

quadrilineata (Loew), 1861b: 348 (Cent. 1, no. 78) (*Sapromyza*).—Pa.; s. Que. to Pa. Published records are unreliable. **N. comb.**

serrata (Malloch), 1923j: 52 (*Sapromyza*).—D.C.; s. Ont. and Que., s. to S.C. **N. comb.**

spatulata (Shewell), 1938: 116 (*Sapromyza*).—Que.; s. B.C., s. Ont. **N. comb.**

subserrata (Shewell), 1938: 117 (*Sapromyza*).—s. Que.; s. Ont., N.Y., Ga. **N. comb.**

Genus MINETTIA Robineau-Desvoidy

Minettia Robineau-Desvoidy, 1830: 646. Type-species, *nemorosa* Robineau-Desvoidy (Westwood, 1840: 150–151)=*rivosa* (Meigen).

REFERENCES: Malloch and McAtee, 1924b (key, e. U.S.); Shewell, 1938 (key, e. Canada).

americana Malloch, 1923j: 53.—Md.; s. Ont. and Que., s. to Kans. and Va.

americanella Shewell, 1938: 108.—s. Que.; s. B.C. to s. Que., N.Y., Pa., N.C.

buchanani Malloch *in* Malloch and McAtee, 1924b: 16.—Md.; Tenn., N.C., Ga.

caesia (Coquillett) *in* Baker, 1904: 31 (*Sapromyza*).—Nev.; Wash., Oreg., Calif.

cana Melander, 1913b: 72.—Mass.; s. Que.

cena, error.

flaveola (Coquillett), 1898d: 279 (*Sapromyza*).—Wash., Oreg., Calif.; s. B.C., Utah.

fumipennis Melander, 1913b: 75.—Calif.

glauca (Coquillett), 1902e: 177 (*Sapromyza*).—Md.; s. Ont., Pa., Va., N.C., Ga.

hubbardii (Coquillett), 1898d: 277 (*Sapromyza*).—Ariz.; N. Mex. **N. comb.**

lobata Shewell, 1938: 108.—s. Que.; Ill. to s. Que. and Mass., s. to Ga.

longipennis (Fabricius).—Not Nearctic. N. Amer. records refer to spp. of *obscura* group.

lupulina (Fabricius), 1787: 344 (*Musca*).—Denmark; Alaska and Canada at treeline, s. to Ariz. and N.C., Holarctic.

lyraformis Shewell, 1938: 109.—s. Que.; s. Man. to s. Que., N.Y., Tenn., N.C., Ga.

magna (Coquillett), 1898d: 279 (*Sapromyza*).—D.C.; Mich. to N.J., s. to Tex. and Ga.

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obscura (Loew), 1861b: 351 (Cent. 1, no. 86) (*Lauxania*).—Ont., Pa. Published records are unreliable.

rivosa (Meigen), 1826: 265 (*Sapromyza*).—Germany; s. B.C., Europe.

univittata (Coquillett) *in* Baker, 1904: 32 (*Sapromyza*).—Calif.; Wash., Oreg.

Genus NEODECEIA Malloch

Deceia, subg. **Neodeceia** Malloch *in* Malloch and McAtee, 1924b: 12. Type-species, *Lauxania cineracea* Coquillett (orig. des.). **N. status.**

cineracea (Coquillett), 1902e: 179 (*Lauxania*).—Fla.; Cuba. **N. comb.**

cinerea, error.

Genus NEOGRIPHONEURA Malloch

Neogriphoneura Malloch *in* Malloch and McAtee, 1924b: 11. Type-species, *Sapromyza sordida* Wiedemann (orig. des.).

sordida (Wiedemann), 1830: 456 (*Sapromyza*).—West Indies; Va., s. to Tex. and Fla.

Genus PACHYCERINA Macquart

Pachycerina Macquart, 1835: 511. Type-species, *Lauxania seticornis* Fallén (mon.).

flavida (Wiedemann), 1824: 57 (*Lauxania*).—S. Amer.; Fla.

Genus PHYSEGENUA Macquart

Physegenua Macquart, 1848a: 220 (1848: 60). Type-species, *vittata* Macquart (orig. des.).

Physogenia, error or emend.

nasalis (Thomson), 1869: 568 (*Lauxania*).—Calif. (?error).

Genus PHYSOCLYPEUS Hendel

Physoclypeus Hendel, 1907b: 226. Type-species, *Chlorops flavus* Wiedemann (orig. des.).

coquilletti (Hendel), 1908a: 30 (*Lauxania;* n. name for *lutea* Coquillett).—Fla.; N.C., S.C., Ga. **N. comb.**

lutea Coquillett, 1902e: 179 (*Lauxania;* preocc. Wiedemann, 1830).—Fla.

Genus POECILOMINETTIA Hendel

Minettia, subg. **Poecilominettia** Hendel, 1932b: 103. Type-species, *Sapromyza picticornis* Coquillett (orig. des.).

REFERENCE: Malloch and McAtee, 1924b (key, *Minettia* part, e. U.S.).

ordinaria (Melander), 1913b: 74 (*Minettia*).—Kans., Ill.; Kans. to s. Ont., s. to Tenn. and Va., also Fla. **N. comb.**

picticornis (Coquillett), 1904f: 189 (*Sapromyza*).—Nicaragua; ?Tex.

puncticeps (Coquillett), 1902e: 178 (*Sapromyza*).—N.H.; s. Ont., s. Que., Md. **N. comb.**

punctifer (Malloch), 1920d: 126 (*Minettia*).—Fla. **N. comb.**

valida (Walker), 1858: 232 (*Drosophila*).—U.S.; Kans. to s. Ont. and N.Y., s. to Tex. and Ga.

macula Loew, 1872a: 101 (Cent. 10, no. 82) (*Sapromyza*).—Tex.

Genus PSEUDOCALLIOPE Malloch

Pseudocalliope Malloch, 1928a: 10. Type-species, *Lauxania flaviceps* Loew (orig. des.).

eucephala (Loew), 1872a: 101 (Cent. 10, no. 83) (*Lauxania*).—Tex.; Ariz., Miss., Ga. **N. comb.**

flaviceps (Loew), 1866b: 49 (Cent. 7, no. 91) (*Lauxania*).—D.C.; s. Ont., N.Y., Mass., Md., Va., Tex.

longicornis (Coquillett), 1902e: 178 (*Lauxania*).—Ariz.; N. Mex., Tex. **N. comb.**

variceps (Coquillett), 1902e: 178 (*Lauxania*).—Ariz.; Tex. **N. comb.**

Genus PSEUDOGRIPHONEURA Hendel

Pseudogriphoneura Hendel, 1907b: 225. Type-species, *cinerella* Hendel (orig. des.).

Deceia Malloch, 1923j: 49. Type-species, *Sapromyza crevecoeuri* Coquillett (orig. des.).

Deceia, subg. *Melanomyza* Malloch, 1923j: 50. Type-species, *Lauxania gracilipes* Loew (orig. des.).

REFERENCE: Malloch and McAtee, 1924b (key); Curran, 1942a (key).

crevecoeuri (Coquillett), 1898d: 278 (*Sapromyza*).—Kans.; Ill., Mo., Md., Tex., Fla.

floridensis Curran, 1942a: 72.—Fla.

gracilipes (Loew), 1861b: 351 (Cent. 1, no. 85) (*Lauxania*).—Pa.; Kans. to s. Que. and N.H., s. to Miss. and Fla.

incongrua (Malloch), 1923j: 50 (*Deceia*).—Fla.
intermedia (Malloch), 1923j: 50 (*Deceia*).—Md.; Ill. to Mass., s. to Ga.
scutellata (Malloch), 1923j: 51 (*Deceia*).—Md.; Kans., Ill., D.C.
wetmorei (Malloch), 1923j: 49 (*Deceia*).—Fla.

Genus SAPROMYZA Fallén

Sapromyza Fallén, 1810a: 18. Type-species, *Musca flava* Linnaeus (mon.; misident.) = *obsoleta* Fallén.

REFERENCES: Malloch and McAtee, 1924b (key); Shewell, 1938 (key, e. Canada).

brachysoma Coquillett, 1898d: 278.—N.H.; Alaska and n. Y.T. to Que., s. to s. B.C. and Va.
brachystoma, error.
fusca Shewell, 1938: 113.—Que.
hemingfordensis Shewell, 1946: 166. Nomen nudum.
cyclops Melander, 1913b: 75.—Wyo.; Alaska, B.C., s. Alta., s. Sask., n. Que.
hyalinata (Meigen), 1826: 300 (*Lauxania*).—Europe; Alaska to n. Que., s. to Wash. and Ga.
nigrans Melander, 1913b: 72 (*Minettia*).—Wash.
monticola Melander, 1913b: 75.—Wash., Idaho; Alaska, n. Y.T., and N.W.T., s. to Wash. and s. Alta., also n. Que. and Maine.
nigripalpus (Walker), 1849: 1068 (*Sciomyza*).—n. Ont.; Alaska to s. B.C. **N. comb.**
rotundicornis Loew, 1863a: 30 (Cent. 3, no. 56).—Alaska; Alaska and Y.T., s. to Wash., Idaho, and Alta., also Minn. to N.S., s. to N.C.
slossonae Coquillett, 1898d: 278.—Fla.
sororia Williston, 1896c: 385.—St. Vincent I.; Bermuda.
saroria, error.
umbrosa Loew, 1863a: 30 (Cent. 3, no. 57).—D.C.; Mass., s. to La. and Fla.
vittigera Coquillett, 1902e: 178.—Ga.; s. N.Y. to Tenn. and Fla., also Mexico.

Genus STEGANOPSIS Meijere

Steganopsis Meijere, 1910: 145. Type-species, *pupicola* Meijere (mon.).

Subgenus STEGANOLAUXANIA Frey

Steganolauxania Frey, 1918a: 2 (as genus). Type-species, *Lauxania latipennis* Coquillett (orig. des.).

latipennis (Coquillett), 1898d: 279 (*Lauxania*).—Fla., Ga.; N.J., N.C.

Genus TRIGONOMETOPUS Macquart

Trigonometopus Macquart, 1835: 419. Type-species, *Tetanocera frontalis* Meigen (mon.).

REFERENCES: Knab, 1914c (key); Malloch, 1923j (key).

punctipennis Coquillett, 1898d: 280.—Colo.

vittatus Loew, 1869b: 51 (Cent. 8, no. 98).—Ga.; Va. to Fla., also Tex.

Genus TRIVIALIA Malloch

Deceia, subg. **Trivialia** Malloch, 1923j: 53. Type-species, *fuscocapitata* Malloch (orig. des.). **N. status.**

fuscocapitata (Malloch), 1923j: 53 (*Deceia*).—Va.; N.C., Ga. **N. comb.**

Genus TRYPETISOMA Malloch

Trypetisoma Malloch *in* Malloch and McAtee, 1924b: 25. Type-species, *Sapromyza stictica* Loew (orig. des.).

sticticum (Loew), 1863a: 30 (Cent. 3, no. 58) (*Sapromyza*).—D.C.; N.C., Tex.

Genus XENOCHAETINA Malloch

Xenochaetina Malloch, 1923j: 49. Type-species, *Lauxania muscaria* Loew (orig. des.).

REFERENCE: Malloch, 1923j (key).

muscaria (Loew), 1861b: 352 (Cent. 1, no. 87) (*Lauxania*).—Cuba; Tenn. and N.J., s. to La. and Fla.

Genus XENOPTERELLA Malloch

Xenopterella Malloch, 1926: 2. Type-species, *obliqua* Malloch (orig. des.).

costalis Curran, 1942a: 77.—Colo.; Mexico.

Unplaced Species of Lauxaniidae

amida Walker, 1849: 988 (*Sapromyza*).—Ga. ?=*Neogriphoneura sordida.*

connexa Say, 1829: 177 (1859b: 367) (*Sapromyza*).—Ind. ?*Homoneura.*

planiscuta Thomson, 1869: 568 (*Lauxania*).—Calif. ?*Physegenua.*

Family CHAMAEMYIIDAE

(Ochtiphilidae)

By J. F. McAlpine

Members of the genera *Cremifania*, *Leucopis*, *Lipoleucopis*, and *Pseudoleucopis* are larval predators of aphids, scale insects, and mealybugs. The one Nearctic species of *Paraleucopis* has been reared from birds' nests. Little is known about the habits of the remaining genera. Many undescribed species are known in North America, particularly in the genus *Leucopis*, and a revision of the family is needed.

REFERENCES: Malloch, 1940 (rev.); Brown and Clark, 1956 (field ident., aphid predators); McAlpine, 1960a (key, world genera), 1963 (subfamilies and tribes).

Subfamily CREMIFANIINAE

Genus CREMIFANIA Czerny

Cremifania Czerny, 1904a: 169. Type-species, *nigrocellulata* Czerny (mon.).

REFERENCE: McAlpine, 1963 (rev.).

nearctica McAlpine, 1963: 252.—N. Mex.

nigrocellulata Czerny, 1904a: 170.—Europe; Oreg., N.B., Nfld. Introduced.

Subfamily CHAMAEMYIINAE

Tribe CHAMAEMYIINI

Genus PLUNOMIA Curran

Plunomia Curran, 1934a: 365. Type-species, *elegans* Curran (mon.).

elegans Curran, 1934a: 365.—Ill.; B.C., Wash., Man. to Que., s. to Ill. and N.H. Specific name credited to Curran be-

cause of intentional use of misidentification (new International Code of Zoological Nomenclature, Article 70b).

flavicornis Malloch, 1940: 272.—Man.

elegans Panzer of Malloch, 1921j: 347 (*Chamaemyia*).

obtusa Malloch, 1940: 271.—Alaska; Ont.

tibialis Malloch, 1940: 271.—Ind.; Ont., Mich.

transversa Malloch, 1940: 270.—Va.; s. Alaska and B.C. to Que., s. to Colo. and Va.

Genus ACROMETOPIA Schiner

Acrometopia Schiner, 1862b: 434. Type-species, *Oxyrhina wahlbergi* Zetterstedt (Coquillett, 1910b: 503).

Acrometopa, error.

punctata Coquillett, 1902e: 185.—Ga.; Ala., Fla.

reticulata Johnson, 1913a: 81 (*Trigonometopus*).—Fla.

Genus CHAMAEMYIA Meigen

Chamaemyia Meigen, 1803: 278. Type-species, *elegans* Panzer (sub. mon., Panzer, 1809b: 12).

Ochtiphila Fallén, 1823b: 9. Type-species, *aridella* Fallén (Westwood, 1840: 151, or Blanchard, 1840: 625).

Ochthiphila, emend.

Illiger (1807: 481) associated *Musca flava* Linnaeus with *Chamaemyia* 2 years before Panzer's action, but was not followed. That species is the type of *Chyromya*, type-genus of Chyromyidae. It would be undesirable to involve two family names in confusing changes at this late date. The case has been submitted to the International Commission on Zoological Nomenclature.

References: Coe, 1942, 1943 (rev. British spp.).

aridella (Fallén), 1823b: 10 (*Ochtiphila*).—Sweden; Alta., Europe.

elegans Panzer.—Probably not Nearctic.

flavipalpis (Haliday), 1838: 187 (*Ochtiphila*).—England; ?Ont., Europe.

maritima Zetterstedt, 1846: 1946 (*Ochtiphila*).—Sweden.

fumicosta Malloch, 1940: 267.—Ariz.

geniculata (Zetterstedt), 1838: 720 (*Ochtiphila*).—Lapland; Alaska, B.C., Europe.

herbarum (Robineau-Desvoidy), 1830: 635 (*Estelia*).—Europe; B.C. to P.E.I.

juncorum (Fallén), 1823b: 9 (*Ochtiphila*).—Sweden; B.C. to N.S., s. to Minn., Ind., and Mass.

polystigma Meigen, 1830: 92 (*Ochtiphila*).—Europe.

Genus PARALEUCOPIS Malloch

Paraleucopis Malloch, 1913n: 148. Type-species, *corvina* Malloch (orig. des.).

corvina Malloch, 1913n: 149.—N. Mex.; Tex.

Genus PSEUDODINIA Coquillett

Pseudodinia Coquillett, 1902e: 187. Type-species, *varipes* Coquillett (orig. des.).

antennalis Malloch, 1940: 269.—Va.; Man. to Ont., s. to Utah and Ga.

nitens (Melander and Spuler), 1917: 70 (*Piophila;* n. name for *nitida* Wulp).—Wis.; B.C. to Man., s. to Idaho and Ill. **N. comb.**, C. W. Sabrosky *in litt.*

nitida Wulp, 1867: 160 (*Piophila;* preocc. Brullé, 1832).—Wis. **N. comb.**, C. W. Sabrosky *in litt.*

nitida Melander, 1913a: 295 (preocc. Wulp, 1867).—Idaho.

polita Malloch, 1915j: 152.—Ill.; Md., N.C.

varipes Coquillett, 1902e: 187.—N. Mex.; B.C. to Man., s. to Idaho, N. Mex., and Tex.

pruinosa Melander, 1913a: 295.—Tex.

Genus Pseudoleucopis Malloch

Pseudoleucopis Malloch, 1925c: 93. Type-species, *magnicornis* Malloch (orig. des.).

benefica Malloch, 1930: 490.—Australia; ?N. Amer. Introduced.

Tribe LEUCOPINI

Genus Lipoleucopis Meijere

Lipoleucopis Meijere, 1928: 76. Type-species, *praecox* Meijere (mon.).

praecox Meijere, 1928: 76.—Holland; ?N.B. Introduced.

Genus LEUCOPIS Meigen

Leucopis Meigen, 1830: 133. Type-species, *Anthomyza griseola* Fallén (Blanchard, 1840: 627).

Leucopis, subg. *Leucopina* Malloch, 1927c: 575. Type-species, *bella* Loew (orig. des.).

Subgenus NEOLEUCOPIS Malloch

Leucopis, subg. **Neoleucopis** Malloch, 1921j: 357. Type-species, *pinicola* Malloch (orig. des.).

obscura Haliday, 1833: 173.—Ireland; Nfld. to Vt. and ?N.Y., also Oreg., ?Wash. Introduced.

pinicola Malloch, 1921j: 357.—Ill.; Ont., N.B., Nfld.

Subgenus LEUCOPOMYIA Malloch

Leucopis, subg. **Leucopomyia** Malloch, 1921j: 355. Type-species, *pulvinariae* Malloch (orig. des.).

pulvinariae Malloch, 1921j: 356.—Ill.; Wash., Sask. to N.S., N.Y.

Subgenus XENOLEUCOPIS Malloch

Leucopis, subg. **Xenoleucopis** Malloch, 1933c: 384. Type-species, *cilifemur* Malloch (orig. des.).

Unnamed spp.—B.C., Tex. Otherwise, the subgenus is known only from Chile.

Subgenus LEUCOPIS Meigen

americana Malloch, 1921j: 354.—Ill.; Man. to N.S., s. to Ill. and Fla.

atrifacies Aldrich, 1925a: 152.—Calif.

bella Loew, 1866a: 186 (Cent. 6, no. 99).—Cuba. Records on continent probably misidentified.

bellula Williston *in* Riley, 1889: 258.—Tex.; Alta., Sask.

bivittata Malloch, 1940: 273.—Calif.

flavicornis Aldrich, 1914a: 404.—Tex.

griseola (Fallén), 1823a: 8 (*Anthomyza*).—Scandinavia. N. Amer. records probably misidentified.

maculata Thompson, 1910: 241.—Nebr.; Alta., Man., Ont.

major Malloch, 1921j: 352.—Ill.

minor Malloch, 1921j: 354.—Ill.; ?Wash.

nigricornis Egger, 1862: 782.—Europe. N. Amer. records probably misidentified.

ocellaris Malloch, 1940: 272.—Alta.; Man.

orbitalis Malloch, 1921j: 352.—Ill.; Ont., N.B., Nfld.

parallela Malloch, 1921j: 353.—Ill.

pemphigae Malloch, 1921j: 350.—Ill.; Alta.

piniperda Malloch, 1921j: 351.—Ill.; Colo., Que., N.B.

simplex Loew, 1869b: 51 (Cent. 8, no. 96).—N.Y.; Ont., ?Wash.
phylloxerae Riley, 1883: 39.—Unknown.

verticalis Malloch, 1940: 273.—Calif.

Family PERISCELIDIDAE

By Curtis W. Sabrosky

The species of Periscelididae are seldom collected. They are especially attracted to bleeding wounds on trees. *Periscelis wheeleri* has been reared from fermenting oak sap, and this may be the normal breeding place for the family.

REFERENCE: Sturtevant, 1954 (rev.).

Genus PERISCELIS Loew

Periscelis Loew, 1858a: 113. Type-species, *annulipes* Loew (Sturtevant, 1923: 1). Oldenberg (1914: 39) was formerly construed to have fixed the type by elimination, in the spirit of Opinion 6, I.C.Z.N.

Microperiscelis Oldenberg, 1914: 39, 42. Type-species, *Notiphila annulata* Fallén (Sturtevant, 1923: 1).

Phorticoides Malloch, 1915c: 86. Type-species, *flinti* Malloch (orig. des.) = *annulata* (Fallén).

Sphyroperiscelis Sturtevant, 1923: 1. Type-species, *wheeleri* Sturtevant (orig. des.).

annulata (Fallén), 1813: 250 (*Notiphila*).—Sweden; Wash., Alta., S. Dak. to Que., s. to Ariz. and Fla., Europe.

flinti Malloch, 1915c: 87 (*Phorticoides*).—Ill.

occidentalis Sturtevant, 1954: 554.—Calif.; Wash., Ariz., N. Mex., Tex.

wheeleri (Sturtevant), 1923: 2 (*Sphyroperiscelis*).—Mass.; B.C., Oreg., Calif., Pa., N.J., Fla.

Superfamily PALLOPTEROIDEA

Family PIOPHILIDAE

By George C. Steyskal

The family Piophilidae is a small group containing several species of cosmopolitan or Holarctic distribution. They are scavengers in animal products and fungi; one species, the well-known "cheese fly" or "cheese-skipper," *Piophila casei* (Linnaeus), has been recorded as an important cause of human intestinal myiasis.

REFERENCES: Melander and Spuler, 1917 (rev.); Melander, 1924b (rev.); Hennig, 1943 (monog., Palaearctic spp., including several Holarctic and cosmopolitan spp.).

Genus PIOPHILA Fallén

Piophila Fallén, 1810a: 20. Type-species, *Musca casei* Linnaeus (mon.).

Tyrophaga Kirby *in* Kirby and Spence, 1826: 78. Type-species, *Musca casei* Linnaeus (mon.).

Subgenus PIOPHILA Fallén

casei (Linnaeus), 1758: 597 (*Musca;* as *putris* var.).—Europe; cosmopolitan.

pusilla Meigen, 1838: 360.—Germany.

Subgenus ALLOPIOPHILA Hendel

Allopiophila Hendel, 1917: 37 (as genus). Type-species, *luteata* Haliday (orig. des.).

anomala Malloch, 1923i: 219.—Alaska (Pribilof Is.).

arctica Holmgren, 1883: 177.—U.S.S.R. (Vaigach I.); Alaska, N.W.T., n. Que.

aterrima Becker, 1897: 402.—Novaya Zemlya.

atrifrons Melander and Spuler, 1917: 66.—Wash., Idaho; Maine.

fulviceps Holmgren, 1883: 177.—n. U.S.S.R.; Alaska, Man.

borealis Malloch, 1919f: 84.—Alaska.

liturata Melander and Spuler, 1917: 60.—Idaho, Wash.

nitidissima Melander and Spuler, 1917: 66.—Wash., Idaho, Calif.; Colo.

setosa Melander and Spuler, 1917: 64.—Alaska.

vulgaris Fallén, 1820e: 9.—Europe; Alaska to Que., s. to N.Y. and Mass., Greenland.

oriens Melander and Spuler, 1917: 63.—N.Y.

xanthopoda Melander and Spuler, 1917: 59 (in key), [102].—Mont., Idaho.

flavipes Melander and Spuler, 1917: 63 (in descr.).—Mont., Idaho.

xanthostoma (error in correcting *flavipes*) Melander and Spuler, 1917: [103].

Subgenus AMPHIPOGON Wahlberg

Macrochira Zetterstedt, 1838: 784 (preocc. Meigen, 1803). Type-species, *flava* Zetterstedt (mon.).

Amphipogon Wahlberg, 1845: 217 (as genus). Type-species, *spectrum* Wahlberg (mon.) = *flava* (Zetterstedt).

Ambopogon Greene, 1919: 126. Type-species, *hyperboreus* Greene (orig. des.).

hyperborea (Greene), 1919: 127 (*Ambopogon*).—Y.T.; Idaho.

Subgenus ARCTOPIOPHILA Duda

Piophila, subg. **Arctopiophila** Duda, 1924d: 109. Type-species, *nigerrima* Lundbeck (mon.).

nigerrima Lundbeck, 1901: 301.—Greenland.

Subgenus LASIOPIOPHILA Duda

Piophila, subg. **Lasiopiophila** Duda, 1924d: 109. Type-species, *pilosa* Staeger (mon.).

pilosa Staeger, 1845b: 368.—Greenland; n. Alaska, N.W.T.

Subgenus LIOPIOPHILA Duda

Piophila, subg. **Liopiophila** Duda, 1924d: 109. Type-species, *varipes* Meigen (Hennig, 1943: 28).

halterata Melander and Spuler, 1917: 62 (as *affinis* var.).—Wash. ?=*varipes* var.

morator Melander, 1924b: 85.—Wash.

nigricoxa Melander and Spuler, 1917: 64.—Wash., Idaho, Mont.

nigrimana Meigen, 1826: 396.—Europe; B.C. to Mass., s. to Oreg., Tex., and Ill., also s. Chile.

affinis Meigen, 1830: 383.—Belgium.

privigna Melander, 1924b: 86.—B.C., Wash., Idaho, Wyo., Ill., N.Y., Mass.

pusilla Meigen of Melander and Spuler, 1917: 61.

occipitalis Melander and Spuler, 1917: 65.—Ill. ?=*nigricornis* Meigen.

varipes Meigen, 1830: 384.—Germany; Wash. to Ont. and Mass., Europe and Asia.

affinis Meigen of Melander and Spuler, 1917: 61.

Subgenus MYCETAULUS Loew

Mycetaulus Loew, 1845: 37 (as genus). Type-species, *hoffmeisteri* Loew (mon.)=*bipunctata* (Fallén).

bipunctata (Fallén), 1823e: 3 (*Geomyza*).—Sweden; Wash. to Maine, s. to Calif., Mich., and Ga.

pulchellus Banks, 1915c: 145 (*Mycetaulus*).—Va.

costalis (Melander), 1924b: 79 (*Mycetaulus*).—Oreg.; Calif.

longipennis (Loew), 1869c: 186 (Cent. 9, no. 100) (*Mycetaulus*).—Hudson Bay Territory; Mich. to Maine and Va.

nigritella (Melander), 1924b: 79 (*Mycetaulus*).—Wash., Idaho, Mont.

polypori (Melander), 1924b: 80 (*Mycetaulus*).—Wash.

subdola (Johnson), 1922: 25 (*Geomyza*).—Mass.; Ont. to Mass. **N. comb.**

testacea (Melander), 1924b: 81 (*Mycetaulus*).—Wash., Idaho.

Subgenus PROCHYLIZA Walker

Prochyliza Walker, 1849: 1045 (as genus). Type-species, *xanthostoma* Walker (mon.).

brevicornis (Melander), 1924b: 81 (*Prochyliza*).—Mont., Wyo., Ill.; Mont. and Wyo. to Mich. **N. comb.**

xanthostoma (Walker), 1849: 1045 (*Prochyliza*).—Ont.; Alaska to Que., s. to Calif., Tex., and Ala.

Subgenus PROTOPIOPHILA Duda

Piophila, subg. **Protopiophila** Duda, 1924d: 109. Type-species, *latipes* Meigen (mon.).

latipes Meigen, 1838: 360.—Germany; Wis., Mich., Pa., widespread in Palaearctic, Oriental, and Australian Regions.

hornigi Cresson, 1919: 193 (*Mycetaulus*).—Pa.

Subgenus STEARIBIA Lioy

Stearibia Lioy, 1864a: 1105 (as genus).—Type-species, *Piophila foveolata* Meigen (mon.).

foveolata Meigen, 1826: 396.—Europe; B.C. to Que. and Maine, s. to Wash., Ill., and Ala., also s. Chile.

nigriceps Meigen, 1826: 397.—Europe.

Unplaced Species of *Piophila*

senescens Melander and Spuler, 1917: 72 (n. name for *nigriceps* Macquart).—N. Amer.

nigriceps Macquart, 1851: 276 (1851: 303) (preocc. Meigen, 1826).—N. Amer.

Family THYREOPHORIDAE

By George C. Steyskal

Little is known of the rarely collected family Thyreophoridae, here recorded from North America for the first time. The genus *Omomyia* was described in the Coelopidae and later transferred to the Pallopteridae, but its relationships are still somewhat obscure. The habits of the type-species were described by Barber (1908).

Genus OMOMYIA Coquillett

Omomyia Coquillett, 1907a: 76. Type-species, *hirsuta* Coquillett (orig. des.).

hirsuta Coquillett, 1907a: 76.—Calif.
regularis Curran, 1935b: 21.—Ariz.

Family NEOTTIOPHILIDAE

By J. R. Vockeroth

The family Neottiophilidae has not been recorded previously from North America. The habits of the species listed below are unknown; the larva of the only other species referred to the family is an ectoparasitic blood-sucker on nestling birds in Europe.

Genus ACTENOPTERA Czerny

Gymnomyza Strobl, 1894b: 85 (preocc. Fallén, 1810). Type-species, *Heteromyza hilarella* Zetterstedt (mon.).
Actenoptera Czerny, 1904b: 202 (n. name for *Gymnomyza* Strobl). Type-species, *Heteromyza hilarella* Zetterstedt (aut.).

hilarella (Zetterstedt), 1847: 2467 (*Heteromyza*).—Norway; n. Que., n. and cent. Europe.

Family PALLOPTERIDAE

By G. E. Shewell

The family Pallopteridae occurs in the north temperate regions, temperate South America, and New Zealand. With the exception of *Palloptera* Fallén, the genera are little known, and their relationships imperfectly understood. The family is usually placed close to Lonchaeidae and Otitidae.

No biological information on North American species has been published, but records from Europe indicate that the larvae are phytophagous or carnivorous. They have been found in flower buds and stems of Compositae and Umbelliferae; also under bark of felled coniferous and deciduous trees infested with larvae of Cerambycidae and Scolytidae on which they prey.

References: Melander, 1913b (rev.); Johnson, 1921b (key); Malloch, and McAtee, 1924b (rev.); Meijere, 1944, and Morge, 1956 (biol. European spp., figs.).

Genus PALLOPTERA Fallén

Palloptera Fallén, 1820c: 23. Type-species, *Musca umbellatarum* Fabricius (Westwood, 1840: 150).

albertensis Johnson, 1921b: 22.—Alta.; s. B.C., Idaho, ?Calif.
arcuata (Fabricius).—Not Nearctic. Records may refer to *jucunda*.
claripennis Malloch *in* Malloch and McAtee, 1924b: 7.—Calif.; s. B.C.
jucunda Loew, 1863a: 29 (Cent. 3, no. 55).—Alaska; Alaska and Y.T., s. to Calif. and Colo., also e. Que. and Labr.
setosa Melander, 1913b: 81.—Mich.; s. Ont., s. Que.
similis Johnson, 1910a: 233.—Maine; Que., N.H.
subarcuata Johnson, 1921b: 21.—Maine; s. Alta. to s. Que., N.H.
subusta Malloch *in* Malloch and McAtee, 1924b: 7.—Calif.; s. B.C.
superba Loew, 1861b: 346 (Cent. 1, no. 75).—Pa.; s. Sask. to Maine, s. to S.C.
terminalis Loew, 1863a: 29 (Cent. 3, no. 54).—Alaska; B.C., Wash., Oreg.
ustulata Fallén.—Not Nearctic. Records may refer to *claripennis* or an undescribed sp.

Family LONCHAEIDAE

By J. F. McAlpine

Numerous undescribed species of lonchaeid flies are known in the Nearctic Region (McAlpine, rev. in progress), and the latest key (Malloch and McAtee, 1924b) cannot be depended upon.

The immature stages of most species are secondary invaders in diseased or injured plant material. Many species, particularly of the genera *Dasiops* and *Lonchaea*, live under the bark of dead and dying trees or in injured, overripe, or decaying fruits and vegetables. Some species are associated with primary insect invaders; e.g., larvae of *Lonchaea corticis* Taylor live in close association with the larvae of *Pissodes strobi* (Peck), larvae of the *L. watsoni* complex are associated with various bark beetles, and a large number of *Silba* species live in conjunction with members of the family Tephritidae. A few species are primary invaders of plant tissue (e.g., cone-infesting species of the genus *Earomyia*, see McAlpine, 1956). Some species of the genera *Dasiops*, *Lonchaea*, and *Silba* apparently attack certain fruits and vegetables in a similar manner.

References: Morge, 1959 (monog., Palaearctic spp.); McAlpine, 1960c (key, world genera).

Genus DASIOPS Rondani

Dasiops Rondani, 1856: 120. Type-species, *Lonchaea latifrons* Meigen (I.C.Z.N., 1963a: 114, under plenary powers).

Arctobiella Coquillett, 1902e: 188. Type-species, *obscura* Coquillett (orig. des.).

Acucula Townsend, 1913a: 264. Type-species, *saltans* Townsend (orig. des.).

albiceps (Malloch), 1914a: 39 (*Lonchaea*).—D.C.; Alaska, B.C., Que.
alveofrons McAlpine, 1961a: 539.—Calif.; Ariz., Tex., Mexico.
arkansensis (Malloch), 1923j: 45 (*Lonchaea*).—Ark. **N. comb.**
latiterebrus (Czerny), 1934b: 10 (*Psilolonchaea*).—e. Siberia; Alaska, n. Eurasia.
obscurus (Coquillett), 1902e: 188 (*Arctobiella*).—B.C.
parvicornis (Meigen).—Not Nearctic.
quadrisetosus (Malloch), 1914a: 40 (*Lonchaea*).—Md.; Ill., D.C., Fla. **N. comb.**
vibrissatus (Malloch), 1914a: 37 (*Lonchaea*).—Ill.; Calif., Minn., Ont., Que., Mass. to Va.

Genus CHAETOLONCHAEA Czerny

Earomyia, subg. **Chaetolonchaea** Czerny, 1934b: 26. Type-species, *Lonchaea dasyops* Meigen (orig. des.).

pallipennis (Zetterstedt), 1855: 4786 (*Lonchaea*).—Sweden; B.C., Alta., Mont., Colo., Europe. Nearctic material is possibly not *pallipennis*.

Genus EAROMYIA Zetterstedt

Earomyia Zetterstedt, 1842: 78. Type species, *lonchaeoides* Zetterstedt (sub. mon., Zetterstedt, 1848: 2690).

REFERENCE: McAlpine, 1956 (partial key).

aberrans (Malloch), 1920e: 131 (*Lonchaea*).—Ill.; Ont. to Nfld., also Fla.
abietum McAlpine, 1956: 180.—B.C.; B.C. to Calif., also Colo.
aquilonia McAlpine, 1956: 184.—B.C.; Alta.
aterrima (Malloch), 1920e: 129 (*Lonchaea*).—Maine; Ont., Que., N.H.
barbara McAlpine, 1956: 187.—B.C.; Oreg., Calif., Alta., Colo.
brevistylata McAlpine, 1956: 190.—Calif.; Oreg., Colo.
hirtithorax (Aldrich), 1925c: 8 (*Lonchaea*).—Oreg.; B.C.
longistylata McAlpine, 1956: 192.—Calif.; Oreg.
viridana (Meigen).—Not Nearctic.

Genus LONCHAEA Fallén

Lonchaea Fallén, 1820c: 25. Type-species, *Musca chorea* Fabricius (Westwood, 1840: 150).

affinis Malloch, 1920e: 130.—N.H.; Alaska, B.C., Ont. to N.B., N.H., N.C.
subpolita Malloch, 1923j: 45.—N.C. **N. syn.**
albitarsis Zetterstedt.—Not Nearctic.
angustitarsis Malloch, 1920e: 131.—Maine.
atritarsis Malloch, 1923j: 47.—B.C.
caerulea Walker, 1849: 1004.—Ga.; s. Ont. to Fla., also Tex., La.
chorea (Fabricius), 1781: 444 (*Musca*).—Europe; B.C. to Oreg., e. to Que. and Mass.
vaginalis Fallén, 1820c: 26.—Sweden.
coloradensis Malloch, 1923j: 46.—Colo.
corticis Taylor, 1928: 192.—Mass.; Ont. to N.B., s. to Ohio and Pa.
deutschi Zetterstedt.—Not Nearctic.
flavipennis Morge, 1959: 938.—Unknown; B.C., Oreg., Calif., Europe.
flavidipennis, authors, not Zetterstedt.
hirta Malloch, 1920e: 129.—Mass.; Ont., Que., N.B., Mich., N.H.
hyalipennis Zetterstedt.—Not Nearctic.
hyalinipennis, error.
laticornis Meigen.—Not Nearctic.
laxa Collin, 1953b: 204.—Scotland; Alaska and B.C. to Nfld., s. to Mich. and N.Y.
affinis, authors, not Malloch.
longicornis Williston, 1896c: 378.—St. Vincent I.; Fla.
marylandica Malloch, 1923j: 46.—Md.; Ont. to N.B., s. to Ohio and Md.
nigrociliata Malloch, 1920e: 131.—Maine.
nudifemorata Malloch, 1914a: 38.—Md.; s. Ont. to Mass., s. to Ill. and Va.
pleuriseta Malloch, 1920e: 132.—Minn.; B.C., Sask.
polita Say, 1830: 188 (1859b: 371).—Ind.; s. Canada, widespread U.S.
rufitarsis Macquart, 1851: 273 (1851: 300).—N. Amer.
ruficornis Malloch, 1920e: 130.—Ill.; Mich., Mass.
striatifrons Malloch, 1920f: 246.—Calif.; Ariz., N. Mex., Tex., Mexico.
occidentalis Malloch, 1923j: 46.—Ariz. **N. syn.**
tarsata Fallén.—Not Nearctic.
ursina Malloch, 1920e: 132.—Alaska; B.C.
watsoni Curran, 1926d: 213.—Ont.; Que.
wiedemanni Townsend.—Not Nearctic.
winnemanae Malloch, 1914a: 38.—Va.; Minn., Tex., N.Y., Pa., N.J., Md.

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Genus SILBA Macquart

Silba Macquart, 1851: 277 (1851: 304). Type-species, *virescens* Macquart (orig. des.).

Lonchaea, subg. *Carpolonchaea* Bezzi, 1920: 199. Type-species, *plumosissima* Bezzi (orig. des.).

glaberrima (Wiedemann), 1830: 475 (*Lonchaea*).—West Indies; Fla.

Superfamily MILICHIOIDEA

Family SPHAEROCERIDAE

(Borboridae)

By O. W. Richards

The American species of this family need to be thoroughly revised from their types. The following list is largely a compilation.

Larvae live as scavengers in excrement and decaying vegetable matter.

REFERENCES: Spuler, 1924d (keys, N. Amer. genera and subg.); Richards, 1930 (biol., figs. of puparia); Goddard, 1938 (figs. of puparia); Hammer, 1941 (biol.); Laurence, 1955 (biol., figs. of puparia); Richards, 1961 (nomenclatural problems).

Genus SPHAEROCERA Latreille

Sphaerocera Latreille, 1804: 197. Type-species, *curvipes* Latreille (sub. mon., Latreille, 1805: 394).

Sphaerocera, subg. *Parasphaerocera* Spuler, 1924b: 67. Type-species, *bimaculata* Williston (orig. des.).

REFERENCE: Malloch, 1925d (rev.).

Subgenus SPHAEROCERA Latreille

annulicornis Malloch, 1913j: 363.—Mass.; Mass. to Va., also Tenn., Mo.

bimaculata Williston, 1896c: 435.—St. Vincent I.; Fla., Mexico, Costa Rica.

curvipes Latreille, 1805: 394.—Europe; widespread in Alaska, Canada, U.S., cosmopolitan.

planipes Harris, 1835: 600 (*Borborus*). Nomen nudum.

subsultans, authors, not Linnaeus.

varipes Malloch, 1925d: 121.—Costa Rica; Ga., Cent. Amer.

Subgenus LOTOBIA Lioy

Lotobia Lioy, 1864a: 1114 (as genus). Type-species, *Borborus pallidiventris* Meigen (mon.).
Allosphaerocera Hendel, 1920b: 54. Type-species, *Borborus hyalipennis* Meigen (orig. des.) = *pallidiventris* (Meigen).

nigrifemur Malloch, 1925d: 122.—Md.
pusilla (Fallén), 1820e: 8 (*Copromyza*).—Sweden; B.C., Wash., Idaho, Ill., Mich., Mass., D.C., Europe.
scabra Spuler, 1924b: 68.—Wash.; Mich.
striata Malloch, 1925d: 122.—Fla.
vaporariorum Haliday, 1836: 319.—United Kingdom; Mich., Europe.

Genus COPROMYZA Fallén

Copromyza Fallén, 1810a: 19. Type-species, *equina* Fallén (Zetterstedt, 1847: 2475).
Borborus, subg. *Trichiaspis* Duda, 1923a: 55. Type-species, *Copromyza equina* Fallén (Richards, 1930: 267).
Borborus, authors, not Meigen.
Cypsela, authors, not Meigen.

REFERENCE: Spuler, 1925a (rev.).

Subgenus COPROMYZA Fallén

calcitrans (Spuler), 1925a: 141 (*Borborus*).—Wash.
equina Fallén, 1820e: 6.—Sweden; widespread in Alaska, Canada, U.S., Europe.
neglecta (Malloch), 1913j: 364 (*Borborus*).—Mass.; Wash., Mich.
stercoraria (Meigen), 1830: 202 (*Borborus*).—Europe; Oreg.
nigrifemoratus Macquart, 1835: 567 (*Borborus*).—France.
subaptera (Malloch), 1923i: 211 (*Borborus*).—Pribilof Is.

Subgenus OLINEA Richards

Copromyza, subg. **Olinea** Richards (for *Olina*, authors, as descr. by Duda, 1923a: 55, 99). Type-species, *Borborus ater* Meigen (present des.). **N. subg.**
Copromyza, subg. *Olinea* Richards, 1961: 561. Nomen nudum (type des., but no descr. of subg.).
Olina, authors, not Robineau-Desvoidy.
Scatophora, authors, not Robineau-Desvoidy.

atra (Meigen), 1830: 203 (*Borborus*).—Europe; B.C. to Mass., s. to Calif. and Ga., Europe.
carolinensis, authors, not Robineau-Desvoidy (*Scatophora*).
geniculatus, authors, probably not Macquart (*Borborus*).

Subgenus FUNGOBIA Lioy

Fungobia Lioy, 1864a: 1114 (as genus). Type-species, *Borborus nitidus* Meigen (mon.).

Borborus, subg. *Stratioborborus* Duda, 1923a: 54. Type-species, *nitidus* Meigen (Richards, 1930: 267).

maculipennis (Spuler), 1925a: 6 (*Borborus*).—Wash.; Idaho.
setitibialis (Spuler), 1925a: 6 (*Borborus*).—N. H.

Subgenus CRUMOMYIA Macquart

Crumomyia Macquart, 1835: 569 (as genus). Type-species, *Borborus glacialis* Meigen (orig. des.).

annulus (Walker), 1849: 1129 (*Borborus*).—Hudson Bay; Pribilof Is.
immensa (Spuler), 1925a: 4 (*Borborus*).—N.H.
nigra (Meigen), 1830: 201 (*Borborus*).—Europe; ?Ga.

Subgenus BORBORILLUS Duda

Borborus, subg. **Borborillus** Duda, 1923a: 54. Type-species, *uncinatus* Duda (Richards, 1930: 267).

arctica (Malloch), 1913j: 367 (*Borborus;* as *articus*).—Labr.; ?Wash.
frigipennis (Spuler), 1925a: 9 (*Borborus*) —Fla.
peltastes (Spuler), 1925a: 10 (*Borborus*).—Tex.
scripta (Malloch), 1915b: 64 (*Borborus*).—Ill.
singularis (Spuler), 1925a: 12 (*Borborus*).—Wash.
sordida Zetterstedt, 1847: 2484.—Sweden; B.C. to Mass., s. to Calif., N. Mex., and D.C., also Bermuda, Hawaii, Palaearctic, e. India, s. Africa, Canary Is.
brevisetus Malloch, 1913j: 365 (*Borborus*).—D.C., N. Mex.
minutus Johnson, 1913d: 449 (*Borborus*).—Bermuda.
marmoratus Becker of Spuler, 1925a: 8, 11, and authors (*Borborus*).

Genus LEPTOCERA Olivier

Leptocera Olivier, 1813: 489. Type-species, *nigra* Olivier (mon.).

Limosina, subg. *Paracollinella* Duda, 1924b: 166. Type-species, *Copromyza fontinalis* Fallén (Richards, 1930: 267).

REFERENCES: Spuler, 1924a, b, c, 1925b, c (rev.); Sabrosky, 1949b (rev., *Rachispoda* part); Richards, 1960 (key, *Coproica*).

Subgenus LEPTOCERA Olivier

caenosa (Rondani), 1880: 38 (1880: 36) (*Limosina*).—Italy; Sask. to N.S., Mich., Europe.

downesi Richards, 1944: 137.—Scotland (ship from Argentina); Ill., N.Y., Hawaii, Micronesia.
fontinalis (Fallén), 1826: 16 (*Copromyza*).—Sweden; widespread, Alaska, Canada, U.S., Bermuda, P.R., Europe.
hoplites Spuler, 1924a: 115.—Wash.; Oreg., Mich., Vt.
pararoralis Duda, 1925a: 51.—Algonquin (presumably Ont.).

Subgenus RACHISPODA Lioy

Rachispoda Lioy, 1864a: 1116 (as genus). Type-species, *Copromyza limosa* Fallén (mon.).
Limosina, subg. *Collinella* Duda, 1918: 27 (preocc. Schmidt, 1879). Type-species, *Copromyza limosa* Fallén (Richards, 1930: 266).
Leptocera, subg. *Collinellula* Strand, 1928: 49 (n. name for *Collinella* Duda). Type-species, *Copromyza limosa* Fallén (aut.).

atra (Adams), 1903b: 223 (*Limosina*).—Kans.; Wash. to Md., s. to Mexico and Fla.
barbata Sabrosky, 1949b: 16.—Mich.; Alaska, N.H., Utah.
cryptica Sabrosky, 1949b: 12.—Idaho; Wash. to Man., s. to Calif. and Colo.
echinaspis Spuler, 1924a: 108.—Calif.
forceps Sabrosky, 1949b: 10.—Kans.; Wash., Oreg., Nev., Utah, Tex.
frosti Johnson, 1915b: 21.—Mass.
fumipennis Spuler, 1924a: 110.—B.C.; Wash., Idaho, Calif., Ill., Tex.
fuscipennis (Haliday), 1833: 178 (*Borborus*).—Ireland; Mich., Ill., N.Y., Md., Europe.
latiforceps Sabrosky, 1949b: 21.—B.C.; Calif.
limosa (Fallén), 1820e: 8 (*Copromyza*).—Sweden; Wash. to Ont. and Pa., s. to Calif. and Ga.
lutosa (Stenhammar), 1854: 380 (1855: 122) (*Limosina*).—Sweden; Alaska, Man., Europe.
melanderi Sabrosky, 1949b: 20.—Wash.
michigana Sabrosky, 1949b: 14.—Mich.; Alaska, Wash. to Maine, s. to Calif. and Pa.
omega Sabrosky, 1949b: 21.—Colo.
richardsi Sabrosky, 1949b: 18.—Kans.; Calif. to Mich., s. to La. and Md.
spuleri Sabrosky, 1949b: 8.—La.; Kans. to Mass., s. to Mexico, Tex., and Fla.
suberecta Sabrosky, 1949b: 20.—Colo.; Wash., Calif.
subpiligera (Malloch), 1914e: 176 (*Limosina*).—Pa.
tenaculata Sabrosky, 1949b: 16.—Calif.; Wash.

trochanterata (Malloch), 1913k: 462 (*Limosina*).—Va.; Mich., Ind., Tex., Fla.
urodela Sabrosky, 1949b: 18.—Idaho; Wash. to Nebr., s. to Calif. and Tex.
weemsi Sabrosky, 1956: 74.—Fla.

Subgenus OPACIFRONS Duda

Limosina, subg. **Opacifrons** Duda, 1918: 28. Type-species, *coxata* Stenhammar (Spuler, 1924c: 121).

caelobata Spuler, 1924c: 126.—Wash.
convexa Spuler, 1924c: 130.—Idaho; Wash.
coxata (Stenhammar), 1854: 396 (1855: 138) (*Limosina*).—Sweden; B.C. and Idaho to Calif., also S. Dak., Europe, Congo (Belgian).
grandis Spuler, 1924c: 123.—Oreg.; Wash.
pellucida Spuler, 1924c: 127.—Wash.; B.C.
sciaspidis Spuler, 1924c: 124.—Wash.; Idaho.
wheeleri Spuler, 1924c: 128.—Tex.; Kans., Ill., Wis., Mich., Ont.

Subgenus PTEREMIS Rondani

Pteremis Rondani, 1856: 124 (as genus). Type-species, *Borborus nivalis* Haliday (orig. des.)=*fenestralis* (Fallén).
Limosina, subg. *Stenhammaria* Duda, 1918: 28. Type-species, *Copromyza fenestralis* Fallén (mon.).

flavifrons Spuler, 1924c: 133.—Va.
parvipennis Spuler, 1924c: 132.—Alaska; B.C.
unica Spuler, 1924c: 134.—Wyo.

Subgenus THORACOCHAETA Duda

Limosina, subg. **Thoracochaeta** Duda, 1918: 32. Type-species, *Borborus zosterae* Haliday (Spuler, 1925b: 120).

brachystoma (Stenhammar), 1854: 393 (1855: 135) (*Limosina*).—Sweden; N.Y., Bermuda, S. Amer., Europe, Seychelles.
johnsoni Spuler, 1925b: 121.—Wash.
rufa Spuler, 1925b: 122.—Fla.; Mass.
seticosta Spuler, 1925b: 120.—Wash.

Subgenus POECILOSOMELLA Duda

Leptocera, subg. **Poecilosomella** Duda, 1925a: 78. Type-species, *Copromyza punctipennis* Wiedemann (Richards, 1930: 268).

angulata (Thomson), 1869: 602 (*Limosina*).—Brazil; Tex. to Fla., Bermuda, West Indies, Cent. and S. Amer., Hawaii.
venalicia Osten Sacken, 1878c: 263 (*Borborus*).—Cuba.

Subgenus PTEROGRAMMA Spuler

Leptocera, subg. **Pterogramma** Spuler, 1924d: 376. Type-species, *Limosina sublugubrina* Malloch (orig. des.; misident.) = *substituta* Richards.

intrudens Malloch, 1922d: 87.—Md.
palliceps Johnson, 1915b: 22.—N.J.; Md.
sublugubrina Malloch of Spuler (in part), 1923: 376 (also 1925b: 101).
substituta (in part) Richards, 1961: 563. Md. records only.

Subgenus BROMELOECIA Spuler

Leptocera, subg. **Bromeloecia** Spuler, 1924d: 375. Type-species, *Limosina bromeliarum* Knab and Malloch (orig. des.).

winnemana Malloch, 1925a: 97.—Md.; Minn., Tenn.

Subgenus LIMOSINA Macquart

Limosina Macquart, 1835: 571 (as genus). Type-species, *Borborus silvaticus* Meigen (Westwood, 1840: 145).
Limosina, subg. *Scotophilella* Duda, 1918: 34, 104. Type-species, *Borborus silvaticus* Meigen (Duda, 1924c: 6).
Leptocera, subg. *Spelobia* Spuler, 1924d: 376. Type-species, *Limosina tenebrarum* Aldrich (orig. des.). **N. syn.**
Leptocera, subg. *Americaptilotus* Richards, 1951: 845. Type-species, *Aptilotus borealis* Malloch (orig. des.). **N. syn.**
Aptilotus, Amer. authors, not Mik.

abundans Spuler, 1925c: 74, 151.—Idaho; B.C. to Mont., s. to Calif. and N. Mex., also Pa.
albifrons Spuler, 1925c: 73, 147.—Idaho; Wash., Calif., Ill., Mich.
aldrichi (Williston), 1893d: 259 (*Limosina*).—Calif.
borealis (Malloch), 1913j: 361 (*Aptilotus*).—Alaska; Wash., Oreg., Mont., Wyo.
politus Williston of Coquillett, 1900h: 464 (1904: 78) (*Aptilotus*).
carinata Spuler, 1925c: 75, 153.—Ill.; S. Dak., Mich., Mass.
cellularis Spuler, 1925c: 79.—Tex.; Mich.
concava Spuler, 1925c: 83.—Calif.; Wash.
crassimana (Haliday), 1836: 328 (*Limosina*).—United Kingdom; Alaska, B.C. to Mont., s. to Calif., also Kans., Ill., Mich., Vt., Europe.

curtipennis Spuler, 1925c: 74, 150.—Wash.
dissimilicosta Spuler, 1925c: 73, 148.—Wash.; Idaho.
elegans Spuler, 1925c: 73, 149.—Bermuda; Oreg., Iowa, Ill., Mich., D.C.
empirica (Hutton), 1901: 94 (*Limosina*).—New Zealand; Sask., Europe, Juan Fernandez I.
gracilipennis Spuler, 1925c: 78.—Wash.; Oreg., Idaho, Ill., Mich., Mass.
heteroneura (Haliday), 1836: 331 (*Limosina*).—United Kingdom; Iowa, Europe.
levifrons Spuler, 1925c: 77.—Idaho; Wash.
levigena Spuler, 1925c: 74, 152.—N.Y.; Wash. to Mont., s. to Calif.
longicosta Spuler, 1925c: 75, 155.—Wash.; B.C. to Calif., Kans. to N.H.
lucifuga Spuler, 1925b: 117.—Oreg.
luctuosa Spuler, 1925c: 76, 157.—Wash.; Idaho.
maculipennis Spuler, 1925c: 80.—Wash.; Alaska, B.C., Calif.
mirabilis (Collin), 1902: 59 (*Limosina*).—England; Wash., Oreg., Mont., Kans. to Mass., also Va.
nasuta Spuler, 1925c: 84.—Wash.; Idaho.
nigrifrons Spuler, 1925c: 76, 158.—Wash.; Oreg., Idaho, Calif.
obfuscata (Tucker), 1907: 103 (*Limosina*).—Colo.
occidentalis (Adams), 1904b: 455 (*Limosina*).—Calif.
ochripes (Meigen), 1830: 209 (*Borborus*).—Germany; Mich., Europe.
opacella Richards, 1961: 564 (n. name for *opaca* Aldrich).—Colo.
opaca Aldrich, 1932b: 6 (preocc. Duda, 1925).—Colo.
ordinaria Spuler, 1925c: 76, 159.—Idaho; B.C. to Mont., s. to Calif. and N. Mex., also Ill., N.H.
parva (Malloch), 1913j: 371 (*Limosina*).—D.C.; B.C., Ill.
polita (Williston), 1893d: 259 (*Apterina*).—Calif.
rara Spuler, 1925c: 155.—Calif.
schmitzi (Duda), 1918: 111 (*Limosina*).—Europe; Wash., Oreg.
curtiventris Stenhammar of Spuler, 1925c: 148.
setigera (Adams), 1903b: 223 (*Limosina*).—Kans., N. Mex.
silvatica (Meigen), 1830: 207 (*Borborus*).—Europe; Va.
sordipes (Adams), 1904b: 455 (*Limosina*).—S. Dak.; Wash. to N.Y. and Pa., s. to Kans.
evanescens Tucker, 1907: 102 (*Limosina*).—S. Dak. **N. syn.,** C. W. Sabrosky *in litt.*
tenebrarum (Aldrich), 1897: 190 (*Limosina*).—Ind.; Ky., Tenn.
stygia Coquillett *in* Call, 1897: 384 (*Limosina*).—Ky.
varicosta (Malloch), 1914l: 14 (*Limosina*).—Costa Rica; Md., Mexico, P.R.

Subgenus TRACHYOPELLA Duda

Limosina, subg. **Trachyopella** Duda, 1918: 34, 195. Type-species, *melania* Haliday (Spuler, 1925b: 103).

lineafrons Spuler, 1925b: 103.—Wash.; Mich.

Subgenus HALIDAYINA Duda

Limosina, subg. **Halidayina** Duda, 1918: 32. Type-species, *spinipennis* Haliday (mon.).

spinipennis (Haliday), 1836: 331 (*Limosina*).—United Kingdom; B.C. to Calif., also S. Dak., Mich., N.H., N.J., Europe.

Subgenus ELACHISOMA Rondani

Elachisoma Rondani, 1880: 5 (1880: 3) (as genus). Type-species, *Limosina nigerrima* Haliday, 1836 (orig. des.)=*aterrima* (Haliday, 1833). [*Borborus nigerrimus* Haliday, 1833, is a nomen nudum.]

approximata Malloch, 1913q: 135.—Tex.; Ariz., Kans., Tenn.

Subgenus COPROICA Rondani

Heteroptera Macquart, 1835: 570 (preocc. Rafinesque, 1814). Type-species, *Limosina pusilla* Meigen (mon.; misident.)= *acutangula* (Zetterstedt).

Coproica Rondani, 1861a: 10 (as genus; n. name for *Heteroptera* Macquart). Type-species, *Limosina pusilla* Meigen (aut.; misident.)=*acutangula* (Zetterstedt).

Limosina, subg. *Coprophila* Duda, 1918: 45. Type-species, *Borborus vagans* Haliday (Spuler, 1925b: 122).

acutangula (Zetterstedt), 1847: 2499 (*Limosina*).—Sweden; Man. to Que. and Conn., s. to Utah, Tex., and Ga., also Europe, Madeira Is., Congo (Belgian).

cacti Richards, 1960: 203.—Ariz.; Calif., Mexico.

ferruginata (Stenhammar), 1854: 397 (1855: 139) (*Limosina*).—Sweden; B.C., widespread U.S., Bermuda, cosmopolitan.

illotus Williston, 1896c: 434 (*Borborus*).—St. Vincent I.

hirtula (Rondani), 1880: 40 (1880: 38) (*Limosina*).—Italy; widespread U.S., Bermuda, cosmopolitan.

exigua Adams, 1904b: 454 (*Limosina;* preocc. Rondani, 1880).—N. Mex.

exiguella Spuler, 1925b: 123 (n. name for *exigua* Adams).—N. Mex.

mitchelli Malloch, 1913q: 135.—Tex.; Ariz., Costa Rica.

urbana Richards, 1960: 204.—Ill.; Minn.

vagans (Haliday), 1833: 178 (*Borborus*).—Ireland; Oreg., Utah, Wyo., Colo., Va., cosmopolitan.
albipennis Rondani, 1880: 41 (1880: 39) (*Limosina*).—Italy.

Family BRAULIDAE

By Alan Stone

This family consists of probably only one small, wingless, highly specialized species of Diptera living in the hives of honey bees, usually attached to the bees. The adults apparently eat nectar and pollen at the bee's mouth. The species has been an immigrant to the United States a number of times but has rarely become established in apiaries. Phillips (1925) has discussed *Braula coeca* in considerable detail.

Genus BRAULA Nitzsch

Braula Nitzsch, 1818: 314. Type-species, *coeca* Nitzsch (mon.).

coeca Nitzsch, 1818: 315.—?Europe; Africa, N. and S. Amer.

Family TETHINIDAE

By J. R. Vockeroth

The genera *Tethina*, *Phycomyza*, and *Neopelomyia* are apparently confined to seashores. *Pelomyia* and *Pelomyiella* are coastal or inland; if inland, they are usually, but not invariably, in alkaline areas. The larval habits and larvae are unknown.

REFERENCE: Melander, 1952a (rev.).

Genus PELOMYIA Williston

Pelomyia Williston, 1893d: 258. Type-species, *occidentalis* Williston (mon.).

coronata (Loew), 1866a: 185 (Cent. 6, no. 98) (*Rhicnoessa*).—Ga. This species, as usually identified, is an unworked complex.
cruciata Hendel, 1934b: 52.—Mo.
nubila Melander, 1952a: 195.—Calif.
occidentalis Williston, 1893d: 258.—Calif.

Genus PELOMYIELLA Hendel

Pelomyiella Hendel, 1934b: 39. Type-species, *Pelomyia hungarica* Czerny (orig. des.).

mallochi (Sturtevant), 1923: 7 (*Pelomyia*).—Mass.; s. B.C. to s. Man., s. to s. Calif. and Colo. (inland only), n. Man. and cent. Baffin I. to s. Greenland, s. to N.Y. (coastal only), Europe.

maritima (Melander), 1913a: 297 (*Tethina*).—Tex.

melanderi (Sturtevant), 1923: 7 (*Pelomyia*).—Calif.; cent. B.C. to s. Calif. and Ariz., Mexico (coastal and inland).

Genus NEOPELOMYIA Hendel

Neopelomyia Hendel, 1917: 46. Type-species, *Tethina rostrata* Hendel (orig. des.).

rostrata (Hendel), 1911: 41 (*Tethina*).—B.C. (as Idaho, error), Wash.; s. B.C. to Calif.

Genus PHYCOMYZA Melander

Phycomyza Melander, 1952a: 198. Type-species, *Rhicnoessa milichioides* Melander (orig. des.).

milichioides (Melander), 1913a: 299 (*Rhicnoessa*).—Wash.; Wash. to Calif.

Genus TETHINA Haliday

Opomyza, subg. **Tethina** Haliday, 1838: 188. Type-species, *illota* Haliday (mon.).

Rhicnoessa Loew, 1862d: 174. Type-species, *cinerea* Loew (mon.) = *grisea* (Fallén).

albula (Loew), 1869b: 44 (Cent. 8, no. 80) (*Rhicnoessa*).—R.I.; Mass. to Fla. and Tex.

angustifrons Melander, 1952a: 199.—Calif.

angustipennis (Melander), 1952a: 203 (*Rhicnoessa*).—Calif. **N. comb.**

bermudaensis (Melander), 1952a: 203 (*Rhicnoessa*).—Bermuda. **N. comb.**

denudata (Melander), 1952a: 204 (*Rhicnoessa*).—Calif. **N. comb.**

horripilans (Melander), 1952a: 204 (*Rhicnoessa*).—Wash.; Oreg., Calif. **N. comb.**

lavendula (Melander), 1952a: 205 (*Rhicnoessa*).—Calif. **N. comb.**

parvula (Loew), 1869b: 45 (Cent. 8, no. 81) (*Rhicnoessa*).—R.I.; Que. to Md.

whitmani Melander, 1913a: 298 (*Rhicnoessa*).—Mass.

prognatha (Melander), 1952a: 206 (*Rhicnoessa*).—Calif. **N. comb.**
seriata (Melander), 1952a: 206 (*Rhicnoessa*).—Fla. **N. comb.**
spinulosa Cole, 1923a: 478.—Mexico (Baja Calif.); s. Calif.
texana (Malloch), 1913n: 148 (*Rhicnoessa*).—Tex.
variseta (Melander), 1952a: 209 (*Rhicnoessa*).—Calif. **N. comb.**

Family MILICHIIDAE

(Phyllomyzidae, Carnidae)

By Curtis W. Sabrosky

Flies of the family Milichiidae are small, usually black, and inconspicuous. In some species, the dorsum of the male abdomen is brilliantly silvered, flashing in the sun. The larvae are saprophagous or coprophagous, and the family is often associated with carrion, excrement, or decaying plant material. Some species have been reared from detritus deep in the nests of leaf-cutting ants (*Atta*). Others are reared from birds' nests. *Carnus hemapterus* is a blood-sucking ectoparasite on birds. Some appear to have a commensal relationship with predatory insects, riding on them, and sucking exudates from the victims.

REFERENCES: Melander, 1913a (rev.); Malloch, 1913n (partial rev.).

Subfamily CARNINAE

Genus HEMEROMYIA Coquillett

Hemeromyia Coquillett, 1902e: 190. Type-species, *obscura* Coquillett (orig. des.).
Paramadiza Melander, 1913a: 245. Type-species, *washingtona* Melander (orig. des.).

obscura Coquillett, 1902e: 190.—N. Mex.; Calif., Ariz., Tex., n. Mexico.
washingtona (Melander), 1913a: 246 (*Paramadiza*).—Wash.; Idaho, Calif., Colo., N. Mex.
nitida Malloch, 1913n: 146.—Colo.
nitens Malloch *in* Melander, 1913c: 169. Nomen nudum.

Genus MEONEURA Rondani

Meoneura Rondani, 1856: 128. Type-species, *Agromyza obscurella* Fallén (orig. des.).

REFERENCE: Sabrosky, 1959a (rev.).

californica Sabrosky, 1961b: 229.—Calif.
digitata Sabrosky, 1959a: 19.—Nebr.
flavifacies Collin, 1930b: 85.—England; Alaska and N.W.T. to Labr., s. to Oreg., Utah, and Mich., cent. Europe.
lacteipennis, authors, not Fallén.
forcipata Sabrosky, 1959a: 24.—B.C.
lamellata Collin, 1930b: 83, 86.—England; Alaska, Europe.
nigrifrons Malloch, 1915a: 47.—Ill.; Nebr., Ont.
obscurella (Fallén), 1823a: 6 (*Agromyza*).—Sweden; Minn., Ont., N.Y., Mass., Europe.
tritici Fitch, 1856a: 535 (1856: 303) (*Agromyza*).—N.Y.
polita Sabrosky, 1959a: 20.—Tex.; Wash. and Idaho, s. to Calif., Mexico, and Tex.
pteropleuralis Sabrosky, 1959a: 19.—Nebr.
seducta Collin, 1937b: 250.—England; Wash., Idaho, Calif., Tex., Mich., Ont., Md.
triangularis Collin, 1930b: 88.—England; Alaska to Man., s. to Oreg. and Colo., cent. Europe.
vagans (Fallén), 1823a: 5 (*Agromyza*).—Sweden; Mich. *Vagans* of Amer. authors equals several spp.
wirthi Sabrosky, 1959a: 25.—Calif.; Wash.

Genus CARNUS Nitzsch

Carnus Nitzsch, 1818: 284, 305. Type-species, *hemapterus* Nitzsch (mon.).

REFERENCE: Bequaert, 1942b (biol., figs.).

hemapterus Nitzsch, 1818: 306.—Germany; Calif., Ariz., N.Y., N.B., Fla., Mexico (Baja Calif.), Europe.

Subfamily MADIZINAE

Genus PHYLLOMYZA Fallén

Phyllomyza Fallén, 1810a: 20. Type-species, *securicornis* Fallén (sub. mon., Fallén, 1823b: 8).

hirtipalpis Malloch, 1913n: 137.—Md.; Tenn., Va., Tex.
milnei Steyskal, 1942a: 84.—Va.; Ill., Md., N.C.
securicornis Fallén, 1823b: 8.—Sweden; Wis. to Que. and Maine, s. to N.C., also B.C. and Alta.

Genus NEOPHYLLOMYZA Melander

Neophyllomyza Melander, 1913a: 243. Type-species, *quadricornis* Melander (orig. des.).

nitens Melander, 1913a: 244.—Idaho.
quadricornis Melander, 1913a: 243.—Wash., Idaho, N. Mex., La.; Mich. to N.H., s. to N. Mex. and Fla., also Alaska, Wash., Idaho.
approximata Malloch, 1913n: 138 (*Phyllomyza*).—D.C.

Genus PARAMYIA Williston

Paramyia Williston, 1897: 1. Type-species, *nigra* Williston (mon.). ?=*nitens* (Loew).

nitens (Loew), 1869b: 45 (Cent. 8, no. 82) (*Phyllomyza*).—Pa.; S. Dak. to Que., s. to Fla., also B.C., Alta., Ariz., ?to Chile and s. Brazil.

Genus STOMOSIS Melander

Stomosis Melander, 1913a: 242. Type-species, *Desmometopa luteola* Coquillett (orig. des.)=*innominata* (Williston).

REFERENCE: Sabrosky, 1958 (key).

flava Sabrosky, 1958: 172.—Ind.; Mich. to Va., s. to Ala. and Fla.
innominata (Williston), 1896c: 443 (*Agromyza*).—St. Vincent I.; Ariz., Honduras, Costa Rica, Panama.
luteola Coquillett, 1902e: 188 (*Desmometopa*).—Ariz.

Genus ALDRICHIOMYZA Hendel

Aldrichiella Hendel, 1911: 35 (preocc. Vaughan, 1903). Type-species, *agromyzina* Hendel (orig. des.).
Aldrichiomyza Hendel, 1914d: 73 (n. name for *Aldrichiella* Hendel). Type-species, *Aldrichiella agromyzina* Hendel (aut.).

agromyzina (Hendel), 1911: 37 (*Aldrichiella*).—S. Dak.; S. Dak. to Ont., s. to Kans. and N.C.

Genus MADIZA Fallén

Madiza Fallén, 1810a: 19. Type-species, *glabra* Fallén (Hendel; 1903: 251).
Desmomyza Curran, 1934a: 338. Type-species, *confusa* Curran (orig. des.)=*glabra* Fallén.

The earliest type-designation for *Madiza* is actually *oscinina* Fallén by Rondani (1856: 128). However, this species had correctly been referred to Chloropidae by earlier revisers. Later workers in

general have followed those revisers, adopted *Siphonella* Macquart, 1835, for *oscinina*, and used *Madiza* in Milichiidae. This usage is adopted here in the interests of stability and universality, but suspension of the rules is needed.

glabra Fallén, 1820a: 9.—Sweden; B.C. to N.S., s. to Nev. and Va., Holarctic.

confusa Curran, 1934a: 338 (*Desmomyza*).—N.Y.

Genus LEPTOMETOPA Becker

Leptometopa Becker, 1903: 188. Type-species, *rufifrons* Becker (mon.).

Hypaspistomyia Hendel, 1907b: 240. Type-species, *coquilletti* Hendel (mon.).

Paramadiza Malloch *in* Melander, 1913c: 169 (preocc. Melander, 1913). Type-species, *Desmometopa halteralis* Coquillett (mon.). **N. syn.**

Mallochiella Melander, 1913c: 169 (n. name for *Paramadiza* Malloch). Type-species, *Desmometopa halteralis* Coquillett (aut.). **N. syn.**

Desmometopina Curran, 1930j: 81. Type-species, *Agromyza latipes* Meigen (orig. des.).

halteralis (Coquillett), 1900g: 267 (*Desmometopa*).—P.R.; B.C. to N.B., s. to Mexico and Fla., also Bahama Is., P.R. **N. comb.**

latipes (Meigen), 1830: 177 (*Agromyza*).—Germany; Alaska to N.S., U.S., Cuba.

orillia Curran, 1927e: 50 (*Mallochiella*).—Ont.

Genus DESMOMETOPA Loew

Desmometopa Loew, 1866a: 184 (Cent. 6, no. 96). Type-species, *Agromyza m-atrum* Meigen (Hendel, 1903: 251)= *sordida* (Fallén).

m-nigrum (Zetterstedt), 1848: 2743 (*Agromyza*).—Sweden; Iowa and Mich. to N.H. and Md., thence coastal States to Fla. and Tex., also Ariz. and Calif.

sordida (Fallén), 1820a: 10 (*Madiza*).—Sweden; B.C. to N.S., s. to Oreg., Utah, Tex., and Ga.

tarsalis Loew, 1866a: 184 (Cent. 6, no. 96).—Cuba; Nebr. and Mich. to D.C., s. to Calif., Panama, and Fla., West Indies.

Subfamily MILICHIINAE

Genus PHOLEOMYIA Bilimek

Pholeomyia Bilimek, 1867: 903. Type-species, *leucozona* Bilimek (mon.).

Rhynchomilichia Hendel, 1903: 250. Type-species, *Lobioptera argyrophenga* Schiner (orig. des.; misident.)=*schineri* Hendel.

REFERENCES: Sabrosky, 1959b (rev.), 1961b (partial key).

comans Sabrosky, 1959b: 330.—La.
decorior Steyskal, 1943a: 100.—N.C.; N.J. to Fla.
dispar (Becker), 1907a: 524 (*Rhynchomilichia;* as *leucogastra* var.).—Ga.; Tex., Ala., Fla., Va.
expansa Aldrich, 1925c: 1.—Calif.
indecora (Loew), 1869b: 50 (Cent. 8, no. 94) (*Lobioptera*).—Nebr.; B.C. to N.S., s. to Calif., Kans., and Ga.
leucogastra (Loew).—Neotropical.
myopa Melander, 1913a: 238.—Haiti; Fla., West Indies, Mexico, Cent. Amer.
nitidula Sabrosky, 1959b: 327.—Ga.
obscura Sabrosky, 1959b: 330.—Tex.
pseudodecora (Becker), 1907a: 524 (*Rhynchomilichia*).—Ga.; Md., S.C., Fla.
robertsoni (Coquillett), 1902e: 187 (*Milichia*).—Fla.
texensis Sabrosky, 1959b: 329.—Tex.
vockerothi Sabrosky, 1961b: 231.—N.C.

Genus EUSIPHONA Coquillett

Eusiphona Coquillett, 1897: 49. Type-species, *mira* Coquillett (orig. des.).

cooperi Sabrosky, 1955a: 170.—N.Y.; Ohio, Md.
flava Sabrosky, 1953b: 38.—Utah.
mira Coquillett, 1897: 49.—Colo.; Wash. and Alta. to P.E.I., s. to Calif., Mexico (V.C.), and Fla.

Genus MILICHIA Meigen

Milichia Meigen, 1830: 131. Type-species, *speciosa* Meigen (Westwood, 1840: 151).

Lobioptera Wahlberg, 1847: 259. Type-species, *ludens* Wahlberg (mon.).

aethiops Malloch, 1913n: 133.—Tex.; Mexico.

Genus MILICHIELLA Giglio-Tos

Milichiella Giglio-Tos, 1895b: 367. Type-species, *Tephritis argentea* Fabricius (mon.; misident.) = *tosi* Becker.

Ophthalmomyia Williston, 1896c: 426. Type-species, *Lobioptera lacteipennis* Loew (mon.).

arcuata (Loew), 1876: 339 (*Lobioptera*).—N.Y.; Mich. to Que. and Maine, s. to Kans. and Fla., also Ariz.

bisignata Melander, 1913a: 239.—N.J.; Mich. to N.J., s. to Kans. and N.C., also N. Mex., Mexico.

lacteipennis (Loew), 1866a: 185 (Cent. 6, no. 97) (*Lobioptera*).—Cuba; Calif. to Ont. and N.H., s. to Chile and Argentina, also Bermuda, West Indies, Canary and Madeira Is., Africa, Oriental and Australian Regions.

nigrella Cole, 1912b: 162.—Calif. **N. syn.**

nitida Hendel, 1911: 39.—Calif.

urbana Malloch, 1913c: 284.—D.C.; Mich., Pa., Del., Tenn., Tex.

populi Steyskal, 1951a: 130.—Mich. **N. syn.**

cinerea, authors, not Coquillett.

Family CANACEIDAE

By Willis W. Wirth

The "beach flies" are closely similar in appearance and habits to the Ephydridae, although their true relationship is closer to the Milichiidae and Sphaeroceridae. In habit, canaceids are almost all intertidal. The larvae feed on algae on wave-splashed rocks or sandy beaches.

References: Williams, 1939 (biol.); Wirth, 1951a (rev.).

Genus CANACE Haliday

Ephydra, subg. **Canace** Haliday, 1839: 411. Type-species, *nasica* Haliday (mon.).

Canacea, error.

aldrichi Cresson, 1936: 264.—Calif.

snodgrassii Coquillett, 1901i: 378.—Galapagos Is.; Atlantic Coast, P.E.I. to Fla., Panama.

macateei Malloch, 1924i: 52.—Ga.

Genus CANACEOIDES Cresson

Canaceoides Cresson, 1934a: 221. Type-species, *Canace nudata* Cresson (orig. des.).

nudatus (Cresson), 1926: 257 (*Canace*).—Calif.; Hawaii.

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Genus NOCTICANACE Malloch

Nocticanace Malloch, 1933b: 4. Type-species, *peculiaris* Malloch (orig. des.).

arnaudi Wirth, 1954a: 59.—Calif.
texensis (Wheeler), 1952a: 92 (*Canaceoides*).—Tex.; Fla., P.R.

Superfamily DROSOPHILOIDEA

Family EPHYDRIDAE

By Willis W. Wirth

Ephydrids, or "shore flies," are mainly beneficial, providing important food items for wildlife, especially waterfowl inhabiting the marshes where these flies so commonly breed. The larvae are aquatic or semiaquatic and the adults are usually found close by on the surface of the mud or water, or on low, emergent vegetation. The "brine flies" become so abundant in the salt and alkaline lakes of our Western States that in times past the Indians often took advantage of their numbers to gather puparia from the windrows where they were stranded on the beaches and prepare them for use as food. In a few areas the leaf mines of *Hydrellia* may become extensive enough to damage crops of watercress, or rice, barley, and other cereals.

References: Cresson, 1942a (Psilopinae), 1944b (Notiphilinae), 1946 (Notiphilini), 1949 (Parydrinae) (revs. N. Amer. spp.); Sturtevant and Wheeler, 1954 (key to genera, rev. N. Amer. genera not treated by Cresson); Wirth and Stone, 1956 (key to genera, review biol., immature stages, keys to Calif. spp.); Dahl, 1959 (comprehensive study ecology, etc., in Scandinavia).

Subfamily PSILOPINAE

Tribe GYMNOPINI

Genus MOSILLUS Latreille

Mosillus Latreille, 1804: 196. Type-species, *arcuatus* Latreille (sub. mon., Latreille, 1805: 390)=*subsultans* (Fabricius).
Gymnopa Fallén, 1820a: 10. Type-species, *aenea* Fallén (mon.)=*subsultans* (Fabricius).

bidentatus (Cresson), 1926: 249 (*Gymnopa*).—Utah; B.C. to Man., s. to Calif. and N. Mex.
tibialis Cresson, 1916b: 149.—N.J.; B.C. to Que., s. to Calif. and Fla., West Indies, s. to Ecuador.

Genus ATHYROGLOSSA Loew

Athyroglossa Loew, 1860a: 12. Type-species, *Notiphila glabra* Meigen (mon.).

REFERENCES: Hendel, 1931b (subg. discussion); Sturtevant and Wheeler, 1954 (key).

Subgenus ATHYROGLOSSA Loew

glabra (Meigen), 1830: 69 (*Notiphila*).—Europe; Y.T. to Calif., e. to Mich., N.H., and Que.

glaphyropus Loew, 1878: 197.—Tex.; Ill. to Va., s. to Tex. and Fla., Neotropical.

transversa Sturtevant and Wheeler, 1954: 246.—N. Mex.; Calif., Ariz., Utah.

Subgenus PARATHYROGLOSSA Hendel

Parathyroglossa Hendel, 1931b: 68 (as genus). Type-species, *Athyroglossa ordinata* Becker (orig. des.).

ordinata Becker, 1896: 135.—Romania; B.C. to Que., s. to Ariz. and Md., Europe.

Subgenus OCHTHEROIDEA Williston

Ochtheroidea Williston, 1896c: 401 (as genus). Type-species, *atra* Williston (mon.).

granulosa (Cresson), 1922a: 341 (*Ochtheroidea*).—Pa.; Mich. to Que., s. to Ind. and N.C.

laevis (Cresson), 1918a: 61 (*Ochtheroidea*).—Costa Rica; Ariz., Neotropical.

melanderi (Cresson), 1922a: 339 (*Ochtheroidea*).—Calif.; Ariz., N. Mex.

Tribe ATISSINI

Genus ATISSA Haliday

Atissa Haliday *in* Curtis, 1837b: 281. Type-species, *Ephydra pygmaea* Haliday (mon.).

Parephydra Coquillett, 1902e: 183. Type-species, *humilis* Coquillett (orig. des.) = *pygmaea* (Haliday).

litoralis (Cole), 1912b: 160 (*Allotrichoma*).—Calif.; Wash. to Man. and Calif., s. to Cent. and S. Amer.

pygmaea (Haliday), 1833: 174 (*Ephydra*).—Ireland; Alaska to Wyo., s. to Calif. and Fla., Cent. and S. Amer., Europe.

humilis Coquillett, 1902e: 183 (*Parephydra*).—Ariz.

atlantica Cresson, 1926: 253.—N.J.

Genus PTILOMYIA Coquillett

Ptilomyia Coquillett, 1900g: 261. Type-species, *enigma* Coquillett (orig. des.).

Atissiella Cresson, 1918a: 55. Type-species, *setulosa* Cresson (orig. des.).

REFERENCE: Sturtevant and Wheeler, 1954 (rev.).

alkalinella (Cresson), 1942a: 112 (*Atissiella*).—Nev.; Wash., Calif., Ariz.

enigma Coquillett, 1900g: 262.—P.R.; Calif. to Va. and Fla., Neotropical.

falsisetae Cresson, 1942a: 110 (*Atissiella*).—Pa.

lobiochaeta Sturtevant and Wheeler, 1954: 254.—Tex.; Calif., Ariz., El Salvador.

mabelae (Cresson), 1926: 253 (*Atissiella*).—Pa.; Tex. to Pa. and Fla., s. to Ecuador.

occidentalis Sturtevant and Wheeler, 1954: 255.—Calif.; N. Mex.

pleuriseta (Cresson), 1942a: 111 (*Atissiella*).—N. Mex.; Calif. to Tex., Baja Calif.

Genus ALLOTRICHOMA Becker

Allotrichoma Becker, 1896: 121. Type-species, *Hecamede lateralis* Loew (orig. des.).

The species are poorly understood and distribution records need revision after a study of male genitalia.

atrilabre Cresson, 1926: 252.—Pa.; Mont. to Mich. and Md., s. to Tex. and Ala.

lacteum Cresson, 1926: 252.—Ariz.; Calif., N. Mex.

lasiocercum Cresson, 1926: 251.—Calif.; Nev., Utah.

laterale (Loew), 1860a: 13 (*Hecamede*).—Europe; Oreg. to Sask., s. to Calif. and Tex.

simplex (Loew), 1861b: 354 (Cent. 1, no. 92) (*Discocerina*).—Md.; general in U.S.

trispinum Becker, 1896: 124.—Germany; general in U.S. and Canada, Europe.

yosemite Cresson, 1926: 252.—Calif.; B.C. to Mont., s. to Calif. and Ariz.

Genus PSEUDOHECAMEDE Hendel

Pseudohecamede Hendel, 1936b: 104. Type-species, *nasalis* Hendel (orig. des.) = *salubris* (Cresson).

abdominalis (Williston), 1896c: 398 (*Hecamede*).—St. Vincent I.; Atlantic and Gulf States, Calif., Neotropical.
facialis Hendel, 1936b: 105.—Brazil; Fla., Neotropical.
slossonae (Cresson), 1942a: 108 (*Allotrichoma*).—Fla. **N. comb.**

Genus HECAMEDE Haliday

Notiphila, subg. **Hecamede** Haliday *in* Curtis, 1837b: 281. Type-species, *albicans* Meigen (mon.).

albicans (Meigen), 1830: 65 (*Notiphila*).—Europe; coastal, Mass. to Md.

Genus GLENANTHE Haliday

Hydrellia, subg. **Glenanthe** Haliday, 1839: 404. Type-species, *ripicola* Haliday (mon.).

fascipennis Sturtevant and Wheeler, 1954: 250.—Tex.
litorea Cresson, 1925: 166.—N.J.; coastal, Alaska to Calif., N.B. to Fla. and Tex., West Indies, Cent. Amer.

Genus PELIGNUS Cresson

Pelignus Cresson, 1926: 254. Type-species, *Atissa durrenbergensis* Loew (orig. des.).

salinus Cresson, 1942a: 109.—Utah.

Genus DIPHUIA Cresson

Diphuia Cresson, 1944a: 3. Type-species, *anomala* Cresson (orig. des.).

REFERENCE: Wirth, 1956d (tax.).

nitida Sturtevant and Wheeler, 1954: 248.—N.Y.; Fla.

Genus PELIGNELLUS Sturtevant and Wheeler

Pelignellus Sturtevant and Wheeler, 1954: 252. Type-species, *subnudus* Sturtevant and Wheeler (orig. des.).

subnudus Sturtevant and Wheeler, 1954: 252.—Calif.

Tribe DISCOCERININI

Genus DISCOCERINA Macquart

Discocerina Macquart, 1835: 527. Type-species, *Notiphila pusilla* Meigen (Coquillett, 1910b: 534)=*obscurella* (Fallén).

Coquillett's synonymy of *obscurella* with *pusilla* is only implied, i.e., Macquart's first species.

Psilopa, sectio *Clasiopa* Stenhammar, 1844: 159. Type-species, *Notiphila obscurella* Fallén (orig. des.).

Subgenus DISCOCERINA Macquart

flavipes Cresson, 1941a: 35.—Calif.; Ariz., Neotropical.

obscura Williston, 1896c: 397.—St. Vincent I.; N.Y. to Fla., Tex., La., Neotropical.

obscurella (Fallén), 1813: 251 (*Notiphila*).—Sweden; entire U.S. and Canada, Neotropical, Europe.

parva Loew, 1862c: 146.—D.C.

nigriventris Cresson, 1916b: 148 (as *parva* var.).—Calif.

trochanterata Cresson, 1940: 3.—Calif.

Subgenus BASILA Cresson

Basila Cresson, 1942a: 116 (as genus). Type-species, *Ditrichophora nadineae* Cresson (orig. des.).

nadineae (Cresson), 1925: 166 (*Ditrichophora*).—Calif.; Oreg., Mexico.

Subgenus LAMPROCLASIOPA Hendel

Discocerina, subg. **Lamproclasiopa** Hendel, 1933b: 79. Type-species, *facialis* Hendel (orig. des.).

brunneonitens Cresson, 1940: 4.—Miss.; Ill., Md., La., S.C., Fla.

turgidula Cresson, 1940: 3.—Calif.; Nev.

Genus HECAMEDOIDES Hendel

Hecamedoides Hendel, 1917: 41. Type-species, *Psilopa glaucella* Stenhammar (orig. des.).

glaucellus (Stenhammar), 1844: 253 (*Psilopa*).—Sweden; Wash. to Ont., s. to Calif. and N.C., Europe.

Genus HYDROCHASMA Hendel

Hydrochasma Hendel, 1936b: 101. Type-species, *zerngi* Hendel (mon.).

buccatum (Cresson), 1930b: 78 (*Hecamedoides*).—N.J.; Alta. to Que., s. to N. Mex. and Fla.

capax Cresson, 1938c: 26.—Guatemala; Calif., Ariz., and Tex., s. to S. Amer.

incisum (Coquillett), 1902c: 182 (*Discocerina*).—P.R.; Fla. to S. Amer.

leucoproctum (Loew), 1861b: 355 (Cent. 1, no. 93) (*Discocerina*).—Md.; Minn. to Maine, s. to Tex. and Fla.

Genus DICLASIOPA Hendel

Diclasiopa Hendel, 1917: 42. Type-species, *Hecamede xanthocera* Loew (orig. des.)=*lacteipennis* (Loew).

lacteipennis (Loew), 1862c: 145 (*Discocerina*).—D.C.; Wash. to Ont., s. to Ariz., Tex., and Md.

xanthocera Loew, 1869d: 58 (*Hecamede*).—Germany.

Genus DITRICHOPHORA Cresson

Ditrichophora Cresson, 1924b: 159. Type-species, *exigua* Cresson (orig. des.).

Gymnoclasiopa Hendel, 1930a: 136. Type-species, *Notiphila plumosa* Fallén (orig. des.).

argyrostoma (Cresson), 1916b: 149 (*Discocerina*).—Calif.; Wash. to Sask., s. to Calif. and N. Mex.

aliena Cresson, 1922b: 137 (*Discocerina*).—Calif.

atrata Cresson, 1940: 7.—Calif.; Wash. to Man. and Que., s. to Calif. and N.Y.

cana Cresson, 1940: 7.—Wash.; Wash. to Calif.

canifrons Cresson, 1926: 250.—Pa.; Que., N.Y., Tenn.

exigua Cresson, 1924b: 159.—Pa.; Mich. to Que. and Fla.

lenis Cresson, 1940: 5.—Wash.; Calif., Tex.

lugubris Cresson, 1940: 7.—Oreg.; Calif.

montana Cresson, 1942a: 120.—Mont.; Alaska to Que., s. to Utah.

occidentalis Cresson, 1942a: 118.—Wash.; Alaska to Calif. and Idaho.

parilis Cresson, 1924b: 160.—Maine; Y.T., N.W.T., Que., New England States.

pulchella (Meigen), 1830: 70 (*Notiphila*).—Europe; Alta. to Ont., s. to Tex.

simiaceps Cresson, 1940: 6.—Wash.; Ind.

subnubila Cresson, 1940: 6.—Wash.; Alaska to Wash., se. to Colo. and Que.

tacoma Cresson, 1924b: 160.—Wash.; Alaska to Wash., e. to Que. and Maine.

valens Cresson, 1942a: 118.—Wash.; Y.T., Idaho, Calif., Tex.

Genus POLYTRICHOPHORA Cresson

Polytrichophora Cresson, 1924b: 161. Type-species, *agens* Cresson (orig. des.).

agens Cresson, 1924b: 161.—Tex.; coastal, Maine to Tex., Bahamas.

conciliata Cresson, 1924b: 161.—N.J.; Mich. to Que., s. to Calif. and Fla.

orbitalis (Loew), 1861b: 354 (Cent. 1, no. 91) (*Discocerina*).—D.C.; Wash. to Que., s. to Calif. and Fla.

setigera (Cresson), 1916b: 148 (*Discocerina*).—Calif.; Wash. to Idaho, s. to Calif. and Tex.

Genus PARATISSA Coquillett

Paratissa Coquillett, 1900a: 36. Type-species, *Drosophila pollinosa* Williston (orig. des.) = *semilutea* (Loew).

semilutea (Loew), 1869b: 51 (Cent. 8, no. 97) (*Cacoxenus*).—Cuba; Fla., Bermuda, West Indies, Panama.

pollinosa Williston, 1896c: 414 (*Drosophila*).—St. Vincent I.

Tribe DISCOMYZINI

Genus DISCOMYZA Meigen

Discomyza Meigen, 1830: 76. Type-species, *Psilopa incurva* Fallén (mon.).

REFERENCE: Cresson, 1939 (rev.).

maculipennis (Wiedemann), 1824: 57 (*Notiphila*).—East Indies; Calif., Neotropical, Oriental, Australasian.

u-signata Cresson, 1926: 250.—Tex.

Genus CLANONEURUM Becker

Clanoneurum Becker, 1903: 165. Type-species, *Discomyza cimiciformis* Haliday (Becker, 1926: 24).

Miners in beets, Chenopodiaceae.

americanum Cresson, 1940: 1.—Calif.; w. N. Amer. and Atlantic and Gulf States in saline habitats.

Tribe PSILOPINI

Genus PSILOPA Fallén

Psilopa Fallén, 1823d: 6. Type-species, *Notiphila nitidula* Fallén (Rondani, 1856: 132).

compta (Meigen), 1830: 68 (*Notiphila*).—Europe; Alaska to Que., s. to Calif. and Va.

gaudens Cresson *in* Strickland, 1946: 167. Nomen nudum.

dupla Cresson, 1940: 2.—N.J.; Ill. to Md., s. to Tex., Fla., and Bahamas, Ariz.

flavida Coquillett, 1900a: 33.—Mass.; coastal, Maine to Tex.

leucostoma (Meigen), 1830: 68 (*Notiphila*).—Europe; B.C. to Ont., s. to Calif. and Fla.

olga Cresson, 1922b: 137.—Wash.; Alaska to Que., s. to Calif., Colo., and Tex.

dimidiata Cresson, 1922b: 137.—Idaho.

pulchripes Loew, 1878: 197.—Tex.; s. U.S., Neotropical.

Genus HELAEOMYIA Cresson

Helaeomyia Cresson, 1941a: 35. Type-species, *Psilopa petrolei* Coquillett (orig. des.).

REFERENCES: Thorpe, 1930, 1931b (biol. of *petrolei*, "petroleum fly," breeding in pools of petroleum).

nigra (Williston), 1896c: 393 (*Psilopa*).—St. Vincent I.; Gulf States, Neotropical.

petrolei (Coquillett), 1899a: 8 (*Psilopa*).—Calif.; West Indies.

Genus LEPTOPSILOPA Cresson

Leptopsilopa Cresson, 1922b: 136. Type-species, *Psilopa similis* Coquillett (orig. des.).

atrimana (Loew), 1878: 197 (*Psilopa*).—D.C., Tex.; Man. to Que., s. to Ariz., Fla., Mexico, and Guatemala.

nigrimana (Williston), 1896c: 393 (*Psilopa*).—St. Vincent I.; Tex., Fla., Neotropical.

willistoni Cresson, 1918a: 53 (*Psilopa;* unjustified n. name for *nigrimana* Williston).—St. Vincent I.

similis (Coquillett), 1900a: 33 (*Psilopa*).—Fla.; Tex. to Fla., Neotropical.

varipes (Coquillett), 1900a: 33 (*Psilopa*).—B.C.; B.C. to Idaho, s. to Calif.

californica Cresson, 1941a: 35 (*Helaeomyia*).—Calif.

Genus CEROPSILOPA Cresson

Ceropsilopa Cresson, 1917b: 340. Type-species, *nasuta* Cresson (orig. des.).

Batula Cresson, 1940: 2. Type-species, *Psilopa mellipes* Coquillett (orig. des.).

adjuncta Cresson, 1925: 165.—P.R.; Fla.

coquilletti Cresson, 1922b: 136.—Calif.; Calif., e. to Md. and Fla., Neotropical.

costalis Wirth, 1956d: 12.—Va.; Fla., Bahamas.

dispar Cresson, 1922b: 135.—Calif.

mellipes (Coquillett), 1900g: 260 (*Psilopa*).—P.R.; Fla., Tex., Neotropical.

nasuta Cresson, 1917b: 341.—Trinidad; Fla., Neotropical.

staffordi Cresson, 1925: 166.—La.; coastal, Calif., Tex. to Ga., Bahamas.

Genus CRESSONOMYIA Arnaud

Plagiops Cresson, 1918a: 53 (preocc. Townsend, 1911). Type-species, *nitidifrons* Cresson (orig. des.).

Plagiopsis Cresson, 1934a: 201 (n. name for *Plagiops* Cresson; preocc. Brauer and Bergenstamm, 1890). Type-species, *Plagiops nitidifrons* Cresson (aut.).

Cressonomyia Arnaud, 1958a: 24 (n. name for *Plagiopsis* Cresson). Type-species, *Plagiops nitidifrons* Cresson (aut.).

aciculata (Loew), 1862c: 142 (*Psilopa*).—Cuba; Tex., La., Ala., Ga., Neotropical. **N. comb.**

aeneonigra (Loew), 1878: 196 (*Psilopa*).—Tex.; coastal, Mass. to Ga., La.

fulvipennis Hine, 1904c: 64 (*Psilopa*).—La. **N. syn.**

hinei (Cresson), 1922b: 135 (*Plagiops*).—Guatemala; coastal, N.Y. to Tex., Neotropical. **N. comb.**

skinneri (Cresson), 1922b: 136 (*Psilopa*).—Cuba; Fla. **N. comb.**

Genus CLASIOPELLA Hendel

Clasiopella Hendel, 1914g: 109. Type-species, *uncinata* Hendel (orig. des.).

uncinata Hendel, 1914g: 110.—Formosa; Fla., Australasian, Ethiopian.

Genus TRIMERINA Macquart

Trimerina Macquart, 1835: 528. Type-species, *Psilopa madizans* Fallén (Westwood, 1840: 153).

madizans (Fallén), 1813: 252 (*Notiphila*).—Sweden; Sask. to Ont., s. to Calif., Colo., and N.Y., Europe.

Genus TRIMERINOIDES Cresson

Trimerinoides Cresson, 1925: 165. Type-species, *Trimerina adfinis* Cresson (orig. des.).

adfinis (Cresson), 1922b: 137 (*Trimerina*).—B.C.; Idaho.

Genus RHYSOPHORA Cresson

Rhysophora Cresson, 1924b: 159. Type-species, *robusta* Cresson (mon.).

robusta Cresson, 1924b: 159.—Va.; Mich. to Que., s. to Fla.
magna Coquillett *in* Johnson, 1910b: 806 (*Discocerina*). Nomen nudum, **N. syn.**

Subfamily NOTIPHILINAE

Tribe TYPOPSILOPINI

Genus TYPOPSILOPA Cresson

Typopsilopa Cresson, 1916b: 147. Type-species, *flavitarsis* Cresson (orig. des.).

atra (Loew), 1862c: 143 (*Psilopa*).—Middle States; Oreg. to Ont., s. to Calif., Fla., and Cent. Amer.
scoriacea Loew, 1862c: 142 (*Psilopa*).—N.Y. **N. syn.**
flavitarsis Cresson, 1916b: 147.—Ariz.; s. U.S., Neotropical.

Tribe HYDRELLIINI

Genus HYDRELLIA Robineau-Desvoidy

Hydrellia Robineau-Desvoidy, 1830: 790. Type-species, *aurifacies* Robineau-Desvoidy (Westwood, 1840: 153)=*flaviceps* (Meigen).

Leaf miners in aquatic and semiaquatic plants. The species are poorly known and need revision based on biology and characters of male genitalia.

REFERENCES: Cresson, 1944b (rev.); Berg, 1950a (biol., spp. in *Potamogeton*); Grigarick, 1959 (biol. *griseola*).

advenae Cresson, 1934b: 236.—Maine.
americana Cresson, 1931b: 106.—Md.; Calif., N.Y., Maine.
ascita Cresson, 1942b: 78.—Mich.

atroglauca Coquillett, 1910a: 131.—Fla.
bergi Cresson, 1941a: 37.—Mich.
bilobifera Cresson, 1936: 262.—Mo.
borealis Cresson, 1944b: 164.—Ont.; N.H.
caliginosa Cresson, 1936: 257.—Maine; Alaska, Mich.
conformis Loew, 1869b: 41 (Cent. 8, no. 73).—R.I.; Mass.
crassipes Cresson, 1931b: 107.—Ohio.
cruralis Coquillett, 1910a: 131.—N.J.; n. U.S.
decens Cresson, 1931b: 107.—Md.
definita Cresson, 1944b: 165.—Utah; S. Dak., Mich.
flavicoxalis Cresson, 1944b: 167.—Colo.
formosa Loew, 1861b: 355 (Cent. 1, no. 94).—Pa.; Ont., e. U.S.
griseola (Fallén), 1813: 250 (*Notiphila*).—Sweden; widespread in U.S. and Canada, Europe. Common leaf-mining pest of irrigated cereals.
hypoleuca Loew, 1862c: 151.—Middle States.
scapularis Loew, 1862c: 153.—U.S.
harti Cresson, 1936: 262.—Ill.
ischiaca Loew, 1862c: 150.—Middle States; N. Amer. from Alaska to N.H., s. to Ind. and Va.
lata Cresson, 1944b: 165.—Wash.
luctuosa Cresson, 1942b: 78.—Mich.; Minn.
morrisoni Cresson, 1924b: 162.—N.H.; N.Y.
nobilis (Loew), 1862b: 229 (Cent. 2, no. 92) (*Psilopa*).—D.C.; e. U.S.
notiphiloides Cresson, 1924b: 162.—Ohio; Mass.
obscuriceps Loew, 1862c: 152.—Middle States; Ind. to N.H. and Va.
penicilli Cresson, 1944b: 168.—Ont.; Wash.
platygastra Cresson, 1931b: 105.—Oreg.; Wash. to Calif.
proclinata Cresson, 1915a: 69.—Calif.; Wash. to Idaho, s. to Calif. and N. Mex.
procteri Cresson, 1934b: 235 (as *proctori*).—Maine; N.J.
prudens Curran, 1930j: 78.—N.Y.; Idaho, Maine, e. Canada.
johnsoni Cresson, 1941a: 37.—Maine.
pulla Cresson, 1931b: 108.—N.Y.; n. U.S.
serena Cresson, 1931b: 104.—Wash.; Alaska to Oreg. and Colo.
subnitens Cresson, 1931b: 106.—Wash.; Oreg.
suspecta Cresson, 1936: 258.—Maine.
tibialis Cresson, 1917b: 341.—Idaho; Wash. to N.Y. and Que., s. to Calif., Fla., Mexico, and Bolivia.
trichaeta Cresson, 1944a: 7.—Conn.; Ill., Mich., Mass., R.I.
valida Loew, 1862c: 153.—Middle States; ne. U.S.
wilburi Cresson, 1944b: 168.—Colo.; Calif.

Tribe PHILYGRIINI

Genus PHILYGRIA Stenhammar

Notiphila, sectio **Philygria** Stenhammar, 1844: 154. Type-species, *flavipes* Fallén (Coquillett, 1910b: 588).
Hydrina, authors (in part), not Robineau-Desvoidy.

REFERENCE: Sturtevant and Wheeler, 1954 (rev., as *Hydrina*).

debilis Loew, 1861b: 357 (Cent. 1, no. 96).—Pa.; B.C. to Que., s. to Calif. and Fla.
fuscicornis Loew, 1862c: 155.—Middle States.
dimidiata (Sturtevant and Wheeler), 1954: 238 (*Hydrina*).—W. Va.; Va., N.C. **N. comb.**
nigrescens (Cresson), 1930b: 80 (*Hydrina*).—B.C.; Alaska to Que., s. to Calif. and Colo.
opposita Loew, 1861b: 356 (Cent. 1, no. 95).—Pa.; B.C. to Que., s. to Calif., Ill., and Md.

Genus NOSTIMA Coquillett

Nostima Coquillett, 1900a: 35. Type-species, *slossonae* Coquillett (orig. des.).
Philygriola Hendel, 1917: 42. Type-species, *Notiphila picta* Fallén (orig. des.).

REFERENCES: Cresson, 1941b; Sturtevant and Wheeler, 1954 (revs.).

approximata Sturtevant and Wheeler, 1954: 240.—Okla.
gilvipes (Coquillett), 1900g: 261 (*Hydrellia*).—P.R.; Fla., Neotropical.
niveivenosa Cresson, 1930b: 80.—P.R.; Fla., Neotropical.
picta (Fallén), 1813: 254 (*Notiphila*).—Sweden; B.C. to Ont., s. to Calif., Europe.
pulchra (Williston), 1896c: 399 (*Hydrellia*).—St. Vincent I.; Fla., Neotropical.
quinquenotata Cresson, 1930b: 79.—Md.; Okla. and Tex. to Md., s. to Fla.
scutellaris scutellaris Cresson, 1933a: 68.—Ind.; Alta. to Ont., s. to Calif. and Ala.
spp. **occidentalis** Sturtevant and Wheeler, 1954: 242.—Calif.
slossonae Coquillett, 1900a: 35.—Fla.; Neotropical.

Genus LEMNAPHILA Cresson

Lemnaphila Cresson, 1933b: 229. Type-species, *scotlandae* Cresson (mon.).

REFERENCES: Scotland, 1934, 1940 (biol., leaf miners in *Lemna*).

scotlandae Cresson, 1933b: 229.—N.Y.; Mich.

Tribe ILYTHEINI

Genus ILYTHEA Haliday

Ephydra, subg. **Ilythea** Haliday, 1839: 408. Type-species, *spilota* Curtis (mon.).

caniceps Cresson, 1918a: 50.—Costa Rica; Wash. to Calif., Neotropical.

flaviceps Cresson, 1916b: 147.—Ariz.; Calif.

spilota (Curtis), 1832: pl. 413 (*Ephydra*).—Europe; Alaska to Labr., s. to Calif. and N.C.

Genus ZEROS Cresson

Zeros Cresson, 1943: 10. Type-species, *Ilythea obscura* Cresson (orig. des.).

calverti (Cresson), 1918a: 51 (*Ilythea*).—Costa Rica; Fla., Neotropical.

fenestralis (Cresson), 1918a: 51 (*Ilythea*).—Costa Rica; Fla., Neotropical.

flavipes (Williston), 1896c: 403 (?*Ilythea*).—St. Vincent I.; Ont., s. to Tex. and Fla., Neotropical.

obscurus (Cresson), 1918a: 52 (*Ilythea*).—Costa Rica; Ariz., N. Mex., Neotropical.

vicinus Cresson, 1943: 12.—Fla.

Tribe NOTIPHILINI

Genus NOTIPHILA Fallén

Notiphila Fallén, 1810a: 22. Type-species, *cinerea* Fallén (Westwood, 1840: 153).

Subgenus NOTIPHILA Fallén

avia Loew, 1878: 193.—Hudson Bay Territory; Alaska to Mich. and Que.

bella Loew, 1862c: 135.—Middle States; Colo., Ala.

carinata Loew, 1862c: 137.—Middle States; Ind. to Ont. and N.C.

bicolor Cresson, 1917a: 35 (preocc. Waltl, 1837).—Mo.

erythrocera Loew, 1878: 194.—Cuba; Calif. to Ill. and N.J., s. to Fla., Neotropical.

varia Jones, 1906: 153.—Calif.

floridensis Cresson, 1917a: 46.—Fla.; N.J.
cognata Cresson, 1917a: 46.—N.J.
loewi Cresson, 1917a: 44.—Ohio; Mich. to Que. and Fla.
unicolor Loew, 1862c: 137 (preocc. Walker, 1860).—U.S.
var. **biseriata** Cresson, 1917a: 46 (as sp.).—Ohio.
nudipes Cresson, 1917a: 43.—N.J.; Mich., Ohio, N.Y., Ont.
latelimbata Curran, 1930j: 77.—N.Y.
riparia Meigen, 1830: 65.—Europe; Alaska to N.S., s. to Calif. and Fla., Mexico, Europe.
vittata Loew, 1862c: 136.—Middle States; Nebr. to Que., s. to Fla.

Subgenus AGROLIMNA Cresson

Notiphila, subg. **Agrolimna** Cresson, 1917a: 48. Type-species, *scalaris* Loew (orig. des.).

aenigma Cresson, 1917a: 54 (as *olivacea* var.).—Wash. **N. status.**
atripes Cresson, 1917a: 50.—Mass.; Wash. to N.S., s. to Calif. and Md.
atrisetis Cresson, 1917a: 52.—Calif.; Wash. to Man., s. to Calif. and N. Mex.
bispinosa Cresson, 1917a: 58.—N.J.; coastal, N.S. to Fla.
decoris Williston, 1893d: 258.—Calif.; Oreg.
frontalis Coquillett, 1904e: 97.—Nicaragua; Tex., Neotropical.
furcata (Coquillett), 1902e: 182 (*Dichaeta*).—Fla.; coastal, Va. to Fla. and La., Neotropical.
hamifera Wheeler, 1961: 87.—Ariz.; Colo.
macrochaeta Loew, 1878: 192.—Tex.; Oreg. to Iowa, s. to Calif. and Ga., Mexico.
brachychaeta Cresson, 1946: 232 (as ssp.).—Calif.
minima Cresson, 1917a: 52 (as *occidentalis* var.).—N. Mex.; Nev. **N. status.**
occidentalis Cresson, 1917a: 51.—Calif.; Alaska to Man., s. to Colo. and Calif.
olivacea Cresson, 1917a: 52.—Ohio; Alaska to N.S., s. to Calif. and N.Y.
pallidipalpis Cresson, 1940: 8.—Mich.; Sask. to N.S., s. to Iowa and Va.
pulchrifrons Loew, 1872a: 102 (Cent. 10, no. 84).—Tex.; Calif. to Tex. and Mexico.
quadrisetosa Thomson, 1869: 594.—Calif. ?=*occidentalis*.
scalaris Loew, 1862c: 134.—Middle States; Man. to N.S., s. to Ill. and N.C.

sicca Cresson, 1940: 8.—Nev.; Wyo. to Mich., s. to Calif. and N. Mex.
signata Cresson, 1917a: 57 (as *frontalis* var.).—Ga.
solita Walker, 1852: 406.—U.S. ?=*furcata*.
transversa Walker, 1852: 407.—U.S.

Genus DICHAETA Meigen

Dichaeta Meigen, 1830: 61. Type-species, *Notiphila caudata* Fallén (mon.).

atriventris Cresson, 1915a: 68.—Colo.; Oreg. to Colo. and N. Mex., Mexico (Morelos).
caudata (Fallén), 1813: 249 (*Notiphila*).—Sweden; Alaska to Que., s. to Wash., Kans., and Fla., Europe.
brevicauda Loew, 1860a: 5.—Germany.

Genus PARALIMNA Loew

Paralimna Loew, 1862c: 138. Type-species, *appendiculata* Loew (mon.)=*punctipennis* (Wiedemann).

REFERENCES: Cresson, 1916a, 1946 (revs.).

Subgenus PARALIMNA Loew

multipunctata Williston, 1896c: 390.—St. Vincent I.; Calif. to Tex. and Fla., Neotropical.
punctipennis (Wiedemann), 1830: 590 (*Notiphila*).—Unknown; S. Dak. to Minn. and N.Y., s. to Calif. and Fla.
appendiculata Loew, 1862c: 138.—Middle States and Ga.
texana Cresson, 1915a: 69.—Tex.; Kans., Mo., Okla.

Subgenus PHAIOSTERNA Cresson

Phaiosterna Cresson, 1916a: 104 (as genus). Type-species, *Paralimna decipiens* Loew (orig. des.).

decipiens Loew, 1878: 195.—Tex.; Calif. to Mich. and Fla., Neotropical.
obscura Williston, 1896c: 391.—St. Vincent I.; s. Fla., Bermuda, Neotropical.

Genus OEDENOPS Becker

Oedenops Becker, 1903: 178. Type-species, *isis* Becker (mon.).

nudus (Coquillett), 1902e: 182 (*Paralimna*).—Mexico; Calif. to Miss.

Subfamily PARYDRINAE

REFERENCE: Sturtevant and Wheeler, 1954 (rev.).

Tribe PARYDRINI

Genus PARYDRA Stenhammar

Napaea Robineau-Desvoidy, 1830: 799 (preocc. Hübner, 1819). Type-species, *stagnicola* Robineau-Desvoidy (Westwood, 1840: 153)=*coarctata* (Fallén).

Ephydra, sectio **Parydra** Stenhammar, 1844: 144. Type-species, *aquila* Fallén (Coquillett, 1910b: 585).

Subgenus PARYDRA Stenhammar

bituberculata Loew, 1862c: 165.—Middle States; Man. to Que., s. to Iowa and Ala.

incommoda Cresson, 1930b: 81.—Idaho; Alaska to Alta., s. to Calif. and Colo.

metallica Cole, 1921: 176.—Alaska; Y.T., N.W.T.

nitida Cresson, 1915a: 70.—Idaho; Alaska to Sask., s. to Calif. and N. Mex.

papulata Cresson, 1949: 247.—Wash.; Alaska to Ont., s. to Calif., Colo., and N.H.

quadrituberculata Loew, 1862c: 165.—Middle States; Alta. to Que., s. to Tex. and Fla.

tibialis Cresson, 1916b: 150.—Ariz.; B.C. to Mich., s. to Calif. and Tex.

Subgenus CHAETOAPNAEA Hendel

Napaea, subg. **Chaetoapnaea** Hendel, 1930a: 150. Type-species, *Ephydra pusilla* Meigen (orig. des.).

abbreviata Loew, 1861b: 357 (Cent. 1, no. 97).—Pa.; Ont. to W. Va. and Md.

alpina (Cresson), 1924b: 163 (*Napaea*).—Wash.; Wash. and Oreg. to Man., Mich., and Que.

appendiculata Loew, 1878: 202.—Tex.; Wash. to Mich., s. to Calif. and Tex., Mexico.

aurata Jones, 1906: 154.—Calif.; B.C. to Idaho, s. to Calif. and N. Mex., Mexico (Baja Calif.).

borealis (Cresson), 1949: 235 (*Napaea*).—Idaho; Alaska to Labr., s. to N.Y. **N. comb.**

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breviceps breviceps Loew, 1862c: 167.—Middle States; Ariz. and Colo., e. to Iowa and Ont., s. to Fla.

limpidipennis Loew, 1878: 201.—D.C.

ssp. **vicina** Cresson, 1940: 9 (as sp.).—Calif.; Oreg., Nev., Ariz.

halteralis (Cresson), 1930b: 81 (*Napaea*).—Wash.; Idaho to Calif. and N. Mex.

hulli (Cresson), 1934a: 212 (*Napaea*).—Miss.; Fla.

humilis Williston, 1897: 7.—Brazil; Calif., Neotropical.

imitans Loew, 1878: 201.—Mass.; coastal, N.S. to Ga.

parva Cresson, 1949: 241 (n. name for *undulata* Cresson).—D.C.; Mass., Md.

undulata Cresson, 1934a: 212 (*Napaea;* preocc. Becker, 1926).—D.C.

paullula Loew, 1862c: 167.—U.S.; Alaska and B.C., e. to N.H. and Colo.

pinguis (Walker), 1852: 409 (*Ephydra*).—U.S.; Iowa to Mass., s. to Tex. and S.C.

socia (Cresson), 1934a: 213 (*Napaea*).—Calif.; Wash., Oreg., N. Mex.

transversa Cresson, 1940: 10.—Fla.

trituberculata (Sturtevant and Wheeler), 1954: 225 (*Napaea*).—Ala.; Miss., Ga. **N. comb.**

unituberculata Loew, 1878: 200.—D.C.; Kans. to Mass., s. to Tex. and S.C.

vanduzeei (Cresson), 1933a: 68 (*Napaea*).—N.Y.; Ga.

varia Loew, 1863b: 326 (Cent. 4, no. 100).—Alaska; Alaska to Que. and N.H., s. to Calif. and Colo.

vulgaris (Cresson), 1949: 233 (*Napaea*).—Wyo.; Alaska to Que., s. to Calif. and Colo.

yukonensis (Cresson), 1949: 234 (*Napaea*).—Alaska; Que. **N. comb.**

Subgenus CALLINAPAEA Sturtevant and Wheeler

Napaea, subg. **Callinapaea** Sturtevant and Wheeler, 1954: 220. Type-species, *aldrichi* Sturtevant and Wheeler (orig. des.).

aldrichi (Sturtevant and Wheeler), 1954: 220 (*Napaea*).—Calif.; Alaska, Wash., Alta., Iowa, Que. **N. comb.**

Tribe LIPOCHAETINI

Genus LIPOCHAETA Coquillett

Lipochaeta Coquillett, 1896b: 220. Type-species, *slossonae* Coquillett (orig. des.).

slossonae Coquillett, 1896b: 221.—Fla.; coasts and saline habitats, Calif., Okla., Tex., Mass., Md., Fla., Mexico.
texensis Townsend, 1898a: 168.—Tex.

Genus ASMERINGA Becker

Asmeringa Becker, 1903: 174. Type-species, *inermis* Becker (mon.).

lindsleyi Sturtevant and Wheeler, 1954: 242.—Calif.

Tribe HYADININI

Genus HYADINA Haliday

Hydrina Robineau-Desvoidy, 1830: 794 (preocc. Rafinesque, 1815). Type-species, *vernalis* Robineau-Desvoidy (Coquillett, 1910b: 553)=*guttata* (Fallén). Cresson (1930a: 93) attempted to set aside Coquillett's type des. as invalid (but without proper reason), substituting *maculipennis* Robineau-Desvoidy as type.

Ephydra, subg. **Hyadina** Haliday, 1839: 406. Type-species, *Notiphila guttata* Fallén (Westwood, 1840: 153).

albovenosa Coquillett, 1900a: 34.—Ga. and La.; Sask. to Que., s. to Tex. and Ga.

binotata (Cresson), 1926: 256 (*Hydrina*).—Calif.; Alaska to Ont., s. to Calif. and Ga.
macquarti Cresson, 1930b: 80.—Alaska.

corona (Cresson), 1926: 256 (*Hydrina*).—Pa.; Iowa to Mich., N.Y. and N.J.

longicornis Sturtevant and Wheeler, 1954: 214.—Ohio.

neglecta Sturtevant and Wheeler, 1954: 214.—N.Y.; R.I.

octonotata (Walker), 1849: 1106 (*Ephydra*).—Ont. **N. comb.**

producta (Walker), 1849: 1099 (*Notiphila*).—Ont. **N. comb.**

pruinosa (Cresson), 1926: 256 (*Hydrina*).—Calif.; Wash. to S. Dak., s. to Calif. and N. Mex.

subnitida Sturtevant and Wheeler, 1954: 215.—Minn.; B.C. to Que., s. to Ind.

Genus AXYSTA Haliday

Ephydra, subg. **Axysta** Haliday, 1839: 406. Type-species, *Hydrina viridula* Robineau-Desvoidy (mon.; misident.)=*cesta* (Haliday).

bradleyi Cresson, 1930b: 79.—Ga.; Mich. to Fla.

cesta (Haliday), 1833: 177 (*Ephydra*).—Ireland; N.W.T. to Que. and N.H., s. to Wash. and Mich., Europe.

extera (Cresson), 1942b: 162 (also 1926: 257) (*Lytogaster*).—N.J.; Mich. to Que., s. to Ill. and N.J.

Genus LYTOGASTER Becker

Lytogaster Becker, 1896: 202. Type-species, *Philygria abdominalis* Stenhammar (orig. des.).

abdominalis (Stenhammar), 1844: 238 (*Notiphila*).—Sweden; Sask. to Mich. and Que., Europe.

angustata Cresson, 1934a: 206.—Cuba; Ga., Fla., Neotropical.

excavata (Sturtevant and Wheeler), 1954: 213 (*Hyadina;* as *gravida* ssp.).—N.Y.; Wis. to Que., s. to Tex. and Fla. **N. comb.**

flavipes (Sturtevant and Wheeler), 1954: 212 (*Hyadina*).—Calif.; Calif. to Tex., Mexico. **N. comb.**

furva Cresson, 1926: 257.—N.Y.; Ariz., Tex. to Ind., N.Y. and Fla., Bermuda.

gravida (Loew), 1863b: 325 (Cent. 4, no. 98) (*Hyadina*).—Alaska; Alaska to Alta., s. to Calif. and N. Mex., Mexico.
willistoni Cresson, 1916b: 150.—Calif.

pallipes Cresson, 1914a: 248.—Costa Rica; Ga. and Fla. to Cuba and Costa Rica.

Genus PELINA Haliday

Ephydra, subg. **Pelina** Haliday, 1839: 407. Type-species, *Notiphila aenea* Fallén (mon.).

aenescens (Stenhammar), 1844: 210 (*Notiphila*).—Sweden; Y.T. to Mich., s. to B.C. and Colo., Europe.

canadensis Cresson, 1934a: 208.—Man.; Alaska to Minn., s. to Calif.

compar Cresson, 1934a: 207.—Wash.; B.C. to Man., s. to Calif. and Colo.

rudis Cresson, 1940: 9.—Mich.; B.C. to Que., s. to Calif. and N.J.

truncatula Loew, 1878: 198.—Tex.; B.C. to Que., s. to Calif. and Tex., Mexico.

Genus GASTROPS Williston

Gastrops Williston, 1897: 3. Type-species, *niger* Williston (mon.).
Ventrops Williston *in* Grossbeck, 1912: 378. Nomen nudum.

REFERENCE: Wirth, 1958 (rev.).

nebulosus Coquillett, 1900a: 34.—N.C. and Ga.; Mich. to Mass., s. to Tex. and Fla.

niger Williston, 1897: 3.—Brazil; Tex., Neotropical.

Genus OCHTHERA Latreille

Ochthera Latreille, 1802: 462. Type-species, *Musca manicata* Fabricius (Latreille, 1810: 444) = *mantis* (De Geer).

baia Cresson, 1931b: 169.—Mexico (Baja Calif.); Calif., Ariz.
cuprilineata Wheeler, 1896a: 123.—St. Vincent I.; Calif. to Okla. and Tex., Neotropical.
cuprilineata Williston, 1896c: 402.—St. Vincent I.
melanderi Cresson, 1944a: 8.—Calif. **N. syn.,** A. H. Sturtevant *in litt.*
exsculpta Loew, 1862c: 160.—Cuba; N.C. to Fla., West Indies.
lauta Wheeler, 1896a: 121.—Wis.; Iowa, Mo., Okla., Tex.
loreta Cresson, 1931b: 168.—Mexico (Baja Calif.); Fla. (Keys), Bahama Is., Cuba, Mexico.
mantis (De Geer), 1776: 143 (*Musca*).—Europe; Alaska to N.S., s. to Calif., Tex., and N.C.
rapax Loew, 1862c: 162.—Carolina.
pilosa Cresson, 1926: 255.—N. Mex.; Ariz.
tuberculata Loew, 1862c: 161.—Ill.; Ill. to Mass., s. to Tex. and Fla.

Genus BRACHYDEUTERA Loew

Brachydeutera Loew, 1862c: 162. Type-species, *dimidiata* Loew (mon.) = *argentata* (Walker).

argentata (Walker), 1852: 407 (*Notiphila*).—U.S.; Calif. to Ont. and Fla.
dimidiata Loew, 1862c: 163.—D.C.

Subfamily EPHYDRINAE

REFERENCE: Sturtevant and Wheeler, 1954 (rev.).

Tribe EPHYDRINI

Genus CIRRULA Cresson

Cirrula Cresson, 1915a: 70. Type-species, *gigantea* Cresson (mon.).
Pogonephydra Hendel, 1917: 42. Type-species, *chalybea* Hendel (mon.) = *gigantea* Cresson.

gigantea Cresson, 1915a: 71.—Mass.; coastal, Nfld. to Conn.
chalybea Hendel, 1917: 42 (*Pogonephydra*).—N.H.

Genus HYDROPYRUS Cresson

Hydropyrus Cresson, 1934a: 216. Type-species, *Ephydra hians* Say (orig. des.).

REFERENCE: Aldrich, 1912a (biol. of *hians*).

hians (Say), 1830: 188 (1859b: 371) (*Ephydra*).—Mexico; B.C. to Minn., s. to Calif. and Okla., Mexico.

crassimana Loew, 1866a: 182 (Cent. 6, no. 88) (*Ephydra*).—Mexico.

californica Packard, 1871: 103 (*Ephydra*).—Calif.

tarsata Williston, 1893d: 257 (*Ephydra*).—Calif.

salina Curran, 1931c: 7 (*Ephydra;* preocc. von Heyden, 1843).—Okla.

Genus EPHYDRA Fallén

Ephydra Fallén, 1810a: 22. Type-species, *riparia* Fallén (Curtis, 1832: pl. 413).

REFERENCE: Aldrich, 1912a (biol. spp. w. N. Amer.).

auripes Aldrich, 1912b: 100.—Utah; Wash. to Calif., Nev., Utah.

bruesi Cresson, 1934a: 215.—Wyo.

cinerea Jones, 1906: 159.—Calif.; Calif. to Utah and Tex., Hawaii, Mexico, West Indies.

gracilis Packard, 1871: 105.—Utah.

macellaria Egger, 1862: 779.—Europe; Calif. to Mass., s. to Va., Mexico, Europe.

subopaca Loew, 1864a: 98 (Cent. 5, no. 99).—Conn.

niveiceps Cresson, 1916b: 151.—Wash.; Alaska to Que., s. to Calif. and Kans.

obscuripes Loew, 1866b: 50 (Cent. 7, no. 92).—Mass.; Alaska, Que., Labr., Nfld.

pectinulata Cresson, 1916b: 151.—Wyo.; N.W.T. to Wash., e. to Minn. and Nebr.

riparia Fallén, 1813: 246.—Sweden; entire N. Amer., Europe, Asia, Africa.

halophila Packard, 1869b: 49.—Ill.

millbrae Jones, 1906: 155.—Calif.

thermophila Cresson, 1934a: 215.—Wyo.

Genus SETACERA Cresson

Setacera Cresson, 1930a: 116. Type-species, *Ephydra pacifica* Cresson (orig. des.).

aldrichi Cresson, 1935a: 348.—Idaho; Calif., Wyo., Man.

atrovirens (Loew), 1862c: 169 (*Ephydra*).—Middle States; Y.T. to N.S., s. to Kans. and Pa.

durani Cresson, 1935a: 348.—Calif.; Wash. to Calif., Ariz., Colo., Tex.

needhami Johannsen, 1935: 53.—Calif.

needhami Cresson, 1935a: 347.—Calif.

pacifica (Cresson), 1925: 167 (*Ephydra*).—B.C.; B.C. to Man., s. to Calif., N. Mex., and Nebr.

pilicornis (Coquillett), 1902e: 184 (*Ephydra*).—Fla.

knabi Cresson, 1935a: 346.—Fla.

Genus DIMECOENIA Cresson

Dimecoenia Cresson, 1916b: 152. Type-species, *Coenia spinosa* Loew (orig. des).

austrina (Coquillett), 1900a: 36 (*Ephydra*).—Fla.; coastal, Calif., Tex. to Va., Mexico, Bermuda.

virida Hine, 1904c: 65 (*Coenia*).—Tex.

spinosa (Loew), 1864a: 99 (Cent. 5, no. 100) (*Coenia*).—Mass.; coastal, N.B. to Fla., Tex., Calif., Mexico (Baja Calif.).

Tribe SCATELLINI

Genus THIOMYIA Wirth

Thiomyia Wirth, 1954c: 196. Type-species, *quatei* Wirth (orig. des.).

quatei Wirth, 1954c: 196.—Calif.

Genus COENIA Robineau-Desvoidy

Coenia Robineau-Desvoidy, 1830: 800. Type-species, *caricicola* Robineau-Desvoidy (mon.) = *palustris* (Fallén).

Caenia, emend.

curvicauda (Meigen), 1830: 116 (*Ephydra*).—Europe; Alaska to N.H., s. to Wyo., Wis., and Mass.

Genus PARACOENIA Cresson

Paracoenia Cresson, 1935a: 356. Type-species, *Coenia bisetosa* Coquillett (orig. des.).

bisetosa (Coquillett), 1902e: 183 (*Coenia*).—Utah; B.C. to Ont., s. to Calif., Tex., and Mass., Mexico (Baja Calif.).

fumosalis Cresson, 1935a: 356.—Mass.; Alaska to Ont., s. to Calif. and Mass.

paurosoma (Sturtevant and Wheeler), 1954: 165 (*Coenia*).—Wyo.; Colo. **N. comb.**

platypelta Cresson, 1935a: 356.—Calif.; Wash. to Alta., s. to Calif., Colo., and Ariz.

turbida (Curran), 1927f: 91 (*Coenia*).—Wyo.; Alaska to Man., s. to Mexico (Baja Calif.) and N. Mex. **N. comb.**

Genus PHILOTELMA Becker

Philotelma Becker, 1896: 163. Type-species, *anomalum* Becker (mon.)=*nigripenne* (Meigen).

alaskense Cresson, 1935a: 357.—Alaska; Alaska to Ont., s. to Nev.

Genus LAMPROSCATELLA Hendel

Lamproscatella Hendel, 1917: 42. Type-species, *Ephydra sibilans* Haliday (orig. des.).

brunnipennis (Malloch), 1923i: 221 (*Scatella*).—Alaska; Alaska and Arctic Canada to Greenland.

cephalotes Cresson, 1935a: 360.—Utah; Wash. to Mont., s. to Calif. and Utah.

dichaeta (Loew), 1860a: 40 (*Scatella*).—Europe; Wash. and Alta. to N.S., s. to Calif., Miss., and N.C., Asia, North Africa.

nivosa Cresson, 1935a: 361.—Wyo.; Wash. to Man., s. to Calif. and N. Dak.

quadrisetosa (Becker), 1896: 229 (*Scatella*).—Norway; Alaska to Greenland, s. to Calif. and N.B., Europe.

salinaria (Sturtevant and Wheeler), 1954: 176 (*Scatella*).—Calif.; Oreg., Utah. **N. comb.**

sibilans (Haliday), 1833: 175 (*Ephydra*).—Ireland; Alaska to Que., s. to Calif. and Colo., Europe.

Genus NEOSCATELLA Malloch

Neoscatella Malloch, 1933b: 9. Type-species, *atra* Malloch (orig. des.).

crassicosta (Becker), 1896: 234 (*Scatella*).—Germany; Alaska to Labr., Europe.

obscuriceps (Cresson), 1915a: 72 (*Scatella;* as *intermedia* var.).—Pa.; Mass. to Fla.

setosa (Coquillett), 1900h: 462 (1904: 76) (*Scatella*).—Alaska; Alaska to Nfld., s. to Calif. and Ala.

intermedia Cresson, 1915a: 72 (*Scatella*).—Calif.

Genus PARASCATELLA Cresson

Parascatella Cresson, 1935a: 357. Type-species, *Scatella pilifera* Cresson (orig. des.).

marinensis Cresson, 1935a: 358.—Calif.; Wash., Ariz.
melanderi Cresson, 1935a: 358.—Wash.; Oreg., Calif.
triseta (Coquillett), 1902e: 184 (*Scatella*).—Ariz.; Oreg. to Alta. and S. Dak., s. to Calif. and Tex.

Genus SCATELLA Robineau-Desvoidy

Scatella Robineau-Desvoidy, 1830: 801. Type-species, *buccata* Robineau-Desvoidy (Coquillett, 1910b: 603) = *stagnalis* (Fallén).

arizonensis Cresson, 1935a: 365.—Ariz.; Calif., N. Mex., Mexico (Son.).
favillacea Loew, 1862c: 170.—Middle States; Sask. to Que., s. to Tex. and Fla., Neotropical.
nitidifrons Cresson, 1918a: 67.—Costa Rica.
laxa Cresson, 1933a: 70.—Calif.; Alaska to Que., s. to Calif. and Tex.
obscura Williston, 1896c: 403.—St. Vincent I.; Fla., Neotropical.
obsoleta Loew, 1861b: 358 (Cent. 1, no. 98).—D.C.; Alaska to Que., s. to Calif. and Fla.
paludum (Meigen), 1830: 118 (*Ephydra*).—Europe; B.C. to Ont., s. to Calif. and Tex., Africa.
pentastigma (Thomson), 1869: 591 (*Ephydra*).—Calif.; Wash. to Calif. and N. Mex.
picea (Walker), 1849: 1105 (*Ephydra*).—Ont.; N.W.T. to Labr., s. to Wash., La., and Fla.
lugens Loew, 1862c: 171.—Middle States.
quadrinotata Cresson, 1933a: 70.—N.Y.; Iowa to Que., s. to Tex. and N.C.
stagnalis (Fallén), 1813: 248 (*Ephydra*).—Sweden; entire N. Amer., cosmopolitan.
thermarum Collin, 1930c: 138.—Iceland; Greenland.
troi Cresson, 1933a: 69.—Idaho; Alaska, Wash.

Genus LIMNELLIA Malloch

Limnellia Malloch, 1925c: 331. Type-species, *maculipennis* Malloch (orig. des.).

Eustigoptera Cresson, 1930a: 126. Type-species, *Notiphila quadrata* Fallén (orig. des.).

Stictoscatella Collin, 1930c: 133. Type-species, *Notiphila quadrata* Fallén (orig. des.).

anna Cresson, 1935a: 363.—Mass.; S. Dak. to Que., s. to Mo. and N.C.
oscitans (Walker), 1849: 1106 (*Ephydra*).—Ont. **N. comb.**
quadrata (Fallén), 1813: 255 (*Notiphila*).—Sweden; Alaska to Idaho, s. to Calif. and Ariz., Europe.
sejuncta (Loew), 1863b: 326 (Cent. 4, no. 99) (*Scatella*).—Alaska; Wash., Calif.
stenhammari (Zetterstedt), 1846: 1842 (*Ephydra*).—Sweden; Alaska to Que., s. to Wash., Iowa and S.C., Europe.

Genus SCATOPHILA Becker

Scatophila Becker, 1896: 237. Type-species, *Ephydra caviceps* Stenhammar (orig. des.).

REFERENCES: Bolwig, 1940 (biol.); Sturtevant and Wheeler, 1954 (rev.).

adamsi Cresson, 1935a: 369.—Mo.; Nebr. and Iowa to Tex., Md.
arenaria Cresson, 1935a: 372.—Wash.; Wash. to Calif., Nebr., Minn.
bipiliaris Sturtevant and Wheeler, 1954: 187.—Calif.
bisignata Cresson, 1935a: 370.—Wash.; Calif.
carinata Sturtevant and Wheeler, 1954: 188.—Iowa; Alta.
conifera Sturtevant and Wheeler, 1954: 189.—Calif.
cribrata (Stenhammar), 1844: 269 (*Ephydra*).—Sweden; Alaska to Greenland, s. to B.C. and Idaho, Europe.
despecta (Haliday), 1839: 409 (*Ephydra*).—Ireland; B.C. to Maine, s. to Calif. and Fla., Europe.
striata Walker, 1849: 1107 (*Ephydra*).—Ont. ?Valid sp.
variabilis Cresson, 1917b: 341.—Calif.
disjuncta Cresson, 1935a: 371.—Calif.; Wash. to Calif., Ariz., and N. Mex.
exilis Cresson, 1935a: 366.—Colo.; Wash. to Man., s. to Calif., N. Mex., and Okla., Mexico (Baja Calif.).
hesperia Sturtevant and Wheeler, 1954: 192.—Calif.; Oreg., Utah.
hirsuta Sturtevant and Wheeler, 1954: 193.—Ariz.
hirtirostris Sturtevant and Wheeler, 1954: 194.—Alaska; N.W.T.
iowana Wheeler, 1961: 86.—Iowa.
mesogramma (Loew), 1869b: 42 (Cent. 8, no. 74) (*Scatella*).—R.I.; Alaska, N.W.T., Labr. to Md.
ordinaria Sturtevant and Wheeler, 1954: 195.—Tex.; Wash., Calif. to La.
picta Sturtevant and Wheeler, 1954: 196.—Alaska.
pulchra Sturtevant and Wheeler, 1954: 196.—Calif.; Ariz., N. Mex.

rubribrunnea Sturtevant and Wheeler, 1954: 197.—Calif.; Alaska to Wyo., s. to Calif. and N. Mex., Mexico.

unicornis Czerny, 1900: 205.—Austria; Calif., Mo., Ont., Europe. Probably introduced into N. Amer. by commerce.

tuberculosa Cresson, 1935a: 368.—Mo.

variofacialis Sturtevant and Wheeler, 1954: 199.—Wash.; Alaska to N.W.T., s. to Calif. and Colo.

viridella Sturtevant and Wheeler, 1954: 200.—Calif.; B.C. to Calif., also Ariz., Wyo., Nebr.

Unplaced Species of Ephydridae

brevis Walker, 1858: 233 (*Ephydra*).—U.S.

frontalis Curran, 1933d: 7 (*Diclasiopa*).—Que.

lata Walker, 1858: 233 (*Ephydra*).—U.S.

nana Walker, 1858: 234 (*Ephydra*).—U.S.

nigroaenea Walker, 1852: 413 (*Gymnopa*).—U.S.

tarsalis Walker, 1852: 413 (*Gymnopa*).—U.S.

Family CURTONOTIDAE

By Willis W. Wirth

Curtonotids are a small family of small, grayish, hump-backed, robust flies closely related to the Drosophilidae; following Hennig (1958a) they are accorded family status. The breeding habits have only recently been discovered by Greathead (1958) in Eritrea, where the larvae were scavengers in egg pod beds of the desert locust (*Schistocerca*). We have only one species of *Curtonotum*, a genus better represented in tropical America and Africa.

References: Sturtevant, 1921 (discussion); Greathead, 1958 (immature stages, biol.).

Genus CURTONOTUM Macquart

Curtonotum Macquart, 1843a: 350 (1843: 193). Type-species, *Musca gibba* Fabricius (mon.).

Cyrtonotum, emend.

Diplocentra Loew, 1862e: 13 (unjustified n. name for *Curtonotum* Macquart). Type-species, *Musca gibba* Fabricius (aut.).

helvum (Loew), 1862b: 228 (Cent. 2, no. 91) (*Diplocentra*).—Minn.; Man. to Ont., s. to Ill. and Ga.

Family DROSOPHILIDAE

By Marshall R. Wheeler

Drosophilid flies are found most often around spoiled fruit, slime fluxes, rotting cacti, and in fungi, the larvae feeding primarily on the microorganisms living in such situations. Some species occur in flowers, on fresh sap from tree wounds, or in decaying organic matter. Some *Scaptomyza* larvae are leaf miners, some *Clastopteromyia* larvae are ectoparasitic on nymphal Cercopidae, and *Pseudiastata* larvae are mostly predaceous on mealybugs.

Economic pests are rare, though several domestic *Drosophila* must be controlled around fruit and vegetable canneries and are annoying in markets. Some species are involved in the transmission of fungus diseases of plants, and many could serve as mechanical vectors of disease-producing microorganisms. Many *Drosophila* can be reared easily in the laboratory on agar-based media, and have been used extensively in research in genetics, cytology, and insect physiology.

REFERENCES: Sturtevant, 1921; Malloch and McAtee, 1924a; Patterson, 1943; Wheeler, 1952b (keys to genera); Patterson and Stone, 1952 (biol., distribution, genetics); Wheeler, 1949b (keys, distribution), 1954a, 1957 (distribution); Patterson and Mainland, 1944 (distribution); Patterson, 1942 (*Drosophila* hybridization).

Subfamily STEGANINAE

Genus STEGANA Meigen

Stegana Meigen, 1830: 79. Type-species, *nigra* Meigen (Zetterstedt, 1847: 2577)=*curvipennis* (Fallén).

Subgenus STEGANA Meigen

curvipennis (Fallén).—Not Nearctic.

vittata (Coquillett), 1901h: 618 (*Phortica*).—N.J.; Maine to Pa., Va., N.C. and Tenn.

Subgenus STEGANINA Wheeler

Stegana, subg. **Steganina** Wheeler, 1960a: 110. Type-species, *Musca coleoptrata* Scopoli (orig. des.).

antigua Wheeler, 1960a: 110.—Va.; Md., N.Y.

coleoptrata (Scopoli), 1763: 338 (*Musca*).—Europe; N.W.T., B.C., Wash., Mich., Tenn., Que. to Va.

Genus AMIOTA Loew

Amiota Loew, 1862b: 229 (Cent. 2, no. 93). Type-species, *leucostoma* Loew (Coquillett, 1910b: 505).

Subgenus AMIOTA Loew

alboguttata (Wahlberg).—Not Nearctic.
buccata Wheeler, 1952b: 171.—N. Mex.; Ariz., Utah.
humeralis Loew, 1862b: 229 (Cent. 2, no. 93).—D.C. Unrecognized.
leucostoma Loew, 1862b: 230 (Cent. 2, no. 94).—Pa.; Que. to Ind., Tenn., and N.C.
minor (Malloch), 1921o: 312 (*Phortica*).—Ill.; Nebr. to Maine, s. to Tex. and Ga., also Wash., Ariz., Mexico.
nigrescens Wheeler, 1952b: 170.—Ariz.; N. Mex.
setigera Malloch, 1924c: 51.—Ill.; Mo., Tenn., Md.
steganoptera Malloch, 1926: 31.—Costa Rica; Miss., Ala., Va., Fla., Neotropical.
subtusradiata Duda, 1934b: 32 (as *alboguttata* var.).—Europe; Sask. and Ind. to N.H. and Va., Eurasia.

Subgenus PHORTICA Schiner

Phortica Schiner, 1862b: 433 (as genus). Type-species, *Drosophila variegata* Fallén (orig. des.).

huachucae Wheeler, 1960c: 90.—Ariz.
albavictoria, authors, not Patterson and Mainland.

Subgenus SINOPHTHALMUS Coquillett

Sinophthalmus Coquillett, 1904f: 190 (as genus). Type-species, *pictus* Coquillett (orig. des.).

picta (Coquillett), 1904f: 191 (*Sinophthalmus*).—Calif.; Nev., Ariz., N. Mex., Mexico. **N. comb.**

Genus LEUCOPHENGA Mik

Leucophenga Mik, 1886: 317. Type-species, *Drosophila maculata* Dufour (orig. des.).

Subgenus LEUCOPHENGA Mik

maculosa (Coquillett), 1895a: 317 (*Drosophila*).—Fla.; Minn. to Mass., s. to Tex. and Fla., Nev., Neotropical.
neovaria Wheeler, 1960c: 89.—P.R.; Fla., Neotropical.
varia (Walker), 1849: 1109 (*Drosophila*).—Ga.; Nebr. to Mass., s. to Tex. and Fla., Neotropical.
quadrimaculata Walker, 1852: 410 (*Drosophila*).—U.S.
signicosta Walker, 1861: 330 (*Opomyza*).—U.S.

Subgenus NEOLEUCOPHENGA Oldenberg

Paraleucophenga Oldenberg, 1914: 18 (preocc. Hendel, 1914). Type-species, *Leucophenga quinquemaculata* Strobl (orig. des.).

Neoleucophenga Oldenberg, 1915: 93 (as genus; n. name for *Paraleucophenga* Oldenberg). Type-species, *Leucophenga quinquemaculata* Strobl (aut.).

guttata Wheeler, 1952b: 188.—Ariz.; N. Mex.
montana Wheeler, 1952b: 189.—Oreg.; Nev. B.C., Calif., Utah.
pulcherrima Patterson and Mainland, 194[illegible]: 1[illegible].—Mexico; Ariz., N. Mex. Neotropical.
trisphenata Wheeler, 1952b: 187.—Ariz.; N. Mex.

Genus PSEUDIASTATA Coquillett

Pseudiastata Coquillett, 1908: 148. Type-species, *nebulosa* Coquillett (orig. des.).

REFERENCES: Sabrosky, 1951c, Hardy, 1959b (revs.).

Subgenus PSEUDIASTATA Coquillett

nebulosa Coquillett, 1908: 148.—Md.; Va., Ga.

Subgenus HYALISTATA Wheeler

Pseudiastata, subg. **Hyalistata** Wheeler, 1960b: 67. Type-species, *pictiventris* Wheeler (orig. des.).

pictiventris Wheeler, 1960b: 68.—Mexico; Fla.

Genus GITONA Meigen

Gitona Meigen, 1830: 129. Type-species, *distigma* Meigen (mon.).

americana Patterson, 1943: 33.—Tex.; s. Calif. to Okla., Mexico.
bivisualis Patterson, 1943: 35.—Tex.; Ariz. to Fla., Neotropical.
sonoita Wheeler, 1949b: 158.—Ariz.; Tex.

Genus PARACACOXENUS Hardy

Paracacoxenus Hardy *in* Hardy and Wheeler, 1960: 358. Type-species, *guttatus* Hardy and Wheeler (orig. des.).

guttatus Hardy and Wheeler, 1960: 358.—Wash.; Oreg.

Genus RHINOLEUCOPHENGA Hendel

Rhinoleucophenga Hendel, 1917: 44. Type-species, *pallida* Hendel (orig. des.).

Pseudophortica Sturtevant, 1918b: 37. Type-species, *Drosophila obesa* Loew (orig. des.).

obesa (Loew), 1872a: 102 (Cent. 10, no. 85) (*Drosophila*).—Tex.; Tex. to N.J. and Tenn., s. to Fla., Neotropical.

hirtifrons Johnson, 1913a: 88 (*Phortica*).—Fla.

Genus TRACHYLEUCOPHENGA Hendel

Trachyleucophenga Hendel, 1917: 44. Type-species, *flavocostata* Hendel (orig. des.).

Unnamed sp.—La. (Wheeler, 1954a: 63).

Subfamily DROSOPHILINAE

Genus DROSOPHILA Fallén

Drosophila Fallén, 1823e: 4. Type-species, *Musca funebris* Fabricius (Zetterstedt, 1847: 2542).

Drosophila, subg. *Acrodrosophila* Duda, 1924a: 203. Type-species, *testacea* Roser (mon.).

References: Mainland, 1941 (rev. *macrospina* group); Sturtevant, 1942 (key N. Amer. spp.); Streisinger, 1946 (rev. *cardini* group); Stalker, 1953 (rev. *cardini* group); Carson, 1958 (population genetics of *D. robusta*); Miller, 1958 (rev. *affinis* group); Wheeler, 1959 (world cat.).

Subgenus DROSOPHILA Fallén

acutilabella Stalker, 1953: 345.—Fla.; Antilles.

aldrichi Patterson and Crow, 1940: 251.—Tex.; Neotropical.

americana americana Spencer, 1938: 169 (as *virilis* ssp.).—Ohio; Mont. to Maine, s. to Tex., N.C., and Tenn.

ssp. **texana** Patterson *in* Patterson, Stone, and Griffen, 1940: 219 (as *virilis* ssp.).—Tex.; Va. and Tenn., s. to Tex., and Fla.

arizonensis Patterson and Wheeler, 1942: 96.—Ariz.; N. Mex., Mexico.

bifurca Patterson and Wheeler, 1942: 85.—Tex.; Ariz., Neotropical.

borealis Patterson, 1952: 20.—Minn.; Idaho to Man., s. to Colo. and Wis.

bromeliae Sturtevant, 1921: 72.—Cuba; Fla., Neotropical.

californica Sturtevant, 1923: 9.—Calif.; Oreg. to Idaho, s. to Calif. and N. Mex., Mexico.

fuliginea Patterson and Wheeler, 1942: 80.—N. Mex. **N. syn.**

carbonaria Patterson and Wheeler, 1942: 103.—Tex.; Ariz., Mexico.

cardini Sturtevant, 1916: 336.—Cuba; Tex., Fla., Neotropical.

carsoni Wheeler, 1957: 95.—Wis.; S. Dak. to Maine, also N. Mex.

colorata Walker, 1849: 1110.—N.Y.; Wash. to Maine, s. to Mo., Miss., and Va.

sulcata Sturtevant, 1916: 330.—Md.

deflecta Malloch *in* Malloch and McAtee, 1924a: 36.—D.C.; Mich., Fla.

euronotus Patterson and Ward, 1952: 158.—La.; N.C. to La. and Fla.

falleni Wheeler, 1960d: 161.—Mo.; B.C. to Que., s. to Colo. and Tex.

flavomontana Patterson, 1952: 21.—Idaho; Wyo., Utah, Colo., N. Mex.

flavopinicola Wheeler, 1954a: 47.—Calif.; s. B.C.

fulvalineata Patterson and Wheeler, 1942: 106.—Ariz.; N. Mex., Neotropical.

funebris (Fabricius), 1787: 345 (*Musca*).—Europe; entire U.S., cosmopolitan.

guttifera Walker, 1849: 1110.—Fla.; Nebr. to Mass., s. to Tex. and Fla.

multipunctata Loew, 1866b: 50 (Cent. 7, no. 93).—D.C.

hamatofila Patterson and Wheeler, 1942: 91.—Tex.; Ariz. to Tex. and Okla., Neotropical.

hydei Sturtevant, 1921: 101.—Fla.; entire U.S., cosmopolitan.

immigrans Sturtevant, 1921: 83.—N.Y.; entire U.S., Alaska, cosmopolitan.

innubila Spencer *in* Patterson, 1943: 94.—Ariz., N. Mex., Mexico (unpublished).

lacicola Patterson, 1944: 102.—Minn.; Wis., Ont., Que.

longicornis Patterson and Wheeler, 1942: 90.—Tex.; Ariz., Neotropical.

macroptera Patterson and Wheeler, 1942: 105.—Colo.; N. Mex. to Tex. and Colo., Mexico.

macrospina macrospina Stalker and Spencer, 1939: 110.—Tex.; Mont. to N.Y., s. to Ariz. and Fla.

ssp. **limpiensis** Mainland, 1941: 160.—Tex.; Ariz. to Tex., Mexico.

ssp. **ohioensis** Spencer, 1940: 304.—Ohio; Mich., N.Y. ?Valid sp.

magnafumosa Stalker and Spencer, 1939: 112.—Tenn.; N.C. ?= *ordinaria*.

magnaquinaria Wheeler, 1954a: 48.—Wash.; B.C. to Oreg.

mainlandi Patterson, 1943: 147.—Calif.

melanderi Sturtevant, 1916: 337.—Wash.; Alaska, Mont., Minn.

melanica Sturtevant, 1916: 332.—Ala.; Colo. to Mich. and N.Y., s. to Ariz. and Fla., Mexico.

melanissima Sturtevant, 1916: 333.—Ala.; Tex. to N.C. and Fla.

melanopalpa Patterson and Wheeler, 1942: 77.—Tex.; Ariz., Neotropical.

melanura Miller, 1944: 86.—N.Y.; Wash. and Oreg. to Que., s. to Va.

mercatorum Patterson and Wheeler, 1942: 93.—Calif.; Ariz., La., Neotropical, Hawaii.

meridiana meridiana Patterson and Wheeler, 1942: 99.—Tex.; Nebr., Neotropical.

ssp. **rioensis** Patterson, 1943: 152.—Tex.; Mexico.

micromelanica Patterson *in* Sturtevant and Novitski, 1941: 394.—Tex.; Ariz. to Va. and Fla., Mexico.

mojavensis Patterson and Crow, 1940: 251 (as *mulleri* ssp.).—Calif.; Mexico (Baja Calif.).

montana Stone, Griffen, and Patterson, 1941: 172.—Wyo.; Alaska to Wash., Idaho, Calif. to N. Mex.

montana Patterson and Wheeler, 1942: 75.—Wyo.

mulleri Sturtevant, 1921: 101.—Tex.; Okla., Nebr., Ark., La., Fla., Mexico, Jamaica.

munda Spencer, 1942: 58.—N. Mex., Ariz., Mexico (unpublished).

nigrohydei Patterson and Wheeler, 1942: 84.—Tex.; Ariz., Mexico.

nigromelanica Patterson and Wheeler, 1942: 100.—Tex.; Minn. to N.Y. and Conn., s. to Tex. and Fla.

nigrospiracula Patterson and Wheeler, 1942: 81.—Ariz.; Mexico.

novamexicana Patterson, 1941: 535 (as *virilis* ssp.).—N Mex.; Ariz., Utah, Colo.

occidentalis Spencer, 1942: 60.—Calif. (unpublished); Y.T., Wash. to Mont., s. to Calif. and Colo.

ordinaria Coquillett, 1904f: 190.—N.H.; Que., Mass.

palustris Spencer, 1942: 63 (n. name for *lativittata* Malloch).—Va.; Nebr., Minn., Ohio, Ill., N.Y., N.J.

lativittata Malloch *in* Malloch and McAtee, 1924a: 36 (preocc. Malloch, 1923).—Va.

mallochi Frota-Pessoa, 1946: 155 (n. name for *lativittata* Malloch).—Va.

paramelanica Patterson, 1942: 12 (as *melanica* ssp.).—Conn.; Minn. to Que., s. to Nebr. and Ga.

peninsularis Patterson and Wheeler, 1942: 92.—Fla.; Neotropical.

phalerata Meigen.—Not Nearctic.

pinicola Sturtevant, 1942: 40.—Calif.; Wash.

polychaeta Patterson and Wheeler, 1942: 102.—Tex.; Panama, Brazil, Hawaii, and Micronesia.

putrida Sturtevant, 1916: 339.—Mass.; Minn. to Ont., s. to Tex. and Fla.

var. *pseudomelanica* Sturtevant, 1916: 333 (as sp.).—Va. Melanistic winter phase. Note: The name *pseudome-*

lanica has page precedence, but *putrida* is hereby selected as the name long used in genetics and cytology. **N. syn., N. status.**

quinaria Loew, 1866a: 182 (Cent. 6, no. 90).—N.Y.; Minn. to Que., s. to Mo. and Va.

recens Wheeler, 1960d: 162.—Mich.; N. Dak., Ont., Que., Maine.

rellima Wheeler, 1960d: 162.—Nebr.; Oreg., Calif.

repleta Wollaston, 1858: 117.—Madeira; entire U.S., cosmopolitan.

ritae Patterson and Wheeler, 1942: 87.—Tex.; Ariz., Mexico.

robusta Sturtevant, 1916: 331.—Ala.; Mont., Nebr., Tex., Maine to Fla.

rubrifrons Patterson and Wheeler, 1942: 107.—Ariz.

stalkeri Wheeler, 1954a: 52.—Fla.

subfunebris Stalker and Spencer, 1939: 108.—Calif.; Wash.

suboccidentalis Spencer, 1942: 61.—Idaho, Utah, Colo., S. Dak. (unpublished); Mont., Nebr.

subpalustris Spencer, 1942: 64.—Ohio (unpublished); S.C.

subquinaria Spencer, 1942: 59.—Utah, Wyo., Colo. (unpublished); Alaska to Ont., s. to Oreg. and N. Mex. ?=*transversa*.

suffusca Spencer *in* Patterson, 1943: 92.—Ariz. (unpublished); N. Mex.

tenebrosa Spencer *in* Patterson, 1943: 93.—N. Mex., Mexico (unpublished); Ariz.

tenuipes (Walker), 1849: 1112 (*Diastata*).—Ont.

testacea Roser, 1840: 62.—Europe; Wash. to Ont., s. to Calif. and Tenn., also Alaska.

transversa Fallén.—Not Nearctic.

tripunctata Loew, 1862b: 231 (Cent. 2, no. 97).—D.C.; Iowa to N.J., s. to Tex. and Fla.

modesta Sturtevant, 1916: 338.—Ala.

trispina Wheeler, 1949b: 180.—Calif.; Ariz.

virilis Sturtevant, 1916: 330.—N.Y.; Calif. and Utah to Ind., Tenn., and Fla., Mexico, Argentina, Brazil, China, Japan.

wheeleri Patterson and Alexander, 1952: 129.—Calif.

Subgenus DORSILOPHA Sturtevant

Drosophila, subg. **Dorsilopha** Sturtevant, 1942: 28. Type-species, *busckii* Coquillett (orig. des.).

busckii Coquillett, 1901c: 18 (as *buskii*).—D.C.; entire U.S., cosmopolitan.

Subgenus HIRTODROSOPHILA Duda

Drosophila, subg. **Hirtodrosophila** Duda, 1923b: 41. Type-species, *carinata* Duda (Frota-Pessoa, 1945: 470).

REFERENCE: Frota-Pessoa, 1945 (rev.).

alabamensis Sturtevant, 1918b: 38.—Ala.; Mich. to Ont., s. to Nebr., Tex., and Ala.
chagrinensis Stalker and Spencer, 1939: 111.—Ohio; Wis., Iowa.
cinerea Patterson and Wheeler, 1942: 71.—Tex.; Nebr.
duncani Sturtevant, 1918a: 446.—Ill.; Minn. to R.I., s. to Tex. and Fla.
grisea Patterson and Wheeler, 1942: 72.—Ariz.
longala Patterson and Wheeler, 1942: 71.—N. Mex.; Mexico.
nigrohalterata Duda, 1925b: 195.—Costa Rica; Tex., Neotropical.
orbospiracula Patterson and Wheeler, 1942: 70.—Tex.; Ariz., Mexico.
pictiventris Duda, 1925b: 211.—Costa Rica; Fla., Neotropical.
thoracis Williston, 1896c: 411.—St. Vincent I.; Fla., Neotropical.

Subgenus LORDIPHOSA Basden

Drosophila, subg. **Lordiphosa** Basden, 1961: 186. Type-species, *fenestrarum* Fallén (orig. des.).

basdeni Wheeler, 1957: 94.—Mich.; Ohio.

Subgenus PHLORIDOSA Sturtevant

Drosophila, subg. **Phloridosa** Sturtevant, 1942: 28. Type-species, *floricola* Sturtevant (orig. des.).

floricola Sturtevant, 1942: 42.—Calif.; Ariz., Neotropical.
lutzii Sturtevant, 1916: 340.—Cuba; Fla., Neotropical.

Subgenus PHOLADORIS Sturtevant

Drosophila, subg. **Pholadoris** Sturtevant, 1942: 28. Type-species, *victoria* Sturtevant (orig. des.).

REFERENCE: Wheeler, 1949a (rev.).

brooksi Pipkin, 1961: 146.—Ariz.
latifasciaeformis Duda, 1940: 22.—Uganda; S.C. to Fla., circumtropical.
baeomyia Wheeler, 1949a: 145.—Mexico.
lebanonensis lebanonensis Wheeler.—Not Nearctic.
ssp. **casteeli** Pipkin, 1961: 149.—Ariz.; Utah, N. Mex.
victoria Sturtevant, 1942: 33.—Calif.; Oreg. and Calif. to Nebr. and Tex., ?N.Y.

Subgenus SIPHLODORA Patterson and Mainland

Drosophila, subg. **Siphlodora** Patterson and Mainland, 1944: 25. Type-species, *sigmoides* Loew (orig. des.).

sigmoides Loew, 1872a: 103 (Cent. 10, no. 86).—Tex.; Ill. to N.Y., s. to Tex. and Ala.

Subgenus SOPHOPHORA Sturtevant

Drosophila, subg. **Sophophora** Sturtevant, 1939: 139. Type-species, *melanogaster* Meigen (orig. des.).

affinis affinis Sturtevant, 1916: 334.—Ala.; Mich. to Ont., s. to Nebr., Tex., and Fla.

ssp. **iroquois** Sturtevant and Dobzhansky, 1936: 576.—Mass.; N.Y., N.J., Miss. ?Valid sp.

algonquin Sturtevant and Dobzhansky, 1936: 575.—Mass.; N. Dak. to Que., s. to Tex. and Miss.

ananassae Doleschall, 1858: 128.—Molucca Is. (Amboina I.); Tex., Fla., circumtropical.

caribea Sturtevant, 1916: 335.—Cuba.

athabasca athabasca Sturtevant and Dobzhansky, 1936: 576.—Alaska; Alaska to Que., s. to Oreg., N. Mex., and Tenn.

ssp. **mahican** Sturtevant and Dobzhansky, 1936: 576.—N.H.; Mass., N.J. ?Valid sp.

azteca Sturtevant and Dobzhansky, 1936: 577.—Mexico; Calif. to Tex., Neotropical.

melanogaster Meigen, 1830: 85.—Europe; entire U.S., cosmopolitan.

ampelophila Loew, 1862b: 231 (Cent. 2, no. 99).—Cuba.

miranda Dobzhansky, 1935: 378.—Wash.; B.C. to Idaho, s. to Calif.

narragansett Sturtevant and Dobzhansky, 1936: 577.—Mass.; Mich. to Maine, s. to Nebr., Tex., and Fla.

nebulosa Sturtevant, 1916: 327 (n. name for *limbata* Williston).—St. Vincent I.; Tex., Fla., ?Nebr., Neotropical.

limbata Williston, 1896c: 414 (preocc. Roser, 1840).—St. Vincent I.

obscura Fallén.—Not Nearctic.

persimilis Dobzhansky and Epling, 1944: 7.—Oreg.; B.C. to Idaho and Calif.

populi Wheeler and Throckmorton, 1961: 138.—Alaska.

pseudoobscura Frolova *in* Frolova and Astaurov, 1929: 212.—N. Amer.; B.C. to Mont., s. to Calif., Mo. and Tex., Neotropical.

seminole Sturtevant and Dobzhansky, 1936: 577.—Ala.

simulans Sturtevant, 1919: 153.—Fla.; entire U.S., cosmopolitan.

willistoni Sturtevant, 1916: 327 (n. name for *pallida* Williston).—St. Vincent I.; Tex., Fla., Neotropical.
pallida Williston, 1896c: 415 (preocc. Zetterstedt, 1847).—St. Vincent I.

Genus SCAPTOMYZA Hardy

Scaptomyza Hardy, 1849: 361. Type-species, *Drosophila graminum* Fallén (Coquillett, 1910b: 603).

REFERENCES: Stalker, 1945 (biol., genetics); Hackman, 1955, 1959 (revs.).

Subgenus SCAPTOMYZA Hardy

flaveola flaveola (Meigen), 1830: 66 (*Notiphila*).—Europe; Calif., Ind., Conn. to Va.
nigrocella Wheeler, 1949b: 167.—N.Y.
ssp. **montana** Wheeler, 1949b: 166 (as sp.).—Mont.; Alaska, Wash. to Calif., Idaho, Mich., Europe.
flaviventris Hackman, 1959: 63.—Wash.; Calif.
graminum (Fallén), 1823e: 8 (*Drosophila*).—Sweden; Wash. to Calif., Mich., Nfld., Maine to Va., Europe.
borealis Wheeler, 1952b: 204.—N.H.
nigrita Wheeler, 1952b: 205.—Calif.; Alaska, Alta., Idaho, Wyo.
teinoptera Hackman, 1955: 82.—Finland; Alaska, Europe.

Subgenus HEMISCAPTOMYZA Hackman

Scaptomyza, subg. **Hemiscaptomyza** Hackman, 1959: 19. Type-species, *Geomyza unipunctum* Zetterstedt (orig. des.).

apicata (Thomson), 1869: 597 (*Drosophila*).—Calif.; Wash. to Mexico (Baja Calif.).
bipunctipennis Wheeler, 1952b: 206.—Calif.; Wash., Idaho.
hsui Hackman, 1955: 88.—Calif.; Wash., Oreg., Idaho, Nev.
parapicata Hackman, 1959: 54.—Ecuador; Ariz. to Tex., Neotropical.
terminalis (Loew), 1863a: 32 (Cent. 3, no. 60) (*Drosophila*).—Alaska.
trochanterata Collin, 1953a: 150.—England; Alaska, N.W.T., Man., Nfld., N.Y., Europe.
unipunctum (Zetterstedt), 1847: 2533 (*Geomyza*).—Europe; Alaska.

Subgenus MESOSCAPTOMYZA Hackman

Scaptomyza, subg. **Mesoscaptomyza** Hackman, 1959: 17. Type-species, *wheeleri* Hackman (orig. des.).

adusta (Loew), 1862b: 231 (Cent. 2, no. 98) (*Drosophila*).—D.C., B.C., Wash., Idaho, Ariz., Ont. and Maine to Fla.; Bermuda, Neotropical.

hirsuta Wheeler, 1949b: 166.—Mexico; Ariz., N. Mex.
paradusta Wheeler, 1952b: 198.—Calif.; Wash., Oreg., Ariz.
paravittata Wheeler, 1952b: 200.—Calif.; Neotropical.
vittata (Coquillett), 1895a: 318 (*Drosophila*).—Fla.; Miss. to Fla., Neotropical.
wheeleri Hackman, 1959: 49.—Va.; Tenn. and Va. to Fla., Neotropical.

Subgenus PARASCAPTOMYZA Duda

Drosophila, subg. **Parascaptomyza** Duda, 1924a: 203. Type-species, *Drosophila graminum* Fallén (mon.; misident.) = *pallida* (Zetterstedt).

pallida (Zetterstedt), 1847: 2571 (*Drosophila*).—Europe; entire U.S., cosmopolitan.
graminum, authors, not Fallén.

Genus CHYMOMYZA Czerny

Chymomyza Czerny, 1903b: 199. Type-species, *Drosophila fuscimana* Zetterstedt (Sturtevant, 1921: 61).

REFERENCE: Wheeler, 1952b (key).

aldrichii Sturtevant, 1916: 325.—Idaho; Alaska, Wash. to Calif. and Ariz., e. to Minn., Colo., Maine.
tetonensis Wheeler, 1949b: 163.—Wyo.
amoena (Loew), 1862b: 230 (Cent. 2, no. 96) (*Drosophila*).—D.C.; Minn. to Ont., s. to Nebr., Tex., and Fla., also Ariz., Utah, Mexico.
subfasciata Harris, 1835: 600. Nomen nudum.
caudatula Oldenberg, 1914: 14.—Hungary; Alaska, Wash. to Wyo., s. to Calif. and Ariz., also Mich., Maine, Europe.
coxata Wheeler, 1952b: 177.—Colo.; Alaska, Wyo.
olympia Wheeler, 1960c: 89.—Wash.
procnemis (Williston), 1896c: 412 (*Drosophila*).—St. Vincent I.; Tex. to Fla., Neotropical, Hawaii.
procnemoides Wheeler, 1952b: 175.—N. Mex.; Mich. to N.Y., s. to Ariz. and Fla.
wirthi Wheeler, 1954a: 62.—Va.; Alaska, Ill., Ont.

Genus MYCODROSOPHILA Oldenberg

Mycodrosophila Oldenberg, 1914: 4. Type-species, *Amiota poecilogastra* Loew (mon.).

REFERENCE: Wheeler and Takada, 1963 (rev.).

claytonae Wheeler and Takada, 1963: 394.—Ark.; Mont. to Que., s. to Tex. and Fla.

dimidiata (Loew), 1862b: 230 (Cent. 2, no. 95) (*Drosophila*).—Ill.; Idaho to Maine, s. to Tex. and Fla.

stalkeri Wheeler and Takada, 1963: 393.—Tex.; Ill. to Ont., s. to Tex. and Fla.

Genus CLADOCHAETA Coquillett

Cladochaeta Coquillett, 1900g: 263. Type-species, *nebulosa* Coquillett (orig. des.).

nebulosa Coquillett, 1900g: 263.—P.R.; Fla., Neotropical.

Genus CLASTOPTEROMYIA Malloch

Clastopteromyia Malloch *in* Malloch and McAtee, 1924a: 31. Type-species, *Drosophila inversa* Walker (orig. des.).

floridana Malloch, 1924k: 10.—Fla.

inversa (Walker), 1861: 331 (*Drosophila*).—U.S.; B.C. to Que., s. to Calif. and Va.

opaca (Williston), 1896c: 411 (*Drosophila*).—St. Vincent I.; Fla., Neotropical.

Genus DETTOPSOMYIA Lamb

Dettopsomyia Lamb, 1914: 349. Type-species, *formosa* Lamb (orig. des.).

nigrovittata (Malloch), 1924l: 352 (*Drosophila*).—Australia; Calif., Hawaii, Japan, Africa.

Genus PARAMYCODROSOPHILA Duda

Paramycodrosophila Duda, 1924a: 191. Type-species, *Drosophila pictula* Meijere (mon.).

anomala Wheeler, 1954a: 60.—Tex.; Miss.

centralis Wheeler, 1954a: 58.—Tex.; Fla., Neotropical.

Genus MICRODROSOPHILA Malloch

Microdrosophila Malloch, 1921o: 312. Type-species, *Drosophila quadrata* Sturtevant (orig. des.).

quadrata (Sturtevant), 1916: 341 (*Drosophila*).—Ala.; Ill. to Ind. and Va., s. to Tex. and Fla., Neotropical.

Unplaced Species of Drosophilidae

albipes Walker, 1852: 410 (*Drosophila*).—U.S.
brevis Walker, 1852: 411 (*Drosophila*).—U.S.
fronto Walker, 1852: 410 (*Drosophila*).—U.S.
linearis Walker, 1852: 411 (*Drosophila*).—U.S.
minuta Walker, 1852: 412 (*Drosophila*).—U.S.

Family DIASTATIDAE

By J. F. McAlpine

The most recent treatment of the Nearctic Diastatidae (Melander, 1913a) includes all the described species in the region, but a number of undescribed species are now known. Virtually nothing is known about their biology.

REFERENCE: Melander, 1913a (key).

Genus DIASTATA Meigen

Diastata Meigen, 1830: 94. Type-species, *Geomyza obscurella* Fallén (Westwood, 1840: 152; misident.) = *vagans* Loew.
Trichoptera Lioy, 1864a: 1109 (preocc. Meigen, 1803). Type-species, *Diastata adusta* Meigen (Coquillett, 1910b: 616).
Calopterella Coquillett, 1910b: 517 (n. name for *Trichoptera* Lioy). Type-species, *Diastata adusta* Meigen (aut.), despite Coquillett's designation of *Diastata vagans* Loew.

eluta Loew, 1863a: 31 (Cent. 3, no. 59).—Alaska; B.C., Wash., Oreg., Idaho.
modesta Melander, 1913a: 290.—Wash.; B.C. ? = *inornata* Loew.
nebulosa (Fallén).—Probably not Nearctic.
repleta (Walker), 1849: 1099 (*Notiphila*).—Ont.; Man., Que., Pa.
decemguttata Walker, 1852: 411 (*Drosophila*).—U.S.
pulchra Loew, 1861b: 359 (Cent. 1, no. 100).—Pa.
vagans Loew, 1864c: 362.—Europe; B.C., Wash., Alta., Ont., N.H., Eurasia.

Genus CAMPICHOETA Macquart

Campichoeta Macquart, 1835: 547. Type-species, *rufipes* Macquart (mon.) = *obscuripennis* (Meigen).
Campichaeta, emend.
Thryptocheta Rondani, 1856: 134. Type-species, *Diastata punctum* Meigen (orig. des.).
Thryptochaeta and *Tryptochaeta*, emends.

REFERENCE: McAlpine, 1962 (rev., world).

griseola (Zetterstedt), 1855: 4799 (*Geomyza*).—Sweden; Alaska, B.C. to Que., s. to Calif., N. Mex., and Mich., also Va., Europe.

micans Hendel, 1911: 44 (*Thryptocheta*).—Wash.

latigena McAlpine, 1962: 4.—Calif.; Ariz.

Family CAMILLIDAE

By J. F. McAlpine

This family is monogeneric for *Camilla* Haliday, with less than a dozen known species, all from the Northern Hemisphere. Nothing is known of the biology of *C. glabra*, but a few species of the genus have been reared from or taken near rodents' nests.

REFERENCES: Duda, 1934a (rev. Palaearctic spp.); Collin, 1956 (key, British spp.); McAlpine, 1960b (tax.).

Genus CAMILLA Haliday

Diastata, subg. **Camilla** Haliday, 1838: 188. Type-species, *Drosophila glabra* Fallén (mon.).

glabra (Fallén), 1823e: 8 (*Drosophila*).—Sweden; Ont., Europe.

Superfamily CHLOROPOIDEA

Family CHLOROPIDAE

By Curtis W. Sabrosky

The family Chloropidae contains small flies that are commonly collected by sweeping grass and other low herbage. Some frequent flowers, and some (eye gnats or *Hippelates* flies) are annoying to man and animals. Most species of the subfamily Chloropinae are yellow and black striped, and this is the common conception of the family; the more abundant species of the Oscinellinae are chiefly dark gray to black, and less conspicuous.

The larvae of many species are saprophagous. Others are phytophagous and feed especially on grasses; among these are the destructive frit flies and wheat stem maggots. A few species are gall formers. *Pseudogaurax* larvae devour masses of eggs, such as those of spiders, mantids, and some Lepidoptera. The larvae of *Thaumatomyia glabra* are predaceous on root aphids, and in the western United States are an important factor in the control of the sugarbeet root aphid.

The only monograph of the Nearctic species (Becker, 1912a) is greatly out of date. Keys to genera by Malloch (1914d) and Curran (1934a) are useful except for the modern groups split from the broad genera *Oscinella* and *Siphonella*, some of which can be identified by keys to Palaearctic Chloropidae. Generic revisions partially replace Becker's monograph.

REFERENCES: Duda, 1932–1933 (monog., Palaearctic spp.); Sabrosky, 1935a (keys to Kans. spp., useful for e. U.S.), 1941b (type-spp., genera of world); Collin, 1946 (key, British genera of Oscinellinae).

Subfamily OSCINELLINAE

Genus LASIOPLEURA Becker

Lasiopleura Becker, 1910a: 130. Type-species, *Oscinis longepilosa* Strobl (mon.).

Pseudohippelates Malloch, 1913o: 261. Type-species, *Hippelates capax* Coquillett (orig. des.).

REFERENCE: Sabrosky, 1951b (rev.).

barberi Sabrosky, 1951b: 339.—Fla.; Miss., Ala., Ga.

capax (Coquillett), 1898f: 48 (*Hippelates*).—Ill.; S. Dak. to Mich., s. to Ill. and Ohio, also Miss., N.C.

grisea Malloch, 1934a: 417.—Ariz.; Wash. and Idaho, s. to Guatemala.

hirta (Loew), 1863a: 39 (Cent. 3, no. 75) (*Oscinis*).—Ill.; S.C.

hirtoides Sabrosky, 1951b: 341.—Md.; Mich. to Md., s. to Kans. and N.C., also Calif.

itascae Sabrosky, 1951b: 342.—Minn.; Mich., N.J., N.C., Ga.

longula (Becker), 1912a: 89 (*Hippelates*).—Grenada (as Canada, error). Not Nearctic.

shewelli Sabrosky, 1951b: 342.—Ont.; N.W.T., Mich.

willistoni Sabrosky, 1951b: 340.—N. Mex.

Genus HIPPELATES Loew

Hippelates Loew, 1863a: 35, 36 (Cent. 3, no. 67, 68). Type-species, *plebejus* Loew (Coquillett, 1910b: 552).

Hippelates, subg. *Siphomyia* Williston, 1896c: 418. Type-species, *proboscideus* Williston (Coquillett, 1910b: 606).

Liohippelates Duda, 1929: 165, 169. Type-species, *Hippelates pusio* Loew (Sabrosky, 1941b: 755).

Some of the species of this genus are annoying eye gnats; others feed at the body openings or on serous exudates of sores or wounds.

REFERENCE: Sabrosky, 1941a (key).

apicatus Malloch, 1913o: 248.—P.R.; Fla.
bicolor Coquillett, 1898f: 48.—Fla.; coastal, N.Y. to Tex., Bahama Is.
bishoppi Sabrosky, 1941a: 26.—Fla.; Sask. to Que. and N.H., s. to Colo., Tex., and Fla.
collusor (Townsend), 1895b: 619 (*Oscinis*).—Mexico (Baja Calif.); Calif., Nev., Ariz., n. Mexico.
convexus Loew, 1866a: 184 (Cent. 6, no. 94).—Cuba; Fla., Bermuda, Neotropical.
dissidens (Tucker), 1908: 274 (*Oscinis*).—Tex.; Iowa to Mich. and N.Y., s. to Ariz., n. Mexico, and Fla.
texanus Malloch, 1913o: 251.—Tex.
dorsalis Loew, 1869b: 42 (Cent. 8, no. 75).—Cuba; Calif. to Tex., Fla., Neotropical.
flaviceps (Loew), 1863a: 38 (Cent. 3, no. 71) (*Oscinis*).—Cuba; Tex., Ga., Fla., Neotropical.
genalis Thomson, 1869: 608.—Calif. (?error). Probably not Nearctic.
hermsi Sabrosky, 1941a: 27.—Calif.; Calif. and Nev. to n. Mexico and Tex.
impressus Becker, 1912a: 92.—Tex.; Colo., Ariz., N. Mex., Mexico.
microcentrus Coquillett *in* Baker, 1904: 28.—Calif.; Oreg. to Colo., s. to Calif. and N. Mex.
montanus Sabrosky, 1941a: 27.—Colo.; Calif. to Colo. and N. Mex.
nobilis Loew, 1863a: 35 (Cent. 3, no. 67).—Ill.; N. Dak. to Ont. and Mass., s. to Colo., Tex. and Fla.
pallipes (Loew), 1863a: 37 (Cent. 3, no. 69) (*Oscinis*).—Cuba; N. Dak. to Que. and Maine, s. to Utah, Tex., and Fla., also Calif., Cuba.
partitus Becker, 1912a: 89.—Ala.
nitidifrons Malloch, 1913o: 243.—Md.
flavipes, authors, not Loew.
particeps (Becker), 1912a: 115 (*Oscinella*).—Pa., Tex., Ala.; N. Dak. to Que., s. to Utah, Mexico, and Fla., also Oreg.
subvittatus Malloch, 1913o: 251.—Tex.
peruanus Becker, 1912a: 170.—Peru, Argentina, Paraguay; s. Fla.
plebejus Loew, 1863a: 36 (Cent. 3, no. 68).—D.C.; S. Dak. to Que., s. to N. Mex., Mexico, and Fla.
proboscideus Williston, 1896c: 418.—St. Vincent I.; Tex., Ga., Fla., Neotropical.
pusio Loew, 1872a: 103 (Cent. 10, no. 87).—Tex.; Wash. to N. Dak. to Pa., s. to Calif., Mexico, and Fla., Bermuda.
splendens Adams, 1904b: 453.—Wyo.
lituratus Becker, 1912a: 87 (in key).—Tex. (unpublished, from type).

robertsoni Sabrosky, 1941a: 26.—Calif.; Oreg., Calif. to Okla., s. to Mexico, ?Guatemala.
saundersi Kumm, 1936: 326.—Jamaica; Tex., Miss., Ga., Fla.
tener Coquillett, 1900g: 265.—P.R.; Tex., s. Fla., Neotropical.

Genus CADREMA Walker

Cadrema Walker, 1859: 117. Type-species, *lonchopteroides* Walker (mon.).
Prohippelates Malloch, 1913o: 260. Type-species, *Hippelates pallidus* Loew (orig. des.).

pallida (Loew), 1866a: 184 (Cent. 6, no. 93) (*Hippelates*).—Cuba; s. Fla., nearly tropicopolitan.

Genus CERATOBARYS Coquillett

Ceratobarys Coquillett, 1898f: 45. Type-species, *Hippelates eulophus* Loew (orig. des.).

eulophus (Loew), 1872a: 104 (Cent. 10, no. 88) (*Hippelates*).—Tex.; Kans. to Del., s. to Tex. and Fla.

Genus ELACHIPTERA Macquart

Elachiptera Macquart, 1835: 621. Type-species, *Chlorops brevipennis* Meigen (orig. des.).
Crassiseta Roser, 1840: 63. Type-species, *Oscinis cornuta* Fallén (Corti, 1909: 121).
Melanochaeta, subg. *Doliomyia* Johannsen, 1924a: 89. Type-species, *longiventris* Johannsen (orig. des.).

REFERENCE: Sabrosky, 1948b (synopsis).

Subgenus MELANOCHAETA Bezzi

Crassiseta, subg. *Pachychoeta* Bezzi, 1895: 72 (preocc. Bigot, 1857). Type-species, *Elachiptera aterrima* Strobl (orig. des.) = *capreola* (Curtis).
Melanochaeta Bezzi, 1906: 50 (as genus; n. name for *Pachychoeta* Bezzi). Type-species, *Elachiptera aterrima* Strobl (aut.) = *capreola* (Curtis).

eunota (Loew), 1872a: 104 (Cent. 10, no. 89) (*Crassiseta*).—Tex.; Alta. to Que., s. to Oreg., Tex., and Va.
kaw (Sabrosky), 1948b: 371 (*Melanochaeta*).—Kans.; Kans. to Mich. and Md., s. to Tex. and Fla.
melampus (Becker), 1912a: 84 (*Melanochaeta*).—Idaho; Calif., Mich.

Subgenus ELACHIPTERA Macquart

angusta Sabrosky, 1948b: 376.—Mass.; Ill., N.J., Va. to Fla.

angustifrons Sabrosky, 1948b: 378.—Fla.; coastal states, Md. to Tex.

angustistylum Sabrosky, 1948b: 378.—Utah; Oreg.

californica Sabrosky, 1948b: 380.—Calif.

costata (Loew), 1863a: 33 (Cent. 3, no. 62) (*Crassiseta*).—D.C.; Wash. and Alta. to Que. and Maine, s. to Ariz., Tex., and S.C.

decipiens (Loew), 1863a: 40 (Cent. 3, no. 76) (*Oscinis*).—Alaska; Alaska and N.W.T. to Que., s. to Calif. and Colo.

erythropleura Sabrosky, 1948b: 375.—Mich.; N. Dak. to Mass., s. to Colo. and Ga.

flaviceps Sabrosky, 1948b: 382.—Idaho; Oreg., Calif.

formosa (Loew), 1863a: 32 (Cent. 3, no. 61) (*Crassiseta*).—D.C.; Ill., Ind., Del. to Va., Fla.

knowltoni Sabrosky, 1948b: 381.—Utah; Idaho, Mont., Nev., Colo.

longiventris (Johannsen), 1924a: 89 (*Melanochaeta*).—N.Y.; Mich., Tex.

nigriceps (Loew), 1863a: 33 (Cent. 3, no. 63) (*Crassiseta*).—Pa.; Mont. to Que. and Maine, s. to Tex. and Fla., also Wash. to Calif.

pechumani Sabrosky, 1948b: 377.—N.Y.; Ill., Mich.

penita (Adams), 1908: 152 (*Crassiseta*).—Wis.; ?Mass.

punctulata Becker, 1912b: 645 (n. name for *nigroscutellata* Becker, 1912).—N. Amer. (?error).

nigroscutellata Becker, 1912a: 80 (preocc. Becker, 1911). N. Amer. (?error).

tau Sabrosky, 1948b: 374.—Ky.

vittata Sabrosky, 1948b: 380 (n. name for *bilineata* Adams).—Ariz.; Wash. and Alta. to Ont. and N.H., s. to Calif., Ariz., Minn., and Md.

bilineata Adams, 1904b: 453 (preocc. Bigot, 1891).—Ariz.

willistoni Sabrosky, 1948b: 373.—Fla.; Tex.

flavida, authors, not Williston.

Genus ERIBOLUS Becker

Eribolus Becker, 1910a: 127. Type-species, *sudeticus* Becker (Enderlein, 1911b: 206)=*nanus* (Zetterstedt).

REFERENCE: Sabrosky, 1950b (key).

californicus Sabrosky, 1950b: 91.—Calif.; Mexico.

longulus (Loew), 1863a: 34 (Cent. 3, no. 64) (*Crassiseta*).—D.C.; Alta. to Que. and Maine, s. to Colo., Tex., and Fla., ?Idaho.

intermedia Becker, 1912a: 83 (*Melanochaeta*).—Pa.

nanus (Zetterstedt), 1848: 2650 (*Oscinis*).—Sweden; Alaska and N.W.T. to Que. and Maine, s. to Calif., Colo., S. Dak., and Mass., Europe.

sudeticus Becker, 1910a: 127.—Silesia, Bohemia.

planicollis Becker, 1912a: 114 (*Oscinella*).—Idaho. **N. syn.**

nearcticus Sabrosky, 1948b: 370.—N. Dak.; Alaska, Wash., Man. to Ont., s. to Ill.

Genus OSCINISOMA Lioy

Oscinisoma Lioy, 1864a: 1125. Type-species, *Chlorops vitripennis* Meigen (Coquillett, 1910b: 582)=*cognatum* (Meigen).

Oscinosoma, emend. or error.

alienum (Becker), 1912a: 81 (*Elachiptera*).—Mass.; S. Dak. to Ont. and Mass., s. to Mo. and S.C. **N. comb.**

Genus HAPLEGINELLA Duda

Hapleginella Duda, 1933: 77. Type-species, *Oscinis laevifrons* Loew (orig. des.).

conicola (Greene), 1918: 69 (*Madiza*).—Oreg.; Calif., Utah, Wis., Ont., Que., ?Ark. **N. comb.**

Genus MONOCHAETOSCINELLA Duda

Monochaetoscinella Duda, 1930: 107. Type-species, *Oscinis anonyma* Williston (Duda, 1931: 166).

anonyma (Williston), 1896c: 423 (*Oscinis*).—St. Vincent I.; Ariz., Tex., Fla., Bermuda, Neotropical.

nigricornis (Loew), 1863a: 34 (Cent. 3, no. 65) (*Crassiseta*).—La.; Kans. to Va., s. to Tex. and Fla.

Genus STENOSCINIS Malloch

Stenoscinis Malloch, 1918d: 21. Type-species, *Oscinis longipes* Loew (orig. des.).

REFERENCE: Sabrosky, 1961a (key).

adachiae Sabrosky, 1961a: 22.—Ariz.

atriceps (Loew), 1863a: 39 (Cent. 3, no. 74) (*Oscinis*).—Pa.; Wyo. to Ont. and Vt., s. to Okla. and N.C.

longipes (Loew), 1863a: 41 (Cent. 3, no. 77) (*Oscinis*).—D.C.; S. Dak. to Conn., s. to Tex. and Ga.

Genus RHOPALOPTERUM Duda

Oscinella, subg. **Rhopalopterum** Duda, 1929: 167. Type-species, *limitata* Becker (mon.).
Rhopalopternum, emend. or error.

REFERENCE: Sabrosky, 1961a (key, with *Stenoscinis*).

limitatum (Becker), 1912a: 211 (*Oscinella*).—Haiti; Fla., Bermuda, Neotropical.

Genus OSCINELLA Becker

Oscinella Becker, 1909b: 120. Type-species, *deficiens* Becker (orig. des., as gen. n., sp. n.).
Botanobia, authors, not Lioy.
Oscinis, authors, not Latreille.

The following list contains four or five distinct species groups, but complications of type designations, needed comparisons with Palaearctic and Neotropical species, and lack of available names for some of the groups have made division impracticable at this time.

REFERENCES: Sabrosky, 1936 (key), 1939a (key, *O. frit* and relatives), 1940 (partial key).

beameri Sabrosky, 1940: 221.—Kans.
bispina (Malloch), 1918g: 109 (*Botanobia*).—Ill.; Man. to Maine, s. to Colo. and W. Va.
carbonaria (Loew), 1869b: 42 (Cent. 8, no. 76) (*Oscinis*).—D.C.; Ont. to N.S., entire U.S., Mexico.
salinaria Curran, 1927i: 292 (*Botanobia*).—N.S.
coxendix (Fitch), 1856a: 533 (1856: 301) (*Oscinis*).—N.Y.; Alaska to Que., entire U.S., Mexico.
pullicornis Sabrosky, 1936: 721 (as var.).—17 States and D.C.
criddlei (Aldrich), 1918c: 341 (*Oscinis*).—Man.; Man. to Mich., s. to Kans. and Ind., also Utah.
dorsata (Loew), 1872a: 115 (Cent. 10, appendix) (*Oscinis;* n. name for *dorsalis* Loew, 1869).—R.I.; S. Dak. to Maine, s. to Kans. and R.I.
dorsalis Loew, 1869b: 43 (Cent. 8, no. 77) (*Oscinis;* preocc. Loew, 1863).—R.I.
spiniger Malloch, 1918g: 109 (*Botanobia*).—Ill.

frit (Linnaeus), 1758: 598 (*Musca*).—Sweden; Canada, U.S. except Fla., Mexico, Palaearctic.

nigra Tucker, 1908: 272 (*Oscinis*).—Colo.

frontoorbitalis Sabrosky, 1940: 221.—Utah; Calif. to Utah and N. Mex., s. to Mexico.

fuscipalpis Becker, 1912a: 111.—Wash.

gigas Sabrosky, 1940: 224.—N.Y.; S. Dak., Minn., Iowa, Ill., W. Va.

grandissima Sabrosky, 1940: 226.—Colo.; N. Mex.

hesperia Sabrosky, 1940: 219.—Utah; B.C. to S. Dak., s. to Mexico.

incerta Becker, 1912a: 116.—Idaho; N.W.T. to Labr., s. to Ariz., Kans., and Mass., also Tenn.

opacifrons Aldrich *in* Sabrosky, 1936: 724. Nomen nudum.

infesta Becker, 1912a: 108.—Mass.; coastal states, Maine to Tex.

insularis Malloch, 1914i: 26 (*Botanobia*).—Va.; Mass., Md., Ga.

lugubria Sabrosky, 1940: 225.—Maine; Ont. and Que. to Conn., also Wis.

luteiceps Sabrosky, 1940: 222.—Ill.; S. Dak. to Ont. and Maine, s. to Kans. and Tenn.

mallochi Sabrosky, 1938: 417 (n. name for *halterata* Malloch).—D.C.; S. Dak. to Mass., s. to Okla. and Md.

halterata Malloch, 1913f: 47 (*Botanobia;* preocc. Lamb, 1912).—D.C.

minor (Adams), 1905a: 110 (*Oscinis*).—La.; Sask. to Ont. and N.H., s. to Ariz., Mexico, and Fla.

neocoxendix Sabrosky, 1940: 215.—Ga.; Man. to Que. and Maine, s. to Tex. and Fla., Mexico.

nitidissima (Meigen), 1838: 388 (*Chlorops*).—Bavaria; Alaska to Ont. and Vt., s. to Calif., N. Mex., Kans., Tenn., and Md., Palaearctic.

nudiuscula (Loew), 1863a: 37 (Cent. 3, no. 70) (*Oscinis*).—Ga.; Wyo. to Ont., s. to Miss. and Ga.

ochripes Sabrosky, 1940: 218.—Calif.; Utah.

ovalis (Adams), 1905a: 110 (*Oscinis*).—Ga.; Man. to Mass., s. to Tex. and Fla., also Ariz.

marginalis Malloch, 1914i: 25 (*Botanobia*).—Fla.

proxima Malloch, 1914i: 25 (*Botanobia*).—Va.

painteri Sabrosky, 1940: 223.—Md.; Man. to Conn., s. to Tex. and Fla.

pectoralis (Coquillett), 1898f: 49 (*Oscinis;* preocc. Becker, 1910).—N.H. Not now renamed because it may not remain in the genus.

soror (Macquart), 1851: 279 (1851: 306) (*Chlorops*).—N. Amer.; Man. to Que., s. to Utah, Tex., and Fla.

tibialis Fitch, 1856a: 532 (1856: 300) (*Oscinis*).—N.Y.

variabilis Loew, 1863a: 42 (Cent. 3, no. 79) (*Oscinis*).—D.C.
ainsliei Curran, 1927i: 292 (*Botanobia*).—Minn.

umbrosa (Loew), 1863a: 39 (Cent. 3, no. 73) (*Oscinis*).—Pa.; Man. to Que. and Maine, s. to Tex. and Fla., also Utah.

virgata (Coquillett), 1898f: 49 (*Oscinis*).—Colo.; Wash. to Man. to N.H., s. to Utah and Kans.

Genus OSCINOIDES Malloch

Oscinoides Malloch, 1916b: 86. Type-species, *arpidia* Malloch (orig. des.).

REFERENCE: Malloch, 1918d (key to vars.).

arpidia Malloch, 1916b: 87.—Ill.; S. Dak. to Maine, s. to Tex. and Ga.

var. **ater** Malloch, 1918d: 19.—Ill.; Minn., Iowa, Maine, Tex.
dorri Johnson, 1925a: 47 (*Gaurax*).—Maine.

var. **elegans** Malloch, 1918d: 19.—Ill.

var. **humeralis** Malloch, 1918d: 19.—Ill.; S. Dak., Mich., N.Y., N.C., Ga.

Genus RHODESIELLA Adams

Rhodesiella Adams, 1905b: 197. Type-species, *tarsalis* Adams (orig. des.).

REFERENCE: Sabrosky, 1947 (tax.).

brimleyi Sabrosky, 1947: 174.—N.C.; Tex., Miss., Fla., Md.

Genus GAURAX Loew

Gaurax Loew, 1863a: 35 (Cent. 3, no. 66). Type-species, *festivus* Loew (mon.).

Botanobia Lioy, 1864a: 1125. Type-species, *Oscinis dubia* Macquart (mon.).

Neogaurax Malloch, 1914d: 119. Type-species, *Gaurax montanus* Coquillett (orig. des.).

REFERENCE: Sabrosky, 1951a (rev.).

apicalis Malloch, 1915k: 160.—Ill.; Wis. to N.H., s. to Ill. and Va.

atrilinea Sabrosky, 1951a: 415.—N.Y.

atripalpus Sabrosky, 1951a: 427.—Mich.; Ont.

basitarsalis Sabrosky, 1951a: 415.—Mass.

dorsalis (Loew), 1863a: 38 (Cent. 3, no. 72) (*Oscinis*).—Pa.; Alta. to Que., s. to Tenn. and Va., also N. Mex., Tex.

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dubius (Macquart), 1835: 604 (*Oscinis*).—France; Mich., N.H.
ephippium Zetterstedt, 1848: 2664 (*Oscinis*).—Sweden.
festivus Loew, 1863a: 35 (Cent. 3, no. 66).—Pa.; Iowa, Mass., Md., Va.
fumipennis (Malloch), 1915e: 108 (*Neogaurax*).—Ill.; ?D.C.
maculicornis Sabrosky, 1951a: 422.—Mass.; Ill., Ont., N.H., Va., Ga.
maculipes Sabrosky, 1951a: 424.—Mich.; Ill.
melanotum Sabrosky, 1951a: 429.—Ind.; Ill. and Mich. to Ont. and Maine.
mesopedalis Sabrosky, 1951a: 427.—Ky.; Tenn.
montanus Coquillett, 1898f: 48.—N.H.; Man., Wis., Ill., Que. to Va.
obscuripennis Johnson, 1913e: 35.—Mass.
ocellaris Sabrosky, 1951a: 418.—Mich.; Ill.
pallidipes Malloch, 1915h: 362.—Ill.; Ohio, Vt., Mass., N.J., Md.
pilosulus (Becker), 1912a: 111 (*Oscinella;* as *pilosella*, p. 106).—La.
pseudostigma Johnson, 1913e: 35.—Ont.; Iowa to Maine, s. to Ala. and N.C.
flavidulus Malloch, 1915h: 361.—Ill.
interruptus Malloch, 1915h: 363 (preocc. Becker, 1912).—Ill.
semivittatus Sabrosky, 1951a: 419.—Tenn.; Mass.
shannoni Sabrosky, 1951a: 425.—Md.; Minn. to Que., s. to Ga.
splendidus Malloch, 1915k: 161.—Ill.; Iowa to Que., s. to Tenn. and Va.
tripus Sabrosky, 1951a: 417.—Tenn.; Mich., Mass., N.C.
varihalteratus (Malloch), 1913b: 274 (*Botanobia*).—D.C.; Ill.
vittipes Sabrosky, 1951a: 419.—Maine.

Genus PSEUDOGAURAX Malloch

Pseudogaurax Malloch, 1915k: 159. Type-species, *Gaurax anchora* Loew (orig. des.).

anchora (Loew), 1866b: 51 (Cent. 7, no. 94) (*Gaurax*).—N.Y.; Mich. to Mass., s. to Tex. and Fla.
dispar Williston *in* Forbush and Fernald, 1896: 390 (*Elachiptera*).—Mass.
floridensis Sabrosky, 1950a: 33.—Fla.; Jamaica.
signatus (Loew), 1876: 338 (*Gaurax*).—Tex.; Mo. to Md., s. to Mexico and Ga., also Ariz., Calif., Cuba.
araneae Coquillett *in* Davidson, 1896: 320 (*Gaurax*).—Calif.
mallochi Duda, 1930: 87 (*Gaurax;* as var.).—Calif.

Genus DICRAEUS Loew

Dicraeus Loew, 1873a: 51. Type-species, *obscurus* Loew (mon.)= *raptus* (Haliday).

REFERENCE: Sabrosky, 1950e (rev.).

aberrans Sabrosky, 1950e: 56.—N. Mex.
elongatus Sabrosky, 1950e: 55.—Ariz.; ?N. Mex.
incongruus Aldrich, 1918c: 339.—Idaho, Mont., Man., Utah; Alaska to Que., s. to Calif., Okla., and Tenn.
ingratus (Loew), 1866c: 26 (*Eutropha*).—Germany; Idaho, Mich., Europe.
ruficeps, authors, not Meigen.
tibialis (Macquart), 1835: 602 (*Oscinis*).—France; Alaska, Sask., N. Dak., S. Dak., Mich., Pa., Europe.
wilburi Sabrosky, 1950e: 61.—Kans.; Minn., Mich., Ont., Mo.

Genus OPETIOPHORA Loew

Opetiophora Loew, 1872a: 105 (Cent. 10, no. 90). Type-species, *straminea* Loew (mon.).

straminea Loew, 1872a: 105 (Cent. 10, no. 90).—Tex.; Utah to Minn. and Mich., s. to Mexico.

Genus EUGAURAX Malloch

Eugaurax Malloch, 1913f: 46. Type-species, *floridensis* Malloch (orig. des.).

REFERENCE: Sabrosky, 1950c (rev.).

floridensis floridensis Malloch, 1913f: 46.—Fla.
spp. **vittatus** Sabrosky, 1950c: 187.—Ind.; Ill., Que., N.J., Va.

Genus CONIOSCINELLA Duda

Oscinella, subg. **Conioscinella** Duda, 1929: 166. Type-species, *soluta* Becker (Sabrosky, 1941b: 751).

REFERENCE: Sabrosky, 1936 (key).

aequa (Becker), 1912a: 102 (*Siphonella*).—Idaho; B.C., Oreg., Colo., Minn. to Mich., Que. **N. comb.**
difficilis (Becker), 1912a: 107 (*Oscinella*).—Wash.; B.C. **N. comb.**
apparens Becker, 1912a: 109 (*Oscinella*).—Wash. **N. comb.**
finalis (Becker), 1912a: 99 (*Siphonella*).—Alaska; Calif. **N. comb.**
flavescens (Tucker), 1908: 272 (*Oscinis*).—Colo.; S. Dak. to N.Y., s. to Calif. and Fla. **N. comb.**

grisescens (Sabrosky), 1940: 227 (*Oscinella*).—Ga.; Ala., Fla. **N. comb.**

hinkleyi (Malloch), 1915d: 12 (*Botanobia*).—Ill.; Kans. to Pa., s. to La. and Ga. **N. comb.**

melancholica (Becker), 1912a: 109 (*Oscinella*).—Mich.; Alaska to Labr., entire U.S., Mexico. **N. comb.**

nuda (Adams), 1905a: 110 (*Oscinis*).—Ga.; Ariz. to Kans. and Md., s. to Mexico and Fla. **N. comb.**

frontalis Tucker, 1908: 273 (*Oscinis*).—Tex. **N. comb.**

triangulata (Becker), 1912a: 102 (*Siphonella*).—Wash.; Man. **N. comb.**

triorbiculata (Sabrosky), 1940: 229 (*Oscinella*).—Ga.; Minn. to N.Y., s. to Tex. and Fla. **N. comb.**

Genus DASYOPA Malloch

Dasyopa Malloch, 1918d: 20. Type-species, *pleuralis* Malloch (orig. des.)=*latifrons* (Loew).

latifrons (Loew), 1872a: 106 (Cent. 10, no. 91) (*Siphonella*).—Tex.; S. Dak. to Pa., s. to Ariz. and Ga.

pleuralis Malloch, 1918d: 20.—Ill.

Genus OLCELLA Enderlein

Olcella Enderlein, 1911b: 231. Type-species, *mendozana* Enderlein (orig. des.).

REFERENCE: Sabrosky, 1936 (key).

cinerea (Loew), 1863a: 43 (Cent. 3, no. 81) (*Siphonella*).—Fla.; Mich. to Mass., s. to N. Mex., Mexico, and Fla. **N. comb.**

trivittata Sabrosky, 1935c: 109 (*Madiza*).—Kans. **N. comb.**

parva (Adams), 1904c: 104 (*Siphonella*).—Colo.; B.C. to Ont. and Mass., s. to Mexico and Fla. **N. comb.**

projecta (Malloch), 1913c: 283 (*Madiza*).—N. Mex.; Calif. to S. Dak., s. to Mexico and Ark. **N. comb.**

provocans (Becker), 1912a: 98 (*Siphonella*).—Wis.; Alaska, Sask. to Que., s. to Utah and N.J., also Calif. **N. comb.**

punctifrons (Becker), 1912a: 101 (*Siphonella*).—Utah; Oreg. to S. Dak., s. to Mexico. **N. comb.**

pygmaea (Becker), 1912a: 97 (*Siphonella*).—Wyo. **N. comb.**

quadrivittata (Sabrosky), 1935c: 108 (*Madiza*).—Kans.; Minn. to Maine, s. to Kans. and Md., also Utah, N. Mex., Fla. **N. comb.**

submarginalis (Sabrosky), 1935c: 111 (*Madiza*).—Kans.; S. Dak. to Ariz. and Fla. **N. comb.**

trigramma (Loew), 1863a: 42 (Cent. 3, no. 80) (*Oscinis*).—D.C.; S. Dak. to Mass., s. to Tex. and Fla. **N. comb.**

quinquelineata Adams, 1904c: 104 (*Siphonella*).—Ga. **N. comb.**

Genus TRICIMBA Lioy

Tricimba Lioy, 1846a: 1125. Type-species, *Oscinis lineella* Fallén (Enderlein, 1911b: 207).

Notonaulax Becker, 1903: 153. Type-species, *Oscinis lineella* Fallén (Enderlein, 1911b: 207).

Hammaspis Duda, 1930: 76. Type-species, *Tricimba spinigera* Malloch (mon.).

REFERENCE: Sabrosky, 1938 (key).

brunnicollis (Becker), 1912a: 103 (*Notonaulax*).—Wash.; Oreg., Calif.

cincta (Meigen), 1830: 162 (*Chlorops*).—Germany; B.C., Calif., Europe.

lineella (Fallén), 1820a: 8 (*Oscinis*).—Sweden; Nebr. to Mich. and Tenn., also Que., Mass., N.J., Europe.

occidentalis Sabrosky, 1938: 431.—Calif.; Wash., Oreg., Idaho, Mont.

spinigera Malloch, 1913g: 60.—D.C.; Iowa to Maine, s. to Tex. and Ga.

trisulcata (Adams), 1905a: 111 (*Oscinis*).—La.; S. Dak. to Ont. and N.H., s. to Tex. and S.C.

Genus APHANOTRIGONUM Duda

Aphanotrigonum Duda, 1932: 35. Type-species, *Chlorops trilineata* Meigen (orig. des.).

darlingtoniae (Jones), 1916: 389 (*Botanobia*).—Calif. **N. comb.**

scabrum (Aldrich), 1918c: 342 (*Oscinis*).—Man.; Alaska and N.W.T. to Maine, s. to Utah, Ind., and Conn. **N. comb.**

Genus CHAETOCHLOROPS Malloch

Chaetochlorops Malloch, 1914d: 120 (as *Chactochlorops*, p. 116). Type-species, *Siphonella inquilina* Coquillett (orig. des.).

REFERENCE: Sabrosky, 1950c (synopsis, biol.).

inquilinus (Coquillett), 1898f: 48 (*Siphonella*).—Mo., Va.; S. Dak. to Ont. and Mass., s. to Tex. and Fla.

Genus GONIOPSITA Duda

Goniopsita Duda, 1930: 69, 72. Type-species, *Goniopsis verrucosa* Duda (Sabrosky, 1941b: 753).

catalpae (Malloch), 1913g: 63 (*Botanobia*).—Pa.; Kans. to Mich. and Mass., s. to Tex. and Ga. **N. comb.**

magnipalpis (Becker), 1912a: 111 (*Oscinella*).—Idaho. **N. comb.**

Genus LIPARA Meigen

Lipara Meigen, 1830: 1. Type-species, *lucens* Meigen (mon.).

Lipara lucens Meigen causes a conspicuous gall on the giant reed, *Phragmites*.

lucens Meigen, 1830: 1.—Germany; Conn., Europe. Immigrant.

Genus CALAMONCOSIS Enderlein

Calamoncosis Enderlein, 1911b: 235. Type-species, *Lipara rufitarsis* Loew (orig. des.; misident.)=*minima* (Strobl).

Unnamed sp.—Mich.

Genus SIPHONELLA Macquart

Siphonella Macquart, 1835: 584. Type-species, *Madiza oscinina* Fallén (orig. des.).

Madiza, authors, not Fallén, as recognized in Milichiidae.

Rondani's (1856) designation of *oscinina* as type-species of *Madiza* Fallén unfortunately made the latter the senior synonym of *Siphonella*. However, widespread usage confined *Madiza* to the family Milichiidae, where it is the type of a subfamily, and that usage has been maintained in order to minimize confusion. Application to the I.C.Z.N. is required.

Of the following species, only *oscinina* properly belongs to *Siphonella*. The other species are left in the list pending study of their relationships.

REFERENCE: Sabrosky, 1936 (key).

abdominalis Becker, 1912a: 99.—Kans.; S. Dak. to Ont., s. to Kans. and Ohio.

bifurca Becker, 1912a: 109 (*Oscinella*).—Kans.

diabolus Becker, 1912a: 99.—Idaho; Oreg., Calif.

excipiens Becker, 1912a: 101.—Idaho; Mont.

extrema Becker, 1912a: 100.—Calif.

neglecta Becker, 1912a: 100.—Calif.; B.C. to Man. and Mich., s. to Mexico.

nigripalpis (Malloch), 1913c: 282 (*Madiza*).—Md.; Sask. to Que., s. to Ariz. and Fla.

oscinina (Fallén), 1820a: 9 (*Madiza*).—Sweden; Alaska to Labr. and Nfld., s. to Calif., N. Mex., Mo., Ala., and N.C.' Palaearctic.

setulosa (Malloch), 1918g: 110 (*Madiza*).—Ill.; Mont. to Ont. and Vt., s. to Utah and N.C.

Subfamily CHLOROPINAE

Genus THAUMATOMYIA Zenker

Thaumatomyia Zenker, 1833: 344. Type-species, *prodigiosa* Zenker (mon.) = *notata* (Meigen).

Chloropisca Loew, 1866c: 79. Type-species, *Chlorops glaber* Meigen (Coquillett, 1910b: 522).

Pseudochlorops Malloch, 1914d: 119. Type-species, *Chlorops unicolor* Loew (orig. des.; misident.) = *pulla* (Adams).

REFERENCE: Sabrosky, 1943a (key).

annulata (Walker), 1849: 1119 (*Chlorops*).—Ont.; Alaska and Y.T. to Que., s. to Calif., N. Mex., Nebr., and N.J.

variceps Loew, 1863a: 46 (Cent. 3, no. 86) (*Chlorops*).—Pa.

prolifica Osten Sacken *in* Lintner, 1888a: 70 (1888: 190) (*Chloropisca*).—N.Y.

marianapolitana Ouellet, 1934: 320 (*Chloropisca*).—Que.

apache Sabrosky, 1943a: 111.—Ariz.; N. Mex., Tex., n. Mexico.

sulfurifrons, authors, not Duda.

appropinqua (Adams), 1903a: 39 (*Chlorops*).—Colo., Wyo., Kans.; Wash. to Sask. and N. Dak., s. to Calif., n. Mexico, and Tex.

bistriata (Walker), 1849: 1119 (*Chlorops*).—Ont.; N. Dak. to Ont. and Maine, s. to Utah and Fla.

clypeata Malloch, 1914d: 119 (*Chloropisca;* as *glabra* var.).—Ill.

glabra (Meigen), 1830: 149 (*Chlorops*).—Europe; Alaska, Canada, U.S., n. Mexico.

assimilis Macquart, 1851: 279 (1851: 306) (*Chlorops*).—N. Amer.

obesa Fitch, 1856a: 531 (1856: 299) (*Siphonella*).—N.Y.

trivialis Loew, 1863a: 47 (Cent. 3, no. 87) (*Chlorops*).—D.C.

hortensis Fitch, 1872: 363 (*Chlorops*).—N.Y.

halteralis Adams, 1903a: 41 (*Chlorops*).—Ariz.

grata (Loew), 1863a: 50 (Cent. 3, no. 92) (*Chlorops*).—Pa.; B.C. to Que. and Maine, s. to Oreg., Colo., Ohio, and N.C.

obtusa (Malloch), 1914d: 118 (*Chloropisca*).—Ill.; Mich., Ont., Mass., R.I.

parviceps (Malloch), 1915k: 158 (*Chloropisca*).—Ill.; Minn. to Vt., s. to Ill. and Va., also Ark.

pulla (Adams), 1904a: 303 (*Chlorops*).—Colo.; B.C. to Que., entire U.S., n. Mexico.

monticola Becker, 1912a: 30 (*Chloropisca*).—Colo.

punctum Becker, 1912a: 35 (*Chloropisca*).—Tex.

integra Becker, 1912a: 66 (*Chlorops*).—Mass.

pullipes (Coquillett), 1898f: 47 (*Chlorops*).—Colo., N. Mex.; Alaska, Oreg. to Mont., s. to Ariz. and N. Mex.

rubida (Coquillett), 1898f: 46 (*Chlorops*).—Calif., Colo.; Oreg. to Mont., s. to Calif. and N. Mex.

rubrivittata Sabrosky, 1943a: 110.—Calif.

trifasciata (Zetterstedt), 1848: 2609 (*Oscinis*).—Scandinavia; Alaska to Calif. and Sask., also Labr.

Genus TRIGONOMMA Enderlein

Trigonomma Enderlein, 1911c: 124. Type-species, *lippulum* Enderlein (orig. des.).

fossulatum (Loew), 1863a: 43 (Cent. 3, no. 82) (*Chlorops*).—Cuba; s. Tex., Neotropical. **N. comb.**

atra Curran, 1926a: 3 (*Chloropisca*).—P.R. **N. comb.**

Genus CETEMA Hendel

Centor Loew, 1866c: 7 (preocc. Schönherr, 1848). Type-species, *Oscinis cereris* Fallén (Coquillett, 1910b: 519).

Cetema Hendel, 1907a: 98 (n. name for *Centor* Loew). Type-species, *Oscinis cereris* Fallén (aut.).

procera (Loew), 1872a: 106 (Cent. 10, no. 92) (*Chlorops*).—Conn.; New England, also Md.

subvittata (Loew), 1863a: 41 (Cent. 3, no. 78) (*Oscinis*).—D.C.; Man. to Que. and Maine, s. to Iowa and Va., also Utah, Colo., and N. Mex.

hypocera Becker, 1912a: 27.—Wis.

Genus ANTHRACOPHAGA Loew

Anthracophaga Loew, 1866c: 15. Type-species, *Musca strigula* Fabricius (Coquillett, 1910b: 508).

declinata Becker, 1912a: 45.—Mich.; Colo. to Mich. and N.Y., s. to Tex. and N.C.

pulvera Harbeck *in* Fox, 1905: 62 (*Chlorops*). Nomen nudum.

Genus CHLOROPS Meigen

Chlorops Meigen, 1803: 278. Type-species, *Musca pumilionis* Bjerkander (I.C.Z.N., 1955a: 423).

Oscinis Latreille, 1804: 196. Type-species, *Musca lineata* Fabricius (Zetterstedt, 1838: 778)=*pumilionis* (Bjerkander). Zetterstedt actually designated *Musca nasuta* Schrank, but showed the originally included *M. lineata* as its synonym.

The suggestion that *Titania* Meigen (1800: 35) was the same as *Chlorops* is patently erroneous, and the former is here regarded as a genus dubium (also suppressed by I.C.Z.N., 1955a: 423).

The genus *Chlorops* needs revision, and some of the species listed here will undoubtedly have to be removed.

abdominalis Coquillett, 1895a: 318.—Fla.; Ill. and Mich. to Mass., s. in coastal states to Fla. and Ala.

adamsi Sabrosky, 1935b: 81 (n. name for *annulata* Adams).—La.

annulata Adams, 1904a: 304 (preocc. Walker, 1849).—La.

brunnipennis Becker, 1912a: 58.—N.J., Tex.

certimus Adams, 1904a: 304.—Mass.; Alaska to Que., s. to Utah, Tex., and N.C.

cinerapennis Adams, 1903a: 40.—Kans.; S. Dak. to N.Y., s. to Okla., Ohio, and N.C., also Miss.

albifascies Adams, 1903a: 42.—Mo.

constrictus Becker, 1912a: 57.—Mich.; S. Dak., Kans., Ill., Ind.

crocotus Loew, 1863a: 48 (Cent. 3, no. 89).—Pa.; Minn. to Mass., s. to Colo., Pa., and Va.

distichliae (Malloch), 1918k: 386 (*Anthracophaga*).—Calif. **N. comb.**

egregius Becker, 1912a: 55.—Oreg.; Wash.

genarum Becker, 1912a: 62.—S. Dak.; Idaho, Kans.

gramineus Coquillett, 1898f: 47.—Calif.

ingratus Williston, 1893b: 156.—Ohio; Kans., Mich., Ind.

interrupta Becker, 1912a: 44 (*Anthracophaga*).—Kans. **N. comb.**

fossae Becker, 1912a: 52.—Mich., Kans. **N. syn.**

laevis Becker, 1912a: 63.—Wash.

languidus Becker, 1912a: 58.—Pa.; Mass.

lascivus Adams, 1904a: 303.—La.

lituratus Adams, 1903a: 40.—Wyo.; Oreg. to Mont., s. to Calif. and Colo.

melanocerus Loew, 1863a: 49 (Cent. 3, no. 91).—D.C.; Minn. to Que. and Mass., s. to La. and N.C.
melleus Loew, 1872a: 111 (Cent. 10, no. 100).—Tex.; Colo.
oblitus Becker, 1912a: 65.—Mont.
obscuricornis Loew, 1863a: 49 (Cent. 3, no. 90).—D.C.; Oreg. to Man., s. to Calif., n. Mexico, and Va., also Fla.
obscuripennis (error) Cole and Lovett, 1921: 336.
palpalis Adams, 1903a: 42.—Mo.; S. Dak. to Mich., s. to Kans. and Mo.
perflavus Walker, 1849: 1120.—Ont.; Colo., Minn., Maine, N.S.
pilosulus Becker, 1912b: 645 (n. name for *horrida* Becker).—Tex.
horrida Becker, 1912a: 66 (preocc. Becker, 1910).—Tex.
productus Loew, 1863a: 52 (Cent. 3, no. 96).—Alaska.
proximus Say, 1830: 187 (1859b: 370).—Ind. Unrecognized.
pubescens Loew, 1863a: 47 (Cent. 3, no. 88).—Fla.
quinquepunctatus Loew, 1863a: 51 (Cent. 3, no. 94).—Nebr.; S. Dak., s. to Ariz., n. Mexico, and Tex., also Ill.
rectinervis Becker, 1912a: 58.—Wash.
rubicundus Adams, 1903a: 43.—Wyo.; Oreg. and Alta. to Man., s. to Calif. and Colo.
rubrivittatus Adams, 1904a: 304.—La.; Kans.
rufescens Coquillett, 1910c: 45.—Pa., N.J., D.C.; Ont. to Maine, s. to N. Mex., Ark., Pa., and N.C.
ruginosus Becker, 1912a: 62.—Colo., Kans., Mich.; S. Dak. to Pa., s. to Colo. and Mo., also Va.
sabulonus Becker, 1912a: 67.—Calif.; Wash., Oreg.
sahlbergii Loew, 1863a: 51 (Cent. 3, no. 95).—Alaska.
scaber Coquillett, 1898f: 46.—N.Y.
seminiger Becker, 1912a: 66.—Que.
sordidellus Becker, 1912a: 54.—Colo., Nev.; Oreg. to Nebr., s. to Calif. and N. Mex.
stigmaticalis Becker, 1912b: 645 (n. name for *quadrimaculatus* Becker).—Calif.
quadrimaculatus Becker, 1912a: 53 (preocc. Czerny, 1909).—Calif.
stigmatus Becker, 1912a: 60.—B.C., Wash.; Idaho, Mont.
subniger Coquillett, 1910c: 45.—N.J.; Wyo., Nebr., Mich., Que., Nfld., Maine.
sulphureus Loew, 1863a: 44 (Cent. 3, no. 83).—Ont.; Kans., Mich.
surdus Curran, 1930j: 79.—N.Y.; Minn., Wis., Mich., Mass.
tarsalis Becker, 1912a: 62.—Mich.
testaceus Macquart, 1851: 279 (1851: 306).—N. Amer. Unrecognized.

Genus EPICHLOROPS Becker

Epichlorops Becker, 1910a: 77. Type-species, *Oscinis puncticollis* Zetterstedt (orig. des.).

exilis (Coquillett), 1898f: 45 (*Eurina*).—Colo., Mass.; Wash. to Sask., s. to Nev. and Colo., also Iowa, Mich., Ind., Mass.

puncticollis (Zetterstedt), 1848: 2636 (*Oscinis*).—Scandinavia; Alaska, S. Dak. to Ont., s. to Utah and Ind., Europe.

Genus ECTECEPHALA Macquart

Ectecephala Macquart, 1851: 253 (1851: 280). Type-species, *albistylum* Macquart (orig. des.).

REFERENCE: Sabrosky, 1941c (key).

albistylum Macquart, 1851: 253 (1851: 280).—N. Amer.; Utah to Minn. to N.J., s. to n. Mexico and Fla.

laevifrons Becker (in part), 1912a: 153. Kans. and Tex. syntypes only.

laticornis Coquillett, 1910c: 46.—Colo., N.C., Ga.; S. Dak. to N.C., s. to Ariz. and Ga., also N.Y.

sulcata Sabrosky, 1941c: 78.—Ind.; Iowa to Mich. to Md., s. to Tex. and N.C.

sulcifrons Coquillett, 1910c: 46.—Kans.; ?Ariz.

unicolor (Loew), 1863a: 51 (Cent. 3, no. 93) (*Chlorops*).—Miss.; Okla. to N.Y., s. to Tex. and Fla. **N. comb.**

similis Becker, 1912a: 72.—N. Amer.

capillata, authors, not Coquillett.

Genus LASIOSINA Becker

Lasiosina Becker, 1910a: 73. Type-species, *Chlorops cinctipes* Meigen (orig. des.).

Euchlorops Malloch, 1913n: 139. Type-species, *vittatus* Malloch (orig. des.).

approximatonervis (Zetterstedt), 1848: 2622 (*Oscinis*).—Scandinavia; Alaska and Y.T. to Que., U.S., Europe.

microcera Loew, 1872a: 108 (Cent. 10, no. 95) (*Chlorops*).—Tex. **N. comb., n. syn.**

parva Adams, 1903a: 42 (*Chlorops*).—Kans. **N. comb., n. syn.**

var. **transversalis** Malloch, 1919f: 53 (*Leptocera;* as sp.).—Alaska; N.W.T., n. Man. **N. comb., n. syn.**

canadensis Aldrich, 1918c: 337.—Sask.; N.W.T. to N.Y., s. to Wash. and Wyo.

similis (Malloch), 1913n: 140 (*Euchlorops*).—N. Mex.; Colo., Kans.
vittatus (Malloch), 1913n: 139 (*Euchlorops*).—Kans.; S. Dak., Iowa.

Genus PARECTECEPHALA Becker

Parectecephala Becker, 1910a: 105. Type-species, *Oscinis longicornis* Fallén (Duda, 1933: 208).

aristalis (Coquillett), 1898f: 46 (*Chlorops*).—N.C., Ga.; Ill., Ala., Fla.
dissimilis Malloch, 1914i: 24.—Pa.; Minn. to Maine, s. to Iowa and Va.
eucera (Loew), 1863a: 45 (Cent. 3, no. 85) (*Chlorops*).—D.C.; Minn. to N.S., s. to Kans., Ala., and N.C.
maculiceps Becker, 1912a: 70.—Tex., La.; Ill., Tenn., Ga., Fla.
maculosa (Loew), 1872a: 111 (Cent. 10, no. 99) (*Chlorops*).—Tex.; Ariz., N. Mex., Kans. **N. comb.**
sanguinolenta (Loew), 1863a: 44 (Cent. 3, no. 84) (*Chlorops*).—Carolina; Minn. to Maine, s. to Ill. and Carolina. **N. comb.**

Genus DIPLOTOXA Loew

Diplotoxa Loew, 1863a: 54 (Cent. 3, no. 97). Type-species, *Chlorops versicolor* Loew (mon.).

alternata (Loew), 1872a: 109 (Cent. 10, no. 97) (*Chlorops*).—Tex.; Kans. to Tex., and Va. to Fla.
inclinata Becker, 1912a: 43.—Tex.; Calif. to Que., N.J., and Tex.
confluens Loew, 1872a: 107 (Cent. 10, no. 94) (*Chlorops;* preocc. Meigen, 1830).—Tex.
messoria (Fallén), 1820a: 5 (*Oscinis*).—Sweden; B.C. to Que., s. to Oreg., Utah, and Mass., Europe.
bilineata Adams, 1903a: 40 (*Chlorops*).—Colo.
nigripes (Coquillett), 1910c: 44 (*Chlorops*).—N.J.; S. Dak. to Que. and Maine, s. to Kans. and D.C.
major Becker, 1912a: 40.—Ohio.
recurva (Adams), 1903a: 41 (*Chlorops*).—Wyo.; Alta. to Man., s. to Calif., Ariz., and Iowa, also Mich., N.Y.
unicolor Becker, 1912a: 41.—Calif.; Oreg., Ariz., n. Mexico.
versicolor (Loew), 1863a: 53 (Cent. 3, no. 97) (*Chlorops*).—D.C.; B.C. to N.S., U.S.

Genus ELLIPONEURA Loew

Elliponeura Loew, 1869b: 44 (Cent. 8, no. 79). Type-species, *debilis* Loew (mon.)

debilis Loew, 1869b: 44 (Cent. 8, no. 79).—D.C.; Ill. and Mich. to N.Y., s. to N. Mex. and Fla.

diplotoxoides Becker, 1912a: 26.—Idaho; Wash. to Que. and Maine, s. to Calif., Tex., and Pa.

Genus NEODIPLOTOXA Malloch

Neodiplotoxa Malloch, 1914d: 116. Type-species, *Chlorops nigricans* Loew (orig. des.).

nigricans (Loew), 1872a: 110 (Cent. 10, no. 98) (*Chlorops*).—Tex.

pulchripes (Loew), 1872a: 108 (Cent. 10, no. 96) (*Chlorops*).—Tex.; Man., s. to Ariz. and Tex. **N. comb.**

Genus MEROMYZA Meigen

Meromyza Meigen, 1830: 163. Type-species, *Musca saltatrix* Linnaeus (Macquart, 1835: 589).

REFERENCE: Rockwood et al., 1947 (biol., seasonal forms, key).

americana Fitch, 1856a: 531 (1856: 299).—N.Y.; S. Dak. to Maine, s. to n. Mexico and S.C.

flavipalpis Malloch, 1914d: 117.—Ill.

pratorum Meigen, 1830: 165.—Germany; Alaska and N.W.T. to Maine, s. to Calif., N. Mex., N. Dak., and N.Y., also n. Mexico.

lineola Curran, 1923n: 278.—N.W.T.

saltatrix (Linnaeus), 1761: 555 (*Musca*).—Sweden; Wash. and Alta., s. to Calif. and Utah, Palaearctic.

nigriventris Macquart, 1835: 590.—France.

punctifer Becker, 1912a: 24.—Idaho, Wash.

marginata Becker, 1912a: 25.—Idaho, Oreg.

Unplaced Species of Chloropinae

ater Macquart, 1851: 280 (1851: 307) (*Chlorops*).—N. Amer.

Unplaced Families of Acalyptratae

Family ODINIIDAE

By Curtis W. Sabrosky

Odiniid flies are seldom collected. They have been reared in association with wood-boring beetles and moths, possibly as scavengers. Adults have been collected at bleeding wounds on trees, on

Polyporus fungi, tree trunks, and rotting stumps, and in fruit-fly traps.

REFERENCE: Shewell, 1960 (key, world genera).

Genus ODINIA Robineau-Desvoidy

Odinia Robineau-Desvoidy, 1830: 648. Type-species, *trinotata* Robineau-Desvoidy (Rondani, 1875a: 167; 1875: 2) = *maculata* (Meigen).

REFERENCE: Sabrosky, 1959c (rev.).

betulae Sabrosky, 1959c: 230.—Maine; B.C., Que., N.H.
biguttata Sabrosky, 1959c: 226.—St. Croix I.; Fla., P.R., Virgin Is.
boletina (Zetterstedt), 1848: 2721 (*Milichia*).—Sweden; Alta., Ont., Que., Europe.
conspicua Sabrosky, 1959c: 228.—Md.; Mass., Ga.
coronata Sabrosky, 1959c: 234.—El Salvador; Ariz., Tex., Panama.
meijerei Collin, 1952a: 115.—England; Mich. to N.Y., s. to Va., also Tex., ?Calif., ?Ariz., Europe.
picta (Loew), 1861b: 358 (Cent. 1, no. 99) (*Milichia*).—Ga.; Pa.
xanthocera Collin, 1952a: 112.—Holland, Germany; B.C., Europe.

Genus NEOALTICOMERUS Hendel

Neoalticomerus Hendel, 1903: 252. Type-species, *Odinia formosa* Loew (orig. des.).

seamansi Shewell, 1960: 629.—Alta.; Ariz., Nebr., N.B.

Genus TRAGINOPS Coquillett

Traginops Coquillett, 1900b: 429. Type-species, *irroratus* Coquillett (orig. des.).

REFERENCE: Steyskal, 1963 (rev.).

irroratus Coquillett, 1900b: 430.—Ga.; Mich. to Que., s. to N. Mex. and Fla.
purpurops Steyskal, 1963: 53.—Mich.; Mich. to Md., s. to Tex. and Va.

Family AGROMYZIDAE

By Kenneth E. Frick

The larvae of the majority of species in the family Agromyzidae mine the leaves of a very large number of plants. Very little is known about larval taxonomy. Several North American species, especially

those belonging to *Liriomyza* and *Phytomyza*, are economically important, attacking various crop plants. Although centered in the Palaearctic Region, the family has been found on every continent.

REFERENCES: Frick, 1952, 1953 (rev., cat.), 1957b (nomenclature), 1959 (synopsis).

Subfamily AGROMYZINAE

Genus AGROMYZA Fallén

Agromyza Fallén, 1810a: 21. Type-species, *reptans* Fallén (Rondani, 1875a: 177; 1875: 12). In order to conserve the present usage of this name, Rondani's earlier designation (1856: 121) of *aeneoventris* Fallén is disregarded. Westwood's designation (1840: 151) of *nigripes* Meigen is invalid. Application should be made to the I.C.Z.N. concerning the type-species of this genus.

albitarsis Meigen, 1830: 171.—Europe; Wash., Calif., Pa.

ambigua Fallén, 1823a: 4 (as *reptans* var.).—Sweden; Alaska, Palaearctic.

kincaidi Malloch, 1913e: 285.—Alaska.

aristata Malloch, 1915d: 13.—Ill.; Iowa to N.Y., s. to Va.

ulmi Frost, 1924: 54.—Pa.

barberi Frick, 1952: 372 (n. name for *abbreviata* Malloch).—N. Mex.

abbreviata Malloch, 1913e: 285 (preocc. Fallén, 1823).—N. Mex.

canadensis Malloch, 1913e: 299.—Ont.

diversa Johnson, 1922: 26.—Mass.; Iowa, Ill., Ont., Vt.

invaria Walker, 1858: 232.—U.S. Unrecognized.

isolata Malloch, 1913e: 306.—Calif.; D.C.

nigripes Meigen, 1830: 170.—Europe; Iowa to Que., s. to Mass.

dubitata Malloch, 1913e: 311.—Mass.

niveipennis Zetterstedt, 1848: 2741.—Sweden; Wash., Utah, Kans., Europe.

pallidiseta Malloch, 1924d: 192.—D.C.

parvicornis Loew, 1869b: 49 (Cent. 8, no. 92).—D.C.; Ont., throughout U.S.

reptans Fallén, 1823a: 3.—Sweden; Wash., Calif., Europe.

rubi Brischke, 1881: 250.—Danzig; Wash., Idaho, Calif., Europe.

sulfuriceps Strobl, 1898a: 270.—Europe.

rutiliceps Melander, 1913a: 261.—Mont.

spiraeae Kaltenbach, 1867: 104.—Europe; Calif., N.Y., Pa., N.J.

fragariae Malloch, 1913e: 307.—Calif.

subnigripes Malloch, 1913e: 334.—N.H.; Man., Iowa, Ill., Ind.
aprilina Malloch, 1915h: 359.—Ill.
varifrons Coquillett, 1902e: 189.—D.C.; Iowa, Ill., Pa.

Genus JAPANAGROMYZA Sasakawa

Japanagromyza Sasakawa, 1958: 138. Type-species, *Agromyza duchesneae* Sasakawa (orig. des.).

viridula (Coquillett), 1902e: 190 (*Agromyza*).—D.C.; Mass. to Ga., also Ind. **N. comb.**

Genus MELANAGROMYZA Hendel

Melanagromyza Hendel, 1920a: 114, 126. Type-species, *Agromyza aeneoventris* Fallén (orig. des.).
Limnoagromyza Malloch, 1921f: 147. Type-species, *diantherae* Malloch (orig. des.).

angelicae (Frost), 1934: 40 (*Agromyza*).—N.Y.; Wash., Idaho, Calif.
burgessi (Malloch), 1913e: 323 (*Agromyza*).—Mass.; N. Dak. to Mass., s. to Colo. and Kans.
diantherae (Malloch), 1921f: 147 (*Limnoagromyza*).—Ill.; Ind.
dianthereae, error.
gibsoni (Malloch), 1915i: 106 (*Agromyza*).—Ariz.; s. Calif., Colo., Tex.
minima (Malloch), 1913e: 328 (*Agromyza*).—Trinidad; Miss., Mexico, Guatemala, Canal Zone, Puerto Rico.
riparella (Hendel), 1923: 145 (*Agromyza;* n. name for *riparia* Malloch).—Ill.
riparia Malloch, 1915i: 105 (*Agromyza;* preocc. Wulp, 1871).—Ill.
salicis (Malloch), 1913e: 314 (*Agromyza*).—Mass.; Ill., Ohio, N.Y.
schineri (Giraud), 1861: 484 (*Agromyza*).—Europe; Wash., Colo., Ont., Mass.
setifrons (Melander), 1913a: 260 (*Agromyza;* as *maura* var.).—Idaho.
similata (Malloch), 1918i: 178 (*Agromyza*).—Ill.
simplex (Loew), 1869b: 46 (Cent. 8, no. 84) (*Agromyza*).—Pa.; throughout U.S., also Europe.
subvirens (Malloch), 1915i: 105 (*Agromyza*).—Ill.; Iowa, Pa., Va.
tamia (Melander), 1913a: 258 (*Domomyza*).—Wash.
tiliae (Couden), 1908: 35 (*Agromyza*).—Mo.; Ont., Ill.
virens (Loew), 1869b: 46 (Cent. 8, no. 85) (*Agromyza*).—Pa.; Ill. to Mass., s. to D.C.
viridis (Frost), 1931: 277 (*Agromyza*).—s. Calif.
winnemanae (Malloch), 1913e: 314 (*Agromyza*).—Md.

Genus OPHIOMYIA Braschnikov

Agromyza, subg. **Ophiomyia** Braschnikov, 1897: 40. Type-species, *Agromyza pulicaria* Meigen (mon.; misident.)=*maura* (Meigen).

congregata (Malloch), 1913e: 328 (*Agromyza*).—Ariz.; Idaho, N. Dak., Colo.

coniceps (Malloch), 1915i: 107 (*Agromyza*).—Utah; Man. to Que., s. to Calif. and La.

lantanae (Froggatt), 1919: 665 (*Agromyza*).—Australia; s. Calif., s. Tex., Fla. Introduced.

major (Strobl), 1898b: 587 (also 1900: 642) (*Agromyza;* as *curvipalpis* var.).—Europe; Ga.

vibrissata Malloch, 1913e: 316 (*Agromyza*).—Ga.

maura (Meigen), 1838: 399 (*Agromyza*).—Europe; Mich. to N.Y., s. to Ga., also Calif.

affinis Malloch, 1913e: 317 (*Agromyza*).—Md.

proboscidea (Strobl), 1900: 641 (*Agromyza*).—Europe; Mich., Ind., N.Y., N.J., La.

texana (Malloch), 1913e: 319 (*Agromyza*).—Tex.; Wash. to Mich., s. to N. Mex. and Tex.

Genus TYLOMYZA Hendel

Ophiomyia, subg. **Tylomyza** Hendel, 1931a: 181. Type-species, *Madiza pinguis* Fallén (orig. des.).

nasuta (Melander), 1913a: 260 (*Agromyza;* as *maura* var.).—Wash . Ont., Que., n. half of U.S., Europe.

youngi Malloch, 1914f: 312 (*Agromyza*).—N.Y.

madizina Hendel, 1920a: 130 (*Ophiomyia*).—Austria, Germany.

Subfamily PHYTOMYZINAE

Genus PHYTOBIA Lioy

Phytobia Lioy, 1864a: 1313. Type-species, *Agromyza errans* Meigen (mon.).

Dizygomyza, subg. *Dendromyza* Hendel, 1931a: 22. Type-species, *Agromyza carbonaria* Zetterstedt (orig. des.).

Subgenus PHYTOBIA Lioy

amelanchieris (Greene), 1917: 316 (*Agromyza*).—W. Va.; Wash., Mich. to Mass., s. to Tenn. and N.C.

indecora (Malloch), 1918h: 132 (*Agromyza*).—Ill.

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picta (Coquillett), 1902e: 188 (*Agromyza*).—Mexico; N. Mex. to Panama Canal Zone.
pruinosa (Coquillett), 1902e: 189 (*Agromyza*).—Colo.; Ill., N.Y., D.C.
pruni (Grossenbacher), 1915: 235 (*Agromyza*).—N.Y.
setosa (Loew), 1869b: 45 (Cent. 8, no. 83) (*Agromyza*).—D.C.; Iowa to Que., s. to Va.
aceris Greene, 1917: 313 (*Agromyza*).—Va.
waltoni (Malloch), 1913e: 303 (*Agromyza*).—N.Y.; Tenn.

Subgenus NEMORIMYZA Frey

Dizygomyza, subg. **Nemorimyza** Frey, 1946b: 42. Type-species, *Agromyza posticata* Meigen (orig. des.).

posticata (Meigen), 1830: 172 (*Agromyza*).—Europe; Ont., Que., throughout U.S.
terminalis Coquillett, 1895a: 318 (*Agromyza*).—Pa.
taeniola Coquillett, 1904f: 191 (*Agromyza*).—Calif.

Subgenus AMAUROMYZA Hendel

Dizygomyza, subg. **Amauromyza** Hendel, 1931a: 59. Type-species, *Agromyza lamii* Kaltenbach (orig. des.).

abnormalis (Malloch), 1913e: 320 (*Agromyza*).—D.C.; Kans., Iowa, cent. Europe.
maculosa (Malloch), 1913e: 302 (*Agromyza*).—N.Y.; throughout U.S., Hawaii, Neotropical.

Subgenus CEPHALOMYZA Hendel

Dizygomyza, subg. **Cephalomyza** Hendel, 1931a: 32. Type-species, *luteiceps* Hendel (orig. des.).

albidohalterata (Malloch), 1916d: 52 (*Agromyza*).—Ill.; Iowa.
auriceps (Melander), 1913a: 262 (*Agromyza*).—Idaho; Colo.
indecisa (Malloch), 1913e: 292 (*Agromyza*).—N. Mex.

Subgenus POEMYZA Hendel

Dizygomyza, subg. **Poemyza** Hendel, 1931a: 35. Type-species, *Agromyza pygmaea* Meigen (orig. des.).

angulata (Loew), 1869b: 47 (Cent. 8, no. 87) (*Agromyza*).—Pa.; e. Canada, throughout U.S.
neptis Loew, 1869b: 50 (Cent. 8, no. 93) (*Agromyza*).—D.C.
cinereifrons Frost, 1931: 276 (*Agromyza*).—N.Y.
incisa (Meigen), 1830: 182 (*Agromyza*).—Europe; Ont., n. half of U.S.
inconspicua (Malloch), 1913e: 310 (*Agromyza*).—Colo.

lateralis (Macquart), 1835: 609 (*Agromyza*).—Europe; Man., n. half of U.S.
coquilletti Malloch, 1913e: 295 (*Agromyza*).—Colo.
muscina (Meigen), 1830: 177 (*Agromyza*).—Europe; Wash. to Mass., s. to Calif. and D.C., also N.W.T.
marginata Loew, 1869b: 49 (Cent. 8, no. 91) (*Agromyza*).—D.C.
subangulata (Malloch), 1916d: 51 (*Agromyza*).—Ill.

Subgenus DIZYGOMYZA Hendel

Dizygomyza Hendel, 1920a: 114, 130 (as genus). Type-species, *Agromyza morosa* Meigen (orig. des.).

iraeos (Robineau-Desvoidy), 1851a: 393 (*Agromyza*).—Europe; Alaska, Mich., Ind., La.
iridis (Hendel), 1927b: 253 (*Dizygomyza*).—Europe; Calif., Mich.
luctuosa (Meigen), 1830: 182 (*Agromyza*).—Europe; Wash., Oreg., Calif., N.Y., N.S.
magnicornis (Loew), 1869b: 46 (Cent. 8, no. 86) (*Agromyza*).—D.C.; Mich. to N.H., s. to Ill. and D.C., also B.C.
morosa (Meigen), 1830: 170 (*Agromyza*).—Europe; S. Dak., Ill., Ind., Md.
thompsoni Frick, 1952: 396.—Mass.; Ill., Mich., N.Y., Pa.
laterella, authors, not Zetterstedt.
magnicornis Loew of Thompson, 1907: 74.

Subgenus ICTEROMYZA Hendel

Dizygomyza, subg. **Icteromyza** Hendel, 1931a: 51. Type-species, *Agromyza geniculata* Fallén (orig. des.).

capitata (Zetterstedt), 1848: 2750 (*Agromyza*).—Europe; Wash. to Calif. and Colo., e. to Maine.
genualis Melander, 1913a: 261 (*Agromyza*).—Wash.
coloradensis Malloch, 1913e: 297 (*Agromyza*).—Colo.
longipennis (Loew), 1869b: 48 (Cent. 8, no. 90) (*Agromyza*).—D.C.; Man., Que., throughout U.S.
pollinosa (Melander), 1913a: 263 (*Agromyza*).—Alaska.

Subgenus CALYCOMYZA Hendel

Dizygomyza, subg. **Calycomyza** Hendel, 1931a: 65. Type-species, *Agromyza artemisiae* Kaltenbach (orig. des.).

allecta (Melander), 1913a: 257 (*Agromyza;* as *platyptera* var.; n. name for *lateralis* Williston).—St. Vincent I.; U.S. e. of Rocky Mts., West Indies.

lateralis Williston, 1896c: 428 (*Agromyza;* preocc. Macquart, 1835).—St. Vincent I.

ambrosiae Frick, 1956: 299.—Tenn.; Ind., Fla.

artemisiae (Kaltenbach), 1856: 236 (*Phytomyza*).—Europe; B.C., Ont., throughout U.S., also Guatemala.

cynoglossi Frick, 1956: 295.—Ind.; s. Canada, Kans., Maine to Va.

flavinotum Frick, 1956: 297.—N.Y.; Wis., Ont., Pa., Mass.

gigantea Frick, 1956: 296.—Md.; Ont., Que., Ill., Va.

humeralis (Roser), 1840: 63 (*Agromyza*).—Europe; throughout Canada and U.S., Hawaii, Japan, Africa.

jucunda (Wulp), 1867: 161 (*Agromyza*).—Wis.; throughout s. Canada and U.S., Hawaii.

platyptera Thomson, 1869: 608 (*Agromyza*).—Calif.

coronata Loew, 1869b: 48 (Cent. 8, no. 89) (*Agromyza*).—Pa.

lantanae Frick, 1956: 287.—s. Tex.; Mexico, P.R., Trinidad.

majuscula Frick, 1956: 295.—Calif.; Wash., Idaho, Sask., Ont.

malvae (Burgess) *in* Comstock, 1880b: 202 (*Oscinis*).—D.C.; Calif., Ariz., N. Mex., Ind., N.Y. to Fla., Panama Canal Zone.

promissa Frick, 1956: 287.—Calif.; Man., Ont.

solidaginis (Kaltenbach), 1869: 196 (*Agromyza*).—Europe; c. Canada, throughout U.S.

verbenae (Hering), 1951: 42 (*Dizygomyza*).—N. Mex.; Ariz. to N.Y., s. to Miss.

Subgenus TRILOBOMYZA Hendel

Dizygomyza, subg. **Trilobomyza** Hendel, 1931a: 71. Type-species, *Agromyza flavifrons* Meigen (orig. des.).

calyptrata (Hendel), 1923: 145 (*Agromyza;* n. name for *nigrisquama* Malloch, 1916).—Ill.

nigrisquama Malloch, 1916d: 53 (*Agromyza;* preocc. Malloch, 1914).—Ill.

pleuralis (Malloch), 1914f: 311 (*Agromyza*).—Ill.; Ohio.

varia (Melander), 1913a: 264 (*Agromyza*).—Idaho.

Subgenus PRASPEDOMYZA Hendel

Dizygomyza, subg. **Praspedomyza** Hendel, 1931a: 77. Type-species, *approximata* Hendel (orig. des.).

clara (Melander), 1913a: 265 (*Agromyza*).—Wash.; Calif., Mich., Ont., Maine, Tenn.

citreifrons Malloch, 1913e: 290 (*Agromyza*).—Calif.

morio (Brischke), 1881: 258 (*Agromyza*).—Europe; Calif., Md.

subinfumata (Malloch), 1915i: 108 (*Agromyza;* n. name for *infumata* Malloch).—Ill.

infumata Malloch, 1915d: 15 (*Agromyza;* preocc. Czerny and Strobl, 1909).—Ill.

Genus CERODONTHA Rondani

Odontocera Macquart, 1835: 614 (preocc. Serville, 1833). Type-species, *Chlorops denticornis* Panzer (orig. des.).

Cerodontha Rondani, 1861a: 10 (n. name for *Odontocera* Macquart). Type-species, *Chlorops denticornis* Panzer (aut.).

Subgenus CERODONTHA Rondani

denticornis (Panzer).—Not Nearctic.

dorsalis (Loew), 1863a: 54 (Cent. 3, no. 98) (*Odontocera*).—D.C.; throughout Canada and U.S.

femoralis, authors (N. Amer.), not Meigen.

Subgenus XENOPHYTOMYZA Frey

Cerodontha, subg. **Xenophytomyza** Frey, 1946b: 51. Type-species, *Haplomyza atronitens* Hendel (orig. des.).

illinoensis (Malloch), 1934a: 483 (*Agromyza*).—Ill.; Va.

Genus LIRIOMYZA Mik

Liriomyza Mik, 1894b: 289. Type-species, *urophorina* Mik (mon.).

allia (Frost), 1943: 257 (*Agromyza*).—Kans.
alliovora Frick, 1955: 88.—Iowa.
angulicornis (Malloch), 1918h: 79 (*Agromyza*).—Ill.; Man.
archboldi Frost, 1962: 51.—Fla.
assimilis (Malloch), 1918h: 80 (*Agromyza*).—Ill.; Pa.
baptisiae (Frost), 1931: 275 (*Agromyza*).—Pa.
borealis (Malloch), 1913e: 280 (*Agromyza*).—B.C.
brassicae (Riley), 1885: 322 (*Oscinis*).—Mo.; Man., throughout U.S., Europe.

mitis Curran, 1931e: 97 (*Phytomyza*).—Man.

chlamydata (Melander), 1913a: 250 (*Antineura*).—Wash.
deceptiva (Malloch), 1918h: 78 (*Agromyza*).—Ill.; Va.
dianthi Frick, 1958: 1.—Calif.
discalis (Malloch): 1913e: 277 (*Agromyza*).—Ariz.
eupatorii (Kaltenbach), 1874: 320 (*Agromyza*).—Europe; Wash.
felti (Malloch), 1914f: 310 (*Agromyza*).—N.Y.; Ill.
flaveola (Fallén), 1823a: 6 (*Agromyza*).—Sweden; cent. Calif., Europe.
flavonigra (Coquillett), 1902e: 189 (*Agromyza*).—N. Mex.
fumicosta (Malloch), 1914f: 310 (*Agromyza*).—Ill.

guytona Freeman, 1958: 344.—Ala.; Tex., Fla., Jamaica.
langei Frick, 1951: 81.—Calif.; Wash., Oreg.
lima (Melander), 1913a: 265 (*Agromyza*).—Idaho; S. Dak.
holti Malloch, 1924d: 191 (*Agromyza*).—S. Dak.
lutea (Meigen), 1830: 177 (*Agromyza*).—Europe; Alaska.
marginalis (Malloch), 1913e: 283 (*Agromyza;* as *melampyga* var.).—S.C.; Ill., Tex.
melampyga (Loew), 1869b: 48 (Cent. 8, no. 88) (*Agromyza*).—D.C.; Mich., N.Y., Mass., N.J., Md.
flaviventris Johnson, 1902a: 242 (*Agromyza;* preocc. Strobl, 1898).—N.Y.
munda Frick, 1957a: 61.—Calif.
pacifica (Melander), 1913a: 264 (*Agromyza*).—Wash.; Alaska, B.C., Man. to Que., s. to Ill. and Ind.
longispinosa Malloch, 1913e: 276 (*Agromyza*).—B.C.
phaseolunata (Frost), 1943: 256 (*Agromyza*).—N.J.
pictella (Thomson), 1869: 609 (*Agromyza*).—Calif.; Ariz.
propepusilla Frost, 1954: 73 (n. name for *subpusilla* Frost).—Kans.
subpusilla Frost, 1943: 255 (*Agromyza;* preocc. Malloch, 1914).—Kans.
quadrisetosa (Malloch), 1913e: 332 (*Agromyza*).—Tex.; Ind., N.Y.
reverberata (Malloch), 1924d: 191 (*Agromyza*).—Md.; Ont.
sorosis (Williston), 1896c: 429 (*Agromyza*).—St. Vincent I.; U.S. e. of Rocky Mts.
trifolii (Burgess) *in* Comstock, 1880b: 201 (*Oscinis*).—D.C.; Wash. to Calif., also Ind., Fla.
variata (Malloch), 1913e: 277 (*Agromyza*).—Maine.
verbenicola Hering, 1951: 43.—N. Mex.; Utah.

Genus METOPOMYZA Enderlein

Metopomyza Enderlein, 1936a: 180. Type-species *Agromyza flavonotata* Haliday (mon.).

interfrontalis (Melander), 1913a: 263 (*Agromyza*).—Wash.; n. Calif., Man., Kans., Tex., Ill., Mich., Va.

Genus HAPLOMYZA Hendel

Antineura Melander, 1913a: 249 (preocc. Osten Sacken, 1881). Type-species, *togata* Melander (orig. des.).
Haplomyza Hendel, 1914d: 73 (n. name for *Antineura* Melander). Type-species, *Antineura togata* Melander (aut.).

minuta (Frost), 1924: 86 (*Phytomyza*).—N. Dak.; Wash.
palliata (Coquillett), 1902e: 191 (*Phytomyza*).—N. Mex.

togata (Melander), 1913a: 250 (*Antineura*).—Wash.; Calif. to Tex., also N. Dak., Kans.

Genus PHYTOLIRIOMYZA Hendel

Liriomyza, subg. **Phytoliriomyza** Hendel, 1931a: 203. Type-species, *Agromyza perpusilla* Meigen (mon.).

arctica (Lundbeck), 1901: 304 (*Agromyza*).—Greenland; B.C.
immaculata (Coquillett), 1902e: 185 (*Odinia*).—N.H.; B.C., Man., throughout U.S.
perpusilla (Meigen), 1830: 181 (*Agromyza*).—Europe; Wash., Mont., Calif., N. Mex.

Genus XYRAEOMYIA Frick

Xyraeomyia Frick, 1952: 412. Type-species, *conjunctimontis* Frick (orig. des.).

conjunctimontis Frick, 1952: 413.—Calif.

Genus PHYTAGROMYZA Hendel

Phytagromyza Hendel, 1920a: 115, 145. Type-species, *Domomyza flavocingulata* Strobl (orig. des.).

lonicerae (Robineau-Desvoidy), 1851a: 396 (*Phytomyza*).—Europe; Calif.
nitida (Malloch), 1913e: 288 (*Agromyza*).—Md.; Iowa, Ill., Va., N.C.
orbitalis (Melander), 1913a: 271 (*Phytomyza*).—Wash.; Idaho, Calif.
plagiata (Melander), 1913a: 273 (*Napomyza*).—Idaho; Mont.
brevicostalis Malloch, 1913e: 283 (*Agromyza*).—Mont.
populicola (Walker), 1853: 247 (*Phytomyza*).—England; Ont., Europe.

Genus PSEUDONAPOMYZA Hendel

Pseudonapomyza Hendel, 1920a: 115. Type-species, *Phytomyza atra* Meigen (orig. des.).

atra (Meigen), 1830: 191 (*Phytomyza*).—Europe; Wash., Calif.
nitidula Malloch, 1913n: 151 (*Phytomyza*).—Calif.
lacteipennis (Malloch), 1913n: 152 (*Phytomyza*).—N. Mex.; Wash., N. Dak., Kans., Mich.

Genus NAPOMYZA Westwood

Phytomyza, subg. **Napomyza** Westwood, 1840: 152. Type-species, *Phytomyza festiva* Meigen (orig. des.)=*elegans* (Meigen).

davisii (Walton), 1912: 463 (*Agromyza*).—Ind.; Ont., Wis., Mich., Mo.
lateralis (Fallén), 1823b: 3 (*Phytomyza*).—Sweden; Alaska, N.W.T. to Calif., also Ont., Que.
parvicella (Coquillett), 1902e: 189 (*Agromyza*).—Alaska.

Genus PHYTOMYZA Fallén

Phytomyza Fallén, 1810a: 21, 26. Type-species, *flaveola* Fallén (mon.).

affinalis Frost, 1924: 84.—Sask.
agromyzina Meigen, 1830: 191.—Europe; Wash., Calif.
albiceps Meigen, 1830: 194.—Europe; Calif.
angelicella Frost, 1927: 218.—N.Y.
aquilegiana Frost, 1930: 459.—Pa.; Wash., Idaho, Calif., N.Y.
atricornis Meigen, 1838: 404.—Europe; B.C., s. to Calif., also N.Y., Mass., Asia, Africa.
chrysanthemi Kowarz *in* Lintner, 1892: 243.—Europe.
affinis, authors, not Fallén.
atripalpis Aldrich, 1929e: 89.—B.C.
auricornis Frost, 1927: 217.—N.Y.
bicolor Coquillett, 1902e: 191.—N.Y.
clemativora Coquillett, 1910a: 131.—s. Tex.
crassiseta Zetterstedt, 1860: 6469.—Europe; s. Calif., Wash., Idaho.
delphiniae Frost, 1928: 77.—N.Y.; Ohio, Pa.
diminuta Walker, 1858: 233.—U.S.
dimidiata, error.
dura Curran, 1931c: 10.—Que.
flavicornis Fallén, 1823b: 4.—Sweden; Mich., Ind., Europe.
flavinervis Frost, 1924: 85.—Tex.
genalis Melander, 1913a: 272.—Ill.
gregaria Frick, 1954: 371.—Calif.; Wash., Idaho.
ilicicola Loew, 1872a: 114 (Cent. 10, appendix) (n. name for *illicis* Loew).—D.C.; Tex., Mass. to Ala.
ilicis Loew, 1863a: 54 (Cent. 3, no. 99) (preocc. Curtis, 1846).—D.C.
ilicis Curtis, 1846: 444.—England; B.C., Wash., Oreg., Calif., Europe.
lactuca Frost, 1924: 85.—Pa.; Mich., N.Y.
loewii Hendel, 1923: 145 (n. name for *clematidis* Loew).—D.C.; Wash., Idaho, Ind., La.
clematidis Loew, 1863a: 55 (Cent. 3, no. 100) (preocc. Kaltenbach, 1859).—D.C.

major Malloch, 1913n: 150.—Labr.; Man.
marginalis Frost, 1927: 219.—N.Y.
melanella Frost, 1924: 86.—Calif.
minuscula Goureau, 1851: 153.—Europe; Wash. to Calif., Ill. to Conn., s. to D.C.
nitida Melander, 1913a: 271.—Idaho.
nervosa Loew, 1869b: 52 (Cent. 8, no. 99).—D.C.; Iowa, Kans.
nigra Meigen, 1830: 191.—Europe; Wash., Oreg.
nigrinervis Frost, 1924: 87.—Colo.
nigripennis Fallén, 1823b: 2.—Sweden; Wis., Ont., Europe.
periclymeni Hendel, 1922: 71.—Europe; Wash., Calif.
persicae Frick, 1954: 369.—Ohio; Ont., Conn., Va.
plantaginis Robineau-Desvoidy, 1851a: 404.—Europe; throughout U.S.
genualis Loew, 1869b: 52 (Cent. 8, no. 100).—D.C.
plumiseta Frost, 1924: 87.—Pa.
ranunculi ranunculi (Schrank).—Not Nearctic.
ssp. **albipes** Meigen, 1830: 195 (as sp.).—Europe; Wash.
ssp. **flavoscutellata** Fallén, 1823b: 4 (as sp.).—Sweden; Oreg., Idaho.
ssp. **praecox** Meigen, 1830: 194 (as sp.).—Europe; Idaho.
rufipes Meigen, 1830: 192.—Europe; Oreg., Nfld., N.B.
solita Walker, 1858: 232.—U.S. ?=*atricornis*.
spondylii Robineau-Desvoidy, 1851a: 400.—Europe; Calif.
sphondylii, emend.
subtenella Frost, 1924: 89.—Wash.; Wis.
trivittata Frost, 1924: 89.—Nev.; Calif.

Family CLUSIIDAE

(Clusiodidae)

By George C. Steyskal

The family Clusiidae contains about 150 species from all parts of the world except Africa. The species are usually considered to be rare, but adults may sometimes be found in numbers on rotten wood. Very little is known of the habits or immature stages.

REFERENCES: Melander and Argo, 1924 (rev.); Czerny, 1928b (monog., Palaearctic spp., figs.); Hennig, 1938b (male postabdomen); Frey, 1960 (world cat.).

Subfamily CLUSIINAE

Genus CHAETOCLUSIA Coquillett

Chaetoclusia Coquillett, 1904e: 93. Type-species, *bakeri* Coquillett (orig. des.).

affinis Johnson, 1913f: 101.—N.J.

Genus CLUSIA Haliday

Heteroneura, subg. **Clusia** Haliday, 1838: 188. Type-species, *Heteromyza flava* Meigen (mon.).

czernyi Johnson, 1913f: 100.—Maine; Ill. to Ont. and Que., s. to Va.
flava (Meigen).—Not Nearctic.
lateralis (Walker), 1849: 1095 (?*Helomyza*).—N. Amer.; Ill. to Ont. and Que., s. to N.C.
spectabilis Loew, 1860b: 82 (*Heteroneura*).—D.C.
pallida Harris, 1835: 600 (*Tetanura*). Nomen nudum.
occidentalis Malloch, 1918n: 4.—Wash.; B.C. to Calif.

Genus HETEROMERINGIA Czerny

Heteromeringia Czerny, 1903a: 72. Type-species, *Heteroneura nigrimana* Loew (mon.).

annulipes Johnson, 1913f: 99.—N.C.
flavipes (Williston), 1896c: 387 (*Heteroneura*).—St. Vincent I.; Fla., West Indies, Nicaragua.
nitida Johnson, 1913f: 99.—N.J.; Mich. to Mass., s. to Ill. and N.C., also Ariz., N. Mex.
var. **nigripes** Melander and Argo, 1924: 31.—N. Mex.; Ariz., N.J., Va.

Genus SOBAROCEPHALA Czerny

Sobarocephala Czerny, 1903a: 85. Type-species, *ruebsaameni* Czerny (mon.).

flava Melander and Argo, 1924: 40.—Va.; Mich., Md., La.
flaviseta (Johnson), 1913f: 99 (*Heteromeringia*).—N.J.; Mich. to N.H., s. to Mo. and Ga.
convergens Malloch, 1922b: 50 (*Heteromeringia*).—Ill.
lachnosternum Melander and Argo, 1924: 42.—Va.; Mich.
latifrons (Loew), 1860b: 83 (*Heteroneura*).—D.C.; Mich. to Mass., s. to Ill. and Va.
populi Steyskal, 1951a: 129.—Mich.
setipes Melander and Argo, 1924: 47.—Md.

Subfamily CLUSIODINAE

Genus CLUSIODES Coquillett

Heteroneura Fallén, 1823a: 2 (preocc. Fallén, 1810). Type-species, *geomyzina* Fallén (Zetterstedt, 1848: 2787).

Clusiodes Coquillett, 1904e: 93 (n. name for *Heteroneura* Fallén, 1823). Type-species, *Heteroneura geomyzina* Fallén (aut.).

Clusiodes, subg. *Clusiaria* Malloch, 1922b: 47. Type-species, *duplicata* Malloch (orig. des.) = *melanostoma* (Loew).

Subgenus CLUSIODES Coquillett

apicalis (Zetterstedt), 1848: 2789 (*Heteroneura;* as *geomyzina* var.).—Denmark; Idaho.

ater Melander and Argo, 1924: 18.—Mass.; N.Y.

geomyzinus (Fallén), 1823a: 2 (*Heteroneura*).—Europe; Ariz., Maine, N.H.

melanostoma (Loew), 1864a: 98 (Cent. 5, no. 97) (*Heteroneura*).—N.H.; Wash. and Alta. to Que., s. to Ill. and Va.

duplicata Malloch, 1922b: 49.—Md.

flavifascies Coquillett *in* Slosson, 1897: 239 (*Heteroneura*). Nomen nudum.

nitidus Melander and Argo, 1924: 20.—N. Mex.; Colo.

var. **scutellatus** Melander and Argo, 1924: 20.—Colo.

orbitalis Malloch, 1922b: 50.—Maine.

pictipes (Zetterstedt), 1855: 4816 (*Heteroneura*).—Sweden; ?N. Mex., ?N.H.

ruficollis (Meigen), 1830: 128 (*Heteroneura*).—Europe; ?Ont., ?Que.

terminalis Melander and Argo, 1924: 22.—N.H.; ?Ill.

Subgenus COLUMBIELLA Malloch

Clusiodes, subg. **Columbiella** Malloch, 1922b: 47. Type-species, *apiculata* Malloch (orig. des.).

albimanus (Meigen), 1830: 128 (*Heteroneura*).—Europe; Wash. to Que., s. to N.Y. and N.J.

americanus Malloch, 1922b: 48.—Md.; Maine to Md.

apiculatus Malloch, 1922b: 49.—N.H.; Vt., N.C.

johnsoni Malloch, 1922b: 49.—Maine; Mich. to Maine, s. to Va.

nigripalpis Malloch, 1922b: 49.—Md.

niger Melander and Argo, 1924: 17.—N. Mex.

Family ACARTOPHTHALMIDAE

By George C. Steyskal

This family contains only a single genus formerly classed as a subfamily of the Clusiidae. Nothing is known about its biology except that adults have been taken on rotten fungi and carrion.

REFERENCES: Melander and Argo, 1924 (rev.); Czerny, 1928b (rev., fig.); Frey, 1946c (key).

Genus ACARTOPHTHALMUS Czerny

Acartophthalmus Czerny, 1902: 256. Type-species, *Anthophilina nigrina* Zetterstedt (mon.).

bicolor Oldenberg, 1910: 284.—Germany; Mass., Europe.
nigrinus (Zetterstedt), 1848: 2697 (*Anthophilina*).—Sweden; Alaska, Wash., Oreg., and Colo. to Mass., Europe.

Family HELEOMYZIDAE

(Helomyzidae)

By Gordon D. Gill

As far as known, species of the subfamily Suilliinae breed in fungi, and the adults are commonly collected in shaded areas. The Heleomyzinae breed in various kinds of decaying plant and animal matter, and are commonly taken from birds' nests and mammal burrows.

REFERENCE: Gill, 1962 (rev.).

Subfamily SUILLIINAE

Genus PORSENUS Darlington

Porsenus Darlington *in* Aldrich and Darlington, 1908: 69. Type-species, *johnsoni* Darlington (mon.).

johnsoni Darlington *in* Aldrich and Darlington, 1908: 70.—Mass.

Genus SUILLIA Robineau-Desvoidy

Suillia Robineau-Desvoidy, 1830: 642. Type-species, *fungorum* Robineau-Desvoidy (Coquillett, 1910b: 610), probably =*rufa* (Fallén).
Heleomyza, authors, not Fallén.

REFERENCE: Steyskal, 1944a (key).

apicalis (Loew), 1862b: 226 (Cent. 2, no. 86) (*Helomyza*).—D.C.; Alaska, Oreg. to N.S., s. to Tenn. and N.C.

barberi (Darlington) *in* Aldrich and Darlington, 1908: 93 (*Helomyza*).—N. Mex.; Alta. to N.S., s. to Calif. and Tex.

convergens (Walker), 1849: 983 (*Dryomyza*).—N.S.; Alaska to Nfld., s. to Calif. and N.C. **N. comb.**

loewi Garrett, 1925a: 3.—Mass. **N. syn.**

bicolor, authors, not Zetterstedt.

zetterstedti, authors, not Loew.

longipennis (Loew), 1862b: 228 (Cent. 2, no. 90) (*Helomyza*).—N.Y.; Alaska and Y.T. to N.S., s. to Idaho, Minn., Tenn., and N.C.

nemorum (Meigen), 1830: 52 (*Helomyza*).—Germany; Alaska to Que. and Vt., in w., s. to Ariz. and N. Mex., Europe.

assimilis Loew, 1862b: 226 (Cent. 2, no. 87) (*Helomyza*).—Hudson Bay Territory.

plumata (Loew), 1862b: 227 (Cent. 2, no. 88) (*Helomyza*).—N.Y.; B.C. to N.S., s. to Calif., Kans., and Ga.

chaetomera Czerny, 1933: 236.—Calif.

quinquepunctata (Say), 1823: 101 (1859b: 86) (*Helomyza*).—Mo.; Minn. to Ont. and Conn., s. to Tex. and Fla.

latericia Loew, 1862b: 227 (Cent. 2, no. 89) (*Helomyza*).—Conn.

sororcula Czerny, 1926: 53.—Calif.; cent. Calif.

thomsoni Gill (for *limbata* Thomson).—Calif.; Alaska, B.C. to Sask., s. to Calif. and N. Mex. **N. name.**

limbata Thomson, 1869: 569 (*Helomyza;* preocc. Walker, 1857).—Calif.

Genus ALLOPHYLA Loew

Allophyla Loew, 1862e: 43. Type-species, *Helomyza atricornis* Meigen (mon.).

atricornis (Meigen), 1830: 54 (*Helomyza*).—Europe; ?Alaska.

laevis Loew, 1862b: 225 (Cent. 2, no. 85).—Ont.; B.C. to N.B., s. to Calif. in w., and to Ga. in e.

Subfamily HELEOMYZINAE

Genus BORBOROPSIS Czerny

Borboropsis Czerny, 1902: 256. Type-species, *Anthomyza fulviceps* Strobl (mon.).

fulviceps (Strobl), 1898a: 269 (*Anthomyza*).—Austria; Alaska, N.W.T., B.C. to Que., Europe.

Genus OLDENBERGIELLA Czerny

Oldenbergiella Czerny, 1924: 69. Type-species, *callosa* Czerny (Aldrich, 1926f: 102).

brumalis Czerny, 1924: 70.—Germany; Man., Europe.

Genus ORBELLIA Robineau-Desvoidy

Orbellia Robineau-Desvoidy, 1830: 656. Type-species, *myopiformis* Robineau-Desvoidy (Coquillett, 1910b: 580).

Crymobia Loew, 1862e: 45. Type-species, *hiemalis* Loew (mon.).

Anarostomoides Malloch, 1916a: 15. Type-species, *petersoni* Malloch (orig. des.).

Anorostomoides, error.

Barbastoma Garrett, 1921: 123. Type-species, *barbatum* Garrett (orig. des.).

barbata (Garrett), 1921: 123 (*Barbastoma*).—B.C.; Wash., Alta.

hiemalis (Loew), 1862e: 46 (*Crymobia*).—Germany; ?Colo., ?Maine.

petersoni (Malloch), 1916a: 15 (*Anarostomoides*).—Ill.; Wash. to Maine, Europe.

Genus HETEROMYZA Fallén

Heteromyza Fallén, 1820e: 1. Type-species, *oculata* Fallén (Westwood, 1840: 145).

oculata Fallén, 1820e: 2.—Sweden; Alaska, Ont., Que., Labr., N.H., Europe.

eriphides Walker, 1849: 1088.—Ont.

flavipes Walker, 1849: 1089.—Ont.

Genus TEPHROCHLAMYS Loew

Tephrochlamys Loew, 1862e: 72. Type-species, *Helomyza rufiventris* Meigen (Coquillett, 1910b: 613).

flavitarsis Darlington *in* Aldrich and Darlington, 1908: 71.—N.H.; B.C., Ont. to N.S., also N.C.

rufiventris (Meigen), 1830: 58 (*Helomyza*).—Europe; Alaska to Nfld., s. to Calif. and N.C.

canescens Meigen, 1830: 57 (*Helomyza*).—Europe.

bicolor Walker, 1849: 974 (*Cordylura*).—Ont. **N. syn.,** C. W. Sabrosky *in litt.*

Genus AECOTHEA Haliday

Aecothea Haliday, 1838: 187. Type-species, *Helomyza fenestralis* Fallén (mon.).

Oecothea, emend.

REFERENCE: Czerny, 1928a (key).

aristata Malloch, 1919f: 82.—N.W.T.; Alaska.
fenestralis (Fallén), 1820e: 5 (*Helomyza*).—Sweden; B.C., Minn., Iowa to Mass., Europe.
specus (Aldrich), 1897: 189 (*Blepharoptera*).—Ind.; Alaska, B.C. to Ont., s. to Calif. and Ga.
canadensis Garrett, 1921: 129.—B.C.

Genus ECCOPTOMERA Loew

Eccoptomera Loew, 1862e: 47. Type-species, *Helomyza longiseta* Meigen (Coquillett, 1910b: 536).

Viatica Garrett, 1924b: 32. Type-species, *spinosa* Garrett (orig. des.).

aldrichi Czerny, 1928a: 53.—Wyo.; Sask.
callipus Garrett, 1925a: 2.—Oreg.; Calif.
crypta Gill, 1962: 526.—Idaho; Wash., Calif.
garretti Gill, 1962: 527.—Calif.
melanderi (Garrett), 1925a: 2 (*Viatica*).—Idaho; Alta., Calif., Colo.
simplex Coquillett *in* Baker 1904: 32.—Nev.; B.C. to Alta. and Iowa, s. to Calif. and Colo.
americana Darlington *in* Aldrich and Darlington, 1908: 74.—Idaho.
spinosa (Garrett), 1924b: 32 (*Viatica*).—Calif.; Wash.

Genus LUTOMYIA Aldrich

Lutomyia Aldrich, 1922a: 108. Type-species, *spurca* Aldrich (mon.).

Criddleria Curran, 1929c: 31. Type-species, *hemiptera* Curran (orig. des.).

REFERENCE: Sabrosky, 1949a (rev.).

aldrichi Sabrosky, 1949a: 4.—Wash.
distincta Garrett, 1924b: 30.—B.C.; Wash.
hemiptera (Curran), 1929c: 32 (*Criddleria*).—Man.
spurca Aldrich, 1922a: 109.—N.Y.; Wis., Va.

Genus PSEUDOLERIA Garrett

Pseudoleria Garrett, 1921: 128. Type-species, *Blepharoptera pectinata* Loew (orig. des.).

crassata Garrett, 1925b: 3.—Ohio; Oreg. to Ont., s. to Calif. and N.C.
dubia Garrett, 1925b: 3.—Tex.
intermedia Garrett, 1925b: 3.—N. Mex.; Calif. to Wyo. and N. Mex., also Man., Kans., Tenn.
longigena Garrett, 1925b: 2.—Calif.; Oreg., Ariz.
longigenoidea Gill, 1962: 534.—Wash.; Calif., N. Mex., Wyo.
media Garrett, 1925b: 3.—Kans.; Calif., Ariz., Tex.
parvitarsus Garrett, 1925b: 2.—B.C.; B.C. to Man., s. to Calif. and N. Mex., also Ind.
pectinata (Loew), 1872a: 99 (Cent. 10, no. 79) (*Blepharoptera*).—Tex.; B.C. to D.C., s. to Calif. and Ga.
pectinerata Garrett, 1921: 128.—B.C.
robusta Garrett, 1925b: 2.—B.C.; Wash., Mont., Calif., Utah.
similis Garrett, 1925b: 2.—Idaho; Calif.
subrobusta Gill, 1962: 540.—Calif.; Tex.
vulgaris Garrett, 1925b: 2.—Wash.; B.C. to Nebr., s. to Oreg. and N. Mex.

Genus ANOROSTOMA Loew

Anorostoma Loew, 1862e: 47. Type-species, *marginatum* Loew (sub. mon., Loew, 1862b: 223; Cent. 2, no. 81).

REFERENCE: Curran, 1933c (rev.).

alternans Garrett, 1925b: 4.—Wash.; Oreg., Calif.
carbona Curran, 1933c: 7.—Wyo.; Colo., Nebr.
cinereum Curran, 1932c: 10.—Oreg.; Wash.
coloradense Garrett, 1924b: 28.—Colo.; N.W.T. and B.C. to Que., s. to Calif. and N.J.
currani Garrett, 1922b: 176.—Man.; N.W.T. and B.C. to Man., s. to Wash. and Colo.
fumipenne Gill, 1962: 552.—Wash.; Oreg.
grande Darlington *in* Aldrich and Darlington, 1908: 75.—Calif.; Wash.
hinei Garrett, 1925b: 4.—Alaska.
jamesi Gill, 1962: 553.—Calif.
jersei Garrett, 1924b: 29.—N.J.; Alaska to Que., s. to Calif., N. Mex., and Nebr., ?Mich.
longipile Gill, 1962: 552.—N. Mex.
lutescens Curran, 1933c: 8.—Oreg.; B.C., Wash.
maculatum Darlington *in* Aldrich and Darlington, 1908: 76.—Calif.
marginatum Loew, 1862b: 223 (Cent. 2, no. 81).—Ont.; Alta. to Que., s. to Mich. and N.Y.
raca Garrett, 1923: 244.—Man.

opacum Coquillett, 1901h: 614.—s. Calif.
wilcoxi Curran, 1933c: 4.—Oreg.; Wash., Calif.

Genus NEOLERIA Malloch

Neoleria Malloch, 1919f: 83. Type-species, *rotundicornis* Malloch (orig. des.)=*prominens* (Becker).
Postleria Garrett, 1921: 124. Type-species, *fuscolinea* Garrett (orig. des.).

czernyi (Garrett), 1925a: 2 (*Postleria;* as *czerni*).—Alaska (St. Paul I.).
diversa (Garrett), 1925b: 4 (*Postleria*).—B.C.
fuscolinea (Garrett), 1921: 124 (*Postleria*).—B.C.; Alaska, Man., Mont.
inscripta (Meigen), 1830: 59 (*Helomyza*).—Germany; Alaska, B.C. to Oreg., e. to Maine, Europe.
leucostoma Loew, 1863a: 28 (Cent. 3, no. 53) (*Blepharoptera*).—Alaska.
lutea (Loew), 1863a: 28 (Cent. 3, no. 52) (*Blepharoptera*).—Alaska; Oreg., Calif., Mont., Que., N.H.
prominens (Becker), 1897: 402 (*Tephrochlamys*).—Novaya Zemlya; Alaska, N.W.T., Man., Greenland, n. Europe.
rotundicornis Malloch, 1919f: 83.—Alaska.
septentrionalis Collin, 1923: 121 (*Leria*).—Bear I. (n. of Norway).
crassipes, authors, not Loew.
tibialis, Czerny and authors, not Zetterstedt.
ruficauda (Zetterstedt), 1847: 2456 (*Helomyza*).—Scandinavia; ?Labr., Europe.
tibialis (Zetterstedt), 1838: 767 (*Helomyza*).—Lapland; Alaska, Europe.

Genus SPANOPAREA Czerny

Spanoparea Czerny, 1924: 103. Type species, *Helomyza ruficornis* Meigen (Aldrich, 1926f: 102).

discolor (Loew), 1872a: 99 (Cent. 10, no. 78) (*Blepharoptera*).—N.H.
laffooni Gill, 1962: 563.—Minn.
walkeri Garrett, 1925b: 3.—B.C.; Wyo. and Colo. to Que. and Maine.

Genus MORPHOLERIA Garrett

Morpholeria Garrett, 1921: 127. Type-species, *melaneura* Garrett (mon.)=*tristis* (Loew).

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tristis (Loew), 1862b: 225 (Cent. 2, no. 84) (*Blepharoptera*).—Man.; Alaska, B.C. to Ont.
melaneura Garrett, 1921: 127.—B.C.

Genus ACANTHOLERIA Garrett

Acantholeria Garrett, 1921: 130. Type-species, *Blepharoptera cineraria* Loew (orig. des.).

abnormalis Garrett, 1921: 131.—B.C.; Alaska, Mont., Wyo., Colo.
armipes (Loew), 1862b: 224 (Cent. 2, no. 83) (*Blepharoptera*).—Hudson Bay Territory; Y.T. and N.W.T., s. to Ariz., Colo., and S. Dak.
oediemus Garrett, 1921: 131.—B.C.
oedicnema, emend.
cineraria, authors, not Loew.
moscowa Garrett, 1925a: 3.—Idaho.

Genus SCHROEDERELLA Enderlein

Schroederia Enderlein, 1914a: 314 (preocc. Schmidt, 1911). Type-species, *Helomyza iners* Meigen (mon.).
Schroederella Enderlein, 1921b: 231 (n. name for *Schroederia* Enderlein). Type-species, *Helomyza iners* Meigen (aut.).
Amoebaleria, subg. *Edioamoeba* Garrett, 1925b: 3. Type-species, *luteoala* Garrett (orig. des.)=*iners* (Meigen). **N. syn.**

fuscopicea Gill, 1962: 570.—Wash.; Idaho, Md., Va.
iners (Meigen), 1830: 57 (*Helomyza*).—Germany; Minn. and Iowa to Ont. and Mass., Europe.
luteoala Garrett, 1925b: 3 (*Amoebaleria*).—Ill.

Genus SCOLIOCENTRA Loew

Scoliocentra Loew, 1862e: 43. Type-species, *Helomyza villosa* Meigen (mon.).
Achaetomus Coquillett, 1907a: 75. Type-species, *pilosus* Coquillett (orig. des.)=*tincta* (Walker).

fraterna Loew, 1863a: 27 (Cent. 3, no. 51).—Alaska; Alaska to Greenland, s. to Colo., Minn., and N.Y.
hyalina Garrett, 1925a: 4 (*Amoebaleria;* as var.).—B.C.
thoracica Collin, 1935: 381.—N.W.T. (Akpatok I.).
tincta (Walker), 1849: 1092 (*Helomyza*).—N.S.; Alaska, B.C. to N.S., s. to Calif. and Pa.
ferruginea Walker, 1849: 1066 (*Actora*).—N.S.

pubescens Loew, 1862b: 224 (Cent. 2, no. 82) (*Blepharoptera*).—Mass.
pilosus Coquillett, 1907a: 75 (*Achaetomus*).—Mass.
gigas Garrett, 1921: 126 (*Amoebaleria*).—B.C.

Genus ANYPOTACTA Czerny

Anypotacta Czerny, 1924: 143. Type-species, *setulosa* Czerny (Aldrich, 1926f: 101).

aldrichi (Garrett), 1921: 121 (*Leria*).—B.C.
czernyi Garrett *in* Gill, 1962: 575.—N. Mex.

Genus AMOEBALERIA Garrett

Amoebaleria Garrett, 1921: 125. Type-species, *scutellata* Garrett (Aldrich, 1926f: 101).
Chaetomus Czerny, 1924: 128. Type-species, *Helomyza flavotestacea* Zetterstedt (Aldrich, 1926f: 101).

caesia (Meigen), 1830: 56 (*Helomyza*).—Europe; ?N. Amer.
confusa (Wahlgren), 1918: 6 (*Helomyza*).—Sweden; ?Calif., Europe.
defessa (Osten Sacken) *in* Packard, 1877: 168 (*Blepharoptera*).—Ky.; Mich. to Pa., s. to Mo. and Ala.
flavotestacea (Zetterstedt), 1838: 765 (*Helomyza*).—Lapland; Alaska to Labr., s. to Calif. and N.C., Europe.
glauca (Aldrich) *in* Aldrich and Darlington, 1908: 87 (*Leria*).—Wash.; Calif.
gonea Garrett, 1925a: 3.—B.C.; Utah, Ill.
helvola (Loew), 1862b: 223 (Cent. 2, no. 80) (*Scoliocentra*).—Ill.; S. Dak. to Que., s. to Ark. and Ga.
angustifrons Banks, 1926: 43 (*Leria;* as var.).—N.Y., D.C., Va., N.C.
infuscata Gill, 1962: 586.—Idaho; Calif., Colo.
perplexa Garrett, 1924b: 27.—B.C.; Alaska, Wash.
sabroskyi Gill, 1962: 587.—Iowa; Idaho, Nev.
sackeni Garrett, 1925a: 3.—N.Y.; Minn. to Que., s. to Mo. and Tenn.
scutellata Garrett, 1921: 125.—B.C.
spectabilis (Loew), 1862e: 58 (*Blepharoptera*).—Europe; Calif.
triangulata Garrett, 1925a: 4.—B.C.; Wash., Idaho, Wyo., Colo.
tularensis Gill, 1962: 588.—Calif.

Genus HELEOMYZA Fallén

Heleomyza Fallén, 1810a: 19. Type-species, *Musca serrata* Linnaeus (mon.).
Helomyza, emend.

Leria Robineau-Desvoidy, 1830: 653. Type-species, *domestica* Robineau-Desvoidy (Rondani, 1866b: 5, 42; 1867: 89, 126) = *serrata* (Linnaeus).

Blephariptera Macquart, 1835: 412. Type-species, *Musca serrata* Linnaeus (Westwood, 1840: 145).

Blepharoptera, emend.

bisetata (Garrett), 1922b: 175 (*Amoebaleria*).—Man.; Alaska, B.C., Mich., Md., Va.

brachypterna (Loew), 1873a: 49 (*Blepharoptera*).—Hungary; Alaska, B.C. to N.S., s. to Colo., Ark., and Va., Europe.

latens Aldrich, 1897: 188 (*Blepharoptera*).—Ind.

caccabata Tucker, 1909: 301 (*Leria*).—Kans.

serrataria Garrett, 1924b: 26 (*Leria*).—B.C.

carolinensis (Robineau-Desvoidy), 1830: 629 (*Scatophaga*).—Carolina. Unrecognized.

czernyi Collart, 1933: 402.—Belgium; Greenland, France.

difficilis Gill, 1962: 594.—Alaska; N.W.T., Que., Labr.

fusca (Macquart), 1843a: 420 (1843: 263) (*Heteromyza*).—N. Amer. Unrecognized.

genalis (Coquillett), 1910a: 130 (*Leria*).—B.C.

modesta Meigen, 1838: 369.—Bavaria; Greenland, Europe.

nebulosa (Coquillett), 1910a: 129 (*Leria*).—Alta.

pleuralis (Becker), 1907b: 1 (*Blepharoptera*).—Siberia; Alaska, B.C., N. Mex., Labr., N.H.

pleuralis Coquillett, 1910a: 130 (*Leria*).—Alaska.

serrata (Linnaeus), 1758: 597 (*Musca*).—Sweden; Alaska to Que., s. to Calif. and Va., Europe.

nigricana Garrett, 1922b: 176 (*Leria;* as var.).—B.C.

vinus Garrett, 1922b: 177 (*Leria;* as var.).—B.C.

americana Garrett, 1925a: 3 (as form).—U.S., Canada.

tristissima (Garrett), 1921: 122 (*Leria*).—Nfld.; Alaska.

Genus TRICHOCHLAMYS Czerny

Trichochlamys Czerny, 1924: 155. Type-species, *borealis* Czerny (mon.).

borealis Czerny, 1924: 155.—Alaska; Bering Strait, Copper I., Commander Is.

Unplaced Species of Heleomyzidae

fasciata Walker, 1849: 1094 (*Helomyza*).—N.S. Type lost.

Family TRIXOSCELIDIDAE

By J. R. Vockeroth

Most species of Trixoscelididae occur in sandy or arid areas. *Neossos marylandicus* Malloch has been reared from birds' nests; the larval habits of the other species are unknown.

REFERENCES: Melander, 1952b (rev.); Wheeler, 1955 (key to genera).

Genus NEOSSOS Malloch

Neossos Malloch, 1927b: 90. Type-species, *marylandicus* Malloch (orig. des.).
Neossus (error) Melander, 1952b: 38.

californicus Melander, 1952b: 38.—Calif.
marylandicus Malloch, 1927b: 90.—Md.; B.C., e. Que.

Genus PARANEOSSOS Wheeler

Paraneossos Wheeler, 1955: 107. Type-species, *arizonicus* Wheeler (orig. des.).

arizonicus Wheeler, 1955: 108.—Ariz.

Genus SPILOCHROA Williston

Spilochroa Williston, 1907: 2. Type-species, *Heterochroa ornata* Johnson (mon.).

REFERENCE: Wheeler, 1955 (key).

albibasis (Malloch), 1931b: 30 (*Diastata*).—N. Mex.
geminata Sabrosky, 1961b: 233.—Ariz.; Mexico (Son.).
ornata (Johnson), 1895a: 306 (*Heterochroa*).—Fla.; Tex., West Indies.
polita (Malloch), 1931b: 30 (*Diastata*).—N. Mex.; Tex.
punctipennis Melander, 1913c: 167.—N. Mex.

Genus TRIXOSCELIS Rondani

Trixoscelis Rondani, 1856: 134. Type-species, *Geomyza obscurella* Fallén (orig. des.).
Trichoscelis, emend.
Parodinia Coquillett, 1902e: 186. Type-species, *cinerea* Coquillett (orig. des.).

buccata Melander, 1952b: 43.—Ariz.; Calif., Colo.
cinerea (Coquillett), 1902e: 186 (*Parodinia*).—Calif.; Colo.
claripennis (Malloch), 1913d: 276 (*Parodinia*).—Ariz.

deserta Melander, 1952b: 44.—Calif.
flavens Melander, 1952b: 45.—Wash.
flavida Melander, 1952b: 45.—Wash.; Oreg.
frontalis (Fallén), 1823a: 7 (*Anthomyza*).—Sweden; B.C. to Mont., s. to Calif. and Ariz., Europe.
fumipennis Melander, 1913c: 168.—Man.; Wash., s. Alta. to s. Man., Nebr.
litorea (Aldrich) *in* Aldrich and Darlington, 1908: 100 (*Siligo*).—Calif.
melanderi Vockeroth (for *dimidiata* Melander).—Calif. **N. name.**
dimidiata Melander, 1952b: 45 (preocc. Hendel, 1913).—Calif.
mohavea Melander, 1952b: 47.—Calif., Wash.
nitidiventris Melander, 1952b: 47.—Calif.
nuda (Coquillett), 1910a: 130 (*Leria*).—Calif.; Wash., Ariz.
prima Hendel, 1911: 43.—Calif. (as N.H., error).
plebs Melander, 1952b: 48.—Calif.
pygochroa Melander, 1952b: 49.—Calif.
sagulata Melander, 1952b: 49.—Calif.; Utah, Ariz.
signifera Melander, 1952b: 49.—Calif.
suffusa Melander, 1952b: 50.—Calif.; Wash.
triplex Melander, 1952b: 50.—Ariz.; Calif., Mexico.
tumida Melander, 1952b: 51.—Wash.; Oreg., Calif.

Genus ZAGONIA Coquillett

Zagonia Coquillett *in* Baker, 1904: 27. Type-species, *flava* Coquillett (orig. des.).
Siligo Aldrich *in* Aldrich and Darlington, 1908: 98. Type-species, *oregona* Aldrich (orig. des.)=*flava* Coquillett.

flava Coquillett *in* Baker, 1904: 27.—Calif.; Wash., Idaho, Oreg.
oregona Aldrich *in* Aldrich and Darlington, 1908: 99 (*Siligo*).—Oreg.
flavicornis Melander, 1952b: 39.—Wash.; B.C., Calif.

Family RHINOTORIDAE

By Richard H. Foote

The family Rhinotoridae is confined to the New World Tropics and Subtropics. The larvae and larval habitats are unknown. Adults of the single North American species were attracted to banana bait traps during late twilight hours.

REFERENCE: Wheeler, 1954b (descr.).

Genus RHINOTORA Schiner

Rhinotora Schiner, 1868: 233. Type-species, *pluricellata* Schiner (orig. des.).

diversa Giglio-Tos, 1893b: 13.—Mexico; Ariz., N. Mex.

Family ANTHOMYZIDAE

By Curtis W. Sabrosky

Anthomyzids are small, slender flies, commonly swept from grass and low vegetation, especially in marshy areas. Larvae have been found associated with *Juncus*, *Typha*, *Elymus*, and so forth, but it is not clear whether they are phytophagous or saprophagous.

REFERENCES: Melander, 1913a (rev.); Sturtevant, 1954 (key to genera).

Genus ANTHOMYZA Fallén

Anthomyza Fallén, 1810a: 20. Type-species, *gracilis* Fallén (Westwood, 1840: 152).

Anthophilina Zetterstedt, 1837: 55. Type-species, *Anthomyza gracilis* Fallén (mon.).

The genus needs revision; the only available key is probably unreliable for all the species.

concolor (Thomson), 1869: 596 (*Piophila*).—Calif. **N. comb.**

gracilis Fallén, 1823a: 8.—Sweden; Alaska to Maine, s. to Calif., N. Mex., and W. Va., Europe.

pallida (Zetterstedt), 1848: 2702 (*Anthophilina*).—Scandinavia; Alaska to S. Dak., s. to Calif. and Utah, also Mich., Ont., Europe.

tenuis (Loew), 1863b: 324 (Cent. 4, no. 95) (*Anthophilina*).—Alaska (Sitka); Alaska to Wash., also Minn. to Que., s. to Va.

variegata (Loew), 1863b: 324 (Cent. 4, no. 96) (*Anthophilina*).—D.C.; Wash. to Maine, s. to Calif. and Va., also Ga.

Genus ISCHNOMYIA Loew

Ischnomyia Loew, 1863b: 325 (Cent. 4, no. 97). Type-species, *vittula* Loew (mon.) = *albicosta* (Walker).

albicosta (Walker), 1849: 1113 (?*Diastata*).—Unknown; Wis. to N.Y., s. to N.C.

vittula Loew, 1863b: 325 (Cent. 4, no. 97).—Pa.

vittata (error) Curran, 1934a: 330.

spinosa Hendel, 1911: 45.—Mich.; Wis. to N.H., s. to N.C.

Genus MUMETOPIA Melander

Mumetopia Melander, 1913a: 293. Type-species, *occipitalis* Melander (orig. des.).

nigrimana (Coquillett), 1900g: 264 (*Anthomyza*).—P.R.; Fla., Neotropical.

occipitalis Melander, 1913a: 294.—Tex. and La.; S. Dak. to Mass., s. to ne. Mexico and Fla., also Bermuda.

terminalis (Loew), 1863b: 324 (Cent. 4, no. 94) (*Anthophilina*).—N.H. (as Carolina, error); Mich. to Que., s. to Va.

nitens Melander, 1913a: 294.—Mass.

Genus STENOMICRA Coquillett

Stenomicra Coquillett, 1900g: 262. Type-species, *angustata* Coquillett (orig. des.).

angustata Coquillett, 1900g: 262.—P.R.; Wis. to Que., s. to Tex. and Fla., Neotropical.

Genus CYAMOPS Melander

Cyamops Melander, 1913a: 291. Type-species, *nebulosus* Melander (orig. des.).

This genus has usually been placed in the Anthomyzidae, but it may go elsewhere when family assignments in the Acalyptratae are more thoroughly studied.

REFERENCE: Sabrosky, 1958 (key).

halteratus Sabrosky, 1958: 170.—Wis.; Mich., Ont., N.H., Mass.
imitatus Sturtevant, 1954: 559.—Ind.
nebulosus Melander, 1913a: 292.—Mass.; Ind. to N.S., s. to Fla.

Family OPOMYZIDAE

(Geomyzidae)

By J. R. Vockeroth

The known larvae of *Opomyza* and *Geomyza* feed in stems of a wide variety of Gramineae.

REFERENCES: Melander, 1913a (key); Vockeroth, 1961a (rev.).

Genus OPOMYZA Fallén

Opomyza Fallén, 1820d: 10. Type-species, *Musca germinationis* Linnaeus (Westwood, 1840: 152).

germinationis (Linnaeus), 1758: 600 (*Musca*).—Sweden; N.S., Europe. Immigrant.
petrei Mesnil, 1934: 202.—France; sw. B.C., Europe. Immigrant.

Genus ANOMALOCHAETA Frey

Anomalochaeta Frey, 1921: 25. Type-species, *Opomyza guttipennis* Zetterstedt (orig. des.).

guttipennis (Zetterstedt), 1838: 762 (*Opomyza*).—Sweden; s. Alaska to n. Ont. (Hudsonian and Canadian zones), n. Europe, Siberia.

Genus GEOMYZA Fallén

Geomyza Fallén, 1810a: 18. Type-species, *Musca combinata* Linnaeus (mon.).
Balioptera Loew, 1864b: 347. Type-species, *Musca combinata* Linnaeus (Coquillett, 1910b: 513).
Mutiloptera Coquillett, 1908: 147. Type-species, *apicalis* Coquillett (orig. des.)=*coquilletti* (Hendel).

apicalis (Meigen), 1830: 109 (*Opomyza*).—Europe; s. Ont., N.S.
balachowskyi Mesnil, 1934: 197.—France; s. B.C., Wash., Oreg., N.S., Conn. Immigrant.
combinata (Linnaeus).—Not Nearctic.
coquilletti (Hendel), 1917: 39 (*Mutiloptera;* n. name for *apicalis* Coquillett).—N. Dak.; s. Alta., s. Sask., S. Dak., Mich.
apicalis Coquillett, 1908: 148 (*Mutiloptera;* preocc. Meigen, 1830).—N. Dak.
dolomata Vockeroth, 1961a: 518.—Colo.; Utah.
lurida (Loew), 1864a: 98 (Cent. 5, no. 98) (*Opomyza*).—Alaska; s. Alaska, s. to s. Calif., w. of Coast Ranges.
monostigma Melander, 1913a: 288.—Calif.; Wash.
monticola Vockeroth, 1961a: 516.—s. Alta.; s. Sask.
parvistigma Vockeroth, 1961a: 518.—s. B.C.
velata Vockeroth, 1961a: 519.—Sask.; Alta.
venusta (Meigen).—Not Nearctic.
vespertina Vockeroth, 1961a: 517.—Calif.; Utah.

Family CHYROMYIDAE

By J. F. McAlpine

Nine described species of chyromyid flies occur in North America, but apparently undescribed species are known in at least the genera *Aphaniosoma* Becker and *Gymnochiromyia* Hendel.

Several species have been reared from birds' nests and mammals' burrows, and a few from rotting wood. Adults are often taken on windows and on vegetation. Collections of the family made at the same time and place frequently contain a mixture of species.

REFERENCE: Wheeler, 1961 (key).

Genus APHANIOSOMA Becker

Aphaniosoma Becker, 1903: 186. Type-species, *approximatum* Becker (mon.).

REFERENCE: Wheeler, 1961 (key).

aldrichi Wheeler, 1961: 90.—Tex.
frontatum Wheeler, 1961: 89.—Calif.; Utah, Ariz., Mexico.
quadrivittatum Malloch, 1915h: 357.—Ill.; Ont.

Genus CHYROMYA Robineau-Desvoidy

Chyromya Robineau-Desvoidy, 1830: 620. Type-species, *fenestratum* Robineau-Desvoidy (mon.)=*flava* (Linnaeus).
Chyromyia and *Chiromyia*, emends.

REFERENCE: Malloch, 1914k (rev.).

femorella (Fallén), 1820c: 34 (*Sapromyza*).—Sweden; temperate N. Amer., Europe.
flava (Linnaeus), 1758: 600 (*Musca*).—Europe; e. N. Amer.
ochrapesus Rathvon *in* Reigert, 1855: 9 (*Musca*).—Pa.
oppidana (Scopoli), 1763: 349 (*Musca*).—Yugoslavia; Que., D.C., Europe.

Genus GYMNOCHIROMYIA Hendel

Gymnochiromyia Hendel, 1933c: 43. Type-species, *Peletophila minima* Becker (orig. des.).

concolor (Malloch), 1914k: 181 (*Chyromya*).—Ill.; Man. to N.B., Tenn. **N. comb.**
minima (Becker), 1904b: 133 (*Peletophila*).—Estonia; Wash., Calif., Europe.
nigrimana (Malloch), 1914k: 181 (*Chyromya*).—Ill.; Calif. **N. comb.**

Family AULACIGASTRIDAE

By Willis W. Wirth

The family status follows Hennig (1958a). There is only one North American species, which is found on, and breeds in, sap fluxes from wounds on tree trunks.

REFERENCES: Malloch and McAtee, 1924a (biol., immature stages); Robinson, 1953 (morphology and life history).

Genus AULACIGASTER Macquart

Aulacigaster Macquart, 1835: 579. Type-species, *rufitarsis* Macquart (mon.)=*leucopeza* (Meigen).

Aulacogaster, emend.

leucopeza (Meigen), 1830: 100 (*Diastata*).—Europe; Sask. to Que., s. to Fla. and Mexico.

Family ASTEIIDAE

By Curtis W. Sabrosky

Adult asteiids are small, delicate, and rarely collected. Almost nothing is known of their biology.

REFERENCE: Sabrosky, 1957 (rev., W. Hemisphere).

Subfamily SIGALOESSINAE

Genus LEIOMYZA Macquart

Leiomyza Macquart, 1835: 605. Type-species, *Agromyza glabricula* Meigen (Blanchard, 1840: 629)=*scatophagina* (Fallén).

Liomyza, emend.

curvinervis (Zetterstedt), 1838: 785 (*Anthophilina*).—Lapland, Alaska to Mont., s. to Calif. and N. Mex., also Ont., Que., N.Y., N.H., Maine, Europe.

melanderi Aldrich, 1919a: 140, 141.—Idaho.

slossonae Aldrich, 1919a: 140.—N.H.

laevigata (Meigen), 1830: 179 (*Agromyza*).—Europe; Mich., Ont.

scatophagina (Fallén), 1823a: 3 (*Heteroneura*).—Sweden; Mich. to N.H., s. to Tenn., Europe.

wheeleri Sabrosky, 1957: 49.—N. Mex.; Utah.

Genus PHLEBOSOTERA Duda

Phlebosotera Duda, 1927: 119, 125. Type-species, *mollis* Duda (orig. des.).

angustigena Sabrosky, 1957: 50.—Tex.
setipalpis Sabrosky, 1943c: 511.—Utah; N. Mex., Ill.
shewelli Sabrosky, 1957: 51.—Ont.; ?Mich.

Genus ASTIOSOMA Duda

Astiosoma Duda, 1927: 119, 127. Type-species, *rufifrons* Duda (orig. des.).

aridum Sabrosky, 1957: 60.—Calif.; s. Calif.
flaveolum (Coquillett), 1898f: 49 (*Sigaloessa*).—D.C.; Kans., Ill., Ohio, N.H. to Fla.
hirtum (Aldrich), 1915c: 97 (*Sigaloessa*).—Idaho; Calif., ?Tenn., ?N.C.
lineatum (Aldrich), 1915c: 96 (*Sigaloessa*).—Idaho; Wash., Calif., N. Mex.

Genus SIGALOESSA Loew

Sigaloessa Loew, 1866a: 186 (Cent. 6, no. 100). Type-species, *bicolor* Loew (mon.).

bicolor Loew, 1866a: 186 (Cent. 6, no. 100).—Cuba; Ill., Tex., La., Bermuda, Neotropical.
flavifrons Sabrosky, 1957: 56.—Fla.; Bahama Is.
obscura Sabrosky, 1957: 57.—Md.; Tex., Fla.
semiglabra Sabrosky, 1957: 56.—Fla.

Subfamily ASTEIINAE

Genus ASTEIA Meigen

Asteia Meigen, 1830: 88. Type-species, *amoena* Meigen (Westwood, 1840: 152).

beata Aldrich, 1915c: 95.—Mass.; B.C., Wash., Oreg., Mont., Ill. to Maine.
expansa Sabrosky, 1957: 46.—Costa Rica; Fla., Haiti, Ecuador.
multipunctata Sabrosky, 1939b: 165.—Idaho; B.C. to Sask., s. to N. Mex.

Genus LOEWIMYIA Sabrosky

Loewimyia Sabrosky, 1943c: 503. Type-species, *bifurcata* Sabrosky (orig. des.).

Unnamed sp. (Sabrosky, 1957: 48).—Tex.

Family CRYPTOCHETIDAE

By Richard H. Foote

The population center of the Cryptochetidae is tropical Africa. As far as known, the larvae of all species parasitize monophlebine coccids, and on account of their great differences in form are much more easily identified than are adults. The single North American species was introduced from Australia into California in an attempt to control the cottony-cushion scale, *Icerya purchasi*. This introduction has been a very successful one.

REFERENCE: Thorpe, 1931a (review).

Genus CRYPTOCHETUM Rondani

Cryptochetum Rondani, 1875a: 167 (as *Cryptochoetum*, p. 172) (1875: 2, 7). Type-species, *grandicorne* Rondani (orig. des.).
Cryptochaetum, emend.
Lestophonus Williston, 1888c: 21. Type-species, *iceryae* Williston (mon.).

iceryae (Williston), 1888c: 21 (*Lestophonus*).—Australia; Calif. Introduced.
monophlebi, authors, not Skuse.

Acalyptrate Genera of Uncertain Family Position

Genus CINDERELLA Steyskal

Cinderella Steyskal, 1949b: 135. Type-species, *lampra* Steyskal (mon.).

lampra Steyskal, 1949b: 134.—Okla.; Oreg., Ariz., Tex., Tenn., Ga., Fla.

Genus LATHETICOMYIA Wheeler

Latheticomyia Wheeler, 1956: 306. Type-species, *tricolor* Wheeler (orig. des.).

lineata Wheeler, 1956: 310.—Ariz.
tricolor Wheeler, 1956: 307.—Ariz.; Utah.

Section CALYPTRATAE

Superfamily MUSCOIDEA

Family ANTHOMYIIDAE

(Muscidae, in part)

By H. C. Huckett (subfamilies Fucelliinae and Anthomyiinae) and J. R. Vockeroth (subfamily Scatophaginae)

Adults of Anthomyiidae resemble many species of Muscidae in being dark-bodied, rather slender flies, with wings of moderate length. The larvae, especially of the subfamily Anthomyiinae, are commonly known as root maggots, but many species inhabit the aerial portions of plants as well; they are usually primary invaders of plant tissue. The larvae of several species of Scatophaginae feed in dung. Some are aquatic, and sometimes they are predaceous.

The family has often been treated taxonomically as a part of the Muscidae, which it very closely resembles in morphology. A supposed representative of the subfamily Eginiinae, *Lutzomyia*, is herein referred to the tachinid subfamily Rhinophorinae.

REFERENCES: Schnabl and Dziedzicki, 1911 (Palaearctic); Malloch, 1917f (key, subfamilies); Stein, 1920 (rev.); Séguy, 1937 (cat., key genera of world); Ringdahl, 1959 (Sweden).

Subfamily SCATOPHAGINAE

(Scatomyzidae, Scopeumatidae, Cordiluridae)

By J. R. Vockeroth

The catalog of this subfamily is based on the examination of almost all available material, including most of the existing types. A revision, in which new synonymies and new combinations will be substantiated and many new species described, is approaching completion.

The biology of most species is unknown, but available records indicate that habitats are extremely varied. The Delinini are probably all leaf miners in plants of the families Orchidaceae, Liliaceae, and (in Japan) Commelinaceae. Scatophagini of the genera *Norellia*, *Cordilura*, *Nanna*, *Gonarcticus*, *Gimnomera*, and *Hydromyza* feed in a variety of families of plants, a few *Scatophaga* in rotten seaweed, and many *Scatophaga* in dung; *Spaziphora* live in water.

REFERENCES: Curran, 1934a (key to genera); Séguy, 1952 (cat.; key, world genera; summary of hosts and larval habitats).

Tribe SCATOPHAGINI

Genus NORELLIA Robineau-Desvoidy

Norellia Robineau-Desvoidy, 1830: 673. Type-species, *pseudonarcissi* Robineau-Desvoidy (mon.)=*tipularia* (Fabricius), **n. syn.**

Subgenus NORELLISOMA Wahlgren

Norellisoma Wahlgren, 1917: 148 (as genus). Type-species, *Cordilura spinimana* Fallén (present des.). **N. status.**
Norellisoma Hendel, 1910b: 308. Nomen nudum.
Norelliosoma Hendel, 1930b: 2, error.

spinimana (Fallén), 1819: 7 (*Cordilura*).—Sweden; Alaska, Oreg., Colo., s. Que., Europe, U.S.S.R. (Kamchatka).
occidentalis Malloch, 1919e: 311.—Oreg. **N. syn.**
septentrionalis Hendel, 1930b: 2 (*Norelliosoma*).—U.S.S.R. (Kamchatka). **N. syn.**

Genus CORDILURA Fallén

Cordilura Fallén, 1810a: 15. Type-species, *Musca pubera* Linnaeus (mon.; misident.)=*rufipes* Meigen.
Cordylura, error.
Paratidia Malloch, 1931a: 432. Type-species, *Acicephala intermedia* Curran (orig. des.). **N. syn.**
Cordilura, subg. *Snyderia* James, 1955b: 98. Type-species, *praeusta* Loew (orig. des.). **N. syn.**

Subgenus CORDILURA Fallén

REFERENCE: James, 1955b (key).

adrogans Cresson, 1918b: 135.—Calif.; Wash., Oreg.
angustifrons Loew, 1863a: 24 (Cent. 3, no. 45).—Wis.; Minn. to N.B., s. to Mass.
atrata Zetterstedt, 1846: 2002.—Norway, Sweden; Alaska to Labr., s. to Calif. and cent. Que., n. Europe, U.S.S.R. (Kamchatka).
beringensis Malloch, 1923i: 198.—Bering Sea (St. George I.). **N. syn.**
atripennis James, 1955b: 100.—Utah.
carbonaria (Walker), 1849: 1047 (*Lissa*).-N.Y.; cent. Ont. to N.C.
terminalis Loew, 1863a: 21 (Cent. 3, no. 39).—Pa.
ciliatipes James, 1955b: 93.—Calif.

confusa Loew, 1863a: 23 (Cent. 3, no. 43).—N.W.T.; cent. Alaska to Nfld., s. to N. Mex., Minn., and N.Y.

criddlei Curran, 1929e: 131.—B.C.; B.C. to Labr., s. to Calif. and Colo.

masconina Curran, 1931c: 11.—Que.

gagatina Loew, 1869c: 182 (Cent. 9, no. 93).—Canada; n. Man. to s. Labr., s. to Mich. and N.J.

intermedia (Curran), 1927h: 259 (*Acicephala*).—Man.; s. Alta. to s. Man., s. to Calif. and Nev.

latifrons Loew, 1869c: 181 (Cent. 9, no. 92).—Middle States; cent. Alaska to Nfld., s. to Calif., N. Mex., and Va.

inversa Curran, 1929e: 131.—B.C.

loewi James, 1955b: 88 (n. name for *flavipes* Loew).—Wis.; s. Man. to Mich., s. to S. Dak. and Ind.

flavipes Loew, 1863a: 25 (Cent. 3, no. 46) (preocc. Fallén, 1819).—Wis.

ontario Curran, 1929e: 132.—Ont.; cent. Alaska to s. Labr., s. to Calif., Colo., Minn., and Mass.

passiva Curran, 1929e: 130.—Colo.; s. Alta. and Man., s. to Colo.

picticornis Loew, 1864f: 22.—Siberia; cent. Alaska to n. Que. and s. Labr., s. to Calif. and N. Mex., n. Europe, Siberia.

pictipennis (error) Osten Sacken, 1878c: 173.

vierecki Cresson, 1918b: 134.—N. Mex. **N. syn.**

praeusta Loew, 1864a: 96 (Cent. 5, no. 93).—Canada; cent. Ont. to N.S., s. to Iowa and N.C.

proboscidea Zetterstedt, 1838: 728.—Lapland; cent. Alaska, n. Man., n. Europe.

pudica Meigen, 1826: 231.—Europe; cent. Alaska to s. Que., s. to Colo., Minn., and Maine.

alberta Curran, 1929e: 132.—Alta. **N. syn.**

rufimana Meigen, 1826: 232.—Europe; cent. Alaska, n. Man.

setosa Loew, 1860b: 81.—D.C.; cent. Ont. to N.B., s. to Wis. and n. Ga.

variabilis Loew, 1876: 326.—Mass.; Mich. to s. Que. and Maine, s. to N.J.

varicornis Curran, 1929e: 130.—Alta.

Subgenus ACICEPHALA Coquillett

Acicephala Coquillett, 1898g: 163 (as genus). Type-species, *polita* Coquillett (orig. des.). **N. status.**

polita (Coquillett), 1898g: 163 (*Acicephala*).—Colo.; cent. Sask. to s. Que., s. to Colo. and Mich. **N. comb.**

Subgenus ACHAETELLA Malloch

Achaetella Malloch, 1923h: 140 (as genus). Type-species, *Lissa varipes* Walker (orig. des.). **N. status.**

deceptiva Malloch, 1923h: 180.—Mich.; Wis. to s. Que., s. to W. Va.

varipes (Walker), 1849: 1046 (*Lissa*).—Ohio; cent. Alta. to Maine, s. to Colo. and n. Ga. **N. comb.**

bimaculata Loew, 1860b: 80.—D.C.

maculipennis Wulp, 1867: 152.—Wis.

polita Harris, 1835: 600 (*Lissa*). Nomen nudum.

Subgenus CORDILURINA James

Parallelomma Becker, 1894: 94 (preocc. Becker, 1894). Type-species, *Cordilura albipes* Fallén (orig. des.). Becker's formal proposal, and the usage of authors was unfortunately antedated by the use of *Parallelomma* Becker *in* Strobl, 1894b, now recognized as a distinct genus.

Cordilura, subg. **Cordilurina** James, 1955b: 96. Type-species, *vittipes* Loew (orig. des.)=*fuscipes* Zetterstedt.

REFERENCE: Malloch, 1923h (key, as *Parallelomma*).

albicoxa James, 1955b: 97.—Calif.

banksi (Malloch), 1923h: 180 (*Parallelomma*).—N.Y.; cent. Ont. to N.Y., s. to Tenn. **N. comb.**

dimidiata (Cresson), 1918b: 135 (*Parallelomma*).—Pa.; cent. Ont. to s. Que., s. to Mo., Tenn., and Va. **N. comb.**

emarginata (Malloch), 1923h: 179 (*Parallelomma*).—Mass.; Pa. to Mass., s. to N.C. **N. comb.**

dorsalis Malloch, 1923h: 180 (*Parallelomma*; as var.).—Va. **N. syn.**

fasciventris Curran, 1927h: 258.—B.C.

fuscipes Zetterstedt, 1838: 726.—Sweden; cent. Alaska to n. Labr., s. in mts. to N. Mex. and N.H., n. Europe, U.S.S.R. (Kamchatka).

pallida Walker, 1849: 981 (*Scatophaga*).—Ont. **N. syn.**

vittipes Loew, 1872a: 96 (Cent. 10, no. 74).—Alaska. **N. syn.**

lutea Loew, 1872a: 96 (Cent. 10, no. 75).—Alaska. **N. syn.**

fulvithorax Curran, 1929e: 131 (as *fasciventris* var.).—Alta. **N. syn.**

browni Curran, 1931c: 12.—Que. **N. syn.**

glabra Loew, 1869c: 180 (Cent. 9, no. 90).—N.H.; cent. Ont. to s. Que., s. to Wis., Tenn., and N.J.

similata Malloch, 1923h: 178 (*Parallelomma*).—Ont. **N. syn.**

gracilipes Loew, 1869c: 178 (Cent. 9, no. 87).—N.H.; cent. B.C. to s. Labr., s. to Mich. and N.C.

luteola Malloch, 1924g: 14.—Oreg.; cent. B.C. to Idaho, s. to Calif.

munda Loew, 1869c: 180 (Cent. 9, no. 91).—N.W.T.; cent. Alaska to cent. Que., s. to Kans. and Va.

pleuritica Loew, 1863a: 23 (Cent. 3, no. 42).—Ont.; cent. B.C. to s. Labr., s. to Colo. and N.C.

slossonae Coquillett, 1898g: 164.—N.H., Mass.

vicina Cresson, 1918b: 136 (*Parallelomma*).—Pa.

scapularis Loew, 1869c: 179 (Cent. 9, no. 89).—Ont.; cent. Sask. to w. Ont., s. Colo. and Minn. L

tarsalis (Malloch), 1923h: 177 (*Parallelomma*).—Va.; cent. Ont., Iowa. **N. comb.**

Subgenus PSEUDACICEPHALA Malloch

Pseudacicephala Malloch, 1931a: 431 (as genus). Type-species, *Acicephala pilosella* Coquillett (orig. des.). **N. status.**

REFERENCE: Malloch, 1931a (key).

alberta (Curran), 1927h: 259 (*Acicephala*).—Alta.; cent. Alta. to cent. Sask., s. to Mont. **N. comb.**

marginata (Malloch), 1931a: 432 (*Pseudacicephala*).—Nev.; Oreg., Calif., Utah. **N. comb.**

pilosella (Coquillett), 1898g: 163 (*Acicephala*).—Nev., Colo.; Utah, N. Mex. **N. comb.**

Subgenus SCOLIAPHLEPS Becker

Scoliaphleps Becker, 1894: 98 (as genus). Type-species, *Cordilura ustulata* Zetterstedt (orig. des.). **N. status.**

ustulata Zetterstedt, 1838: 727.—Sweden; Alta., Sask., n. Europe.

Genus GONATHERUS Rondani

Gonatherus Rondani, 1856: 99. Type-species, *Cordilura planiceps* Fallén (orig. des.).

planiceps (Fallén), 1826: 12 (*Cordilura*).—Sweden; s. Alaska, Europe, U.S.S.R. (Kamchatka).

Genus NANNA Becker

Clidogastra, subg. **Nanna** Becker *in* Strobl, 1894b: 78. Type-species, *Cordilura flavipes* Fallén (present des.). **N. status.**

Amaurosoma Becker, 1894: 109. Type-species, *Cordilura flavipes* Fallén (orig. des.). **N. syn.**

Pselaphephila Becker, 1894: 122. Type-species, *loewi* Becker (orig. des.). **N. syn.**

REFERENCE: Curran, 1927i (key).

atripes (Malloch), 1931a: 436 (*Amaurosoma*).—Y.T.; n. Y.T. to n. Que., s. to s. Alaska, s. Ont., and s. Labr. **N. comb.**

bispinosa (Malloch), 1920j: 285 (*Amaurosoma*).—Alaska. **N. comb.**

brunneicosta (Johnson), 1927: 100 (*Amaurosoma*).—Maine; cent. Ont. to Maine, s. to W. Va. **N. comb.**

katmaiensis (Malloch), 1920j: 284 (*Amaurosoma*).—Alaska; nw. N.W.T. to s. Labr., s. to s. Alaska, s. Alta., and cent. Que., U.S.S.R. (Kamchatka). **N. comb.**

kamtschatkense Hendel, 1930b: 9 (*Amaurosoma*).—U.S.S.R. (Kamchatka). **N. syn.**

leucostoma (Zetterstedt), 1846: 2063 (*Cordilura*).—Lapland; s. Alaska, n. Que., n. Europe. **N. comb.**

acuticornis Loew, 1869c: 182 (Cent. 9, no. 94) (*Cordilura*).—Hudson Bay Territory. **N. syn.**

loewi (Becker), 1894: 123 (*Pselaphephila*).—Unknown; cent. Alta. to N.B., s. to Minn., U.S.S.R. (Kamchatka). **N. comb.**

argyriceps Curran, 1927h: 254 (*Pselaphephila*).—Ont. **N. syn.**

carbonaria Hendel, 1930b: 11 (*Amaurosoma*).—U.S.S.R. (Kamchatka). **N. syn.**

pallidipes (Malloch), 1922c: 77 (*Amaurosoma*).—N.H.; n. B.C. to Maine, s. to Mich. and in mts. to Tenn. **N. comb.**

similis (Coquillett), 1902g: 124 (*Pselaphephila*).—Mass.; s. N.W.T. to cent. Que., s. to B.C. and Va. **N. comb.**

unispinosa (Malloch), 1920j: 285 (*Amaurosoma*).—Alaska. **N. comb.**

Genus ORTHACHETA Becker

Orthacheta Becker, 1894: 101. Type-species, *Cordilura pilosa* Zetterstedt (orig. des.).

Orthochaeta Aldrich, 1905: 567, emend.

cornuta (Loew), 1863a: 26 (Cent. 3, no. 48) (*Cordilura*).—Ont.; n. Y.T. to s. Labr., s. to s. Alaska, cent. Alta., and Pa., also Colo., U.S.S.R. (Kamchatka).

amoena Cresson, 1918b: 133.—Pa. **N. syn.**

brunneipennis Johnson, 1927: 102.—N.H. **N. syn.**

fuscipennis Hendel, 1930b: 8.—U.S.S.R. (Kamchatka). **N. syn.**

dissimilis Malloch, 1924h: 194.—Ill.; Minn. to cent. Que., s. to Ill. and Va.

hirtipes Johnson, 1927: 103.—N.H.; s. B.C. to cent. Que., s. to Utah, Iowa, and Mass., also Va.

pilosa (Zetterstedt).—Not Nearctic.

strigipes Johnson, 1927: 102.—Colo.; cent. Alta. to s. Man., s. to N. Mex.

Genus GONARCTICUS Becker

Gonarcticus Becker, 1894: 103. Type-species, *Scatomyza antennata* Zetterstedt (orig. des.).

alberta (Curran), 1927i: 293 (*Amaurosoma*).—Alta.; s. Alaska to cent. Que., s. to Wash. and sw. Alta., also Colo. **N. comb.**

arcticus (Becker), 1907c: 412 (*Pselaphephila*).—Greenland; n. Alaska to n. Greenland, s. to n. B.C. and n. Que. **N. comb.**

atricornis Malloch, 1919f: 77 (*Gonatherus*).—N.W.T. **N. syn.**

Genus BUCEPHALINA Malloch

Bucephalina Malloch, 1919f: 76, 77. Type-species, *Cordilura megacephala* Loew (orig. des.).

Subgenus BUCEPHALINA Malloch

megacephala (Loew), 1869c: 183 (Cent. 9, no. 95) (*Cordilura*).—D.C.; Pa., Md.

setipes (Coquillett), 1910c: 43 (*Parallelomma*).—Pa.; Iowa to N.Y., s. to Va. **N. comb.**

flavovaria Coquillett, 1910c: 44 (*Parallelomma*).—Pa. **N. syn.**

Subgenus NEOGIMNOMERA Malloch

Neogimnomera Malloch, 1920c: 36 (as genus). Type-species, *Cordilura amans* Cresson (orig. des.). **N. status.**

amans (Cresson), 1918b: 134 (*Cordilura*).—Calif. **N. comb.**

Genus MEGAPHTHALMA Becker

Megaphthalma Becker, 1894: 105. Type-species, *Cordilura pallida* Fallén (orig. des.).

Megophthalma, emend.

Megophthalmum Hendel, 1910b: 308, emend.

pallida pallida (Fallén).—Not Nearctic.

ssp. **americana** Malloch, 1924g: 14 (as sp.).—Oreg.; s. B.C. to cent. Que., s. to Calif., Mich., and S.C. **N. status.**

Genus MEGAPHTHALMOIDES Ringdahl

Megaphthalmoides Ringdahl, 1936: 179. Type-species, *Cordilura unilineata* Zetterstedt (orig. des.).

unilineatus (Zetterstedt), 1838: 727 (*Cordilura*).—Sweden; cent. Alaska to n. Que. and N.S., s. to s. B.C. and N.C., Europe.

Genus POGONOTA Zetterstedt

Cordilura, subg. **Pogonota** Zetterstedt, 1860: 6333. Type-species, *hircus* Zetterstedt (Becker, 1894: 138) = *barbata* (Zetterstedt).

Pogonota, subg. *Okenina* Malloch, 1931a: 427. Type-species, *Cordilura fulvibarba* Loew (orig. des.) = *gilvipes* (Loew). **N. syn.**

Subgenus POGONOTA Zetterstedt

barbata (Zetterstedt), 1838: 734 (*Cordilura*).—Sweden; Alaska, n. Man., n. Europe.

hircus Zetterstedt, 1838: 735 (*Cordilura*).—Sweden.

gilvipes (Loew), 1863a: 26 (Cent. 3, no. 49) (*Cordilura*).—Ont.; cent. Alaska to s. Labr., s. to Colo. and Mich. **N. comb.**

fulvibarba Loew, 1872a: 97 (Cent. 10, no. 76) (*Cordilura*).—N.W.T. **N. syn.**

pallida Malloch, 1931a: 429.—Ont.; cent. Alta. to cent. Que., s. to Mich. and Maine.

Subgenus LASIOSCELUS Becker

Lasioscelus Becker, 1894: 143 (as genus). Type-species, *Cordilura clavata* Zetterstedt (orig. des.) = *immunda* (Zetterstedt). **N. status.**

immunda (Zetterstedt), 1838: 733 (*Cordilura*).—Norway; n. Y.T. to n. Labr., s. to sw. Alaska and n. Man., n. Europe. **N. comb.**

sahlbergi (Becker), 1900: 51 (*Lasioscelus*).—nw. Siberia; nw. N.W.T. to s. Baffin I., s. to se. N.W.T. **N. comb.**

Genus OKENIELLA Hendel

Okenia Zetterstedt, 1838: 734 (preocc. Menke, 1830). Type-species, *Cordilura caudata* Zetterstedt (Becker, 1894: 141).

Okeniella Hendel, 1907a: 98 (n. name for *Okenia* Zetterstedt). Type-species, *Cordilura caudata* Zetterstedt (aut.).

dasyprocta (Loew), 1864f: 25 (*Cordilura*).—Sweden; n. Alaska to N.W.T. (s. Baffin I.)., s. in mts. to cent. Alta. and cent. Que., also Colo., n. Europe.

kincaidi Coquillett, 1900h: 455 (1904: 69) (*Pogonota*).—Alaska. **N. syn.**

Genus COSMETOPUS Becker

Cosmetopus Becker, 1894: 146. Type-species, *Cordilura dentimana* Zetterstedt (orig. des.).

longus (Walker), 1849: 976 (*Cordilura*).—Ont.; n. N.W.T. to n. Que., s. to s. Alaska and cent. Ont., n. Europe, n. Siberia. **N. comb.**

bergrothi Becker, 1900: 48.—nw. Siberia. **N. syn.**

bryanti Malloch, 1932b: 303.—N.W.T. **N. syn.**

Genus PLEUROCHAETELLA Vockeroth

Pleurochaeta Becker, 1915: 63 (preocc. Beddard, 1883). Type-species, *fulvisetis* Becker (mon.) = *simplicipes* (Becker).

Pleurochaetella Vockeroth (for *Pleurochaeta* Becker). Type-species, *Pleurochaeta fulvisetis* Becker (aut.) = *simplicipes* (Becker). **N. name.**

simplicipes (Becker), 1900: 50 (*Cosmetopus*).—nw. Siberia; n. Alaska to n. Labr., s. to sw. Alaska and n. Man. **N. comb.**

dissimilis Malloch, 1920j: 286 (*Microprosopa*).—Alaska. **N. syn.**

Genus ALLOMYELLA Malloch

Allomyia Malloch, 1919f: 80 (preocc. Banks, 1916). Type-species, *unguiculata* Malloch (mon.).

Allomyella Malloch, 1923i: 199 (n. name for *Allomyia* Malloch). Type-species, *Allomyia unguiculata* Malloch (aut.).

borealis Curran, 1927h: 260.—Alaska.

brevipennis Malloch, 1923i: 199.—Alaska (Pribilof Is.).

crinipes (Ringdahl), 1928a: 21 (*Microprosopa*).—Sweden; n. Y.T., n. N.W.T., n. Que. **N. comb.**

frigida (Holmgren), 1883: 176 (*Cordilura*).—U.S.S.R. (Novaya Zemlya); n. Alaska, n. Siberia. **N. comb.**

portenkoi (Stackelberg), 1952: 406 (*Microprosopa*).—ne. U.S.S.R. (Wrangel I.); n. Alaska and n. N.W.T., s. to cent. Alaska and cent. Y.T. **N. comb.**

unguiculata (Malloch), 1919f: 80 (*Allomyia*).—N.W.T.; n. Y.T.

Genus MICROPROSOPA Becker

Microprosopa Becker, 1894: 147. Type-species, *Cordilura haemorrhoidalis* Meigen (orig. des.).

diversipes Curran, 1927h: 256.—Alta.; nw. B.C., Wyo., Colo.

flavinervis Malloch, 1924h: 193.—Mass.; N.Y., N.H., Conn., N.J., Va., N.C.

haemorrhoidalis (Meigen), 1826: 237 (*Cordilura*).—Sweden; n. Alaska to s. Greenland, s. to s. Alaska and s. Labr., and in mts. to cent. Alta., N.H., and Maine, n. Europe.

volucricaput Walker, 1849: 977 (*Cordilura*).—Ont. **N. syn.**

triseta Malloch, 1920j: 286.—Alaska. **N. syn.**

heteromyzina (Zetterstedt), 1838: 723 (*Scatomyza*).—Sweden; s. Alaska and B.C. to Nfld., also Colo., n. Europe.

lineata (Zetterstedt), 1838: 732 (*Cordilura*).—Sweden; cent. Alaska, N.W.T., n. Que., n. Europe.

ciliatus Van Duzee, 1927a: 599 (*Sicus*).—Alaska (St. Paul I.). **N. syn.**

pallidicauda (Zetterstedt), 1838: 733 (*Cordilura*).—Sweden; Alaska, Y.T., w. N.W.T., n. Europe.

pallicauda, error.

arctica Malloch, 1920j: 285.—Alaska. **N. syn.**

varicornis Curran, 1927h: 257.—B.C.; n. B.C. to se. N.W.T., s. to s. B.C. and s. Alta.

Genus ACANTHOCNEMA Becker

Acanthocnema Becker, 1894: 136 (preocc. Costa, 1859). Type-species, *Cordilura nigrimana* Zetterstedt (orig. des.). Name conserved I.C.Z.N., 1954c: 91.

Clinoceroides Hendel, 1917: 36. Type-species, *Cordilura glaucescens* Loew (orig. des.).

albibarba (Loew), 1869c: 183 (Cent. 9, no. 96) (*Cordilura*).—N.H.; N.Y.

capillata (Loew), 1872a: 98 (Cent. 10, no. 77) (*Cordilura*).—N.H.; s. Que.

nigrimana (Zetterstedt).—Not Nearctic.
ruficauda Curran, 1929e: 133.—Colo.; Utah.

Genus STAEGERIA Rondani

Staegeria Rondani, 1856: 99. Type-species, *Cordilura kunzei* Zetterstedt (orig. des.).

Unnamed sp.—cent. Alta. to cent. Que., s. to Minn.

Genus SPAZIPHORA Rondani

Spaziphora Rondani, 1856: 99. Type-species, *Cordilura hydromyzina* Fallén (orig. des.).
Spathiophora Mik, 1884: 254, emend.
Spathiphora, emend.

cincta (Loew), 1863a: 25 (Cent. 3, no. 47) (*Cordilura*).—D.C.; cent. Alaska to cent. Que., s. to s. Alta., Iowa, and Va.
litoralis Curran, 1927h: 256 (as var.).—Ont. **N. syn.**
fascipes, authors, not Becker.

Genus CORDYLURELLA Malloch

Cordylurella Malloch, 1919f: 78. Type-species, *Cordilura nebulosa* Coquillett (orig. des.).

nana (Loew), 1864a: 96 (Cent. 5, no. 94) (*Cordilura*).—Canada; cent. Ont. to s. Labr., s. to N.J. **N. comb.**
costalis Curran, 1929e: 133.—Que.
nebulosa (Coquillett), 1898g: 164 (*Cordilura*).—Ill.; cent. Ont. to N.S., s. to Ill. and Maine.
rufula Curran, 1927h: 257.—Que.; N.Y.

Genus TRICHOPALPUS Rondani

Trichopalpus Rondani, 1856: 100 (as *Tricopalpus*, p. 225). Type-species, *Cordilura fraterna* Meigen (orig. des.).
Opsiomyia Coquillett, 1898g: 162. Type-species, *palpalis* Coquillett (orig. des.). **N. syn.**
Microprosopa, subg. *Paramicroprosopa* Ringdahl, 1936: 169, 177. Type-species, *subarctica* Ringdahl (mon.)=*obscurella* (Zetterstedt).

nigribasis Curran, 1927h: 255.—Alta.; s. Alaska to cent. N.W.T., s. to s. B.C., Colo., and s. Man., n. Europe.
pilirostris Ringdahl, 1936: 178 (*Chaetosa*).—Norway. **N. syn.**

obscurella (Zetterstedt), 1846: 2043 (*Cordilura*).—Sweden; cent. Alaska, N.W.T., n. Que., n. Europe.

palpalis (Coquillett), 1898g: 162 (*Opsiomyia*).—N.H.; s. B. C. to cent. Ont. and Maine, s. to Minn. and Ind. **N. comb.**

Genus CHAETOSA Coquillett

Chaetosa Coquillett, 1898g: 163. Type-species, *Cordilura punctipes* Meigen (orig. des.).

churchilli Malloch, 1931a: 434.—Man.; n. B.C., N.W.T., n. Man., n. Que.

punctipes (Meigen), 1826: 239 (*Cordilura*).—Europe; cent. Alaska to s. Labr., s. to Calif., Colo., Minn., and Maine.

Genus ERNONEURA Becker

Ernoneura Becker, 1894: 135. Type-species, *Scatomyza argus* Zetterstedt (orig. des.).

argus (Zetterstedt), 1838: 724 (*Scatomyza*).—Sweden; s. Alaska, n. Y.T., N.W.T., n. Que., n. Europe.

Genus SCATOPHAGA Meigen

Scopeuma Meigen, 1800: 36. Type-species, *Musca merdaria* Fabricius (Coquillett, 1910b: 604) = *sterocoraria* (Linnaeus). Suppressed by I.C.Z.N., 1963b: 339.

Scatophaga Meigen, 1803: 277 (as *Scathophaga*). Type-species, *Musca merdaria* Fabricius (mon.) = *stercoraria* (Linnaeus). The spelling *Scatophaga* has been used by all later authors, and by Meigen himself in his later works, and the I.C.Z.N. has been asked to conserve it (Vockeroth, 1961b: 296).

Pyropa Illiger, 1807: 475. Type-species, *Musca stercoraria* Linnaeus (present des.).

Scatomyza Fallén, 1810a: 15. Type-species, *Musca scybalaria* Linnaeus (Lucas *in* d'Orbigny, 1848: 411).

Conisternum Becker *in* Strobl, 1894b: 79. Type-species, *Cordilura obscura* Fallén (mon.).

Coniosternum Becker, 1894: 176 (as *Koniosternum*, p. 85). Type-species, *Cordilura obscura* Fallén (orig. des.). Formal proposal by Becker, unexpectedly antedated by Becker *in* Strobl.

Pseudopogonota Malloch, 1920c: 35. Type-species, *aldrichi* Malloch (orig. des.). **N. syn.**

REFERENCES: Malloch, 1935a (key); James, 1950a (key, w. N. Amer.).

aldrichi (Malloch), 1920c: 35 (*Pseudopogonota*).—Idaho; s. Alaska, B.C., w. Alta., Colo. **N. comb.**

pallida Malloch, 1920c: 36 (*Pseudopogonota*; as var.).—Idaho.

palpalis Malloch, 1931a: 443.—Alta.

apicalis Curtis, 1835b: lxxx.—Arctic N. Amer.; n. Alaska to n. Greenland, s. to n. Que., n. Europe, n. Siberia.

lanata Lundbeck, 1901: 294.—Greenland. **N. syn.**

nigrolanata Cresson, 1918b: 136.—Greenland. **N. syn.**

rubicunda Malloch, 1919f: 81.—Alaska (Pribilof Is.). **N. syn.**

crinita Coquillett, 1901h: 612.—Commander Is. (Bering I.); is. of Bering Sea.

dasythrix Becker, 1894: 173.—Bering Strait; w. Alaska to Calif., littoral.

frigida Coquillett, 1900h: 454 (1904: 68).—Alaska; sw. Alaska to cent. Calif., littoral.

furcata (Say), 1823: 98 (1859b: 85) (*Pyropa*).—Mo.; cent. Alaska to s. Greenland, s. to s. Calif., Mexico (D.F.), Miss., and Ga., Palearctic.

squalida Meigen, 1826: 252.—Germany.

bicolor Walker, 1849: 982.—Ont.

pubescens Walker, 1849: 982.—Ont. **N. syn.**

canadensis Walker, 1858: 218.—Canada. **N. syn.**

suisterci Townsend, 1891j: 153 (*Cleigastra*).—D.C.

postilena Harris, 1835: 600. Nomen nudum.

grisea Malloch, 1920c: 34.—Utah; Oreg. to cent. Alta., s. to Calif. and Colo.

hiemalis (James), 1950a: 348 (*Scopeuma*).—Colo.

incola Becker, 1900: 54.—nw. Siberia; Alaska, N.W.T., n. Labr., n. Europe.

intermedia Walker, 1849: 980.—N.S.; sw. Alaska to s. B.C., coast of Hudson Bay, Atlantic coast from N.W.T. (s. Baffin I.) to Mass., littoral.

impudica, authors, not Reiche.

litorea, authors, not Fallén.

islandica Becker, 1894: 175.—Labr., Iceland. Perhaps a mixture of *litorea* and *intermedia*.

lapponica (Ringdahl), 1920: 39 (*Coniosternum*).—Sweden; sw. Alaska. **N. comb.**

litorea (Fallén), 1819: 4 (*Scatomyza*).—Sweden; s. Greenland, Iceland, Europe, n. Africa, littoral.

impudica Reiche, 1857: ix (*Anthomyia*).—Greenland. **N. syn.**

lutaria (Fabricius).—Not Nearctic.

mollis Becker, 1894: 171.—Siberia; sw. Alaska to n. Y.T. and n. Man., s. to Utah and Colo.

monticola Malloch, 1924h: 195.—N.H.; s. Alaska, B.C., cent. Que.

multisetosa (Holmgren), 1883: 174 (*Scatomyza*).—U.S.S.R. (Novaya Zemlya and Vaigach I.); n. Alaska to N.W.T. (n. Ellesmere I., Baffin I.), n. Siberia.

vulpina Coquillett, 1898g: 162.—Alaska. **N. syn.**

nigripalpis Becker, 1907c: 413.—Greenland; cent. Alaska to n. Greenland, s. to se. N.W.T. and s. Baffin I.

picipes Malloch, 1935a: 263.—Y.T.

nigrolimbata Cresson, 1918b: 137.—N.Y.; Minn. to s. Labr., s. to Tenn. and N.C.

pallida, authors, not Walker.

obscura (Fallén), 1819: 9 (*Cordilura*).—Sweden; sw. Alaska, nw. N.W.T., Europe.

minuta Malloch, 1935a: 255.—N.W.T. **N. syn.**

obscurinervis Becker, 1900: 55.—nw. Siberia; Alaska to n. Que., n. Europe, n. Siberia.

futilis Malloch, 1935a: 264.—N.W.T. **N. syn.**

orcasae Malloch, 1935a: 265.—Wash.; B.C., Oreg.

pictipennis Oldenberg, 1923: 307.—Austria; cent. B.C., cent. Ont., n. and cent. Europe.

reses Giglio-Tos ,1893b: 7.—Mexico; Ariz. and N. Mex., s. to Guatemala and British Honduras.

robusta (Curran), 1927h: 260 (*Allomyella*).—Alta. **N. comb.**

stercoraria (Linnaeus), 1758: 599 (*Musca*).—Sweden; s. Alaska to Nfld., s. to s. Calif., Mexico, and Ga., also Haiti, Europe, Asia.

merdaria Fabricius, 1794: 344 (*Musca*).—Germany.

subpolita Malloch, 1935a: 262.—Y.T. Unrecognized.

suilla (Fabricius), 1794: 343 (*Musca*).—Germany; cent. Alaska to n. Que., s. to Oreg., Colo., s. Man., and N.C.

varipes (Holmgren), 1883: 175 (*Scatomyza*).—U.S.S.R. (Novaya Zemlya); is. of Bering Sea, n. Alaska, n. N.W.T., Hudson Strait.

nubifera Coquillett, 1901h: 612.—Alaska. **N. syn.**

Genus CERATINOSTOMA Meade

Ceratinostoma Meade, 1885: 152. Type-species, *maritimum* Meade (Sack, 1937: 64)=*ostiorum* (Curtis).

ostiorum (Curtis), 1832: pl. 405 (*Scatophaga*).—Ireland; se. Que. to Mass., Europe, littoral.

Genus GIMNOMERA Rondani

Gimnomera Rondani, 1866b: 21 (as *Gymnomera*, p. 51) (1867: 105, 135). Type-species, *Cordilura tarsea* Fallén (orig. des.).
Dasypleuron Malloch, 1919f: 79. Type-species, *tibialis* Malloch (orig. des.). **N. syn.**

cerea (Coquillett), 1908: 146 (*Scatophaga*).—N.J.; Oreg. to n. Que., s. to Minn. and N.J., and in mts. to N. Mex. and N.C. **N. comb.**
atrifrons Malloch, 1920c: 37.—Minn. **N. syn.**
wilcoxi Curran, 1933d: 11 (*Megaphthalma*).—Oreg. **N. syn.**
fasciventris Malloch, 1920c: 38.—Ill.; Sask., Tex.
incisurata Malloch, 1920c: 37.—Ill.; Ont.
subvittata (Malloch), 1919f: 78 (*Cordylurella*).—N.W.T.; Alaska, Y.T., n. Que. **N. comb.**
tibialis (Malloch), 1919f: 79 (*Dasypleuron*).—Alaska; Y.T., n. B.C., N.W.T. **N. comb.**

Genus HYDROMYZA Fallén

Hydromyza Fallén, 1813: 243. Type-species, *Musca livens* Fabricius (mon.).

confluens Loew, 1863a: 27 (Cent. 3, no. 50).—Ont.; s. N.W.T. to Maine, s. to s. Man. and N.Y.

Tribe DELININI

Genus PARALLELOMMA Becker

Clidogastra, subg. **Parallelomma** Becker *in* Strobl, 1894b: 78. Type-species, *Cordilura vittata* Meigen (mon.).
Chylizosoma Hendel, 1924: 83. Type-species, *Parallelomma medium* Becker (orig. des.). **N. syn.**

vittatum (Meigen), 1826: 236 (*Cordilura*).—Europe; s. B.C. to N.S., s. to Calif., Mich., and N.C.
inermis Loew, 1869c: 178 (Cent. 9, no. 88) (*Cordilura*).—N.H. **N. syn.**
nudicornis Cresson, 1918b: 135.—Calif. **N. syn.**

Genus AMERICINA Malloch

Americina Malloch, 1923h: 139. Type-species, *Cordilura adusta* Loew (orig. des.).

adusta (Loew), 1863a: 22 (Cent. 3, no. 41) (*Cordilura*).—N.J.; cent. Ont., s. to Kans. and Ga.

Genus DELINA Robineau-Desvoidy

Delina Robineau-Desvoidy, 1830: 669. Type-species, *dejeanii* Robineau-Desvoidy (Séguy, 1952: 56) = *nigrita* (Fallén).

nigrita (Fallén), 1819: 10 (*Cordilura*).—Sweden; s. Alaska to n. N.W.T. and n. Que., s. to cent. Sask. and cent. Ont., also Colo., Europe.

dejeanii Robineau-Desvoidy, 1830: 670.—France. **N. syn.**

cornuta Walker, 1849: 1047 (*Lissa*).—Ont. **N. syn.**

Genus HEXAMITOCERA Becker

Hexamitocera Becker, 1894: 107. Type-species, *Cordilura loxocerata* Fallén (orig. des.).

loxocerata (Fallén), 1826: 12 (*Cordilura*).—Sweden; n. B.C., Europe.

tricincta (Loew), 1869c: 177 (Cent. 9, no. 85) (*Coenosia*).—N.H.; cent. Alta. to cent. Que., s. to Calif., Colo., and Conn.

flavida Coquillett, 1901h: 612.—N.H.

vittata Coquillett, 1898g: 165.—Colo.; cent. B.C. to cent. Sask., s. to Utah and Colo.

Genus PLETHOCHAETA Coquillett

Plethochaeta Coquillett, 1901h: 613. Type-species, *varicolor* Coquillett (orig. des.).

Mesamyia Malloch, 1931a: 437. Type-species, *testacea* Malloch (orig. des.). **N. syn.**

testacea (Malloch), 1931a: 437 (*Mesamyia*).—Colo.; cent. Alta., cent. Ont., s. Que., Utah, Mich. **N. comb.**

varicolor Coquillett, 1901h: 614.—Pa.; Wis. to s. Que., s. to Ohio and Md.

Genus NEOCHIROSIA Malloch

Neochirosia Malloch, 1917a: 36. Type-species, *setigera* Malloch (mon.).

This genus and its type-species were originally described in Coenosiinae, and are here transferred to the Scatophaginae.

atrifrons (Coquillett), 1910c: 44 (*Plethochaeta*).—N.H.; Tenn. **N. comb.**
nuda (Malloch), 1922c: 78 (*Amaurosoma*).—Mass.; cent. Alta. to s. Labr., s. to s. Man. and Mass. **N. comb.**
setiger Malloch, 1917a: 36.—Ill.

Unplaced Species of Scatophaginae

cloacaris Fabricius, 1780: 204 (*Musca*).—Greenland.
estotilandica Rondani, 1863: 35 (1864: 35) (*Scatina*).—Labr.
exotica Wiedemann, 1830: 448 (*Scatophaga*).—La.

Subfamily FUCELLIINAE

By H. C. Huckett

The larvae of Fucelliinae are aquatic or semi-aquatic, and zoophagous.

Genus FUCELLIA Robineau-Desvoidy

Scatophaga, subg. *Halithea* Haliday, 1838: 185 (preocc. Savigny, 1817). Type-species, *maritima* Haliday (mon.).
Fucellia Robineau-Desvoidy, 1842: 269. Type-species, *arenaria* Robineau-Desvoidy (mon.)=*maritima* (Haliday).
Fucellina Schnabl and Dziedzicki, 1911: 123 (1911: 71). Type-species, *Scatomyza griseola* Fallén (Séguy, 1937: 41).

REFERENCE: Aldrich, 1918a (rev.).

aestuum Aldrich, 1918a: 178.—Wash.; B.C., Oreg.
albeola Huckett, 1927: 163.—N.Y.
antennata Stein, 1910: 23.—Alaska; N.W.T., Wash., Oreg., Man., Que.
ariciiformis (Holmgren), 1872: 103 (*Scatomyza*).—n. Greenland; Alaska, N.W.T., Man., Que., Nfld.
hinei Aldrich, 1918a: 178.—Alaska.
assimilis Malloch, 1918a: 317.—Calif.
costalis Stein, 1910: 21.—Calif.
fucorum (Fallén), 1819: 5 (*Scatomyza*).—Sweden; Alaska to Oreg., also Greenland, Europe.
hypopygialis Ringdahl, 1930: 7.—U.S.S.R. (Kamchatka); Alaska, U.S.S.R. (Commander Is.).
intermedia Lundbeck, 1901: 291.—Greenland; Ill. to Labr. and Nfld., s. to Fla., Bermuda.
marina, authors, not Macquart.
maritima, authors, not Haliday.

kamtchatica Ringdahl, 1930: 7.—U.S.S.R. (Kamchatka); Alaska, U.S.S.R. (Commander Is.).

pacifica Malloch, 1923d: 427 (as *maritima* ssp.).—Mexico (Baja Calif.); Wash., Calif.

maritima Haliday of Malloch, 1918a: 318.

pictipennis Becker, 1907c: 411.—e. Greenland; Alaska, Y.T., N.W.T.

punctipennis (error) Malloch, 1919f: 75.

rejecta Aldrich, 1918a: 171.—Calif.; Oreg.

rufitibia Stein, 1910: 25.—Calif.; B.C. to Calif.

separata Stein, 1910: 24.—Wash., Calif.; B.C., Oreg.

thinobia (Thomson), 1869: 563 (*Scatophaga*).—Calif.; Alaska, Oreg., U.S.S.R. (Commander Is.).

bicruciata Stein, 1910: 20.—Bering Straits (?Miednaja).

evermanni Aldrich, 1918a: 173.—Calif.

vibei Collin, 1951: 187.—N.W.T. (Ellesmere I.); N.W.T. (Baffin I.).

Genus CIRCIA Malloch

Circia Malloch, 1929: 100. Type-species, *tinctipennis* Malloch (orig. des.).

tinctipennis Malloch, 1929: 100.—Alta.; Alaska.

Subfamily ANTHOMYIINAE

By H. C. Huckett

The larval habitats of Anthomyiinae are widely varied. Some of the species of the genera *Hylemya* and *Pegomya* are of primary economic importance.

REFERENCE: Ringdahl, 1959 (rev.).

Tribe MYOPININI

Genus MYOPINA Robineau-Desvoidy

Myopina Robineau-Desvoidy, 1830: 675. Type-species, *reflexa* Robineau-Desvoidy (mon.) = *myopina* (Fallén).

Gonarcticoides Curran, 1927h: 253. Type-species, *argenticeps* Curran (orig. des.) = *myopina* (Fallén).

crassipalpis Ringdahl, 1937: 124.—Sweden; N.W.T. (Baffin I.).

myopina (Fallén), 1824: 65 (*Musca*).—Sweden; Alaska, N.W.T., Ont. to Nfld., n. Europe, U.S.S.R. (Kamchatka).

reflexa Robineau-Desvoidy, 1830: 676.—France.

argenticeps Curran, 1927h: 254 (*Gonarcticoides*).—Ont.

scoparia (Zetterstedt), 1845: 1504 (*Aricia*).—Sweden; Alaska, Y.T., N.W.T. (Baffin I.), Que., Lapland.

Genus PSEUDOCHIROSIA Ringdahl

Pseudochirosia Ringdahl, 1928b: 22, 23. Type-species, *Chirosia fractiseta* Stein (orig. des.).

albipennis Ringdahl, 1928b: 23.—Sweden; Alaska, N.W.T. (Victoria and Baffin Is.).

fractiseta (Stein), 1908: 8 (*Chirosia*).—Sweden; Alaska, N.W.T., Man., Que., Labr.

Genus CHIROSIA Rondani

Chirosia Rondani, 1856: 102. Type-species, *Aricia albitarsis* Zetterstedt (orig. des.).

hirtipes Stein, 1907: 368.—Tibet; Alaska to w. N.W.T., s. to Calif. and Colo., also Labr., Europe, Asia.

subarctica Ringdahl, 1937: 125.—Sweden.

idahensis Stein, 1898: 251.—Idaho; B.C. to Calif.

Genus CHIASTOCHETA Pokorny

Chiastocheta Pokorny, 1889: 568. Type-species, *Aricia trollii* Zetterstedt (orig. des.)=*inermella* (Zetterstedt).

Chiastochaeta, emend. or error.

REFERENCES: Hennig, 1953 (rev., Palaearctic); Collin, 1954 (rev., British Isles).

glauca (Coquillett), 1900h: 452 (1904: 66) (*Chirosia*).—Alaska; Calif.

Tribe CHELISIINI

Genus CHELISIA Rondani

Chelisia Rondani, 1856: 101. Type-species, *Coenosia monilis* Meigen (orig. des.).

elegans Stein, 1920: 62.—Calif.

Tribe ANTHOMYIINI

REFERENCE: Huckett, 1924 (keys, rev., N.Y.).

Genus HYLEMYA Robineau-Desvoidy

Hylemya Robineau-Desvoidy, 1830: 550. Type-species, *strenua* Robineau-Desvoidy (Rondani, 1866a: 74, 184; 1866: 7,117)=*strigosa* (Fabricius).

Hylemyia, emend.

REFERENCE: Collin, 1927 (tax.).

Subgenus HYLEMYA Robineau-Desvoidy

alcathoe (Walker), 1849: 937 (*Anthomyia*).—N.S.; Alaska, Wash. and Alta. to N.S., s. to Colo. and Ga.

flavicaudata Bigot, 1885a: 299.—Wash. Territory.

strigata Stein, 1898: 211.—Idaho, Wash.

tenax Johannsen, 1916: 388.—N.Y.

variata (Fallén), 1823f: 59 (*Musca*).—Sweden; Alaska and B.C. to Que., s. to Ariz., La., and Va., Europe.

Subgenus HYLEMYZA Schnabl and Dziedzicki

Hylemyia, subg. **Hylemyza** Schnabl and Dziedzicki, 1911: 94 (1911: 42). Type-species, *Anthomyza lasciva* Zetterstedt (Séguy, 1937: 70).

lasciva (Zetterstedt), 1838: 666 (*Anthomyza*).—Sweden; Alaska, Alta. to Que., s. to Utah and Pa.

marginata Stein of Coquillett, 1900h: 448 (1904: 62).

Subgenus PYCNOGLOSSA Coquillett

Pycnoglossa Coquillett, 1901h: 613 (as genus). Type-species, *flavipennis* Coquillett (orig. des.)=*flavipennis* (Fallén).

Pogonomyza Schnabl, 1911: 78. Type-species, *Musca flavipennis* Fallén (Karl, 1928: 177).

REFERENCE: Huckett, 1949 (rev.).

cinerosa (Zetterstedt), 1845: 1450 (*Aricia*).—Denmark; Mich., Ont., Que., N.Y., Mass., Europe.

delicata Huckett, 1949: 55.—N.Y.; N.C.

filicis Huckett, 1949: 56.—N.Y.; Mich., Maine.

flavipennis (Fallén), 1823f: 59 (*Musca*).—Sweden; Wash., Wis. to Que. and N.S., s. to Pa.

flavipennis Coquillett, 1901h: 613 (*Pycnoglossa*).—Wash.

gleniensis (Huckett), 1924: 40 (*Pogonomyza*).—N.Y.; Wis., Que.

proboscidalis (Malloch), 1920a: 185 (*Pogonomyza*).—Pa.; Mich., Que., and Maine, s. to Tenn. and N.C.

campestris Huckett, 1924: 49 (*Pogonomyza*).—N.Y.

pusillans Huckett, 1949: 57.—N.Y.; Ont., Tenn.

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spinosissima Malloch, 1919g: 95.—Ont.; Wis., Mich., Que.
stratifrons Huckett, 1949: 58.—Que.; Mich. to Que., s. to e. Tenn. and R.I.

Subgenus PHORBIA Robineau-Desvoidy

Phorbia Robineau-Desvoidy, 1830: 559 (as genus). Type-species, *musca* Robineau-Desvoidy (Coquillett, 1910b: 589).
Chortophila Macquart, 1835: 323. Type-species, *Anthomyia sepia* Meigen (Westwood, 1840: 142).

REFERENCE: Huckett, 1948 (rev.).

barbicula Huckett, 1948: 114.—Alta.; Sask.
genitalis Schnabl *in* Schnabl and Dziedzicki, 1911: 248 (1911: 196). Poland; Alaska, N.W.T., Sask. to Labr., s. to Colo., Europe.
impula Huckett, 1948: 117.—B.C.
lobata Huckett, 1929: 137.—Alta.; Alaska to Ariz. and Colo.
masculans Huckett, 1948: 117.—N. Mex.
nitidula (Coquillett) *in* Johnson, 1903a: 103 (*Pegomyia*).—N. Mex.; Alaska, Ariz., Colo., Que.
conicans Huckett, 1948: 116.—Colo.
penicillaris (Stein), 1916: 193 (*Chortophila*).—Germany; Y.T., Alta., Sask., Ont.
portensis Huckett, 1948: 118.—Oreg.
sepia (Meigen), 1826: 152 (*Anthomyia*).—Germany; Alta., Ont., Que.
curvicauda Zetterstedt, 1845: 1618 (*Aricia*).—Sweden.
sinuata Malloch, 1924h: 196.—Mass.; Mich., N.Y., N.H.
sepia Meigen of Leonard, 1928: 839.

Subgenus DELIA Robineau-Desvoidy

Delia Robineau-Desvoidy, 1830: 571 (as genus). Type-species, *floricola* Robineau-Desvoidy (Coquillett, 1910b: 531)=*cardui* (Meigen).
Hylemyia, subg. *Crinura* Schnabl, 1911: 71. Type-species, *Chortophila cilicrura* Rondani (mon.)=*platura* (Meigen).

The subgenus *Delia* contains most of the economically important species of *Hylemya*. *H. antiqua*, the onion maggot, *brassicae*, the radish maggot, and *platura*, the seed-corn maggot (heretofore commonly known as *cilicrura*), all cause primary damage to plant tissue above or below ground.

REFERENCES: Huckett, 1951b (rev. *setiventris* complex), 1952, 1953a (revs. *Delia*, in part); Brooks, 1951 (ident. cruciferous root maggots).

aemene (Walker), 1849: 937 (*Anthomyia*).—N.S.; B.C. to N.S., s. to Utah and Nebr.
testacea Stein, 1898: 208.—S. Dak.
alaba (Walker), 1849: 948 (*Anthomyia*).—N. Amer.; Alaska to N. Mex., Wis. to Nfld., s. to N.Y.
relata Stein, 1901: 206.—U.S.
lateralis Stein, 1920: 77.—Wash., Que.
innocua Malloch, 1920a: 186.—Mass.
albula (Fallén), 1825: 74 (*Musca*).—Sweden; Alaska to Utah, also Ill., Mich., Que., Europe.
biciliata Coquillett, 1900h: 451 (1904: 65) (*Phorbia*).—Alaska.
angustifrons (Meigen), 1826: 146 (*Anthomyia*).—Germany; Alaska to Greenland, Europe.
scatophagina Zetterstedt, 1838: 677 (*Anthomyza*).—Sweden.
brevitarsata Malloch, 1919f: 73.—Alaska.
angustitarsis Malloch, 1920j: 277.—Alaska; Y.T., N.W.T., Man., Mich., Labr., U.S.S.R. (Kamchatka).
angustiventralis Huckett (for *angustiventris* Malloch).—N. Mex.; Calif., Utah, Colo. **N. name.**
angustiventris Malloch, 1918a: 315 (preocc. Zetterstedt, 1845).—N. Mex.
antiqua (Meigen), 1826: 166 (*Anthomyia*).—Germany; B.C. to Que., s. to Kans. and N.J., Europe.
ceparum Meigen, 1830: 376 (*Anthomyia*).—Germany.
cepetorum Meade, 1883: 218 (*Phorbia*).—England.
aquitima Huckett, 1929: 138.—Alta.
armata (Stein), 1920: 86 (*chortophila*).—Wash.; Alaska and Y.T., s. to Calif. and Colo.
arnolitra Huckett, 1924: 22.—N.Y.; Mich., Conn.
atrovittata Malloch, 1920j: 280.—Alaska.
attenuata Malloch, 1920a: 188.—Calif.; Wash., Alta.
brassicae (Bouché), 1833: 131 (also 1834: 74) (*Anthomyia*).—Germany; Alaska to Calif. and Colo., Man. to Nfld., s. to Ill. and N.C., Europe.
floccosa Macquart, 1835: 326 (*Chortophila*).—n. France.
raphani Harris, 1841: 415 (*Anthomyia*).—Mass.
brunnescens (Zetterstedt), 1845: 1455 (*Aricia*).—Sweden; B.C., Europe.
bucculenta (Coquillett), 1904f: 188 (*Pegomya*).—Calif.; Alaska and N.W.T. to Labr., s. to Calif. and Conn.
occidentalis Malloch, 1920a: 191.—Wash.
canadensis Huckett, 1929: 162.—Alta.; Alaska, Y.T., N.W.T., B.C., Que.

capito (Coquillett), 1902g: 123 (*Chirosia*).—N.J.; Mich., N.Y. to Maine, s. to N.J.

cerealis (Gillette), 1904: 14 (*Pegomyia*).—Colo.; Alta. to Calif. and N. Mex.

cilifera Malloch, 1918a: 311.—Mont.; N.W.T., Wash., Alta., Ont. to Labr.

ventralis Stein, 1920: 81.—Wash.

coenosiaeformis Stein, 1904: 477.—N.H.; Alaska to Nfld., s. to Nev. and N.Y.

varipes Curran, 1927h: 255 (*Pycnoglossa*).—Ont.

curvipes Malloch, 1918a: 316.—Ill.; B.C. to Que., s. to Kans. and Ga.

depressa Stein, 1898: 214.—Pa.; Alaska to Labr., s. to Ariz. and Conn.

dorsilinea (Stein), 1920: 87 (*Chortophila*).—Colo.; N.W.T., Que.

echinata (Séguy), 1923: 360 (*Chortophila*).—France; Alaska to Greenland and Nfld., s. to Oreg. and Conn., Europe.

abdena Hall, 1937a: 201.—Oreg.

florilega, authors, not Zetterstedt.

egleformis Huckett, 1929: 142.—Ont.; Alaska, Que. and Labr., s. to N.Y. and Maine.

equifrons Huckett, 1929: 163.—Alta. Unrecognized, a gynandromorph.

exigua (Meade), 1883: 220 (*Phorbia*).—England; Alaska, Europe.

extenuata Huckett, 1952: 118.—Wash.; Oreg.

extremitata Malloch, 1919e: 309.—Mont.; Alaska to N.W.T., s. to Ariz. and Colo.

megatricha Kertész of Stein, 1920: 83.

fabricii (Holmgren), 1872: 101 (*Aricia*).—w. Greenland; Alaska to Greenland, s. to Colo. and Labr., also U.S.S.R. (Kamchatka).

fasciventris Ringdahl, 1933a: 12.—Sweden; Alaska, N.W.T. (Baffin I.), Colo.

fennica (Karl), 1930: 174 (*Chortophila*).—Europe; Alaska to N.W.T., s. to Ariz. and Que., Europe.

setigera Stein, 1920: 70 (*Pegomyia*; preocc. Johannsen, 1916).—Wash. **N. syn.**

floralis (Fallén), 1824: 71 (*Musca*).—Sweden; Alaska to Labr., s. to B.C. and Que., Europe.

crucifera Huckett, 1929: 93.—B.C.

florilega (Zetterstedt), 1845: 1555 (*Aricia*).—Sweden; Alaska to N.W.T. to Que., s. to N. Mex. and N.Y., Europe.

liturata Meigen, 1838: 329 (*Anthomyia*; preocc. Robineau-Desvoidy, 1830).—Germany.

trichodactyla Rondani, 1866a: 164 (1866: 97) (*Chortophila*).—Italy.

fracta Malloch, 1918a: 305.—N. Mex.; Alaska to N.W.T., also Ariz.

frontulenta Huckett, 1929: 161.—Alta.; B.C., Colo., N. Mex.

garretti Huckett, 1929: 117.—B.C.; Alaska to Labr., s. to Calif. and Que.

gracilipes Malloch, 1920a: 187.—Mont.; Alaska to Oreg. and Colo.

grandivillosa Huckett, 1924: 26.—N.Y.

hinei Malloch, 1920j: 278.—Alaska; Alaska to se. N.W.T., s. to Oreg. and N.H.

ithacensis Huckett, 1924: 28.—N.Y.

hirtitibia (Stein), 1916: 172 (*Chortophila*).—U.S.S.R. (Kola Peninsula); Alaska, Man., Que.

inaequalis Malloch, 1920a: 190.—Ill.

inconspicua Huckett, 1924: 27.—N.Y.; N.W.T., B.C. to Que., s. to Iowa and Pa.

incrassata (Stein), 1920: 88 (*Chortophila*).—Wash.; B.C.

pilicauda Huckett, 1929: 141.—B.C. **N. syn.**

ineptifrons Huckett, 1951b: 258.—Wash.; Idaho, Nev., Utah.

laevis (Stein), 1898: 231 (*Chortophila*).—Mass.; Ill. to Que., s. to e. Tenn.

lamellicauda Huckett, 1952: 119.—Ariz.; Wash. to Alta., s. to Ariz. and Colo.

linearis Stein, 1898: 219.—Minn.; Alaska to sw. N.W.T., s. to Colo. and N.Y.

lineariventris (Zetterstedt), 1845: 1541 (*Aricia*).—Norway, Sweden; Alaska and N.W.T. to Labr., s. to Colo. and N.Y.,. Europe, U.S.S.R. (Kamchatka).

uniseriata Stein, 1914: 51 (*Chortophila*).—Germany.

longicauda (Strobl), 1898a: 245 (*Anthomyia*).—Austria; Alaska to N.W.T., s. to Calif., N. Mex., and Conn., Europe.

seamansi Huckett, 1929: 143.—Alta.

longula (Fallén), 1824: 72 (*Musca*).—Sweden; Alaska, Y.T., Colo., Man. to Labr., Europe.

lupini (Coquillett), 1901d: 206 (*Phorbia*).—Calif.; Oreg., Ariz., Fla.

megacephala Malloch, 1920a: 188.—Pa.; Mich., N.Y., Mass., Conn.

montana Malloch, 1919b: 134.—Colo.; Y.T., Alta., Wash. to Calif. and N. Mex.

coarctata Fallén of Stein, 1920: 82.

montivagans Huckett, 1952: 121.—Colo.; Mont., Utah.

mutans Huckett, 1929: 113.—Alta.

neomexicana Malloch, 1918a: 310.—N. Mex.; Alaska to sw. N.W.T., s. to Ariz. and N. Mex.

nigricaudata Huckett, 1929: 116.—Alta.; Alaska, Y.T., B.C., Wash., Mont.

nigrithorax Stein, 1920: 79.—Wash.

normalis Malloch, 1919e: 309.—Mont.; Alta. to Nev. and N. Mex.

similis Stein, 1920: 80.—Colo.

oppidans Huckett, 1929: 165.—B.C.

pilifemur Ringdahl, 1933a: 14.—Sweden; Alaska and N.W.T. to Que., s. to Man., Mich., and Conn.

fusciceps Zetterstedt of Malloch, 1920j: 273, 274.

pilitarsis Stein, 1920: 76.—Colo.; Alaska to N.W.T., s. to N. Mex., also Que., Labr.

angusta Stein, 1898: 218 (preocc. Macquart, 1835).—Colo.

pilimana Stein, 1920: 80.—Colo.

tenuis Drew, 1963: 248 (n. name for *angusta* Stein).—Colo.

planipalpis (Stein), 1898: 234 (*Chortophila*).—Idaho; Alaska to N.W.T, s. to Calif. and Colo.

anthracina Malloch, 1918a: 314 (preocc. Czerny, 1906).—Oreg.

anthracodes Malloch, 1920a: 194 (n. name for *anthracina* Malloch).—Oreg.

vilis Stein, 1920: 91 (*Chortophila*).—Wash., Idaho.

platura (Meigen), 1826: 171 (*Anthomyia*).—Germany; Alaska to Greenland, s. to Calif. and Fla., cosmopolitan.

cana Macquart, 1835: 340 (*Anthomyia*).—n. France.

ruficeps Meigen of Staeger, 1845b: 366 (*Aricia*).

fusciceps Zetterstedt, 1845: 1552 (*Aricia*).—Denmark.

tinia Walker, 1849: 949 (*Anthomyia*).—Ont.

perrima Walker, 1849: 950 (*Anthomyia*).—Ont.

viana Walker, 1849: 951 (*Anthomyia*).—N.S.

marginata Walker, 1849: 964 (*Eriphia*).—Ont.

cupreifrons Walker, 1849: 966 (*Dialyta*).—Ont.

deceptiva Fitch, 1856a: 533 (1856: 301).—N.Y.

similis Fitch, 1856a: 533 (1856: 301) (*Hylemyia*).—N.Y.

cilicrura Rondani, 1866a: 165 (1866: 98) (*Chortophila*).—Italy.

cilioraca (error) Hagen, 1881a: 50.

zeas Riley, 1869: 154 (*Anthomyia*).—Mo.

zeae, error.

calopteni Riley, 1877: 92 (*Anthomyia;* as *radicum* var.).—Minn.

rupecula Bigot, 1885a: 285 (*Homalomyia*).—Rocky Mts.

pluvialis Malloch, 1918j: 310.—Ont.; Alaska to Nfld., s. to Colo. and N.Y.

aniseta Stein, 1920: 77.—Colo.

pratensis (Meigen), 1826: 158 (*Anthomyia*).—Germany; Oreg., Idaho, Calif., Colo.

propinquina Huckett, 1929: 118.—Alta.; Alaska to Oreg. and Idaho, also Que. and Labr.

recurva Malloch, 1919e: 308.—Calif.; Oreg., Colo.

repleta Huckett, 1929: 112.—Alta.; Alaska, Y.T., N.W.T., Man.

rondanii (Ringdahl), 1918: 191 (*Chortophila*).—Sweden; Alaska to N.W.T., s. to Man. and Labr., Lapland.

seriata Stein, 1920: 80.—Colo.; Alaska to N.W.T., s. to Calif. and Colo.

setifer Malloch, 1920a: 192.—Colo.

pentaformis Huckett, 1929: 110.—Alta.

setifirma Huckett, 1951b: 259.—Oreg.; Mont. to Nev. and Colo.

setiseriata Huckett, 1952: 116, key; 1953a: 10, descr.—Wash.; Utah.

setisissima Huckett, 1929: 164.—B.C.; Wash., Mont., Calif.

setitarsata Huckett, 1924: 32.—N.Y.; Wis. to N.B., s. to Ga.

setiventris setiventris Stein, 1898: 216.—Idaho; Alaska to Calif. and Colo.

ssp. **alternata** Huckett, 1951b: 255.—Oreg.; Alaska to Utah and Colo.

ssp. **extensa** Huckett, 1951b: 257.—Alaska; Alaska, Wash. to Mont., s. to Calif.

ssp. **rainieri** Huckett, 1951b: 256.—Wash.; Alaska and w. N.W.T., s. to Calif. and Wyo.

ssp. **reliquens** Huckett, 1951b: 256.—Idaho.

ssp. **sobrians** Huckett, 1951b: 256.—Idaho; Y.T., Wash., Utah, Colo.

simpla Coquillett, 1900h: 450 (1904: 64).—Alaska.

simulata Huckett, 1952: 117, key; 1953a: 11, descr.—Mont.; Alaska, Alta., Idaho, N. Mex., Que., Labr.

spinipes (Bigot), 1885a: 279 (*Chortophila*).—Rocky Mts. Unrecognized.

tarsata (Ringdahl), 1918: 194 (*Chortophila*).—Sweden; Alaska to Labr., s. to Wyo. and N.H.

gemina Huckett, 1929: 95.—Alta.

triseriata Malloch, 1920j: 276.—Alaska; Calif.

vesicata Huckett, 1952: 115, key; 1953a: 12, descr.—Calif.; Oreg.

winnemana Malloch, 1919c: 209.—Md.; N.Y.

unidorsalis Huckett, 1924: 35.—N.Y.

Subgenus BOTANOPHILA Lioy

Botanophila Lioy, 1864a: 990 (as genus). Type-species, *Anthomyia varicolor* Meigen (mon.).

Euryparia Ringdahl, 1929b: 269 (preocc. Becker, 1911). Type-species, *Anthomyia varicolor* Meigen (orig. des.).

REFERENCE: Huckett, 1947 (rev.)

acuticauda Huckett, 1947: 17.—Wash.; B.C. to Sask., s. to Calif. and N. Mex.

anane (Walker), 1849: 927 (*Anthomyia*).—Ont.

brevipalpis Huckett, 1929: 180.—Alta.; B.C., Wyo.

fibulans Huckett, 1947: 20.—Idaho; Alta., Oreg., Wyo.

formiceps Huckett, 1947: 27.—Calif.

hedleya Huckett, 1947: 22.—B.C.; Alta.

inornata Stein, 1898: 220.—Mass.; Alaska, N.W.T., Alta., Wis., Ohio, Maine to Ga.

marginata Stein, 1898: 221.—Colo.; Alaska to Calif. and Colo.

marginella Malloch, 1918a: 311.—Colo.; Y.T. and Alta., s. to Calif. and N. Mex.

nigribasis Stein (in part), 1920: 78.—Colo. Also partly *spinidens*.

piloseta Malloch, 1918a: 313.—Oreg.; Calif., Wyo., Colo.

robusta Stein, 1920: 76.—Idaho; Wash.

setigera (Johannsen), 1916: 387 (*Hammomyia*).—N.Y.; Alta. to Que., s. to Wyo. and N.H.

spinidens Malloch, 1920a: 194 (n. name for *spinilamellata* Malloch).—Utah; Alaska to N.W.T., s. to Ariz. and N. Mex., U.S.S.R. (Kamchatka).

spinilamellata Malloch, 1918a: 312 (preocc. Stein, 1904).—Utah.

nigribasis Stein (in part), 1920: 78.—Colo. Also partly *marginella*.

spiniventris Coquillett, 1900h: 449 (1904: 63).—Alaska; Alaska to N.W.T., s. to Utah and N. Mex.

spinilamellata Stein, 1904: 476.—Alaska.

subspinata Huckett, 1947: 10.—Calif.; Mont., Utah.

trifurcata Huckett, 1947: 14.—Wash.; Wash. to Alta., s. to Calif. and Utah.

varicolor (Meigen), 1826: 167 (*Anthomyia*).—Germany; Alaska and Y.T. to Utah, also N.C., Europe.

Subgenus PEGOHYLEMYIA Schnabl

Hylemyia, subg. **Pegohylemyia** Schnabl, 1911: 75. Type-species *Musca cinerea* Fallén (present des.).

abitibiensis Huckett, 1929: 167.—Ont.; Y.T. and N.W.T., s. to B.C. and Que.

aliena Malloch, 1920j: 282.—Alaska; Y.T., N.W.T., Que.
apiciseta Ringdahl, 1933a: 16.—Sweden; Que.
appendiculata Malloch, 1920j: 281.—Alaska; Alaska to Oreg. and Wyo., also Ont., Que., Labr., N.H.
betarum (Lintner), 1883: 208 (*Chortophila*).—N.Y.; Alaska to N.W.T. (Baffin I.), s. to N. Mex. and Nfld.
substriata Stein, 1898: 233 (*Chortophila*).—Idaho.
bidens Ringdahl, 1933a: 14.—Sweden; Alaska, N.W.T.
coronata (Ringdahl), 1951: 35 (*Pegohylemyia*).—Sweden; Y.T., N.W.T.
discreta (Meigen), 1826: 172 (*Anthomyia*).—Germany; Wash., Calif., Colo., Mich., Ind., Europe, U.S.S.R. (Kamchatka).
flavidisquama Huckett (for *flavisquama* Malloch).—Alaska (Pribilof Is.); Alaska. **N. name.**
flavisquama Malloch, 1923i: 193 (preocc. Stein, 1916).—Alaska (Pribilof Is.).
fugax (Meigen), 1826: 174 (*Anthomyia*).—Germany; Alaska to Calif., Wis. to Que., s. to N.Y. and N.S., Europe, U.S.S.R. (Kamchatka).
striolata Zetterstedt, 1838: 684 (*Anthomyza*).—Sweden.
denticauda Malloch, 1920j: 281.—Wash.
hucketti Ringdahl, 1935: 26.—Sweden; Alaska to N.W.T., s. to B.C., Mich., and Labr., Lapland.
impersonata Huckett, 1929: 114.—Man.; Alta., Wash., Oreg., Utah, S. Dak.
incursa Malloch, 1920j: 282.—Alaska; Y.T., N.W.T., B.C.
latifrontalis Huckett, 1924: 30.—N.Y.; Ariz., N. Mex., Mich., Mass. to Ga.
moriens (Zetterstedt), 1845: 1505 (*Aricia*).—Sweden; Alaska to Greenland, s. to B.C. and Labr., n. Europe.
parvicornis Malloch, 1920j: 283.—Alaska.
parvaicornis (error) Drew, 1963: 244.
profuga Stein, 1916: 141.—Sweden, Finland; Alaska to Greenland, s. to Colo. and Labr., n. Europe.
acrostichalis Malloch, 1919f: 72.—Alaska.
tridens Malloch, 1920j: 284.—Alaska.
ringdahli Drew, 1963: 247 (as *ringdahl;* n. name for *appendiculata* Malloch).—Alaska; Alaska to Oreg. and Wyo., also Ont., Que., Labr., N.H.
appendiculata Malloch, 1920j: 281 (preocc. Bigot, 1885).—Alaska.
sericea Malloch, 1920j: 280.—Alaska; Alaska to N.W.T., s. to Que. and Labr., also Colo.
sobrina (Collin), 1931: 86 (*Pegohylemyia*).—Greenland.

subnitida Malloch, 1920j: 283.—Alaska.
trilineata (Stein), 1898: 245 (*Pegomyia*).—S. Dak.; Alta., Colo., Mich.
trivittata (Stein), 1898: 246 (*Pegomyia*).—Wash., Mass.; B.C. to Utah, Ont., and Que., s. to Va.

Subgenus EGLE Robineau-Desvoidy

Egle Robineau-Desvoidy, 1830: 584 (as genus). Type-species, *parva* Robineau-Desvoidy (Coquillett, 1910b: 536).
Xenophorbia Malloch, 1920a: 175. Type-species, *Stomoxys muscaria* Fabricius (orig. des.).

REFERENCE: Huckett, 1928 (rev.).

atomaria (Zetterstedt), 1845: 1624 (*Aricia*).—Sweden; Alaska to Labr., s. to Calif. and N.Y.
fuscohalterata Malloch, 1920j: 279.—Alaska.
tantalisa Huckett, 1928: 76.—N.Y.
parva, authors, not Robineau-Desvoidy.
bicaudata Malloch, 1920a: 193.—Ill.; Alta., Oreg., Wis. to Que., s. to Ill. and N.Y.
brevicornis (Zetterstedt), 1838: 683 (*Anthomyza*).—Sweden; Alaska, Oreg., Calif., Man.
longipalpis Malloch, 1924h: 197.—Maine; Alaska to sw. N.W.T., s. to Alta., Mich., and Maine, Sweden.
parva Robineau-Desvoidy of Huckett, 1924: 10.
muscaria (Fabricius), 1794: 395 (*Stomoxys*).—Denmark; Alaska and N.W.T. to Labr., s. to Calif. and N.S., Europe.
determinata Walker, 1849: 954 (*Anthomyia*).—N.S.
ciliata Walker, 1849: 961 (*Eriphia*).—Ont.
parvaeformis (Schnabl) *in* Schnabl and Dziedzicki, 1911: 105 (1911: 53) (*Egle;* as *steini* var.).—Europe; Alaska to N.W.T., also Man., Mich., Labr., Europe.
pilitibia (Ringdahl), 1918: 193 (*Chortophila*).—Sweden; Alaska, Man., Que.
salicola Huckett, 1928: 79.—N.Y.; Alaska to Man., Iowa, Mich., Que.
steini (Schnabl) *in* Schnabl and Dziedzicki, 1911: 105 (1911: 53) (*Egle*).—Europe; Alaska, Y.T., Man.

Subgenus PAREGLE Schnabl

Hylemyia, subg. **Paregle** Schnabl, 1911: 71. Type-species, *Musca radicum* Linnaeus (Huckett, 1924: 39).

aestiva (Meigen), 1826: 169 (*Anthomyia*).—Germany; Alaska to N.W.T. (Baffin I.), s. to Wash., Colo., and N.S., Europe.

cinerella (Fallén), 1825: 77 (*Musca*).—Sweden; sw. N.W.T. to Greenland, s. to Ariz. and Ga., Europe, U.S.S.R., Africa.

mystacea (Coquillett), 1900h: 447 (1904: 61) (*Anthomyia*).—Alaska; Alaska to n. Man., s. to N. Mex., also Que., Labr.

hirta Malloch, 1918a: 299 (*Egle*).—N. Mex.

radicum (Linnaeus), 1761: 454 (*Musca*).—Scandinavia; Alaska to Greenland, s. to Calif. and N.J., Europe.

ruficeps Meigen, 1826: 177 (*Anthomyia*).—Germany.

campestris Robineau-Desvoidy, 1830: 585 (*Egle*).—Pa., France.

tristicula Holmgren, 1872: 101 (*Aricia*).—n. Greenland.

Subgenus CRASPEDOCHAETA Macquart

Craspedochaeta Macquart, 1851: 241 (1851: 268) (as *Craspedochoeta*, as genus). Type-species, *Anthomyia punctipennis* Wiedemann (mon.).

Melinia Ringdahl, 1929b: 270. Type-species, *Aricia pullula* Zetterstedt (orig. des.).

REFERENCE: Huckett, 1946 (rev.).

facialis Malloch, 1918a: 306.—Calif.; B.C. to Nev. and Ariz., also Tex., Wis.

mimetica Malloch, 1918a: 313.—N. Mex.; Alaska to Alta., Utah, and Colo., Man., Mich. to Mass., Sweden.

nigriceps Huckett, 1946: 116.—Calif.

ochripes (Thomson), 1869: 553 (*Anthomyia*).—Calif.; Ariz.

pullula (Zetterstedt), 1845: 1449 (*Aricia*).—Denmark, Sweden; Alaska to Que., s. to Calif., N. Mex., and N.Y., Europe.

Subgenus LASIOMMA Stein

Chortophila, subg. **Lasiomma** Stein, 1916: 168. Type-species, *Lasiops ctenocnema* Kowarz (Séguy, 1937: 123).

abietis Huckett, 1953b: 107.—Oreg.; Calif.

anthracina (Czerny), 1906: 251 (*Chortophila*).—Austria; Alaska, Oreg., Man., Ont. to Maine, s. to N.Y., Europe.

eriophthalma (Zetterstedt).—Not Nearctic.

morionella (Zetterstedt), 1838: 687 (*Anthomyza*).—Sweden; Alaska to N.W.T., Lapland.

nidicola Aldrich, 1919c: 380.—Wash.; Calif., Utah, Wis., N.Y.

octoguttata octoguttata (Zetterstedt), 1845: 1570 (*Aricia*).—Sweden; B.C. and Alta. to Utah, also Wis. to N.H., s. to N.C., Europe.

spizellae Huckett, 1924: 33.—N.Y.

ssp. **moesta** (Holmgren), 1872: 102 (*Aricia;* as sp.)—w. Greenland; Alaska to N.W.T., s. to Man. and Labr.

Subgenus ACROSTILPNA Ringdahl

Hylemyia, subg. **Acrostilpna** Ringdahl, 1929b: 269. Type-species, *Anthomyza latipennis* Zetterstedt (orig. des.).

REFERENCE: Huckett, 1946 (rev.).

atricauda (Zetterstedt), 1845: 1529 (*Aricia*).—n. Sweden; Alaska to Nfld., s. to Colo. and Tenn., Europe.

collini Ringdahl, 1929b: 271.—Sweden; Alaska to Labr., s. to Colo.

consobrina Huckett, 1929: 187.—N.B.; N.Y., Que., Maine.

latipennis (Zetterstedt), 1838: 676 (*Anthomyza*).—Norway, Sweden; Alaska to Wash. and Wyo., Alta. to Que., s. to N.Y.

replicata Huckett, 1929: 136.—Alta.; Alaska to Que., s. to B.C., Wis., and N.H., Sweden.

restorata Huckett, 1946: 123.—Ohio, Mass., Conn., N.Y., N.J., N.C., Ga.; Mich. to Maine, s. to Ga.

latipennis, authors, not Zetterstedt.

sedula Huckett, 1929: 183.—Man.; Mich., N.J.

Subgenus CRINURINA Karl

Kingia Malloch, 1921g: 53 (preocc. Theobald, 1910). Type-species, *Hylemyia quintilis* Malloch (orig. des.) = *cuneicornis* (Zetterstedt).

Crinurina Karl, 1928: 185 (as genus). Type-species, *Aricia pictiventris* Zetterstedt (orig. des.) = *cuneicornis* (Zetterstedt).

Kingiella Séguy, 1937: 143 (n. name for *Kingia* Malloch). Type-species, *Hylemyia quintilis* Malloch (aut.) = *cuneicornis* (Zetterstedt).

Kingiella Malloch *in* Curran, 1934a: 391. No type desig., hence unavailable. Nomen nudum.

cuneicornis (Zetterstedt), 1838: 682 (*Anthomyza*).—Sweden; Alaska to Labr., s. to B.C. and N.J.

quintilis Malloch, 1919k: 275.—Que.

quinquelineata Ringdahl, 1926: 114.—Sweden; Alaska, Man.

Genus MACROPHORBIA Malloch

Macrophorbia Malloch, 1920a: 173. Type-species, *houghi* Malloch (orig. des.).

houghi Malloch, 1920a: 173.—Mass.; N.Y., N.H., N.J., Ga.

Genus ALLIOPSIS Schnabl and Dziedzicki

Alliopsis Schnabl and Dziedzicki, 1911: 92 (1911: 40). Type-species, *Aricia glacialis* Zetterstedt (mon.).

Alliops Malloch, 1934b: 26. Type-species, *Alliopsis obesa* Malloch (orig. des.).

glacialis (Zetterstedt), 1845: 1521 (*Aricia*).—Sweden; arctic N.W.T. and Greenland.

obesa Malloch, 1919f: 70.—N.W.T.; Alaska, N.W.T. (Victoria and Baffin Is.), Que.

Genus EREMOMYIA Stein

Eremomyia Stein, 1898: 223. Type-species, *humeralis* Stein (Coquillett, 1901e: 137).

REFERENCE: Huckett, 1951a (rev.).

albidosa Huckett, 1951a: 83.—Kans.; Colo., Iowa.

fumipennis Huckett, 1951a: 87.—Wash.; Oreg.

humeralis Stein, 1898: 224.—Idaho; B.C., Wash., Calif., Utah.

impolita Huckett, 1951a: 81.—Oreg.; B.C., Calif., Utah, N. Mex.

lucescens Huckett, 1951a: 88.—Alta.; B.C., Wash.

medicaginis Huckett, 1951a: 82.—Alta.

obversa Huckett, 1951a: 85.—N.Y.; Ont., Que., Conn.

humeralis Stein of Huckett, 1924: 10.

parafacialis Huckett, 1951a: 86.—Alaska; N.W.T., B.C., Alta.

pilimana (Ringdahl), 1918: 190 (*Chortophila*).—Sweden; Wis., Ont. to Labr., s. to Ga.

vernalis Huckett, 1924: 11.—N.Y.

turbida Huckett, 1951a: 89.—N.W.T.; Alaska, Y.T., Man.

Genus EREMOMYIOIDES Malloch

Eremomyioides Malloch, 1918b: 67. Type-species, *Eremomyia cylindrica* Stein (orig. des.).

REFERENCE: Huckett, 1944b (rev.).

conscriptus Huckett, 1944b: 366.—B.C.

cylindricus (Stein), 1898: 226 (*Eremomyia*).—Minn., Ind., Mass.; Alta., Kans., Que. to Fla.

fuscipes Malloch, 1920a: 182.—Ill.; Alta., Wis., Mich., Ohio, Que. to Ga.

parkeri Malloch, 1918b: 67.—Mont.; Alta., Sask.

setosus (Stein), 1898: 247 (*Pegomyia*).—Idaho; Alaska, Wash., Oreg.

similis Malloch, 1920a: 183.—Ill.; Alta., Colo., S. Dak., Wis.

Genus EMMESOMYIA Malloch

Emmesomyia Malloch, 1917c: 114. Type-species, *unica* Malloch (orig. des.) = *socialis* (Stein).

apicalis Malloch, 1917c: 115.—Ill.; S. Dak., Nebr., Okla., Ont. to Fla.

socialis (Stein), 1898: 193 (*Spilogaster*).—N.C., Ga.; Okla., La., Ill., N.Y., N.J.

unica Malloch, 1917c: 114.—Ill.

Genus PEGOMYA Robineau-Desvoidy

Pegomya Robineau-Desvoidy, 1830: 598. Type-species, *Musca hyoscyami* Panzer (Coquillett, 1901e: 140).

Pegomyia, emend.

REFERENCE: Huckett, 1941 (rev.).

Subgenus PEGOMYA Robineau-Desvoidy

affinis Stein, 1898: 286.—Va.; Wash. to Que., s. to Ariz. and Va.

vicina Lintner of Stein, 1898: 239.

alticola Huckett, 1939: 25.—Utah; Alaska, Wash.

aninotata Huckett, 1939: 15.—Alta.

anorufa Stein, 1920: 67.—Colo.; Alta., Mont., Wyo.

subgrisea Malloch, 1920a: 180.—Mont.

apicalis (Stein), 1898: 227 (*Eremomyia*).—Idaho; B.C. and Alta., s. to Calif. and N. Mex.

assimilis Huckett, 1939: 22.—Calif.

atlanis Huckett, 1939: 4.—N.Y.

balteata (Holmgren), 1883: 172 (*Anthomyza*).—U.S.S.R. (Novaya Zemlya); arctic Alaska and N.W.T.

banffi Huckett, 1939: 33.—Alta.; Wash., Wyo., Colo.

bicolor (Wiedemann), 1817: 77 (*Anthomyia*).—Germany; Alaska to Calif. and Wyo., Tex., Wis. to Pa. and Labr., Europe.

caduca Huckett, 1939: 35.—Wash.; Y.T., Wyo.

caesia Stein, 1906: 78.—Germany; Alaska, Y.T., B.C., Alta., Calif., Europe.

carduorum Huckett, 1939: 1.—Wis.; Wash., Alta., S. Dak., N.Y., N.C.

cedrica Huckett, 1939: 21.—Ohio.

chrysida Huckett, 1939: 27.—Calif.; Oreg., Wyo., Utah, Ariz.

cognata Stein, 1920: 67.—Calif.; Oreg., Mexico (Guadalupe I.).

connexa Stein, 1920: 68.—Pa.; Wash., Alta., Minn. to Ill. to Ohio, Que. to Ga.

emmesia Malloch, 1920a: 179.—Ill.

convergens Huckett, 1939: 5.—Sask.; Kans.
corrupta Huckett, 1939: 13.—Alaska; Alaska to N.W.T. (Baffin I.), s. to Que. and Labr.
albimargo, authors, not Pandellé.
costalis Stein, 1898: 243.—S. Dak.
cresca Huckett, 1939: 30.—B.C.; Alaska to Alta., s. to Colo.
debilis Stein, 1901: 194.—U.S. Unrecognized.
duplicata (Malloch), 1918a: 308 (*Hylemyia*).—Calif.; B.C. and Alta., s. to Calif. and N. Mex., also N. Dak., S. Dak.
fuscinervis Stein, 1920: 69.—Calif.
finitima Stein, 1898: 241.—S. Dak.; S. Dak., Mich., s. to Kans. and Ohio, also N.H., Mass.
flavicans Stein, 1898: 213.—S. Dak.; Alta.
flavifrons (Walker), 1849: 966 (*Eriphia*).—Ont.; Alaska, Alta. to Que., s. to Oreg. and N.C.
fringilla Malloch, 1920a: 181.—Pa.
flavipalpis (Zetterstedt), 1845: 1707 (*Anthomyza*).—Sweden; Alaska, N.W.T. to Labr. and N.S., s. to B.C. and Colo., Europe.
frigida (Zetterstedt), 1845: 1685 (*Anthomyza*).—Norway, Sweden; Alaska to Que., s. to Oreg. and e. Tenn., Europe, U.S.S.R. (Kamchatka).
bivittata Stein, 1906: 98.—Germany.
lativittata Malloch, 1920j: 272.—Alaska.
fumipennis Huckett, 1939: 20.—Wash.; B.C.
fuscicauda Huckett, 1939: 31.—Calif.; B.C. and Alta. to Calif., also Colo.
geniculata (Bouché), 1834: 81 (*Anthomyia*).—Germany; Alaska to Oreg., Man. to N.B., s. to S. Dak. and e. Tenn., Europe.
gilva (Zetterstedt), 1846: 1789 (*Anthomyza*).—Norway, Sweden; Alaska to Oreg., Alta. to Que., s. to Wis. and e. Tenn., Europe.
pallida Stein, 1906: 69.—Germany.
luteola Malloch, 1920a: 175.—Maine.
glabra (Stein), 1920: 88 (*Chortophila*).—Wash.; B.C. to Calif., also Colo., N. Mex., Mich., Conn.
gopheri Johnson, 1913a: 77.—Fla.; Kans. to Tex., Wis. to N.Y., s. to Ill. and Fla.
haemorrhoa (Zetterstedt), 1838: 692 (*Anthomyza*).—Sweden; Man., Greenland.
holmgreni (Boheman), 1858: 55 (*Anthomyza*).—Sweden; Alaska, n. Europe.
hyoscyami hyoscyami (Panzer), 1809c: 13 (*Musca*).—Germany; Alaska to Calif. and N. Mex., B.C. to Que., s. to Ind. and N.J., Europe.

vicina Lintner, 1883: 209.—N.Y.

ssp. **betae** (Curtis), 1847: 412 (*Anthomyia*; as sp.).—England; Alta., Calif., Ind., N.Y., Europe.

icterica (Holmgren), 1872: 102 (*Aricia*).—Greenland; N.W.T. (Baffin I.).

incisiva Stein, 1906: 73.—Germany, Czechoslovakia; Alaska and Y.T., s. to Colo. and Vt., Europe.

incompleta (Stein), 1898: 228 (*Eremomyia*).—Minn.; Wash., Alta., Idaho, Utah.

indicta Huckett, 1939: 3.—Alaska.

intersecta intersecta (Meigen), 1826: 175 (*Anthomyia*).—Germany; B.C. and Alta., s. to Utah and Nebr., also Mich., Maine, Europe.

ssp. **arcticola** Huckett (for *arctica* Ringdahl).—Greenland; Alaska to Greenland, s. to Calif. and Labr. **N. name.**

arctica Ringdahl, 1933b: 16 (*Hylemyia;* as *intersecta* var.; preocc. Schnabl, 1915).—Greenland.

jacobi Malloch, 1920j: 272.—Alaska.

juvenilis (Stein), 1898: 211 (*Hylemyia*).—Pa.; S. Dak., Tex., Wis. to Que., s. to Ala. and Ga.

labradorensis Malloch, 1920a: 176.—Labr.; Alaska, Alta., Man., Que.

lipsia (Walker), 1849: 928 (*Anthomyia*).—Ont.; Alta., Ariz., Kans. to N.B., s. to Ala. and Ga.

substituta Walker, 1849: 971 (*Coenosia*).—Mass.

lividiventris Huckett, 1939: 29.—Calif.; B.C. to Nev., also Mont.

longicornis Huckett, 1939: 14.—B.C.; Y.T., Alta., Mich.

longimana (Pokorny), 1887a: 405 (*Chortophila*).—Austria; Y.T. to Ariz. and N. Mex., also S. Dak., Que., Europe.

lunatifrons (Zetterstedt), 1845: 1708 (*Anthomyza*).—Sweden; Alaska to N.W.T., s. to Oreg. and Maine, Europe, U.S.S.R. (Kamchatka).

lundbeckii Ringdahl, 1918: 188.—Sweden; Que., Lapland.

major (Malloch), 1919e: 310 (*Eremomyia*).—Calif.; B.C. and Alta., s. to Calif. and Mont.

mallochi Huckett, 1939: 15.—N.Y.; Okla., Tex., Mich., Ohio, N.H. to Ga.

winthemi Meigen of Malloch, 1920b: 122.

marginata Huckett, 1939: 7.—Wash.; Alaska and Y.T., s. to Idaho.

minuta Malloch, 1918a: 302.—N. Mex.; Calif., Utah.

nigritarsis (Zetterstedt), 1838: 696 (*Anthomyza*).—Sweden; ?N.Y.

palpata Stein, 1906: 101.—Germany; Alta., Vt., Europe.

palposa (Stein), 1897: 320 (*Hydrophoria*).—Germany; Mich., Ohio, N.Y., N.C., Ga., Europe.
orientalis Huckett, 1924: 16 (*Hydrophoria*).—N.Y.
palpata Stein of Schnabl and Dziedzicki, 1911: 109 (1911: 57).
partita Huckett, 1939: 33.—Alta.; B.C., Wash., Idaho.
pertusa Huckett, 1939: 8.—Alta.
pilosa Stein, 1900: 332.—Lapland; Alaska to Greenland, s. to Mich. and N.S., Lapland.
flavipes, authors, not Fallén.
pollinosa Ringdahl, 1938: 209.—Sweden; Alaska, Alta., S. Dak., Mich. to Que. and N.S.
quadrispinosa Malloch, 1920a: 181.—Mont.; Alta., Wash. to Ariz. and Colo.
rubivora (Coquillett) *in* Slingerland, 1897: 162 (*Phorbia*).—N.Y.; Oreg., Man., Mich. to Que. and Mass.
dentiens Pandellé, 1900: 268 (*Anthomyia*).—France.
rubriceps Huckett (for *ruficeps* Stein).—La.; Wash. to Ariz., Mich to. Que., s. to Tex. and Fla. **N. name.**
ruficeps Stein, 1898: 286 (preocc. Zetterstedt, 1838).—La.
rufescens Stein, 1898: 238.—Ont.; Wis., Ill., Mich.
rufina (Fallén), 1825: 92 (*Musca*).—Sweden; Colo., Europe.
squamifera Stein, 1906: 63.—Germany.
rufipes (Fallén), 1825: 85 (*Musca*).—Sweden; Alaska to Greenland, s. to Mich. and Labr., Europe.
pedestris Malloch, 1919k: 274 (*Hylemya*).—Que.
rumicifoliae Huckett, 1941: 81.—N.Y.; Oreg., Wis. to Que. and R.I.
calyptrata Zetterstedt of Frost, 1919: 229.
setaria (Meigen), 1826: 178 (*Anthomyia*).—Germany; B.C. to Mass.
polygoni Seamans, 1923: 221.—Man.
setiformis Huckett, 1939: 32.—Alta.; B.C., Wash., Idaho, Wyo.
sitiens Huckett, 1939: 9.—Alta.; Alaska to Idaho and Wyo., Sask. to Wis. and Maine, also N.C.
socculata (Zetterstedt), 1845: 1683 (*Anthomyza*).—Sweden; Alaska, Y.T., Europe.
solitaria Stein, 1906: 80.—Germany; Alaska to N.W.T., s. to Idaho and Que., Europe, U.S.S.R. (Kamchatka).
spinigerella Malloch, 1920a: 178.—Ill.; S. Dak., Ariz., Tex., Fla.
spinosissima Stein, 1898: 242.—Kans.; N. Dak., Okla., Tex.
striata Stein, 1920: 71.—La.
substriatella (Malloch), 1918a: 309 (*Hylemyia*).—Va.; Kans., Ohio, Md., D.C.
tacta Huckett, 1939: 16.—Alta.; Alaska, Y.T., Man., Wyo., Mich.

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tarsata (Wulp), 1867: 151 (*Anthomyia*).—Wis.; Alaska, Y.T., Alta., S. Dak. to N.B.
costalis Stein of Coquillett, 1900h: 451 (1904: 65).
tenera (Zetterstedt), 1838: 697 (*Anthomyza*).—Sweden; Alaska to Greenland, s. to Wyo. and Labr., Europe.
var. **obscurior** Collin, 1931: 84.—w. Greenland; Alaska, Labr.
conformis Fallén of Lundbeck 1901: 287.
hyoscyami Panzer of Lundbeck *in* Henriksen and Lundbeck, 1917: 640.
thrixia Huckett, 1939: 23.—Iowa; Alta., Minn.
tinctisquama Huckett, 1939: 26.—B.C.; Y.T., Alta., Wash., Calif.
triseta Malloch, 1920a: 177.—Que.; B.C. to Que., s. to Calif. and R.I.
calyptrata Zetterstedt of Stein, 1898: 237.
tunicata (Zetterstedt), 1846: 1787 (*Anthomyza*).—Sweden; Alaska to Greenland, s. to Que., arctic U.S.S.R.
analis Schnabl, 1915: 18.—U.S.S.R. (Karskaja Tundra).
alpina Ringdahl, 1916: 237 (*Chortophila*).—Sweden.
unguiculata Malloch, 1920a: 176.—Alta.; Alaska, N.W.T., B.C.
unicolor Stein, 1898: 236.—Pa.; Wis. and Ill. to Que., also Okla., Ga.
univittata (Roser), 1840: 59 (*Anthomyia*).—Germany; Alaska and B.C. to Que., s. to Calif. and e. Tenn., Europe.
vanduzeei Malloch, 1919e: 307.—Calif.; Alaska to Mont., also Man., Mich., Ohio, N.Y.
affinis Stein of Frost, 1919: 240.
variegata Huckett, 1939: 11.—Md.; N.Y., N.C.
vicaria Huckett, 1939: 6.—Wash.; Nev., Colo.
vittigera (Zetterstedt), 1838: 697 (*Anthomyza*).—Sweden; Alaska to Alta., Mich. to Que. and N.S., Europe, U.S.S.R. (Kamchatka).
winthemi (Meigen), 1826: 186 (*Anthomyia*).—Germany; Alaska to Wash., Man. to Que., s. to Okla. and Ga., Europe.
latitarsis Zetterstedt, 1846: 1754 (*Anthomyza*).—Sweden, Denmark.
fuscofasciata Malloch, 1920a: 178.—Mass.

Subgenus NUPEDIA Karl

Chortophila, subg. *Nudaria* Karl, 1928: 171 (preocc. Haworth, 1909). Type-species, *Anthomyia dissecta* Meigen (orig. des.).
Chortophila. subg. **Nupedia** Karl, 1930: 174 (n. name for *Nudaria* Karl). Type-species, *Anthomyia dissecta* Meigen (aut.).

abnormis Stein, 1920: 65.—Idaho.
acutipennis Malloch, 1918a: 301.—N. Mex.; B.C. and Alta., s. to Ariz. and Tex., also Ill., Wis., N.Y.

anabnormis Huckett, 1939: 20.—B.C.; B.C. and Alta., s. to Calif., N. Mex., and S. Dak.

cuticornis Huckett, 1939: 18.—B.C.; Alaska, Y.T., Alta., Colo.

dissecta (Meigen), 1826: 176 (*Anthomyia*).—Germany; Alaska, Alta., Mich., Ont. and N.Y. to Labr. and Nfld., Europe.

latipalpis (Stein), 1920: 89 (*Chortophila*).—Wash.; B.C., Alta., Mich.

nigroscutellata (Stein), 1920: 90 (*Chortophila*).—Wash.; Alaska and B.C. to Nfld., s. to S. Dak. and N.H.

slossonae Malloch, 1920b: 127.—N.H.

patellans (Pandellé), 1900: 222 (*Anthomyia*).—France; Alaska, U.S.S.R. (Commander Is.).

pseudodissecta (Ringdahl), 1926: 111 (*Hylemyia*).—Sweden; Alaska to Greenland, s. to Nfld.

rectifrons Huckett, 1939: 19.—Idaho; Calif.

Genus HYDROPHORIA Robineau-Desvoidy

Hydrophoria Robineau-Desvoidy, 1830: 503. Type-species, *littoralis* Robineau-Desvoidy (Coquillett, 1910b: 554). The identity of *littoralis* is in doubt, as is the identity of an earlier-suggested senior synonym, *nigrita* Fallén, which has been variously referred to such widely different genera as *Hebecnema* and *Musca*. Common usage of *Hydrophoria* has followed the interpretation of Rondani, 1866a: 72 (1866: 5) who designated as type-species *Anthomyia conica* Wiedemann, a species not originally included. The author prefers to maintain this extablished usage of *Hydrophoria*, either by arbitrarily considering *littoralis* as a true *Hydrophoria*, or if necessary by applying to the I.C.Z.N. to fix the type-species as *conica* Wiedemann. (See Huckett, 1944a: 195.)

Acroptena Pokorny, 1893a: 60. Type-species, *simonyi* Pokorny (mon.).

References: Malloch, 1920g (key); Huckett, 1944a (rev.).

alaskensis Malloch, 1920g: 257.—Alaska (Pribilof Is.); Alaska to N.W.T. (Baffin I.), s. to Que. and Labr.

alpina Huckett, 1944a: 272.—N.H.; Alaska to N.W.T. (Baffin I.), s. to N.H. and Labr.

altilega Huckett, 1944a: 275.—B.C.; Wyo., Colo., Man., Que.

ambigua (Fallén), 1823f: 56 (*Musca*).—Sweden; Alaska to N.W.T., s. to Colo., Maine, and Labr., Europe, U.S.S.R. (Kamchatka).

coloradensis Malloch, 1920a: 172.—Colo.

borealis Malloch, 1920a: 172.—Alaska; Alaska to Calif., also Wis., Minn., Ont., N.H.

brunneifrons (Zetterstedt), 1838: 690 (*Anthomyza*).—Sweden; Alaska to Greenland, s. in w. to Calif. and Colo., in e. to Ont., Lapland.

occidentalis Malloch, 1920a: 170.—Nev.

conica (Wiedemann), 1817: 79 (*Anthomyia*).—Germany; Wash., Mich. to Que., Conn., Europe, U.S.S.R. (Kamchatka).

divisa (Meigen), 1826: 99 (*Anthomyia*).—Germany; Alaska to Greenland, s. to Calif. and N.C., Europe.

fasciculata (Schnabl), 1915: 15 (*Acroptena*).—U.S.S.R. (Karskaja Tundra); Alaska to N.W.T., s. to Alta. and Man., Sweden, arctic U.S.S.R.

flavohalterata Malloch, 1920a: 171.—Idaho; Alaska, Wash., Utah.

frontata (Zetterstedt), 1838: 669 (*Anthomyza*).—Lapland; Y.T. to Greenland, s. to Que. and Labr., Europe.

galeata Malloch, 1920j: 270.—Alaska; Alaska to N.W.T., s. to Calif. and S. Dak.

ignobilis (Zetterstedt), 1845: 1448 (*Aricia*).—n. Sweden; Alaska to N.W.T., also Alta., Wash., Idaho, n. Europe, U.S.S.R. (Kamchatka).

implicata Huckett, 1944a: 287.—Ill., Mass.; N.W.T., B.C. to Que., s. to Ill. and D.C.

ambigua Fallén of Stein, 1898: 208.

laticornis (Ringdahl), 1916: 236 (*Acroptena*).—Sweden; Alaska to N.W.T., s. to n. B.C., Minn. and Labr., n. Europe.

congrua Malloch, 1920j: 271.—Alaska.

lucidiventris (Zetterstedt), 1845: 1554 (*Aricia*).—Sweden; Alaska.

nigerrima Malloch, 1920a: 169.—Wash.; Mont., Calif.

nuda (Schnabl) *in* Schnabl and Dziedzicki, 1911: 255 (1911: 203) (*Acroptena*).—U.S.S.R.; Alaska, Y.T., Europe.

packardi Malloch, 1924b: 514.—Labr.

polita Malloch, 1920a: 170.—Mont.; Y.T. and N.W.T., s. to Man. and Que., Nev., Colo.

proxima Malloch, 1920a: 171.—Maine; Alaska, Wash., Ont. to Labr., n. Europe.

seticauda Malloch, 1919e: 306.—Calif.; Alaska to N.W.T., s. to Calif. and Nev.

subpellucida Malloch, 1918a: 296.—N. Mex.; Alta., S. Dak., Ariz., Ohio to N.Y., s. to N.C.

subpellucens, error.

ruralis, authors, not Meigen.

teate (Walker), 1849: 931 (*Anthomyia*).—Ont.; Alaska to Greenland, s. to Ont. and Que., U.S.S.R. (Kamchatka).
katmaiensis Malloch, 1920a: 170.—Alaska.
kamtchatica Ringdahl, 1930: 8 (*Acroptena*).—U.S.S.R. (Kamchatka).
tristis (Ringdahl), 1926: 107 (*Acroptena*).—Sweden; Alaska to N.W.T., s. to Man. and Que.
uniformis Malloch, 1918a: 297.—Ill.; Idaho, Ont. and Que., s. to Ill. and Ga.
verticina (Zetterstedt), 1838: 665 (*Anthomyza*).—Sweden; Alaska to Greenland, s. to Que., also Colo., n. Europe.
arctica Malloch, 1919f: 69.—N.W.T.
wierzejskii (Mik), 1867: 420 (*Spilogaster*).—Poland; w. N.W.T. and B.C. to N.Y., s. to Calif., Europe.
elongata Malloch, 1920a: 172.—Wash.
zetterstedtii (Ringdahl), 1918: 185 (*Acroptena*).—Sweden; Alaska to N.W.T., s. to Colo. and Ont., Sweden, U.S.S.R. (Kamchatka).

Genus ANTHOMYIA Meigen

Anthomyia Meigen, 1803: 281. Type-species, *Musca pluvialis* Linnaeus (Westwood, 1840: 143).
Anthomyza, error. Not *Anthomyza* Fallén.

oculifera Bigot, 1885a: 299.—Md.; Wash. to Calif., Que to Md.
pluvialis (Linnaeus), 1758: 597 (*Musca*).—Scandinavia; Alaska to Ariz. to Ga., also Alta., S. Dak., Que., Europe.

Genus ANTHOMYIELLA Malloch

Anthomyiella Malloch, 1920a: 174. Type-species, *Anthomyia pratincola* Panzer (orig. des.).

pratincola (Panzer), 1809c: 12 (*Anthomyia*).—Germany; Wash. to Que., s. to Colo., Okla., and N.C., Europe.

Genus CALYTHEA Schnabl and Dziedzicki

Pegomyia, subg. **Calythea** Schnabl and Dziedzicki, 1911: 111 (1911: 59). Type-species, *Musca albicincta* Fallén (mon.).

albicincta (Fallén).—Not Nearctic.
bidentata (Malloch), 1913m: 606 (*Anthomyia*).—B.C.; Wash.
micropteryx (Thomson), 1869: 555 (*Anthomyia*).—Calif.; sw. N.W.T., Wash. to Mich., s. to Ariz. and Tex., Mass. to Va.
monticola (Bigot), 1885a: 297 (*Anthomyia*).—Rocky Mts.

separata Malloch, 1924h: 198.—R.I.; Wash. to N. Mex. and Tex., Alta. to N.H., s. to Va., also Bermuda.

Genus PARAPROSALPIA Villeneuve

Prosalpia Pokorny, 1893a: 55 (preocc. Koch, 1872). Type-species, *styriaca* Pokorny (Coquillett, 1901e: 140)=*billbergi* (Zetterstedt).

Prosalpia, subg. **Paraprosalpia** Villeneuve, 1922a: 511. Type-species, *rambolitensis* Villeneuve (Séguy, 1937: 127).

REFERENCES: Collin, 1943 (rev. British spp.); Huckett, 1950 (rev.).

angustitarsis (Malloch), 1920a: 184 (*Prosalpia*).—Maine; Alaska to Labr., s. to Alta. and N.Y.

arelate (Walker), 1849: 961 (*Eriphia*).—Ont.; Alaska, N.W.T., Alta., Man.

pretiosa Walker, 1849: 965 (*Eriphia*).—Ont.

badia (Walker), 1849: 950 (*Anthomyia*).—Ont. Unrecognized.

benanderi (Ringdahl), 1926: 114 (*Hylemyia*).—Sweden; Alaska, Y.T.

brevitarsis (Malloch), 1918a: 309 (*Hylemyia*).—Calif.

brunetta (Huckett), 1929: 139 (*Hylemyia*).—B.C.; Que.

conifrons (Zetterstedt) 1845: 1569 (*Aricia*).—Sweden; Alaska to Labr., s. to Utah in w. and s. to N.H. in e., Europe.

constrictor (Malloch), 1920j: 277 (*Hylemyia*).—Alaska; Y.T., N.W.T., Alta., Man., Labr.

denticauda (Zetterstedt), 1838: 675 (*Anthomyza*).—Sweden; Ont., Lapland.

dentiventris (Ringdahl), 1918: 189 (*Prosalpia*).—Sweden; Alaska, Lapland.

genalis Huckett, 1950: 140.—Calif.; Utah.

gentilis Huckett, 1950: 142.—Colo.

incisa (Ringdahl), 1926: 101 (*Prosalpia*).—Sweden; Ont., Que., Labr., Lapland.

littoralis (Malloch), 1920b: 127 (*Pegomyia*).—Maine; Y.T., Que., N.Y., N.H.

longipennis (Ringdahl), 1918: 189 (*Chortophila*).—Sweden; Alaska, N.W.T., Alta., Idaho, Man. to Labr., Lapland.

bicruciata Malloch, 1920a: 190 (*Hylemyia*).—Labr.

moerens (Zetterstedt), 1838: 681 (*Anthomyza*).—Sweden; Alaska, N.W.T., Alta., Man., Que., Labr., Lapland, Sweden.

pilitarsis (Stein), 1900: 313 (*Prosalpia*).—Hungary; Idaho, Mont., Vt., Europe.

sepiella (Zetterstedt), 1845: 1541 (*Aricia*).—Sweden; Alaska, Y.T., Alta., Europe.

pedicillaris Huckett, 1929: 181 (*Hylemyia*).—Alta.

silvestris (Fallén), 1824: 70 (*Musca*).—Sweden; Alaska, N.W.T. to Nfld., s. to S. Dak. and N.C., Europe, U.S.S.R. (Kamchatka).

apina Walker, 1849: 927 (*Anthomyia*).—N.S.

donuca Walker, 1849: 946 (*Anthomyia*).—N.S.

grisea Walker, 1849: 962 (*Eriphia*).—Ont.

sitiens (Collin), 1943: 85 (*Prosalpia*).—Scotland; Vt.

Genus NEOHYLEMYIA Malloch

Neohylemyia Malloch, 1917b: 37. Type-species, *proboscidalis* Malloch (orig. des.).

Pergandea Aldrich, 1919b: 106 (also as *Pergandia*, p. 106; preocc. Ashmead, 1905). Type-species, *apivora* Aldrich (orig. des.).

Ganperdea Aldrich, 1921b: 98 (n. name for *Pergandea* Aldrich). Type-species, *Pergandea apivora* Aldrich (aut.).

apivora (Aldrich), 1919b: 106 (*Pergandea*).—Mo.; N. Mex.

mallochii Huckett, 1924: 37.—N.Y.

proboscidalis Malloch, 1917b: 38.—Ill.

Genus LEUCOPHORA Robineau-Desvoidy

Leucophora Robineau-Desvoidy, 1830: 562. Type-species, *cinerea* Robineau-Desvoidy (Coquillett, 1901e: 138) = *albiseta* (Roser).

Hylephila Rondani, 1877: 13 (preocc. Billberg, 1820). Type-species, *Musca buccata* Fallén (orig. des.).

Hammomyia Rondani, 1877: 13, 236. Type-species, *Aricia albescens* Zetterstedt (orig. des.) = *albiseta* (Roser).

The larvae of *Leucophora* species live as inquilines or parasites in the nests of solitary bees and wasps.

REFERENCE: Huckett, 1940 (rev.).

albiseta (Roser), 1840: 59 (*Anthomyia*).—Germany; Alaska to Calif. and Colo., also N.S., Europe.

annexa Huckett, 1940: 355.—Wash.; Idaho.

fusca Huckett, 1940: 353.—Idaho; Y.T., Alta., Wash. to Calif., also Ind.

johnsoni (Stein), 1898: 215 (*Hylemyia*).—Pa.; Idaho, Tex., La., Que. to Nfld., s. to e. Tenn. and N.C.

maculata (Stein), 1898: 229 (*Hammomyia*).—Idaho; N.W.T., B.C. to Ariz. and Colo., Man. to S. Dak.

marylandica (Malloch), 1920a: 185 (*Hammomyia*).—Md.; B.C. and Alta., s. to Colo., Mich. to Labr., s. to Ga., also Tex.

obtusa (Zetterstedt), 1838: 682 (*Anthomyza*).—Sweden; Alaska to Calif. and Tex., Wis. to Que., s. to Va., Europe.

sociata (Meigen), 1826: 98 (*Anthomyia*).—Germany; Alaska to Calif. and Colo., also Man., Wis., N.H., Md., Europe.

depressa Malloch, 1918a: 304 (*Eremomyia*).—Idaho.

unilineata (Zetterstedt), 1838: 675 (*Anthomyza*).—Sweden; Alta., s. to Calif. and e. to Mich., Mass. to D.C., Europe.

unistriata (Zetterstedt), 1838: 677 (*Anthomyza*).—Sweden; Wash., Alta. to Ind., also Que., N.Y., Mass., N.S., Europe.

paludis Johannsen, 1917: 323 (*Hammomyia*).—Mass.

Genus PROBOSCIMYIA Bigot

Proboscimyia Bogot, 1883c: xxx. Type-species, *siphonina* Bigot (mon.).

Proboscidomyia, emend.

Dolichoglossa Stein, 1898: 230. Type-species, *americana* Stein (orig. des.) = *siphonina* Bigot.

Dolichogaster (error) Coquillett, 1901e: 136.

REFERENCE: Huckett, 1940 (rev.).

brevis Huckett, 1940: 357.—N.Y.; N.S., D.C., N.C., S.C.

siphonina Bigot, 1883c: xxx.—Rocky Mts.; S. Dak. to N. Mex. and Tex., also Ill.

americana Stein, 1898: 230, 286 (*Dolichoglossa*).—S. Dak.

Genus MACATEEIA Malloch

Macateeia Malloch, 1919a: 1. Type-species, *protuberans* Malloch (orig. des.).

atra Malloch, 1919e: 305.—Calif.

protuberans Malloch, 1919a: 1.—Md.; N.Y.

Genus EUSTALOMYIA Kowarz

Dendrophila Lioy, 1864a: 909 (preocc. Swainson, 1837). Type-species, *Musca hilaris* Fallén (mon.).

Eustalomyia Kowarz, 1873: 461. Type-species, *Musca hilaris* Fallén (mon.).

festiva (Zetterstedt), 1845: 1424 (*Aricia*).—Sweden; Wash., Nev., Iowa to Que. and Conn., Europe.

brixia Walker of Johnson, 1925b: 233.

histrio (Zetterstedt), 1838: 676 (*Anthomyza*).—Lapland, Sweden; Mich., Que., N.S., N.H.

brixia Walker, 1849: 946 (*Anthomyia*).—N.S.

vittipes (Zetterstedt), 1845: 1649 (*Anthomyza*).—Sweden; Alaska, Oreg., Colo., Mich. to Que., s. to Tenn. and N.C., Europe.

Unplaced Species of Anthomyiini

cupricrus Walker, 1849: 974 (*Cordylura*).—Ont.
flavipennis Walker, 1849: 975 (*Cordylura*).—Ont.

Unplaced Species of Anthomyiinae

anthracina Bigot, 1885a: 298 (*Anthomyia*).—Rocky Mts.
lamnia Walker, 1849: 964 (*Eriphia*).—Ont.
nigricauda Bigot, 1885a: 276 (*Hydrophoria*).—Rocky Mts. ?*Neohylemyia*. Possibly not Nearctic.
stygia Meigen, 1826: 155 (*Anthomyia*).—Europe; Greenland.

Family MUSCIDAE

By H. C. Huckett

Adult Muscidae vary from 2 to 12 mm. in body length. Some are yellowish or black, but most species are varying shades of gray and brown. The wings are usually unmarked. Adults of most genera are predaceous or anthophilous. The larvae are ubiquitous and may be phytophagous, saprophagous, scatophagous, or zoophagous. They may also live as commensals, or actually feed on the blood of living animals. For additional information, see the discussions of the various subfamilies.

Many authors have included the Scatophaginae, Anthomyiinae, and Fucelliinae (all Anthomyiidae) with the Muscidae in previous taxonomic works.

REFERENCES: Séguy, 1937 (cat., key gen. world); Ringdahl, 1954–1959 (Sweden); Hennig, 1955–1957, 1958b, 1959–1963 (Palaearctic).

Subfamily COENOSIINAE

REFERENCES: Malloch, 1917a, 1921l (keys, genera).

Genus SCHOENOMYZA Haliday

Schoenomyza Haliday, 1833: 166. Type-species, *Sciomyza fasciata* Meigen (Westwood, 1840: 143)=*litorella* (Fallén).
Litorella Rondani, 1856: 101. Type-species, *Ochtiphila litorella* Fallén (orig. des.).

REFERENCE: Huckett, 1934 (rev.).

chrysostoma Loew, 1869c: 177 (Cent. 9, no. 86).—N.H.; Alaska, N.W.T. to Labr., s. to Oreg., N. Mex., and Fla.
leucostoma, error.

dorsalis Loew, 1872a: 95 (Cent. 10, no. 73).—D.C.; Alaska to Labr., s. to Calif. and Fla.
sulfuriceps Malloch, 1918a: 288 (as var.).—Calif.

lispina (Thomson), 1869: 599 (*Ochtiphila*).—Calif.; B.C. to Calif. **N. comb.**
convexifrons Malloch, 1918a: 287.—Calif. **N. syn.**
flaviceps Stein, 1920: 105.—Wash., Calif. **N. syn.**

litorella (Fallén), 1823b: 10 (*Ochtiphila*).—Sweden; Alaska to Labr., s. to Calif. and N.Y., also Tenn., Europe, U.S.S.R. (Kamchatka).
partita Malloch, 1918a: 289 (*as dorsalis* var.).—Calif.

Genus COENOSIA Meigen

Coenosia Meigen, 1826: 210. Type-species, *Musca tigrina* Fabricius (Westwood, 1840: 143).

Caricea Robineau-Desvoidy, 1830: 530. Type-species, *communis* Robineau-Desvoidy (Hennig, 1961: 518)=*tigrina* (Fabricius).

REFERENCE: Huckett, 1934 (rev.).

Subgenus COENOSIA Meigen

humilis Meigen, 1826: 220.—Germany; Wash. to Calif. and Colo., Wis. and Ill. to Que. and N.J., Europe.
nana Zetterstedt, 1845: 1716 (*Anthomyza*).—Sweden.

tigrina (Fabricius), 1775: 779 (*Musca*).—England; B.C. and Alta. to Calif., nw. Ont. and Que. to Mich. and Maine, Europe.
sexmaculata Walker, 1849: 970.—Ont.

Subgenus LIMOSIA Robineau-Desvoidy

Limosia Robineau-Desvoidy, 1830: 535 (as genus). Type-species, *campestris* Robineau-Desvoidy (Coquillett, 1901e: 138).

Macrocoenosia Malloch, 1920a: 162 (as *Macorcoenosia*, error). Type-species, *Coenosia triseta* Stein (orig. des.).

Macrocoenia, error.

albibasis Stein, 1920: 95.—Wash.; B.C. to Calif.

aliena Malloch, 1921m: 134.—Mont.; Alaska to N.W.T., s. to Calif. and Colo.

alticola Malloch, 1919e: 303.—Calif.; Oreg., Utah.

antennalis Stein, 1898: 272.—Ga.; N.Y., N.C., S.C., Fla.

anthracina Malloch, 1921m: 134.—Mont.; Alaska to w. N.W.T., s. to Ariz., Labr.

argentata Coquillett *in* Baker, 1904: 33.—Calif.; Wash.

argenticolor Stein, 1920: 96.—Calif.

argenticeps Malloch, 1920a: 166.—Mont.; Alta., Wash. to Calif. and Colo.

armiger Huckett, 1934: 181.—Que.; Mich.

atrata Walker, 1852: 369.—U.S.; Wash. and Alta. to Que., s. to Ariz. and Fla.

canescens Stein, 1898: 265.—Ill., Pa., Va.

atritibia Ringdahl, 1926: 107.—Sweden; Alaska, Y.T., N.W.T., Man., Que.

bonita Huckett, 1934: 179.—Calif.; Wash., Oreg., Idaho, Utah.

canadensis Curran, 1933b: 9.—Que.; N.W.T., Man., Ont., Labr.

candida Huckett, 1934: 185.—Wash.

cilicauda Malloch, 1920h: 103.—Mont.; sw. N.W.T., B.C., and Man., s. to Utah and Colo., Que.

comita (Huckett), 1936: 214 (*Macrorchis*).—Alaska; Alaska to N.W.T., s. to Mont.

compressa Stein, 1904: 489.—N.H.; Que. to N.S., s. to Minn. and Pa.

conforma Huckett, 1934: 190 (as *compressa* var.).—Man.; Alaska to N.W.T., s. to Colo. and Nfld., also e. Tenn.

dorsovittata Malloch, 1920a: 167.—Colo.; Sask.

effulgens Huckett, 1934: 151.—Calif.; Wash., Oreg.

errans Malloch, 1920a: 165 (n. name for *steini* Johnson).—Ga., Mass.; Iowa, Ohio, N.H. to Fla.

flavipes Stein, 1898: 268 (preocc. Williston, 1896).—Ga., Mass.

steini Johnson, 1913a: 78 (n. name for *flavipes* Stein, but preocc. Verrall, 1912).—Ga., Mass.

geniculata, authors, not Fallén.

flavifrons Stein, 1898: 261.—Ga.

flavipes Williston.— Not Nearctic.

fraterna Malloch, 1918a: 282.—Calif.; Sask. to Calif. and Tex.

frisoni Malloch, 1920a: 165.—Ill.; B.C. to N.W.T. and Que., s. to Utah and Ill.

furtiva Huckett, 1934: 178.—N.J.; Ill., Ind., N.Y. to Fla.

fuscifrons Malloch, 1919h: 96.—Ont.; Wash., Oreg., Wyo., Minn. to Nfld.

impunctata Malloch, 1920a: 165.—Alaska; Wash.

incisurata Wulp, 1869: 86.—Wis.; B.C., Alta., Idaho, Man. to Labr., s. to Ill. and D.C.

flavicoxa Stein, 1898: 271.—Ill.

johnsoni Malloch, 1920a: 167.—Ont.; Alaska, B.C., Alta., N. Mex., Mich. to Que.

laricata Malloch, 1920a: 166.—Ill.

lata Walker, 1852: 368.—U.S.; Wash., Alta. to Que., s. to La. and Fla.

hypopygialis Stein, 1898: 268.—Ga., Mass., Ill.

longimaculata Stein, 1920: 97.—Wash.; Alaska to N.W.T., s. to B.C. and Mich.

maculiventris Huckett, 1934: 187.—Wash.

modesta Loew, 1872a: 95 (Cent. 10, no. 72).—D.C.; Man. to Que., s. to Nebr. and Ill.

pallida Stein, 1920: 100.—S. Dak., Wis.

nigrescens Stein, 1920: 98.—Colo., Que.; Alaska to Nfld., s. to Calif. and Pa.

nigricoxa Stein, 1920: 99.—Colo.; Alaska, Alta., Man.

nivea Loew, 1872a: 94 (Cent. 10, no. 70).—Pa.; Wash. to Calif., Iowa to N.H., s. to Fla.

var. **brunnescens** Malloch, 1920a: 165.—Pa.; Calif., Ohio, N.Y., D.C.

nudipes Stein, 1920: 99.—Wash.

nudiseta Stein, 1898: 273.—Mass.; Que. to N.J.

oregonensis Malloch *in* Cole and Lovett, 1919: 254.—Oreg.; Alaska to N.W.T., s. to Calif.

pallipes Stein, 1898: 270.—Ill., Ont.; Alaska, B.C. to Que., s. to Ill. and Vt.

denticornis Malloch, 1920a: 164.—Sask.

pedella (Fallén), 1825: 88 (*Musca*).—Sweden; Alaska to w. N.W.T., s. to Colo., also Que., Europe.

dichaeta Malloch, 1920a: 163.—Colo.

perspicua Huckett, 1934: 176.—Calif.; Mont.

pilosissima Stein, 1920: 100.—Wash., Idaho, Calif. (as Colo., error); Alaska to Calif. and Okla.

longispinosa Malloch, 1920a: 166.—Colo.

pulicaria (Zetterstedt), 1845: 1733 (*Anthomyza*).—Sweden; Alaska and Y.T. to Colo.

pygmaea Zetterstedt of Huckett, 1934: 152.

pumila (Fallén), 1825: 88 (*Musca*).—Sweden; Alaska, N.W.T., Man., Que., Europe.

rubrina Huckett, 1934: 194.—Calif.

rufibasis Stein, 1920: 101.—Wash.; B.C. and Idaho to Calif.

setigera Malloch, 1918a: 284.—N. Mex.; Colo.

sexnotata Meigen, 1826: 213.—Germany; Alaska to Wash, and Alta., Europe.

strigifemur Stein, 1920: 103.—Wash.

tausa Huckett, 1934: 156.—Wash.; Calif.
toshua Huckett, 1934: 192.—Man.; Alaska, N.W.T., N. Dak., Ont., Que.
triseta Stein, 1898: 262.—Mass.; Alaska to N.W.T., s. to Colo. and Nfld., also N.C.
verralli Collin, 1953c: 171 (n. name for *steini* Verrall).—Wales; Alaska to N.W.T., s. to Man. and Labr., England.
steini Verrall, 1912: 196 (preocc. Strobl, 1908).—Wales.

Subgenus HOPLOGASTER Rondani

Hoplogaster Rondani, 1856: 98 (as genus *Oplogaster;* emend. Rondani, 1871a: 331). Type-species, *Musca mollicula* Fallén (orig. des.).

albifacies (Johnson), 1922: 23 (?*Micropselapha*).—Maine; Y.T., N.W.T. **N. comb.,** C. W. Sabrosky *in litt.*
californica (Malloch), 1920a: 194 (*Hoplogaster*; n. name for *parvisquama* Malloch).—Calif.; Oreg., Colo., Ariz., N. Mex.
californiensis (error) Malloch, 1921n: 205.
parvisquama Malloch, 1919e: 304 (preocc. Stein, 1900).—Calif.
flavibasis Huckett, 1934: 90.—Mont.; Ariz., Colo., N. Mex.
flavidipalpis Huckett, 1934: 95.—B.C.; Alaska, Y.T., Alta., Oreg., Mont.
fumipennis Huckett, 1934: 104.—N.Y.; Mich.
intacta Walker, 1852: 369.—U.S.; Mich. to Que. and Pa., also Tenn.
laeta Huckett, 1934: 98.—Ont.
mollicula (Fallén), 1825: 90 (*Musca*).—Sweden; Alaska to Nfld., s. to N. Mex. and N.Y., Europe.
morrisoni (Malloch), 1924e: 172 (*Hoplogaster*).—N.H.; Alaska to N.H. and Labr.
nigritarsis (Stein), 1898: 252 (*Hoplogaster*).—N.J. (as N.Y., error); Que. to N.S., s. to Mich., Tenn., and S.C.
nigritella Huckett, 1934: 93.—Oreg.; Wash.
octopunctata (Zetterstedt), 1838: 693 (*Anthomyza*).—Sweden; Alaska to Labr., s. to Colo., U.S.S.R. (Kamchatka).
octomaculata (error) Malloch, 1919f: 68.

Subgenus NEODEXIOPSIS Malloch

Neodexiopsis Malloch, 1920a: 162 (as genus). Type-species, *Dexiopsis basalis* Stein (orig. des.).
Xenocoenosia Malloch, 1920a: 162. Type-species, *Coenosia calopyga* Coquillett (orig. des.).

REFERENCE: Snyder, 1958 (rev., *ovata* group, New World).

arizona (Snyder), 1958: 25 (*Neodexiopsis*).—Ariz.
basalis (Stein), 1898: 259 (*Dexiopsis*).—Ill.; Calif. to Mass. and Ga.
borea (Snyder), 1958: 26 (*Neodexiopsis*).—Wis.
calopyga Loew, 1872a: 94 (Cent. 10, no. 71).—Pa.; Wis. to Que., s. to Miss. and Ga.
calophaga (error) Johnson, 1925b: 237.
floridensis (Malloch), 1920a: 163 (*Xenocoenosia*).—Fla.; N.Y., Pa., Ohio, e. Tenn., N.C.
major (Malloch), 1920a: 163 (*Xenocoenosia*).—Fla.; Okla. to N.Y., s. to Fla.
ovata Stein, 1898: 263.—Ill., Ga.; B.C. to Que., s. to s. Calif. and Fla.
pectoralis Huckett, 1934: 76.—Ariz.; B.C., Utah, Colo., N. Mex.
peninsula (Snyder), 1958: 23 (*Neodexiopsis*).—Fla.; Bahama Is.
rufitibia Stein, 1919: 161 (n. name for *tibialis* Stein).—Ill., Pa., Ga.; s. Calif. to Mich. and N.Y., s. to Fla.
tibialis Stein, 1898: 275 (preocc. Macquart, 1842).—Ill., Pa., Ga.
simplex Stein, 1920: 102.—Oreg.; Utah, Calif.

Genus BITHORACOCHAETA Stein

Bithoracochaeta Stein, 1911: 177. Type-species, *Anthomyia despecta* Walker (orig. des.) = *leucoprocta* (Wiedemann).
Cariciella Malloch, 1920a: 162. Nomen nudum; syn. by J. R. Malloch *in litt.*

REFERENCE: Huckett, 1934 (rev.).

leucoprocta (Wiedemann), 1830: 433 (*Anthomyia*).—West Indies; Okla. to N.C., s. to Tex. and Fla., Cent. Amer., Antilles.
despecta Walker, 1852: 364 (*Anthomyia*).—Brazil.
antica Walker, 1852: 367 (*Coenosia*).—U.S.
insignis Stein, 1898: 257 (*Caricea*).—Fla.

Genus ALLOGNOTA Pokorny

Allognota Pokorny, 1893a: 64. Type-species, *Coenosia agromyzella* Rondani (mon.) = *agromyzina* (Fallén).

REFERENCE: Huckett, 1934 (rev.).

semivitta Malloch, 1918a: 282.—Ill.; S. Dak. to Kans., Mich., Ont., N.Y.

Genus ATHERIGONA Rondani

Atherigona Rondani, 1856: 97. Type-species, *Coenosia varia* Meigen (orig. des.).

REFERENCE: Huckett, 1936 (rev., N. Amer.).

Subgenus ACRITOCHAETA Grimshaw

Acritochaeta Grimshaw, 1901: 41 (as genus). Type-species, *pulvinata* Grimshaw (mon.) = *orientalis* Schiner.

orientalis Schiner, 1868: 295.—Nicobar Is.; Calif. to Ga. and Fla., cosmopolitan.
excisa Thomson, 1869: 560 (*Coenosia*).—Burma (Ross I.).
pulvinata Grimshaw, 1901: 42 (*Acritochaeta*).—Hawaii.
varia Meigen of Malloch, 1921l: 107.

Genus MACRORCHIS Rondani

Macrorchis Rondani, 1877: 17, 280. Type-species, *Musca meditata* Fallén (orig. des.).

REFERENCE: Huckett, 1936 (rev.).

alone (Walker), 1849: 941 (*Anthomyia*).—Ont.; Alaska, B.C. to Labr.
ausoba (Walker), 1849: 938 (*Anthomyia*).—N.S.; B.C. to Nfld., s. to Utah and Ga.
aurifrons Stein, 1898: 260 (*Coenosia*).—Ont., Mass., Ill., Pa.
majuscula (Coquillett) *in* Baker, 1904: 34 (*Coenosia*).—Calif.; Oreg.

Genus PSEUDOCOENOSIA Stein

Pseudocoenosia Stein, 1916: 113. Type-species, *Aricia longicauda* Zetterstedt (Karl, 1928: 207) = *solitaria* (Zetterstedt).

REFERENCE: Huckett, 1936 (rev.).

brevicauda Huckett, 1936: 207.—Alta.; Alaska to N.W.T., s. to Utah and Colo., also Labr.
fletcheri (Malloch), 1919k: 274 (*Helina*).—Sask.; Alaska to N.W.T., s. to Colo., also Que.
uralica Stein, 1920: 60.—Colo.
nigriventris Huckett, 1936: 206.—Calif.; Wash.
solitaria (Zetterstedt), 1838: 677 (*Anthomyza*).—Sweden; Alaska and Y.T., s. to Utah and Colo., also Labr., Europe.
longicauda Zetterstedt, 1860: 6230 (*Aricia*).—Sweden.

Genus PHYLLOGASTER Stein

Tetrachaeta Stein, 1898: 254 (preocc. Ehrenberg, 1844). Type-species, *unica* Stein (mon.).

Phyllogaster Stein, 1898: 256. Type-species, *cordyluroides* Stein (mon.).

Tetramerinx Berg, 1898: 17 (n. name for *Tetrachaeta* Stein). Type-species, *Tetrachaeta unica* Stein (aut.).

Parasteinia Cockerell, 1905: 361 (n. name for *Tetrachaeta* Stein). Type-species, *Tetrachaeta unica* Stein (aut.).

REFERENCE: Huckett, 1936 (rev.).

cordyluroides Stein, 1898: 256.—Mass., Fla.; Calif. to Maine and Fla., Bermuda, Bahama Is.

inermis Stein, 1920: 58.—Wash., Calif.; Oreg.

littoralis Malloch, 1917e: 228.—Ill., Alta. to S. Dak., s. to Calif. and Tex., Ill. to Que. and N.J.

mallitosa Huckett, 1936: 199.—Md.; Conn., Va., N.C., Fla.

parvimaculata (Stein), 1920: 60 (*Tetramerinx*).—Tex.

robusta Johnson, 1917a: 148.—Mass.; R.I., N.Y., Fla.

maximus Stein, 1920: 59.—Mass.

rufitibia (Stein), 1911: 144 (*Tetramerinx*).—Peru, Chile; Oreg., Calif., Fla., Bahama Is.

californiensis Malloch, 1918a: 274 (*Tetramerinx*).—Calif.

unica (Stein), 1898: 254 (*Tetrachaeta*).—Mass.; B.C. and Alta., s. to Ariz. and Tex., also Mich. to Que., s. to Va.

Genus LIMNOSPILA Schnabl

Limnospila Schnabl, 1902: 111. Type-species, *Aricia albifrons* Zetterstedt (orig. des.).

REFERENCE: Huckett, 1936 (rev.).

albifrons (Zetterstedt), 1849: 3301 (*Aricia*).—Denmark; Alaska to Man., s. to Nev., Colo., Que. to N.J., Europe.

Genus LISPOCEPHALA Pokorny

Lispocephala Pokorny, 1893b: 532. Type-species, *Anthomyia alma* Meigen (orig. des.).

REFERENCE: Malloch, 1935b (rev.).

alma (Meigen), 1826: 188 (*Anthomyia*).—Germany; Alaska to Nfld., s. to Utah and Tenn., U.S.S.R. (Kamchatka), Europe.

pallipalpis Zetterstedt, 1845: 1678 (*Anthomyza*).—Sweden.

brevitarsis Malloch, 1935b: 570.—N.W.T.; Alaska to Labr., also Colo.

erythrocera (Robineau-Desvoidy), 1830: 534 (*Caricea*).—France; Alaska to Labr., s. to Calif. and Fla., Europe, U.S.S.R. (Kamchatka).

lacteipennis Zetterstedt, 1845: 1722 (*Anthomyza*).—Sweden.

intacta Walker, 1861: 318 (*Coenosia;* preocc. Walker, 1852).—U.S.

rubricornis (Zetterstedt).—Not Nearctic.

setipes Malloch, 1935b: 567.—Calif.; Oreg., Nev.

tinctinervis Malloch, 1935b: 565.—Que.; Alta., Mont., Mich.

varians Malloch, 1935b: 568.—B.C.; Alaska and Y.T. to Alta., Ont. to Labr.

verna (Fabricius), 1794: 330 (*Musca*).—France; N.H., Europe.

Genus PENTACRICIA Stein

Pentacricia Stein, 1898: 249. Type-species, *aldrichii* Stein (mon.)

aldrichii Stein, 1898: 249.—Kans., Ill., Ga.; Alta. to n. Ont., s. to Calif. and Fla.

Unplaced Species of Coenosiinae

albicornis Meigen, 1826: 220 (*Coenosia*).—Europe; ?N. Amer.

fuscopunctata Macquart, 1851: 243 (1851: 270) (*Coenosia*).—N. Amer.

imperator Walker, 1849: 975 (*Cordylura*).—Ont.

solita Walker, 1852: 368 (*Coenosia*).—U.S.

spinosa Walker, 1849: 967 (*Coenosia*).—Ont.

tenuior Walker, 1849: 977 (*Cordylura*).—Ont.

Subfamily LISPINAE

Genus LISPE Latreille

Lispe Latreille, 1796: 169. Type-species, *Musca tentaculata* De Geer (sub. mon., Latreille, 1802: 462).

Lispa, error or emend.

Adults are usually found near the sunny margins of standing or running water, or occasionally near carrion or feces. The larvae of a few species are aquatic.

REFERENCE: Snyder, 1954 (rev.).

albitarsis Stein, 1898: 277.—Kans., Ill., Pa., Mass., Ga.; Kans. to Que., s. to La. and Fla.

antennata Aldrich, 1913: 144.—Nev. (as Utah, error); Alta., Utah.

argentea Snyder, 1954: 27.—Calif.

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brevipes Aldrich, 1913: 137.—Idaho; Wash. to Calif. and Colo., also Man., Wis., Ind.
canadensis Snyder, 1954: 29.—N.W.T.; Man., Labr.
cinifera Becker.—Not Nearctic.
consanguinea Loew, 1858e: 8.—Germany, Sweden; ?N. Amer.
cotidiana Snyder, 1954: 22.—Alta.; Alaska to Labr., s. to N. Mex. and N.Y., cent. and e. Asia.
flavicincta Loew.—Not Nearctic.
frigida Erichson *in* Ménétries, 1851: 67.—U.S.S.R. (Boganida); N.W.T., Man., Que., Europe, n. Asia.
bohemica Becker, 1904a: 53.—Poland.
hispida Walker, 1849: 971.—Ont.; N.H., N.J.
jamesi Snyder, 1954: 33.—Oreg.; Alaska, Wash., Calif.
johnsoni Aldrich, 1913: 138.—Mass.; Alta. to Maine and Mass.
nasoni Stein, 1898: 280.—S. Dak., Ill., Ga.; Alaska to Que., s. to Calif. and Fla., Bahama Is.
neouliginosa Snyder, 1954: 24.—Calif.; Wash. to Calif. and N. Mex., also Sask., Ont.
nudifacies Snyder, 1954: 18.—Wis.; Alta., Man., Wis., Mich.
palposa (Walker), 1849: 926 (*Anthomyia*).—Ont.; B.C. to Que., s. to Nev. and Md.
simillima Walker, 1849: 972.—Ont.
nigromaculata Stein, 1898: 278.—Idaho, S. Dak., Kans., Pa.
patellata Aldrich, 1913: 140.—Idaho; Wash. to Mont., s. to Calif. and N. Mex.
polita Coquillett *in* Baker, 1904: 34.—Nev.; Alta., Oreg. to Calif. and Colo.
probohemica Speiser, 1914: 93.—w. Poland; Wash. to Kans., s. to Calif. and Miss., Europe.
spinipes Aldrich, 1913: 136 (preocc. Bigot, 1885).—Idaho, Calif.
salina Aldrich, 1913: 134.—Calif.; N.W.T. to Calif. and Colo.
sociabilis Loew, 1862b: 217 (Cent. 2, no. 7).—D.C.; Wis. to Que., s. to Tex. and Ga.
sordida Aldrich, 1913: 132.—Utah; Wash. to Wyo., s. to Calif. and N. Mex.
tentaculata (De Geer), 1776: 86 (*Musca*).—Sweden; Alaska to Labr., s. to Colo., Tex., and S.C., Europe, n. Asia.
acela Walker, 1849: 962 (*Eriphia*).—Ont.
consanguinea Loew of Osten Sacken, 1878c: 171.
uliginosa Fallén, 1825: 93.—Sweden; Wash. to Man., also N.Y., Md., Greenland, Europe, n. Asia.

Subfamily LIMNOPHORINAE

REFERENCES: Huckett, 1932 (rev.); Hennig, 1959–1960 (rev., Palaearctic).

Genus LISPOIDES Malloch

Lispoides Malloch, 1920a: 146. Type-species, *Limnophora aequifrons* Stein (orig. des.).

aequifrons (Stein), 1898: 205 (*Limnophora*).—Idaho, S. Dak.; Alaska, Alta. to Que., s. to Ariz. and Ga.

aequalis (error) Malloch, 1921c: 61.

Genus SPILOGONA Schnabl

Limnophora, subg. **Spilogona** Schnabl, 1911: 92. Type-species, *Aricia carbonella* Zetterstedt (mon.).

Paralimnophora Malloch, 1913m: 604. Type-species, *brunnesquama* Malloch (orig. des.)=*narina* (Walker).

Parlimnophora, error.

Sphenomyia Aldrich, 1919b: 108. Type-species, *kincaidi* Aldrich (orig. des.)=*leucogaster* (Zetterstedt).

Melanochelia Rondani of Malloch, 1921c: 61.

REFERENCES: Malloch, 1921c (synopsis); Collin, 1930a (rev., Greenland).

acuticornis (Malloch), 1920a: 147 (*Limnophora*).—Pa.; Alaska to Calif. and Colo., B.C. to Man., Mich., and Que.

aerea (Fallén), 1825: 76 (*Musca*).—s. Sweden; Alaska to Labr., s. to Oreg. and Mass., Europe.

alberta (Huckett), 1932: 143 (*Limnophora*).—Alta.; Que.

albisquama (Ringdahl), 1932: 156 (*Limnophora*).—Sweden; N.W.T., Man.

almquistii (Holmgren), 1880: 17 (also 1883: 167) (*Aricia*).—U.S.S.R. (Novaya Zemlya); N.W.T., Greenland, Colo.

angulata Malloch, 1920a: 151 (*Limnophora*).—Greenland.

alpica (Zetterstedt), 1845: 1624 (*Aricia*).—Sweden; Que., Labr., Greenland, Europe.

alticola (Malloch), 1920a: 153 (*Limnophora*).—N.H.; Alaska to Labr., s. to B.C. and Conn.

anthrax (Bigot), 1885a: 274 (*Limnophora*).—Mexico; Alaska to Colo., also N.W.T., N.Y.

squamosa Stein, 1920: 53 (*Limnophora*).—Wash.

arctica (Zetterstedt), 1838: 669 (*Anthomyza*).—Sweden; Alaska to Greenland, s. to N.H. and Maine, n. Europe.

fumipennis Zetterstedt, 1845: 1465 (*Aricia*).—Sweden.

arenosa (Ringdahl), 1918: 155 (*Limnophora*).—Sweden; Alaska, Wash. to Man. and Que., s. to Wyo., Greenland, n. Europe.

argenticeps Malloch, 1924h: 200.—N.H.; N.Y.

argentiventris (Malloch), 1920a: 149 (*Limnophora*).—Mont.; Alaska to N.W.T., s. to Ariz. and Iowa.

occidentalis Huckett, 1932: 150 (*Limnophora*; as var.).—Wash.

atrisquamula Hennig, 1959: 277 (n. name for *atrisquama* Ringdahl).—Sweden; N.W.T., Man.

atrisquama Ringdahl, 1932: 156 (*Limnophora*; preocc. Stein, 1904).—Sweden.

baltica (Ringdahl), 1918: 165 (*Limnophora*).—Germany; Alaska to N.W.T., also Idaho, Europe.

fumipennis Zetterstedt of Stein, 1916: 101.

bifimbriata Huckett (for *fimbriata* Huckett).—B.C.; Alaska to N.W.T., s. to Alta. and n. Man. **N. name.**

fimbriata Huckett, 1932: 305 (*Limnophora*; preocc. Schnabl, 1915).—B.C.

bisetosa (Huckett), 1932: 300 (*Limnophora*).—Oreg.; Wash. to Calif. and Colo.

litorea Fallén of Stein, 1920: 56.

brevicornis (Malloch), 1917d: 226 (*Tetramerinx*).—Ill.; Oreg., N.W.T. to Colo. and S. Dak,. N.Y., Que., Maine.

cana (Huckett), 1932: 299 (*Limnophora*).—Wash.; Oreg., Wyo.

caroli (Malloch), 1920a: 154 (*Limnophora*).—Vt.; N.Y., N.H., Maine, N.C.

clarans (Huckett), 1932: 298 (*Limnophora*).—Ont.

comata (Huckett), 1932: 146 (*Limnophora*).—Alaska.

concolor (Stein), 1920: 55 (*Limnophora*).—Wyo., Colo.; Alaska to Utah and Colo., also N.W.T., Man.

contractifrons (Zetterstedt), 1838: 683 (*Anthomyza*).—Sweden; Alaska to Labr., s. to B.C., Europe, U.S.S.R. (Kamchatka).

crepusculenta (Huckett), 1932: 144 (*Limnophora*).—Alaska.

cretans (Huckett), 1932: 151 (*Limnophora*).—Alta.; Wyo., Colo.

deflorata (Holmgren), 1872: 102 (*Aricia*).—w. Greenland; Alaska to Labr., s. to n. Man.

addicta Huckett, 1932: 133 (*Limnophora*).—Alaska.

denudata (Holmgren), 1869: 30 (*Aricia*).—Spitzbergen; Alaska to Greenland, s. to Que., Spitzbergen.

ranunculi Holmgren, 1869: 34 (*Aricia*).—Spitzbergen.

dorsata (Zetterstedt), 1845: 1472 (*Aricia*).—Sweden; Alaska to Greenland, s. to n. Man. and Que., n. Europe. See Ringdahl, 1931: 174.

hyperborea Boheman, 1865: 571 (*Aricia*).—Spitzbergen.
labiosa Boheman, 1865: 571 (*Aricia*).—Spitzbergen.
pearyi Malloch, 1920a: 151 (*Limnophora*).—w. Greenland.

extensa (Malloch), 1920a: 150 (*Limnophora*).—w. Greenland; N.W.T. (Victoria, Ellesmere, and Baffin Is.).

fatima (Huckett), 1932: 127 (*Limnophora*).—Que.; N.W.T., Man. to Que., s. to Mich. and N.Y.

fimbriata (Schnabl), 1915: 42 (*Limnaricia*).—U.S.S.R. (Karskaja Tundra); Alaska (Point Barrow).

gibsoni (Malloch), 1920a: 152 (*Limnophora*).—N.B.; Alta., Mich., Que., and N.B. to N.Y.

glauca (Stein), 1916: 90 (*Limnophora*).—Germany, Poland; Alaska, N.W.T., Europe.

imitatrix (Malloch), 1921c: 64 (*Melanochelia*).—Labr.; Alaska, Alta. to Utah and Colo., n. Man. to Que.

incauta (Huckett), 1932: 288 (*Limnophora*).—Alaska; N.W.T.

instans (Huckett), 1932: 116 (*Limnophora*).—Alaska; N.W.T., n. Man., Labr.

latilamina (Collin), 1930a: 266 (*Limnophora*).—Greenland; Alaska to N.W.T., s. to Man. and Labr.

leucogaster (Zetterstedt), 1838: 674 (*Anthomyza*).—Sweden; Alaska to Labr., s. to Calif., Mich., and Que., n. Europe.
biquadrata Walker, 1849: 963 (*Eriphia*).—Ont.
kincaidi Aldrich, 1919b: 108 (*Sphenomyia*).—Alaska.
nitidifrons Stein, 1920: 50 (*Limnophora*).—Wash.
banffi Seamans, 1926: 175 (*Sphenomyia*).—Alta.

limnophorina (Stein), 1898: 200 (*Spilogaster*).—Pa.; Alaska, Oreg., Idaho, Ohio, Que. to Pa.
rufitibia Stein, 1920: 52 (*Limnophora*).—Idaho.

magnipunctata (Malloch), 1919e: 301 (*Limnophora*).—Calif.; Alaska to Calif. and Colo., also Labr., Que., N.H.
fumosa Stein, 1920: 48 (*Limnophora*).—Wash., Colo.

malaisei (Ringdahl), 1920: 29 (*Limnophora*).—Sweden; Alaska to Greenland, s. to B.C. and Que., Lapland.

megastoma (Boheman), 1865: 572 (*Aricia*).—Spitzbergen; Alaska to Greenland, s. to Que., Norway.
pauxilla Holmgren, 1869: 32 (*Aricia*).—Spitzbergen.

melanosoma (Huckett), 1932: 110 (*Limnophora*).—Alaska; Alaska to N.W.T., s. to n. Man. and Que.
dorsata Zetterstedt of Malloch, 1934b: 30.

micans (Ringdahl), 1918: 156 (*Limnophora*).—Sweden; Alaska to Greenland, s. to n. Man., Que., and Labr.

monacantha (Collin), 1930a: 271 (*Limnophora*).—Greenland; Alaska to Greenland, s. to n. Man. and Que.

narina (Walker), 1849: 933 (*Anthomyia*).—N.S.; Alaska to Labr., s. to Oreg., N.Y., and N.S.

brunnesquama Malloch, 1913m: 605 (*Paralimnophora*).—N.H.

nigrifrons Stein, 1920: 49 (*Limnophora*).—N.Y.

velutina Malloch, 1920a: 147 (*Limnophora*; unjustified n. name for *brunnesquama* Malloch, as *brunneisquama*).—N.H.

nigriventris (Zetterstedt), 1845: 1442 (*Aricia*).—Sweden; Alaska, Man., Que., N.H., Labr., Europe.

monticola Malloch, 1920a: 152 (*Limnophora*).—N.H.

nobilis (Stein), 1898: 207 (*Limnophora*).—Alaska; B.C. to Calif.

norvegica (Ringdahl), 1932: 158 (*Limnophora*).—Norway; Alaska to N.W.T., s. to Man. and Que., Norway, Sweden.

carbonella Zetterstedt of Huckett, 1932: 140.

novemmaculata (Zetterstedt), 1860: 6219 (*Aricia*).—Sweden; Alaska, N.W.T., Man., Que., Labr., Lapland.

obscuripennis (Stein), 1916: 93 (*Limnophora*).—Lapland; Alaska and Y.T., s. to Colo., also Que., Labr., n. Europe, U.S.S.R. (Kamchatka).

obsoleta (Malloch), 1920a: 149 (*Limnophora*).—w. Greenland; Alaska to w. Greenland, s. to Que.

hirticauda Malloch, 1921p: 181 (*Melanochelia*).—Alaska (Pribilof Is.).

opaca (Schnabl), 1915: 28 (*Limnophora*).—U.S.S.R. (Ural Mts.); Alaska to Greenland, s. to Colo. and Labr., n. Europe.

freyii Ringdahl, 1918: 150 (*Limnophora*).—Sweden.

alliterata Huckett, 1932: 280 (*Limnophora*).—Alaska.

parvimaculata (Stein), 1920: 50 (*Limnophora*).—N.Y.; Ill. to Ont., Maine to Tenn.

clivicola Malloch, 1920a: 155 (*Limnophora*).—Ill.

placida (Huckett), 1932: 154 (*Limnophora*).—Alaska; Alaska and Y.T., s. to Colo., also Que., N.H., Sweden.

pruinella (Huckett), 1932: 302 (*Limnophora;* as *bisetosa* var.). Calif.; Wash. to Calif., also Wyo., Colo.

pseudodispar (Frey), 1915: 24 (*Limnophora*).—U.S.S.R. (Lena Estuary); Alaska, N.W.T. (Baffin I.), n. B.C. to n. Man., also Que., n. Europe.

spinitibia Ringdahl, 1918: 151 (*Limnophora*).—Sweden.

puberula (Ringdahl), 1918: 151 (*Limnophora*).—Sweden; Alaska.

pulchra (Huckett), 1932: 313 (*Limnophora*).—Alaska.

pulvicrura (Huckett), 1932: 138 (*Limnophora*).—Alaska; N.W.T.

pusilla (Huckett), 1932: 134 (*Limnophora*).—Colo.; Alaska and Y.T. to Colo., B.C. to Labr.

quinquelineata (Zetterstedt), 1838: 671 (*Anthomyza*).—Sweden; Alaska, n. Man., Que.

reflecta (Huckett), 1932: 316 (*Limnophora*).—Mont.; Alaska to N.W.T., Mont.

rostrata (Ringdahl), 1920: 26 (*Limnophora*).—Sweden; Que., Lapland.

rufitarsis (Stein), 1920: 51 (*Limnophora*).—Wash.; Alaska, Alta., Oreg.

sanctipauli (Malloch), 1921p: 180 (*Melanochelia*).—Alaska (Pribilof Is.); Alaska to Greenland, s. to Que. and Labr., n. U.S.S.R.

sectata (Huckett), 1932: 112 (*Limnophora*).—B.C.; Wash., Alta.

armipes Stein, 1916, of Stein, 1920: 56.

semiglobosa (Ringdahl), 1916: 236 (*Limnophora*).—Sweden; Alaska to Greenland, s. to Wash. and N.H.

setilamellata (Huckett), 1932: 118 (*Limnophora*).—N.H.; Maine, Labr.

setinervis (Huckett), 1932: 155 (*Limnophora*).—Alaska; Alaska to Nfld., s. to n. Man. and Que.

sospita (Huckett), 1932: 115 (*Limnophora*).—Alaska; N.W.T., U.S.S.R.

spinicostalis Huckett (for *spinicosta* Malloch).—Alaska (Pribilof Is.); Y.T. **N. name.**

spinicosta Malloch, 1921p: 181 (*Melanochelia;* preocc. Stein, 1907).—Alaska (Pribilof Is.).

subrostrata (Stein), 1920: 54 (*Limnophora*).—B.C.; Alaska to Wash. and Colo., N.W.T. to Man., Mich., and N.H.

surda (Zetterstedt), 1845: 1476 (*Aricia*).—Denmark, Sweden; Alaska to Calif. and Wyo., N.W.T. to Man., N.Y., and Que., Europe, U.S.S.R. (Kamchatka).

suspecta (Malloch), 1920a: 154 (*Limnophora*).—Maine; Alaska to Labr., s. to Mont. and N.Y.

tendipes (Malloch), 1920j: 270 (*Limnophora*).—Alaska.

tetrachaeta (Malloch), 1920a: 153 (*Limnophora*).—Oreg.; Calif., Alta. to Colo.

tornensis (Ringdahl), 1926: 102 (*Limnophora;* n. name for *seticosta* Ringdahl).—Sweden; Alaska to Greenland, s. to Wash. and Que., Lapland.

seticosta Ringdahl, 1920: 28 (*Limnophora;* preocc. Schnabl, 1915).—Sweden.

pluvialis Huckett, 1932: 306 (*Limnophora*).—Wash.

torreyae (Johannsen), 1916: 391 (*Limnophora*).—N.Y.; N.H.

umbrina Stein, 1920: 54 (*Limnophora*).—N.Y.

triangulifera (Zetterstedt), 1838: 680 (*Anthomyza*).—Sweden; Alaska to N.W.T., s. to Que., Greenland, Lapland.

tristiola (in part) Zetterstedt, 1838: 675 (*Anthomyza*). Female only.

trigonata (Zetterstedt), 1838: 680 (*Anthomyza*).—Sweden; Alaska to N.W.T., s. to n. Man. and Labr., Lapland.

trigonifera (Zetterstedt), 1838: 669 (*Anthomyza*).—Greenland, Lapland; Alaska to Utah, also Ont. and Labr. to Mass., Greenland, Lapland.

novaeangliae Malloch, 1920a: 151 (*Limnophora*).—N.H.

trilineata (Huckett), 1932: 283 (*Limnophora*).—Alaska; Alaska to N.W.T., s. to n. Man. and Labr., also Utah.

tundrae (Schnabl), 1915: 39 (*Limnaricia*).—U.S.S.R. (Karskaja Tundra); Alaska to Greenland, s. to Que. and Labr.

macropyga Frey, 1915: 23 (*Limnophora*).—U.S.S.R. (Taimur Peninsula).

vana (Zetterstedt), 1845: 1465 (*Aricia*).—Sweden; Alaska, s. to Wash. and Idaho, and e. to Ont. and Labr., Europe.

nupta Zetterstedt, 1860: 6217 (*Aricia*).—Sweden.

crassiventris Huckett, 1932: 292 (*Limnophora*).—Alaska.

zetterstedtii Ringdahl, 1918: 173 (*Limnophora*).—Sweden; Alaska to N.W.T., s. to Wash., Colo., and Que.

fuscomarginata Huckett, 1932: 290 (*Limnophora*).—Alta.

trianguligera Zetterstedt of Stein, 1916: 111.

Genus MYDAEINA Malloch

Mydaeina Malloch, 1919f: 62. Type-species, *obscura* Malloch (mon.).

obscura Malloch, 1919f: 62.—N.W.T.

Genus GYMNODIA Robineau-Desvoidy

Gymnodia Robineau-Desvoidy, 1863b: 635. Type-species, *pratensis* Robineau-Desvoidy (mon.) = *polystigma* (Meigen).

Eulimnophora Malloch, 1920a: 145. Type-species, *Limnophora arcuata* Stein (orig. des.).

arcuata (Stein), 1898: 201 (*Limnophora*).—Ga.; N. Dak. to Ont., s. to Calif. and Fla.

cilifera (Malloch), 1920a: 145 (*Eulimnophora*).—Ill.; Ariz. to Pa., s. to Fla.

debilis (Williston), 1896c: 369 (*Limnophora*).—St. Vincent I.; Tex., Fla., West Indies.

dorsovittata Malloch, 1920a: 146 (*Eulimnophora*).—Jamaica.

humilis (Zetterstedt), 1860: 6221 (*Aricia*).—Sweden; Mich., Ont., Europe.

Genus LIMNOPHORA Robineau-Desvoidy

Limnophora Robineau-Desvoidy, 1830: 517. Type-species, *palustris* Robineau-Desvoidy (Coquillett, 1910b: 561).

discreta Stein, 1898: 204.—Ill.; Alaska to Ariz. and N. Mex., B.C. to Que., s. to Ill. and Fla.
groenlandica Malloch, 1920a: 147.—w. Greenland.
incrassata Malloch, 1919e: 299.—Calif.; Alaska, Wash., Mont., Oreg., Wyo.
narona (Walker), 1849: 945 (*Anthomyia*).—Fla.; Wash. and Alta. to Que., s. to Ariz. and Fla., Bermuda, Bahama Is.
dentata Bigot, 1885a: 284 (*Homalomyia*).—Rocky Mts.
cyrtoneurina Stein, 1898: 203.—Wash., N. Dak., S. Dak., Kans., Minn., Ill., Mass., Ga.
sinuata Collin, 1930a: 256.—e. Greenland.
uniseta Stein, 1916: 94.—Sweden; Alaska to Greenland, also B.C., Wash., n. Europe.

Genus PSEUDOLIMNOPHORA Strobl

Pseudolimnophora Strobl, 1893b: 272. Type-species, *Musca triangula* Fallén (Coquillett, 1901e: 140).

nigripes (Robineau-Desvoidy), 1830: 541 (*Limosia*).—France; Alaska to Greenland, s. to Wash., Que., and Labr., also S. Dak., Europe.
rotundata Collin, 1930a: 256.—w. Greenland.
triangula (Fallén).—Not Nearctic.

Genus BUCEPHALOMYIA Malloch

Bucephalomyia Malloch, 1918a: 273. Type-species, *Tetramerinx femorata* Malloch (mon.).

femorata (Malloch), 1913m: 603 (*Tetramerinx*).—Calif.; Ariz.

Subfamily MYDAEINAE

References: Hennig, 1955–1957, 1958b (rev., Palaearctic).

Genus HELINA Robineau-Desvoidy

Helina Robineau-Desvoidy, 1830: 493. Type-species, *euphemioidea* Robineau-Desvoidy (Coquillett, 1901e: 137) = *pertusa* (Meigen).

Aricia Robineau-Desvoidy, 1830: 486 (preocc. Savigny, 1822). Type-species, *impunctata* Robineau-Desvoidy (Coquillett, 1901e: 135)=*impuncta* (Fallén).

Spilogaster Macquart, 1835: 293. Type-species, *Musca quadrum* Fabricius (Westwood, 1840: 142).

Yetodesia Rondani, 1861a: 9 (n. name for *Aricia* Robineau-Desvoidy). Type-species, *Aricia impunctata* Robineau-Desvoidy (aut.)=*impuncta* (Fallén).

Hyetodesia, error or emend.

Mydaea, subg. *Spilaria* Schnabl, 1911: 96. Type-species, *Spilogaster pubescens* Stein (Séguy, 1937: 292).

Caricea, authors, not Robineau-Desvoidy.

REFERENCE: Snyder, 1949a (rev.).

abiens (Stein), 1898: 193 (*Spilogaster*).—Ont., Mass.; Ariz., N. Dak. to s. Que., s. to N.C.

algonquina Malloch, 1922e: 96.—Ill.; N.C., Fla.

barpana (Walker), 1849: 933 (*Anthomyia*).—N.S.

basalis (Zetterstedt), 1838: 663 (*Anthomyza*).—Sweden; Alaska to N.W.T., s. to Calif. and Labr., Europe, U.S.S.R. (Kamchatka).

flavisquama Zetterstedt, 1849: 3287 (*Aricia*).—Sweden.

flavocalyptrata Stein, 1920: 31 (*Mydaea*).—B.C.

hylemyioides Malloch, 1920a: 137.—B.C.

bicolorata (Malloch) *in* Cole and Lovett, 1919: 253 (*Aricia*).—Oreg.; B.C., Wash., Calif.

aperta Stein, 1920: 28 (*Mydaea*).—Wash., Calif.

bispinosa Malloch, 1920a: 142.—Ill.; B.C. and Alta., s. to Calif. and N. Mex.

bohemani (Ringdahl), 1916: 235 (*Mydaea*).—Sweden; B.C. to Man., s. to Calif. and N. Mex., also Ill., Lapland.

canadensis Snyder, 1949a: 136.—Ont.; Que., N.Y.

cinerella (Wulp), 1867: 150 (*Aricia*).—Wis.; Alaska to Labr., s. to Calif. and Mich., Netherlands, U.S.S.R. (Kamchatka).

vanderwulpi Schnabl, 1888a: 387 (*Aricia*).—Netherlands.

brevis Stein, 1898: 180 (*Aricia*).—Ill. Male only.

aldrichi Snyder, 1949a: 122.—Alaska.

consimilata Malloch, 1920a: 144.—Mass.; Wash., Colo., Wis. to N.H. and Mass.

cothurnata (Rondani), 1866a: 116 (1866: 49) (*Spilogaster*).—Italy; Alaska to N.W.T., s. to Calif. and N.H., Europe, U.S.S.R. (Kamchatka).

obscuripes Zetterstedt of Stein, 1916: 65.

cruciata Snyder, 1941: 9.—Ariz.

depuncta (Fallén).—Not Nearctic.

duplicata (Meigen), 1826: 92 (*Anthomyia*).—Germany; Alaska to Labr., s. to Calif. and N.Y., Europe.

exilis (Stein), 1920: 30 (*Mydaea*).—Mass.; Wis., Mich., N.Y., Que., Conn.

floridensis Snyder, 1949a: 126.—Fla.

fulvisquama (Zetterstedt), 1845: 1491 (*Aricia*).—Sweden; Alaska to Labr., s. to Calif. and N.H., Lapland, U.S.S.R. (Kamchatka).

tuberculata Malloch, 1919l: 277.—Labr.

garretti Snyder, 1949a: 140.—B.C.

griseogaster Snyder, 1949a: 138.—Colo.

humilis (Stein), 1920: 32 (*Mydaea*).—Wash.; B.C. to Calif., Ariz., and Colo.

johnsoni Malloch, 1920a: 141.—Mass.; Wis., Que. and N.S., s. to Ga.

keremeosa Snyder, 1949a: 156.—B.C.

lasiosterna Snyder, 1941: 9.—Mexico; Ariz.

laxifrons (Zetterstedt), 1860: 6200 (*Aricia*).—Sweden; Alaska to Que., s. to Utah and Ga., Europe.

nigripennis Schnabl, 1888a: 378 (*Aricia;* preocc. Walker, 1849).—Poland.

nigricans Stein, 1898: 198 (*Spilogaster*).—Colo.

tinctipennis Stein, 1916: 69 (*Mydaea;* n. name for *nigripennis* Schnabl).—Poland.

linearis Malloch, 1920a: 139.—Mont.; Wash., Alta., Mont., Minn. to Que., s. to Ill.

longicornis (Zetterstedt), 1838: 678 (*Anthomyza*).—Sweden; Y.T., N.W.T., Man., n. Europe.

luteisquama (Zetterstedt), 1845: 1492 (*Aricia*).—Sweden; Alaska to N.W.T., s. to Man. and Labr., Lapland.

maculipennis (Zetterstedt), 1845: 1475 (*Aricia*).—Sweden; Alaska, B.C. and Alta., s. to Calif. and N. Mex., also Man. to Labr., s. to Wis. and Mass., n. Europe, U.S.S.R. (Kamchatka).

poeciloptera Malloch, 1918a: 271 (*Aricia;* preocc. Schiner, 1868).—N. Mex.

neopoeciloptera Malloch, 1920a: 139 (n. name for *poeciloptera* Malloch).—N. Mex.

marguerita Snyder, 1949a: 137.—Wash.; Y.T., N.W.T., Ont., Labr.

mulcata (Giglio-Tos), 1893a: 7 (*Hyetodesia*).—Mexico; ?B.C., ?Kans.

multiseriata Malloch, 1922e: 95.—Wash.; B.C. and Alta. to Utah and Colo.

nigribasis Malloch, 1920a: 143.—Ill.; Alaska to Ariz., Wis. and Ill. to Md., s. to Fla.

anceps Zetterstedt of Stein, 1904: 449.

copiosa Wulp of Stein, 1920: 41.

nigripennis (Walker), 1849: 929 (*Anthomyia*).—Ont.; Alaska to Calif. and Colo., also Man. to Nfld., s. to Mich.

nitida Stein, 1898: 185 (*Aricia;* preocc. Macquart, 1851).—Ont.

crepuscularis Stein, 1898: 201 (*Spilogaster*).—Colo.

nigrita Malloch, 1920a: 139.—Mont.; Alta. to Man., s. to Calif. and N. Mex.

nudibasis Snyder, 1949a: 147.—N. Mex.

obscurata (Meigen), 1826: 89 (*Anthomyia*).—Germany; Alaska to Labr., s. to Utah, Ill., and N.Y., Europe, U.S.S.R. (Kamchatka).

nasoni Malloch, 1920a: 138.—Ill.

obscuratoides (Schnabl), 1887: 347 (*Aricia*).—Poland; Alta., Man., S. Dak., Europe.

obscurinervis (Stein), 1898: 199 (*Spilogaster*).—Pa., Ga.; Oreg., Calif., Kans. to Que., s. to Tex. and Fla.

orbitaseta (Stein), 1898: 186 (*Aricia*).—Idaho; Wash. to Calif. and Ariz., also Mo.

oregonensis (Malloch) *in* Cole and Lovett, 1919: 254 (*Aricia*).—Oreg.; B.C., Idaho, Utah.

pectinata (Johannsen), 1916: 392 (*Mydaea*).—N.Y.; B.C. to Man., s. to Ariz. and Ark., also Que., N.Y., N.H. ?=*mulcata*.

biseriata Stein, 1920: 29 (*Mydaea*).—N.Y.

mimetica Malloch, 1920a: 142.—N.H.

brevis (in part) Stein, 1898: 180 (*Aricia*). Female only (Ark.).

procedens (Walker), 1861: 315 (*Aricia*).—Mexico; B.C. and Alta. to Mexico, Minn. to Ill., Que. to N.C.

uniseta Stein, 1898: 192 (*Spilogaster*).—Ill., Ont., Mass., Conn.

punctata (Robineau-Desvoidy), 1830: 492 (*Rohrella*).—France; S. Dak. and Minn., s. to Colo. and Mo., Mass. to Ga., Europe.

uliginosa Fallén, 1825: 81 (*Musca*; preocc. Linnaeus, 1767).—Sweden.

refusa (Giglio-Tos), 1893a: 8 (*Spilogaster*).—Mexico. Probably not Nearctic.

rothi Ringdahl, 1939: 150.—Europe; Alaska to Labr., s. to Calif. and N.Y., Europe, U.S.S.R. (Kamchatka).

marmorata, authors, not Zetterstedt.

rufitibia (Stein), 1898: 181 (*Aricia*).—Kans., Ill. Pa., Ga.; Alta. to Que., s. to Ariz. and Ga.

spinicosta (Zetterstedt), 1845: 1641 (*Anthomyza*).—Sweden; Alaska, N.W.T., n. Europe, U.S.S.R. (Kamchatka).

spinilamellata Malloch, 1920a: 140.—Mont.

spinosa (Walker), 1849: 926 (*Anthomyia*).—Ont.; Alaska to Labr., s. to Calif. and N. Mex.

latifrontata Malloch, 1918a: 270 (*Aricia*).—N. Mex.

spuria Malloch, 1920a: 144.—Calif.; Oreg., Colo.

squalens (Zetterstedt), 1838: 669 (*Anthomyza*).—Sweden; Alaska to Labr., s. to Man., Lapland.

toga Snyder, 1949a: 158.—Mich.

troene (Walker), 1849: 936 (*Anthomyia*).—N.S.; B.C. to Nfld., s. to Calif. and Ga.

lysinoe Walker, 1849: 938 (*Anthomyia*).—N.S.

amoeba Stein, 1898: 190 (*Spilogaster*).—Idaho, Ill., Mass.

pubiceps Stein, 1898: 194 (*Spilogaster*).—Idaho.

var. **fulviventris** Bigot, 1885a: 291 (*Spilogaster*; as sp.).—Calif.; Wash., Idaho.

varia Stein, 1920: 36 (*Mydaea*).—Wash., Calif.

ute Snyder, 1949a: 155.—Utah.

villihumilis Snyder, 1949a: 156.—Calif.; B.C.

Genus QUADRULARIA Huckett

Aricia, subg. *Quadrula* Pandellé, 1898: 51 (preocc. Rafinesque, 1820). Type-species, *Anthomyza annosa* Zetterstedt (Coquillett, 1901e: 141).

Quadrularia Huckett (for *Quadrula* Pandellé). Type-species, *Anthomyza annosa* Zetterstedt (aut.). **N. name.**

Spilaria, authors, not Schnabl.

REFERENCE: Malloch, 1921d (rev.).

annosa (Zetterstedt), 1838: 663 (*Anthomyza*).—Sweden; Alaska to Labr., s. to Ariz. and N.Y., Europe. **N. comb.**

multisetosa Strobl, 1898a: 238 (*Aricia*).—Austria.

laetifica (Robineau-Desvoidy), 1830: 500 (*Mydina*).—France; Alaska to Labr., s. to Calif. and Tenn., Europe, U.S.S.R. (Kamchatka). **N. comb.**

lucorum Fallén, 1823f: 55 (*Musca*; preocc. Linnaeus, 1758).—s. Sweden.

pylone Walker, 1849: 928 (*Anthomyia*).—N. Amer.

incerta Walker, 1852: 354 (*Anthomyia*).—U.S.

solita Walker, 1852: 354 (*Anthomyia*).—U.S.

abacta Giglio-Tos, 1893a: 8 (*Hyetodesia*).—Mexico.

var. **nivalis** (Zetterstedt), 1838: 663 (*Anthomyza*; as sp.).—Sweden; Alta., Mich. to Que., e. Tenn., Lapland. **N. comb.**

punctata (Stein), 1898: 182 (*Aricia*).—S. Dak., Colo.; B.C. to Alta. and N. Dak., s. to Ariz. and N. Mex. **N. comb.**

Genus ARICIELLA Malloch

Ariciella Malloch, 1918b: 66. Type-species, *flavicornis* Malloch (orig. des.)=*rubripalpis* (Wulp).

rubripalpis (Wulp), 1896: 320 (*Spilogaster*).—Mexico; Tex.

flavicornis Malloch, 1918b: 66.—Tex.

Genus HEBECNEMA Schnabl

Hebecnema Schnabl, 1889: 331. Type-species, *Anthomyia umbratica* Meigen (Coquillett, 1901e: 137).

Xenaricia Malloch, 1918a: 272. Type-species, *Spilogaster fulvus* Bigot (orig. des.).

REFERENCE: Malloch, 1921c (key).

affinis Malloch, 1921e: 214.—Vt.; Alaska to Calif., Mich. to Que. and Vt., Europe.

fulva (Bigot), 1885a: 289 (*Spilogaster*).—Wash. Territory; Alaska, Calif.

nigricolor (Fallén), 1825: 81 (*Musca*).—Sweden; Alaska to Oreg., also N. Dak., Mich., Mass., Europe.

pallipes Malloch, 1920j: 269.—Alaska.

umbratica (Meigen), 1826: 88 (*Anthomyia*).—Germany; Alaska to Que., s. to Colo. and Ga., Europe.

vespertina (Fallén), 1823f: 58 (*Musca*).—Sweden; Alaska to Labr., s. to Ariz. and Ga., Europe.

Genus MYOSPILA Rondani

Myospila Rondani, 1856: 91. Type-species, *Musca meditabunda* Fabricius (orig. des.).

Myiospila, error or emend.

meditabunda (Fabricius), 1781: 444 (*Musca*).—Denmark, Italy; Alaska to N.W.T., s. to Calif. and Ga., Europe, U.S.S.R. (Kamchatka).

quadrisetosa Thomson, 1869: 549 (*Cyrtoneura*).—Calif.

quadrisignata (error) Coquillett, 1900h: 441 (1904: 55).

anthomydea Bigot, 1887c: clxxxii (also 1887d: 614) (*Curtonevra*).—U.S. (Rocky Mts.).

Genus MYDAEA Robineau-Desvoidy

Mydaea Robineau-Desvoidy, 1830: 479. Type-species, *scutellaris* Robineau-Desvoidy (Coquillett, 1901e: 139)=*pagana* (Fabricius).

Opsolasia Coquillett, 1910b: 580. Type-species, *Lasiops calvicrura* Coquillett (orig. des.)=*orichalcea* (Zetterstedt).

REFERENCES: Malloch, 1923e (synopsis); Snyder, 1949b (rev.).

brevipilosa Malloch, 1920a: 135.—Ill.; Alta. to Calif., Wis. to Que., s. to Ga.

consors (Zetterstedt).—Not Nearctic.

discimana Malloch, 1920a: 136.—Mass.; Alaska to Labr., s. to B.C., Colo., and N.C.

discimanoides Snyder, 1949b: 19.—Ariz.

electa (Zetterstedt), 1860: 6271 (*Anthomyza*).—Sweden; Alaska, B.C., N.Y., N.H., N.C., Europe.

flavicornis Coquillett, 1902g: 123.—Que.; Que. to Okla. and N.C.

furtiva Stein, 1920: 32.—Wash.; Alaska to Labr., s. to Calif. and Mich.

persimilis Malloch, 1920a: 134.—Alta.

impedita Stein, 1920: 33.—Mass.; Mass. to Ga.

flavidipalpis Malloch, 1923e: 221.—Md.

narona Snyder, 1949b: 23.—Md.

neglecta Malloch, 1920a: 136.—N.J.; Ont. and Que., s. to Okla. and Ga.

neobscura Snyder, 1949b: 26.—N.C.; Ind., Wis., N.H. to N.C.

obscura, authors, not Stein.

nubila Stein, 1916: 65 (n. name for *obscura* Stein).—Pa.; B.C. and Alta., s. to Oreg., N. Mex., Okla., Mich. to Que., s. to Md.

obscura Stein, 1898: 197 (*Spilogaster;* preocc. Wulp, 1896).—Pa.

hirtiventris Malloch of Johnson, 1925b: 227.

obscurella Malloch, 1921b: 10.—Unknown (?Idaho); Alaska, N.W.T., Mich. to Que., Tenn.

anicula Zetterstedt of Strickland, 1946: 170.

occidentalis Malloch, 1920a: 134.—N.H.; Alaska to N.W.T., s. to Utah and N. Mex., Minn., Mich., Que. to Tenn.

humeralis (in part) Zetterstedt, 1845: 1697 (also 1860: 6284) (*Anthomyza*). N.Y. specimen only.

pagana, authors, not Fabricius.

tincta, authors, not Zetterstedt.

orichalcea (Zetterstedt), 1849: 3285 (*Aricia*).—Sweden; Alaska to Labr., s. to Oreg. and Colo., Europe, U.S.S.R. (Kamchatka).

calvicrura Coquillett, 1900h: 444 (1904: 58) (*Lasiops*).—Alaska (Popof I.).

astuta Stein, 1920: 29.—Colo.

palpalis Stein, 1916: 56.—U.S.S.R. (Kanin Peninsula); Alaska to Labr., s. to N. Mex., n. Europe.

hannai Malloch, 1921d: 109 (*Helina*).—Alaska (Pribilof Is.).

occimons Snyder, 1949b: 6.—N. Mex.

rugia Walker of Malloch, 1921p: 178.

sootryeni Ringdahl, 1928c: 45.—Norway; Y.T., Que.

urbana (Meigen), 1826: 118 (*Anthomyia*).—Germany; Mich., Que. to N.C., Europe.

winnemana Malloch, 1919b: 133.—Md.; N.H. to Fla.

Genus XENOMYDAEA Malloch

Xenomydaea Malloch, 1920a: 144. Type-species, *buccata* Malloch (orig. des.) = *otiosa* (Stein).

REFERENCE: Snyder, 1949b (rev.).

armatipes (Malloch), 1921b: 10 (*Mydaea*; n. name for *armata* Malloch).—Mont.; Y.T., Oreg. and Mont., s. to Ariz. and N. Mex.

armata Malloch, 1920a: 135 (*Mydaea;* preocc. Stein, 1918).—Mont.

armipes (error for *armata*) Malloch, 1921b: 10.

fuscomarginata (Malloch), 1919e: 298 (*Helina*).—Calif.

pulla Stein, 1920: 35 (*Mydaea*).—Calif.

hirtiventris (Malloch), 1920j: 269 (*Mydaea*).—Alaska.

nudiseta (Stein), 1920: 33 (*Mydaea*).—Idaho; Wash.

otiosa (Stein), 1920: 34 (*Mydaea*).—Calif., Idaho; Alaska to Calif. and Colo., also N.H.

buccata Malloch, 1920a: 144.—Mont.

pogonoides Snyder, 1949b: 34.—Wash.

rufinervis (Pokorny), 1889: 554 (*Spilogaster*).—Italy-Switzerland (Stelvio Pass); Alaska.

Subfamily FANNIINAE

REFERENCES: Hennig, 1955, 1956 (rev., Palaearctic); Chillcott, 1961a (rev.).

Genus FANNIA Robineau-Desvoidy

Fannia Robineau-Desvoidy, 1830: 567. Type-species, *saltatrix* Robineau-Desvoidy (mon.) = *scalaris* (Fabricius).

Anthomyia, subg. *Homalomyia* Bouché, 1834: 89. Type-species, *Musca canicularis* Linnaeus (Westwood, 1840: 143).

Steinomyia Malloch, 1912c: 656. Type-species, *steini* Malloch (orig. des.) = *scalaris* (Fabricius).

Some species of *Fannia* are closely associated with man. In many subarctic regions, *canicularis* (L.) completely replaces *Musca domestica* L. as the common housefly. The most usual larval habitat is in mushrooms and related fungi, but the larvae of many widely distributed species are found in decaying plant and animal matter, including excrement on the ground and occasionally in birds' nests.

REFERENCES: Malloch, 1924a, 1924b (key, notes).

abrupta Malloch, 1924a: 423.—N.H.; Alaska, Labr. to N.Y., also N.C.

aethiops Malloch, 1913l: 628.—N.H.; Alaska to Labr., s. to Calif. and N.C.

alaskensis Chillcott, 1961a: 198.—Alaska.

americana Malloch, 1927a: 176.—Va.; Minn. to Que., s. to Mo. and Ga.

arizonensis Chillcott, 1961a: 160.—Ariz.

armata (Meigen), 1826: 139 (*Anthomyia*).—Germany; ?Greenland, Europe.

atra (Stein), 1895: 125 (*Homalomyia*).—Austria; B.C., Alta., Que., N.Y.

atripes Stein, 1916: 79.—Europe; Y.T. and N.W.T., s. to Alta. and Labr., Europe.

benjamini Malloch, 1913l: 625.—Calif.; Idaho and Wyo., s. to Calif. and Ark., Mexico.

bifimbriata Collin *in* Carpenter, 1938: 550.—w. Greenland; Alaska, Y.T., B.C., Wis. to Que., s. to Ga.

enotahensis Seago, 1953: 141.—Ga.

bigelowi Chillcott, 1961a: 115.—N.W.T.; Alaska.

binotata Chillcott, 1961a: 203.—Mexico; Oreg., Calif.

borealis Chillcott, 1961a: 127.—Alta.

bradorei Chillcott, 1961a: 173.—Que.

brevicauda Chillcott, 1961a: 106.—Calif.; B.C. and Alta., s. to Calif. and Wyo.

brevipalpis Chillcott, 1961a: 133.—N.Y.; Wis. to N.S., s. to Kans. and Ga.

brooksi Chillcott, 1961a: 117.—Ont.; Mich. to Maine, s. to Mo. and Va.

canadensis Malloch, 1924a: 423.—Ont.; Alta. to N.S., s. to S. Dak., Ill., and Conn.

nigra Stein, 1920: 43 (preocc. Malloch, 1910).—Que.

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immaculata Malloch, 1924a: 424 (n. name for *nigra* Stein).—Que.

canicularis (Linnaeus), 1761: 454 (*Musca*; unjustified n. name for *lateralis* Linnaeus).—Europe; Alaska to Greenland, s. to Calif. and Fla., cosmopolitan.

lateralis Linnaeus, 1758: 597 (*Musca*).—Europe. [Cited as an error by Linneaus, 1761: 454, in synonymy with *canicularis*. Application should be made to the I.C.Z.N. to suppress this name for purposes of homonymy and synonymy in order to preserve the well-known name *canicularis*.—Eds.]

isura Walker, 1849: 952 (*Anthomyia*).—N.S.

prunivora Walsh, 1870: 138 (*Homalomyia*).—Ill. Larva only.

carbonaria (Meigen), 1826: 154 (*Anthomyia*).—Germany; B.C., Wash., Europe.

ceringogaster Chillcott, 1961a: 202.—Que.; Maine, N.S.

ciliatissima Chillcott, 1961a: 65.—Que.; Alaska, s. to Colo., also B.C. to Labr. and Nfld., s. to Pa.

columbiana Chillcott, 1961a: 67.—B.C.

conspicua Malloch, 1913l: 624.—Ariz.

coracina (Loew), 1873a: 47 (*Homalomyia*).—Hungary; Calif., Minn. to Ont., s. to Conn.

corvina (Verrall), 1892: 149 (*Homalomyia*).—England; Alaska to Que., s. to Kans., Ill., and Ga., Europe.

carbonaria, authors, not Meigen.

curvipes Malloch, 1924a: 421.—Md.; Ind., Ohio, N.Y. to Ga.

fasciculata, authors, not Loew.

depressa (Stein), 1898: 173 (*Homalomyia*).—Mass.; Alaska, Man., Que. to Mo. and Ga.

difficilis (Stein), 1895: 58 (*Homalomyia*).—Austria; Alaska, N.W.T., Colo., Minn. to Mass., s. to Ga., Europe.

elongata Chillcott, 1961a: 149.—Calif.

enigmata Chillcott, 1961a: 107.—Alaska; B.C.

falcata Chillcott, 1961a: 91.—Man.; N.W.T., s. to Colo., B.C. to Labr.

femoralis (Stein), 1898: 282 (*Homalomyia*).—La.; Mont., Calif. to, W. Va., s. to La. and Ga.

flavibasis (Stein), 1898: 171 (*Homalomyia*).—Ill.; Mont., Wis., Mich.

flavipalpis Stein, 1911: 103.—Chile. Probably not Nearctic.

flavitibia Stein, 1920: 42.—Idaho; se. Alaska to Calif. and Utah.

minuta Stein, 1920: 44.—Wash.

fuscitibia Stein, 1920: 42.—Idaho; s. Alaska to Idaho and Alta., Calif., N. Mex.

fuscula (Fallén), 1825: 86 (*Musca*).—Sweden; Alaska to N.W.T. and Que., s. to Calif. and Ga., n. Europe.

tetracantha Loew, 1872a: 93 (Cent. 10, no. 69) (*Homalomyia*).—Middle States.

garretti Chillcott, 1961a: 128.—B.C.; ?Conn.

genualis (Stein), 1895: 126 (*Homalomyia*).—Germany; Alaska and Y.T. to Colo., Labr., Que., N.H., Europe.

glaucescens (Zetterstedt), 1845: 1586 (*Aricia*).—Sweden; Alaska to N.S., s. to Iowa, Europe.

hinei Chillcott, 1961a: 93.—Alaska.

hirticeps (Stein), 1892: 70 (*Homalomyia*).—Germany; Alaska.

howardi Malloch, 1913l: 626.—D.C.; Kans. to Iowa and Conn., s. to La. and Ga.

brevis Rondani of Stein, 1898: 176.

trimaculata, authors, not Stein.

immutica Collin, 1939: 142.—Scotland; Alaska, Wash., Oreg., Que.

incisurata (Zetterstedt), 1838: 679 (*Anthomyza*).—Sweden; B.C. to Que., s. to Colo., Miss., and Va., Europe.

intermedia Chillcott, 1961a: 168.—Alaska; B.C., Alta.

kowarzi (Verrall), 1892: 149 (*Homalomyia*).—England; Alaska to Labr., s. to Colo. and N.C., Europe.

laevis (Stein), 1898: 174 (*Homalomyia*).—Mass.; B.C. and Alta., s. to Ariz. and Tex., Que. to Mass. and Pa.

lasiops Malloch, 1920a: 168.—Ill.; B.C., N. Mex., Kans., Mich., Ont.

latifrons Malloch, 1914g: 240.—Ill.; Minn., Iowa, Ont.

leidyi (Walsh), 1870: 138 (*Homalomyia*).—Pa. Larva only. Unrecognized.

leucogaster Chillcott, 1961a: 148.—Utah; Oreg., Idaho.

leucosticta (Meigen), 1838: 328 (*Anthomyia*).—Germany; Wash., Oreg., Kans. to Wis., Ont. and N.Y., s. to Ga., Europe.

brevis Rondani, 1866a: 132 (1866: 65) (*Homalomyia*).—Malta, Italy.

lucida Chillcott, 1961a: 129.—Sask.; Alaska to Wash. and Nebr., Alta. to Que.

lugubrina (Zetterstedt), 1838: 687 (*Anthomyza*).—Sweden; Alaska to Labr., s. to Colo., n. Europe.

macalpinei Chillcott, 1961a: 175.—Ont.; Que.

manicata (Meigen), 1826: 140 (*Anthomyia*).—Germany; Alaska to Greenland, s. to Colo. and Ga., Europe.

uxama Walker, 1849: 948 (*Anthomyia*).—Ont.

acra Walker, 1849: 951 (*Anthomyia*).—Ont.

melanura Chillcott, 1961a: 125.—Alaska; B.C. and Wash. to Que.

meridionalis Chillcott, 1961a: 171.—Ind.; N. Mex., Minn. to Que., s. to Mo. and Tenn.

minutipalpis (Stein), 1895: 106 (*Homalomyia*).—Germany; Alaska, Y.T., n. B.C., Europe.

morrisoni Malloch, 1913l: 627.—N.H.; Que., Mont., Colo., N. Mex.

plebia Malloch, 1918a: 293.—N. Mex.

multisetosa Chillcott, 1961a: 108.—Ariz.

mutica (Zetterstedt), 1845: 1580 (*Aricia*).—Sweden; Alaska to Oreg. and Colo., Mich., Que., N.Y.

neomexicana Chillcott, 1961a: 147.—N. Mex.

neopolychaeta Chillcott, 1961a: 136.—Sask.; B.C., s. to Ariz. and Tex. and e. to Minn.

neotomaria Chillcott, 1961a: 159.—N. Mex.

nidicola Malloch, 1927b: 92.—Md.; Alaska to N.W.T., s. to Utah and Ga., Europe.

subpubescens Collin, 1958: 89.—England.

pubescens, authors, not Stein.

ochrogaster (Thomson), 1869: 557 (*Anthomyia*).—Calif.; B.C. to Oreg. and Colo.

splendida Stein, 1898: 170 (*Homalomyia*).—Idaho.

operta Chillcott, 1961a: 160.—Calif.

oregonensis Chillcott, 1961a: 83.—Oreg.; Y.T. to Alta. and Ariz.

ornata (Meigen), 1826: 191 (*Anthomyia*).—Germany; ?se. Alaska.

pallidiventris Malloch, 1924a: 422.—Mass.; Alta., Minn. to Que., s. to Ill. and Mass., also Ga.

pellucida (Stein), 1898: 283 (*Homalomyia*).—Ga.; Wash. to Calif. and N. Mex., N.Y. to Ga.

penepretiosa Chillcott, 1961a: 144.—Que.; Alaska and B.C. to Que. and N.Y., also N.C.

pretiosa, authors, not Schiner.

polychaeta (Stein).—Not Nearctic.

postica (Stein), 1895: 89 (*Homalomyia*).—England; Alaska to Calif. and Colo., N.W.T. to Nfld. to N.C.

presignis Chillcott, 1961a: 78.—Ont.; Labr.

pusio (Wiedemann), 1830: 437 (*Anthomyia*).—S. Amer.; Ariz. to Fla., N.Y. to D.C., Cuba, Bermuda, S. Amer.

femorata Loew, 1861c: 42 (*Homalomyia*).—Cuba.

robusta Chillcott, 1961a: 220.—B.C.; Alaska to Wash., B.C. to Que.

rondanii (Strobl), 1893b: 241 (*Homalomyia;* n. name for *carbonaria* Rondani).—Italy; Alaska to Idaho and Wyo., Mich. to Que., s. to Tenn. and N.C., Europe. [The identity of the type specimen of *rondanii* is in doubt; further study may show this species to require a new name. The name *aerea* (Zetterstedt) may not be used; Article 49 of the International Rules of Zoological Nomenclature prohibits the reuse of a name for a misidentification.]

carbonaria Rondani, 1871a: 324 (*Homalomyia;* preocc. Meigen, 1826).—Italy.
aerea Fallén of Meigen, 1826: 157, and authors.
aerea Meigen of Zetterstedt, 1845: 1605, and authors.
aerea Zetterstedt of Chillcott, 1961a: 181.

scalaris (Fabricius), 1794: 332 (*Musca*).—Denmark; all states and provinces n. of Mexico, Europe.
propinqua Macquart, 1851: 241 (1851: 268) (*Anthomyia*).—N.Y. (as Amer.; Séguy, 1938: 120).

scyphocerca Chillcott, 1961a: 118.—Que.; Alaska, Man.

sequoiae Chillcott, 1961a: 112.—Calif.; B.C.

serena (Fallén), 1825: 76 (*Musca*).—Sweden; Alaska to Calif. and Colo., Mich. to Labr., s. to N.C., Europe.

serrata Chillcott, 1961a: 184.—N.Y.

setifer Chillcott, 1961a: 162.—Tex.

snyderi Seago, 1954: 2.—Md.; Conn., W. Va., Tenn., La., Ga.

sociella (Zetterstedt), 1845: 1564 (*Aricia*).—Denmark; Alaska and N.W.T., s. to N. Mex. and Colo., also Wis. to Labr., s. to Ga., n. Europe.
socialis (error) Malloch, 1924a: 419.
parallela Johannsen, 1916: 390.—N.Y.

spathiophora Malloch, 1918a: 294.—Ont.; Alaska to w. N.W.T., s. to Ariz. and N. Mex., Minn. to Labr., s. to N.C., n. Europe.

tescorum Chillcott, 1961a: 161.—N. Mex.; Ariz.

tibialis Malloch, 1913k: 461.—B.C.; Alaska to sw. N.W.T., s. to Calif. and Wyo.

trianguligera Malloch, 1918a: 292.—N. Mex.; Ariz., Tex.

trigonifera Chillcott, 1961a: 137.—Calif.; Wash. to s. Calif.

tuberculata (Zetterstedt), 1849: 3296 (*Aricia*).—Denmark; Alaska to N.W.T., Denmark.

tuberosa (Curtis), 1845: 817 (*Anthomyia*).—Great Britain; ?N. Amer. ?=*canicularis*.

tundrarum Chillcott, 1961a: 116.—N.W.T.

ungulata Chillcott, 1961a: 98.—Kans.; Alaska to Wyo., Alta. to Ont., s. to Kans. and N.C.

variabilis Chillcott, 1961a: 196.—Idaho; B.C., Ariz., Ont., N.J., Ga.

vesparia (Meade), 1891: 42 (*Homalomyia*).—England; Calif., Europe.

wilsoni (Walsh), 1870: 138 (*Homalomyia*).—Mass. Larva only. Unrecognized.

Genus COELOMYIA Haliday

Coelomyia Haliday *in* Westwood, 1840: 143. Type-species, *mollissima* Haliday (mon.).

mollissima Haliday *in* Westwood, 1840: 143.—Unknown (?n. Ireland); Alaska, Y.T., N.W.T., Europe.
spathulata Zetterstedt, 1845: 1543 (*Aricia*).—Sweden.
subpellucens (Zetterstedt), 1845: 1561 (*Aricia*).—Sweden; Alaska to Labr., s. to Calif. and N.C., n. Europe, U.S.S.R. (Kamchatka).
flavivaria Coquillett, 1900h: 446 (1904: 60) (*Homalomyia*).—se. Alaska.

Genus EURYOMMA Stein

Euryomma Stein, 1899: 19. Type-species, *hispaniense* Stein (orig. des.)=*peregrinum* (Meigen).

americanum Chillcott, 1961a: 226.—Calif.
peregrinum (Meigen), 1826: 187 (*Anthomyia*).—Germany; B.C., Calif., Ill. to Que., s. to Ala. and Va., cosmopolitan.
communis Walker, 1852: 366 (*Anthomyia*).—U.S.

Genus PIEZURA Rondani

Piezura Rondani, 1866a: 71, 122 (1866: 4, 55). Type-species, *pardalina* Rondani (orig. des.)=*graminicola* (Zetterstedt).

graminicola (Zetterstedt), 1846: 1747 (*Anthomyza*).—Sweden; Mich., N.H., Europe.
nearctica Chillcott, 1961a: 230.—Maine.

Genus PLATYCOENOSIA Strobl

Platycoenosia Strobl, 1894a: 72. Type-species, *mikii* Strobl (mon.).
Choristomma Stein, 1895: 138. Type-species, *pokornyi* Stein (mon.)=*mikii* Strobl.

mikii Strobl, 1894a: 72.—Germany; Wash., Oreg., Wis. to Maine, s. to La. and Tenn., Europe.
pokornyi Stein, 1895: 138 (*Choristomma*).—Germany.

Genus AZELIA Robineau-Desvoidy

Azelia Robineau-Desvoidy, 1830: 592. Type-species, *florea* Robineau-Desvoidy (Rondani, 1866a: 72, 135; 1866: 5, 68) ?=*triquetra* (Wiedemann).
Atomogaster Macquart, 1835: 329. Type-species, *Anthomyia triquetra* Wiedemann (orig. des.).

REFERENCE: Hennig, 1956 (rev., Palaearctic).

aequa Stein, 1920: 46.—Wash.

cilipes (Haliday), 1838: 185 (*Anthomyia*).—Unknown (?n. Ireland); Alaska to Ariz. and Colo., Ill. to Que., s. to Ga., Europe.

staegeri Zetterstedt, 1845: 1592 (*Aricia*).—Sweden.

maculiventris Malloch, 1918a: 276 (*Trichopticus*).—Idaho.

pretiosina Curran, 1930j: 86 (*Fannia*).—N.Y.

gibbera (Meigen), 1826: 152 (*Anthomyia*).—Germany; Alaska to Oreg., Ill., Que. to Tenn., Europe.

triquetra (Wiedemann), 1817: 85 (*Anthomyia*).—Germany; Alaska to N.W.T. and Que., s. to Colo. and Mass., Europe.

zetterstedtii Rondani, 1866a: 135 (1866: 68).—Denmark; Alaska, Europe.

Subfamily PHAONIINAE

Genus HYDROTAEA Robineau-Desvoidy

Hydrotaea Robineau-Desvoidy, 1830: 509. Type-species, *Musca meteorica* Linnaeus (Curtis, 1839: pl. 768).

Achaetina Malloch, 1918b: 67. Type-species, *Musca ciliata* Fabricius (orig. des.) = *bimaculata* (Meigen).

Adults of some species of *Hydrotaea* annoy man by feeding on his skin secretions. The larvae are commonly found in association with decaying vegetable and animal matter; some larvae feed on excrement, and several species have been reared from birds' nests.

REFERENCE: Huckett, 1954 (rev.).

acuta Stein, 1898: 167.—Ga.; Calif., Mo., Ariz., Fla.

dissimilis Aldrich, 1926d: 5.—Calif.

armipes (Fallén) 1825: 75 (*Musca*).—Sweden; B.C. to Labr., s. to Ariz. and N.C., Europe.

basdeni Collin, 1939: 135.—England; Iowa to Que., s. to Md.

bimaculata (Meigen), 1826: 160 (*Anthomyia*).—Germany; Alaska, N.W.T., Greenland, n. Europe.

ciliata Fabricius, 1794: 333 (*Musca*; preocc. Müller, 1776).—Germany.

spinipes Fallén, 1823f: 61 (*Musca*; preocc. Scopoli, 1763).—Sweden.

bispinosa (Zetterstedt), 1845: 1428 (*Aricia*).—Greenland, Sweden; Alaska to Greenland, B.C., Oreg., boreal Europe.

cressoni Malloch, 1914e: 172.—N. Mex.; B.C. to N. Mex.

cristata Malloch, 1918f: 93.—Mass.; Alaska to Calif. and N. Mex., N.W.T. to Nfld.

dentipes (Fabricius), 1805: 303 (*Musca*).—Denmark; Alaska to N.W.T. and Que., Europe.

depressa Huckett, 1954: 327.—Calif.; Alta., Idaho.

houghi Malloch, 1916c: 110.—Ill.; Alaska to Nfld., s. to Calif. and Fla.

caerulescens Stein, 1920: 41 (as *dentipes* var.).—Wash., Calif.

irritans (Fallén), 1823f: 62 (*Musca*).—Sweden. Probably not Nearctic.

lasiophthalma Malloch, 1919e: 297.—Calif.; Alta., Colo.

meteorica (Linnaeus), 1758: 597 (*Musca*).—Europe; s. B.C., s. to Ariz. and N. Mex., e. to Maine.

militaris (Meigen), 1826: 136 (*Anthomyia*).—Germany; s. Alaska to Nfld., s. to N. Mex. and Ga., Europe.

impexa Loew, 1873c: 243.—Germany.

nidicola Malloch, 1925b: 184.—N.Y.; Que., Europe.

occulta (Meigen), 1826: 133 (*Anthomyia*).—Germany; Alaska to Labr., s. to Calif. and Ga., Europe.

idyla Walker, 1849: 948 (*Anthomyia*).—Ont.

lata Walker, 1849: 963 (*Eriphia*).—Ont.

palaestrica (Meigen), 1826: 135 (*Anthomyia*).—Germany; B.C., s. to Ariz. and N. Mex. and e. to N.S., Europe.

pilipes Stein, 1903: 312.—nw. U.S.S.R.; Alaska, s. to Idaho, Ind., and N.H., U.S.S.R. (Kamchatka).

orbitalis Aldrich, 1918b: 311.—Ind.

pilitibia Stein, 1916: 73.—Sweden; Alaska to N.W.T., s. to Calif. and Colo., Mich. to Que., s. to Tenn. and N.C.

abdominalis Aldrich, 1926d: 6.—B.C.

ringdahli Stein, 1916: 74.—Sweden; Alaska to Que., s. to Wash. and N.Y.

comata Aldrich, 1918b: 312.—Wash.

scambus (Zetterstedt), 1838: 668 (*Anthomyza*).—Sweden; Alaska to Calif. and N. Mex., N.W.T. to Que., s. to Mich., n. Europe.

spinifemorata Huckett, 1954: 328.—Alaska; B.C., Wash., Alta., Mich.

succedens Stein, 1901: 212.—s. Ga.

tuberculata Rondani, 1866a: 79 (1866: 12).—Italy; B.C. to Man., s. to Idaho and S. Dak., Ill. to Que., s. to W. Va., Europe.

metatarsata Stein, 1898: 166.—Pa., Mass.

unispinosa Stein, 1898: 165.—Colo., Ont.; Mont. to Colo., Minn to Que., s. to Ky.

Genus NEOHYDROTAEA Malloch

Neohydrotaea Malloch, 1924h: 202. Type-species, *hirtipes* Malloch (orig. des.).

hirtipes Malloch, 1924h: 202.—Mass.; N.Y.

Genus TRICHOPTICOIDES Ringdahl

Trichopticoides Ringdahl, 1931: 173. Type-species, *Musca decolor* Fallén (mon.).

Unnamed spp.—Alaska and Y.T. to Colo., Alta. to N.B., s. to Mich. and N.Y.

Genus OPHYRA Robineau-Desvoidy

Ophyra Robineau-Desvoidy, 1830: 516. Type-species, *nitida* Robineau-Desvoidy (Rondani, 1866a: 70, 84; 1866: 3, 17)=*leucostoma* (Wiedemann).

The larvae of *Ophyra* are scavengers in decaying vegetation, animal matter, and excrement.

REFERENCE: Sabrosky, 1949c (rev., Pacific).

aenescens (Wiedemann), 1830: 435 (*Anthomyia*).—La.; Oreg. to Ariz., Ill. to N.Y., s. to La. and Fla., ?Bermuda, Neotropical, Galapagos Is., Hawaii, Nauru and Ocean Is. (w. of Gilbert Is.).

argentina Bigot of Johnson, 1913a: 76.

capensis (Wiedemann), 1818: 46 (*Anthomyia*).—S. Africa; N.Y., Europe, Asia, Africa. Immigrant.

chalcogaster (Wiedemann), 1824: 52 (*Anthomyia*).—Java; Bermuda, Hawaii, widespread in Ethiopian, Oriental, and Australian Regions.

leucostoma (Wiedemann), 1817: 82 (*Anthomyia*).—Germany; B.C. to Nfld., s. to Ariz. and Fla., Europe, China, Japan.

opalia Walker, 1849: 956 (*Anthomyia*).—N.S.

Genus POGONOMYIA Rondani

Pogonomyia Rondani, 1871a: 336. Type-species, *alpicola* Rondani (mon.).

Eriphia, subg. *Neoeriphia* Schnabl and Dziedzicki, 1911: 195 (1911: 143). Type-species, *metatarsata* Stein (mon.).

REFERENCE: Malloch, 1918a (key, descr.).

aldrichi Malloch, 1918a: 281.—Idaho; Alta., Wash. to Calif., Wyo.

unicolor Stein, 1920: 22.—Wash., Idaho.

alpicola Rondani, 1871a: 337.—Italy; Alta. to N. Mex., also Labr., cent. Europe.

aterrima Wulp.—Not Nearctic.

flavinervis Malloch, 1915h: 356.—Ill.; Alta., Sask., S. Dak., Wis. to s. Que.

nitens Stein, 1898: 199 (*Spilogaster;* preocc. Macquart, 1855).—Ont. (as Mass., error).

flavipennis Stein, 1920: 21.—Wis., Ill., Ont.

latifrons Malloch, 1918a: 281.—Colo.

meadei Pokorny.—Not Nearctic.

metatarsata (Stein), 1907: 326 (*Eriphia*).—Tibet. Probably not Nearctic.

minor Malloch, 1918a: 280.—N. Mex.; Alta. and Sask., s. to Calif. and N. Mex.

quadrisetosa Malloch, 1919f: 66.—N.W.T. (Victoria I.); cent. Alaska to Labr.

similis Malloch, 1918a: 279.—N. Mex.; Alaska to N.W.T. and Que., s. to N. Mex.

spinitarsis Aldrich, 1918d: 184.—Colo.

Genus EUPOGONOMYIA Malloch

Eupogonomyia Malloch, 1921p: 178. Type-species, *pribilofensis* Malloch (orig. des.).

REFERENCE: Malloch, 1921p (key).

groenlandica (Lundbeck), 1901: 281 (*Ophyra*).—Greenland; Y.T., N.W.T. (Baffin and Ellesmere Is.).

neoborealis Snyder, 1949a: 122 (*Helina;* n. name for *borealis* Malloch).—N.W.T.; Alaska, N.W.T. (Victoria and Ellesmere Is.).

borealis Malloch, 1919f: 64 (*Aricia;* preocc. Zetterstedt, 1838).—N.W.T.

pribilofensis Malloch, 1921p: 179.—Alaska (Pribilof Is.); Alaska, Y.T., N.W.T. (Prince Patrick, Victoria, and Baffin Is.).

Genus POGONOMYIOIDES Malloch

Pogonomyioides Malloch, 1919f: 67. Type-species, *atratus* Malloch (orig. des.)=*segnis* (Holmgren).

segnis (Holmgren), 1883: 169 (*Aricia*).—U.S.S.R. (Novaya Zemlya); Alaska to Greenland, s. to n. Man. and Que., Holarctic.

atratus Malloch, 1919f: 67.—N.W.T.

decolor Fallén of Nielsen, 1907: 397.

Genus BEBRYX Gistel

Eriphia Meigen, 1826: 206 (preocc. Latreille, 1817). Type-species, *cinerea* Meigen (mon.).

Bebryx Gistel, 1848: ix (n. name for *Eriphia* Meigen). Type-species, *Eriphia cinerea* Meigen (aut.).

Unnamed sp.—Alaska (Pribilof Is.), Y.T., n. N.W.T.
cinerea Meigen of Malloch, 1921p: 178.

Genus LASIOPS Meigen

Lasiops Meigen, 1838: 323. Type-species, *Anthomyia semicinerea* Wiedemann (Karl, 1928: 32).

Thricops Rondani, 1856: 96. Type-species, *Anthomyza hirtula* Zetterstedt (orig. des.).

Trichops (error) Rondani, 1866a: 217 (1866: 151).

Tricophthicus Rondani, 1861a: 9 (unjustified n. name for *Thricops* Rondani). Type-species, *Anthomyza hirtula* Zetterstedt (aut.).

Trichophticus (error) Rondani, 1871a: 335.

Trichopticus, emend.

References: Malloch, 1921a (synopsis); Ringdahl, 1947 (rev., Palaearctic).

Subgenus LASIOPS Meigen

albibasalis (Zetterstedt), 1849: 3317 (*Anthomyza*).—Norway; Alaska to Calif. and Wyo., Mich., N.Y. to Labr. and Nfld., U.S.S.R. (Kamchatka), n. Europe.
conformis Malloch, 1920a: 157 (*Trichopticus*).—Alta.

coquilletti (Malloch), 1920a: 156 (*Trichopticus*).—Alaska (Popof I.); Y.T., sw. N.W.T., Alta., Que., n. Sweden.
hirsutulus Zetterstedt of Coquillett, 1900h: 444 (1904: 58).

fimbriatus (Coquillett) *in* Baker, 1904: 35 (*Phaonia*).—Nev.; Calif.

furcatus (Stein), 1916: 40 (*Trichopticus*).—Austria, Italy; Alaska to Calif. and Colo., Ont., N.H., U.S.S.R. (Kamchatka), Europe.
melanderi Malloch, 1920a: 159 (*Trichopticus*).—Wash.

hirtulus (Zetterstedt), 1838: 673 (*Anthomyza*).—Lapland; Alaska to N.W.T. (Baffin I.), s. to N.H. and Maine, Europe.
subrostratus Zetterstedt, 1845: 1496 (*Aricia*).—Sweden.

innocuus (Zetterstedt), 1838: 674 (*Anthomyza*).—Sweden; Alaska to Ariz. and Colo., N.W.T. to Nfld., s. to Mich. and N.Y., Europe.
cunctans Meigen of Slosson, 1895: 320.

lividiventris (Zetterstedt), 1845: 1444 (*Aricia*).—Sweden; Alaska, Wash., Wyo., Lapland.

medius (Stein), 1920: 19 (*Trichopticus*).—Colo.; Alaska to Alta. and Wash., Wyo., Nebr.

brevitarsis Malloch, 1920a: 161 (*Trichopticus*).—Wash. **N. syn.**

rufisquama (Schnabl), 1915: 45 (*Mydaea*).—U.S.S.R. (n. Ural Mts.); Alaska to sw. N.W.T., s. to Wash. and Alta., Mich. to Que., s. to Mass., Tenn., and N.H.

johnsoni Malloch, 1920a: 160 (*Trichopticus*).—Mass.

septentrionalis (Stein), 1898: 184 (*Aricia*).—se. Alaska; Alaska to Nfld., s. to Ariz. and N.Y., U.S.S.R. (Kamchatka, Commander Is.).

spiniger (Stein), 1904: 428 (*Trichopticus*).—N.H.; Alaska to Nfld., s. to Utah and N.H.

nigrifrons Walker, 1849: 932 (*Anthomyia*; preocc. Robineau-Desvoidy, 1830).—Ont.

diffinis Malloch, 1920a: 159 (*Trichopticus*).—Utah. **N. syn.**

tarsalis (Walker), 1852: 355 (*Anthomyia*).—U.S.; Alta., S. Dak., Mich. to Que. and Vt.

infestus Stein, 1920: 9 (*Phaonia*).—S. Dak., N.Y. **N. syn.**

latipennis Malloch, 1920a: 158 (*Trichopticus*).—Vt.

villicrura (Coquillett), 1900h: 443 (1904: 57) (*Hyetodesia*).—se. Alaska; Alaska (Aleutian Is.), Mont., Colo.

aldrichi Ringdahl, 1947: 95.—Alaska. **N. syn.**

Subgenus ALLOEOSTYLUS Schnabl

Alloeostylus Schnabl, 1888b: 49 (as genus). Type-species, *sudeticus* Schnabl (mon.).

Pterocanthus Malloch, 1921i: 418. Type-species, *Anthomyza sundewalli* Zetterstedt (orig. des.).

diaphanus (Wiedemann), 1817: 81 (*Anthomyia*).—Germany; Alaska to Nfld., s. to Calif. and S.C., Europe.

signius Walker, 1849: 939 (*Anthomyia*).—N.S.

geldrius Walker, 1849: 940 (*Anthomyia*).—N.S.

ineptus (Stein), 1920: 10 (*Phaonia*).—B.C.

Genus DIALYTA Meigen

Dialyta Meigen, 1826: 208. Type-species, *Musca erinacea* Fallén (mon.).

flavitibia Johannsen, 1916: 394.—N.Y.; Wis. to Que., s. to N.Y.

rufitibia Stein, 1920: 23.—Wis.

nigropolita Malloch, 1919e: 302.—Calif.

Genus DENDROPHAONIA Malloch

Dendrophaonia Malloch, 1923a: 237. Type-species, *Spilogaster hilariformis* Stein (orig. des.) = *scabra* (Giglio-Tos).

REFERENCE: Snyder, 1956 (rev.).

marguerita Snyder, 1956: 450.—Minn.; Tenn.
querceti (Bouché), 1834: 82 (*Anthomyia*).—Germany; Alta. to s. Man., s. to Colo. and Ill., Que. to Ga., Europe.
scabra (Giglio-Tos), 1893a: 9 (*Spilogaster*).—Mexico; Wash. to Conn., s. to Calif., Mexico, and Fla.
hilariformis Stein, 1898: 196 (*Spilogaster*).—Pa., Va.

Genus COENOSOPSIA Malloch

Coenosopsia Malloch, 1924j: 74. Type-species, *prima* Malloch (orig. des.).

prima Malloch, 1924j: 74.—Costa Rica; Tex., Mexico, British Honduras, Panama, ?Brazil.

Genus PHAONIA Robineau-Desvoidy

Phaonia Robineau-Desvoidy, 1830: 482. Type-species, *viarum* Robineau-Desvoidy (Coquillett, 1901e: 140) = *erratica* (Fallén).

REFERENCE: Malloch, 1923a (rev.).

Subgenus PHAONIA Robineau-Desvoidy

aberrans Malloch, 1919c: 208.—Md.; N.J., Tenn., N.C.
albocalyptrata Malloch, 1920j: 267.—s. Alaska.
alpicola (Zetterstedt), 1845: 1401 (*Aricia*).—Norway, Sweden; Alaska, N.W.T., Man., Que., Europe, U.S.S.R. (Kamchatka).
alticola Malloch, 1923a: 260.—N. Mex.; Alaska, N.W.T.
apicalis Stein, 1914: 46.—Germany; Alaska, Mich., Europe.
apicata Johannsen, 1916: 396.—N.Y.; Alta., Iowa, Wis., Mich., Que. to Ga.
var. **solitaria** Stein, 1920: 15 (as sp.).—Wis., N.Y.
atlanis Malloch, 1923a: 279.—N.J.; Mich. to N.Y., s. to Miss. and Fla.
atrocitrea Malloch, 1923a: 262.—s. Alaska; Y.T.
atrocyanea Ringdahl, 1916: 234.—Sweden; Alaska, Y.T., Que., Labr.
citreibasis Malloch, 1920j: 268.—Alaska.
aurea Malloch, 1923a: 256.—Wash.
azygos Malloch, 1923a: 261.—N.Y.

basiseta Malloch, 1920a: 133.—Mont.; Alta. to N.W.T., s. to Alta., S. Dak. and Minn., U.S.S.R. (Kamchatka).

bidentata Ringdahl, 1933b: 17.—ne. Greenland; N.W.T., Que., Labr.

brevispina Malloch, 1923a: 269.—Ill.; Wash., Oreg., Idaho, Ill. to N.H. and Va.

bysia (Walker), 1849: 936 (*Anthomyia*).—N.S.; Alaska to Oreg., Alta., and Idaho, Mich. to Que., s. to Ga.

pallicornis Stein, 1920: 12.—Wash., Idaho.

caerulescens (Stein), 1898: 187 (*Aricia*).—Idaho; Wash. to Alta., s. to Calif. and Utah.

consobrina (Zetterstedt), 1838: 665 (*Anthomyza*).—Sweden; Alaska to Greenland, s. to Que., Europe, U.S.S.R. (Commander Is., Kamchatka).

serva Meigen of Lundbeck, 1898: 309.

curvinervis Malloch, 1923a: 275.—Conn.; N.S.

curvipes (Stein), 1920: 19 (*Trichopticus*).—Mass.; Mich. to Que., s. to N.C.

deleta (Stein), 1898: 178 (*Aricia*).—Ill., Pa.; N.W.T., Tex., Iowa to Que., s. to Pa.

diruta (Stein), 1898: 188 (*Spilogaster*).—Pa.; S. Dak., Kans., Mich. to Conn., s. to Ga.

dissimilis Malloch, 1923a: 263.—s. Alaska.

errans (Meigen), 1826: 112 (*Anthomyia*).—Germany; Alaska to Labr., s. to Calif. and N.J., Europe, U.S.S.R. (Kamchatka).

var. **completa** Malloch, 1923a: 258.—N.H.

var. **luteva** (Walker), 1849: 934 (*Anthomyia*; as sp.).—N.S.; Alaska to Calif., Mich. to Que. to N.S.

varipes Coquillett, 1900h: 441 (1904: 55) (*Hyetodesia*).—Alaska (Popof I.).

flava Stein, 1920: 6.—Wash.; B.C., Oreg.

flavibasis Malloch, 1919c: 208.—Mass.; N.Y., N.H.

fraterna Malloch, 1923a: 251.—Mass.

fuscana Huckett (for *fusca* Stein).—Kans., Va., Mass.; Wash., Oreg., Wis. to Que., s. to Tex. and Ga. **N. name.**

fusca Stein, 1898: 189 (*Spilogaster*; preocc. Meade, 1897).—Kans., Va., Mass.

fuscicauda Malloch, 1918a: 269.—Calif.; Wash., Oreg.

fuscinervis Stein, 1920: 7.—Wash.

harti Malloch, 1923a: 266.—Ill.; Alta., Idaho, Ariz., Kans. to Mich. and Mass., s. to Va.

hybrida (Schnabl), 1888a: 396 (*Aricia*).—Germany; Alaska, Y.T., Europe, U.S.S.R. (Commander Is., Kamchatka).

imitatrix Malloch, 1919f: 61.—N.W.T.
laeta (Fallén), 1823f: 56 (*Musca*).—Sweden; Mich., Ont., N.H., Ohio, Europe.
laticornis Malloch, 1923a: 279.—N.H.; Wis., Mich., Ill., N.H. to N.C.
limbinervis Stein, 1918: 208.—Mexico; Oreg., Calif., Ariz., N. Mex.
marylandica Malloch, 1923a: 265.—Md.; Maine.
monticola Malloch, 1918a: 266.—N. Mex.; Alaska to Nfld., s. to Ariz. and Colo.
morio Zetterstedt of Stein, 1920: 17.
morio (Zetterstedt), 1845: 1399 (*Aricia*).—Sweden; Alaska, N.W.T., Greenland, Europe.
plumbea Zetterstedt of Lundbeck, 1898: 308.
nigricans Johannsen, 1916: 395.—N.Y.; Alta. to S. Dak., Utah, Wis. to Que., s. to D.C.
cayugae Johannsen, 1917: 327 (unjustified n. name for *nigricans* Johannsen).—N.Y.
nervosa Stein, 1920: 12.—N.Y.
nigricauda Malloch, 1918a: 268.—Calif.
pallidisquama (Zetterstedt), 1849: 3288 (*Aricia*).—Sweden; N.W.T. (Baffin I.), Greenland, Que., Lapland.
pallidosa Huckett (for *pallida* Stein).—Idaho; B.C. and Idaho to Calif. **N. name.**
pallida Stein, 1920: 22 (*Dialyta;* preocc. Fabricius, 1794).—Idaho.
pallidula Coquillett, 1902g: 122.—Ga.; Tex. to s. Ga. to Mass.
dulcis Stein, 1920: 5.—Tex., N.J.
parviceps Malloch, 1918a: 267.—Calif.; Oreg.
caesia Stein, 1920: 4.—Calif.
perfida Stein, 1920: 13.—Unknown; Calif., Utah.
prisca Stein, 1920: 14.—N.Y.
protuberans Malloch, 1923a: 247.—N.H.; Wash. to Colo., Alta. to Labr., s. to N.Y.
proxima (Wulp), 1869: 85 (*Aricia*).—Wis.; Alaska, Y.T., Wash., Mich.
pruinosa (Macquart), 1846: 329 (1846: 201) (*Aricia*).—Tex. Unrecognized.
pudoa Hall, 1937a: 215.—Idaho; Wash., Mont.
pulvillata (Stein), 1904: 422 (*Aricia*).—Carolina; N.Y. to Ga.
quieta Stein, 1920: 14.—Wash.; Oreg., Calif., Utah.
rufibasis Malloch. 1919c: 207.—Mass.; Alta., Utah, Que. to Md.
rugia (Walker), 1849: 923 (*Anthomyia*).—Ont.; Alaska to Labr., s. to Utah and Colo.
brunneinervis Stein, 1898: 183 (*Aricia*).—Idaho.

incerta Malloch, 1923a: 250.—Alaska.
consobrina Zetterstedt of Stein, 1920: 17.
savonoskii Malloch, 1923a: 248.—s. Alaska; Wash., Alta., Man.
serva (Meigen), 1826: 86 (*Anthomyia*).—Germany; N.W.T. to Nfld., s. to Wyo. and Ga., Europe, U.S.S.R. (Kamchatka).
soccata (Walker), 1849: 941 (*Anthomyia*).—Ont.; Alta., Mich. to Vt.
striata (Stein), 1898: 179 (*Aricia*).—Idaho; Wash., Calif.
subfusca Malloch, 1923a: 273.—Ill.; Ark., Ohio, N.Y.
subfuscinervis (Zetterstedt), 1838: 673 (*Anthomyza*).—Sweden; Alaska to Greenland, s. to Man. and Que., Sweden.
consobrina Zetterstedt of Henriksen and Lundbeck, 1917: 628.
texensis texensis Malloch, 1923a: 271.—Tex.
ssp. **flavofemorata** Malloch, 1923a: 271 (as var.).—Fla.; Ariz., Tex.
tipulivora Malloch, 1923a: 252.—Md.; N.Y., N.H., Mass., Conn.
trivialis Malloch, 1923a: 278.—Alta.
uniseriata Malloch, 1923a: 268.—Wash.
versicolor Stein, 1920: 16.—Colo.
winnemanae Malloch, 1919a: 3.—Md.; Wis., Mich., N.Y., Mass., Maine.
apta Stein, 1920: 4.—Wis., Mass.

Subgenus LOPHOSCELES Ringdahl

Lophosceles Ringdahl, 1922: 3 (as genus). Type-species, *Musca mutata* Fallén (orig. des.).

alaskensis Malloch, 1923a: 272.—Alaska; N.W.T.
cinereiventris (Zetterstedt), 1845: 1500 (*Aricia*).—Sweden; Alaska to Que., s. to N.Y. and N.H., Europe, U.S.S.R. (Kamchatka).
morrisoni Malloch, 1923a: 264.—N.H.
frenata (Holmgren), 1872: 103 (*Aricia*).—w. Greenland; Alaska to Greenland, s. to Wash., Alta., and N.H.
hians (Zetterstedt), 1838: 698 (*Anthomyza*).—Sweden; Alaska, Lapland.
minima Malloch, 1919f: 61.—Alaska; Alaska (Pribilof Is.) to Que.

Subgenus WAHLGRENIA Ringdahl

Wahlgrenia Ringdahl, 1929a: 12 (as genus). Type-species, *Anthomyza magnicornis* Zetterstedt (orig. des.).

magnicornis (Zetterstedt), 1845: 1666 (*Anthomyza*).—Sweden; Alaska, Y.T., boreal Europe.

Genus BIGOTOMYIA Malloch

Bigotomyia Malloch, 1921h: 173. Type-species, *Spilogaster trispila* Bigot (orig. des.).

californiensis Malloch, 1923a: 236.—Calif.
houghii (Stein), 1898: 177 (*Aricia*).—Ont.; B.C. to Que., s. to Calif., Okla., and N.J.
inculta Stein, 1920: 8 (*Phaonia*).—S. Dak.

Genus PSEUDOPHAONIA Malloch

Pseudophaonia Malloch, 1918b: 66. Type-species, *Aricia orichalcea* Stein (orig. des.) = *orichalceoides* Huckett.
Polietella Ringdahl, 1922:2. Type-species, *Trichopticus steini* Ringdahl (orig. des.).

griseocaerulea Malloch, 1923a: 235.—N.H.; Alaska, Wash.
orichalceoides Huckett (for *orichalcea* Stein).—Idaho; Alta. to Calif. and Colo., Mich. to Que., s. to N.Y. and Maine. **N. name.**
orichalcea Stein, 1898: 183 (*Aricia;* preocc. Zetterstedt, 1849).—Idaho.

Genus MUSCINA Robineau-Desvoidy

Muscina Robineau-Desvoidy, 1830: 406. Type-species, *Musca stabulans* Fallén (Coquillett, 1910b: 571).

REFERENCE: Snyder, 1956 (rev.).

assimilis (Fallén), 1823f: 56 (*Musca*).—s. Sweden; Alaska to Labr., s. to Ariz. and Ga., Europe, U.S.S.R. (Kamchatka).
omole Walker, 1849: 930 (*Anthomyia*).—Ont.
similis Walker, 1849: 930 (*Anthomyia*).—Ont.
nigra Walker, 1849: 931 (*Anthomyia*).—Ont.
dorsilinea (Wulp), 1896: 308 (*Clinopera*).—Mexico; Wyo., S. Dak., s. Calif. to Fla.
aurantiaca Hough, 1899b: 25.—Ga.
flukei Snyder, 1956: 446.—Colo.; Oreg., Calif., Nev.
fulvacrura Snyder, 1956: 449.—Wash.; Wyo., Colo.
stabulans (Fallén), 1817d: 252 (*Musca*).—s. Sweden; Alaska to Nfld., s. to Ariz. and Ga., Europe, U.S.S.R. (Kamchatka).

Subfamily MUSCINAE

Flies of the subfamily Muscinae are ubiquitous. Adults are chiefly anthophilous or coprophilous, and the larvae mostly scavengers.

744-243—65——58

Species of the genus *Musca*, notably the house fly, *Musca domestica* Linnaeus, are important as pests and disseminators of disease.

REFERENCES: Zimin, 1951 (monog., U.S.S.R., figs.); West, 1951 (house fly); Eldridge and James, 1957 (Calif.).

Genus PARARICIA Brauer and Bergenstamm

Pararicia Brauer and Bergenstamm, 1891: 391 (1891: 87). Type-species, *Musca pascuorum* Meigen (Brauer, 1893: 508).

REFERENCE: Snyder, 1956 (rev.).

pabulorum (Fallén), 1817d: 252 (*Musca*).—s. Sweden; Mont., Ariz., Ohio, N.Y., Mass., Europe.

pascuorum (Meigen), 1826: 74 (*Musca*).—Germany; S. Dak., Minn., Mich., Que. to Ga., Europe.

Genus MESEMBRINA Meigen

Mesembrina Meigen, 1826: 10. Type-species, *Musca meridiana* Linnaeus (Westwood, 1840: 141).

Eumesembrina Townsend, 1908: 124. Type-species, *Mesembrina latreillii* Robineau-Desvoidy (orig. des.).

latreillii Robineau-Desvoidy, 1830: 401.—N.S.; Alaska to Labr., s. to Colo., N. Dak., Mich., Tenn., and W. Va., n. Europe, U.S.S.R. (Kamchatka).

resplendens Wahlberg, 1844b: 66.—n. Sweden.

alascensis Townsend, 1908: 124 (*Eumesembrina*).—Alaska.

Genus HYPODERMODES Townsend

Hypodermodes Townsend, 1912c: 46. Type-species, *Musca mystacea* Linnaeus (orig. des.).

solitarius Knab, 1914a: 325.—Alta.; Alaska to Ont., s. to Idaho, Colo., Minn., and Mich.

mystacea Linnaeus of Hine, 1907c: 98.

Genus GRAPHOMYA Robineau-Desvoidy

Graphomya Robineau-Desvoidy, 1830: 403. Type-species, *Musca maculata* Scopoli (Rondani, 1856: 91).

Graphomyia, emend.

maculata (Scopoli), 1763: 326 (*Musca*).—Carniola; Alaska to Greenland, s. to Calif. and Ga., Europe, Asia.

americana Robineau-Desvoidy, 1830: 404.—N. Amer.

idessa Walker, 1849: 908 (*Musca*).—Ont. **N. syn.,** C. W. Sabrosky *in litt.*
picta Zetterstedt, 1855: 4715 (*Cyrtoneura*).—Sweden.

Genus SYNTHESIOMYIA Brauer and Bergenstamm

Synthesiomyia Brauer and Bergenstamm, 1893: 96 (1893: 8). Type-species, *brasiliana* Brauer and Bergenstamm (orig. des.)=*nudiseta* (Wulp).

nudiseta (Wulp), 1883: 42 (*Cyrtoneura*).—Argentina; Calif. to Tex., and N.C. to Fla., Bermuda, Neotropical, also Hawaii, S. Pacific islands, Queensland, India, Seychelles Is., s. Africa, Canary and Madeira Is.
brasiliana Brauer and Bergenstamm, 1893: 96, 110 (1893: 8, 22).—Brazil.

Genus NEOMUSCINA Townsend

Neomuscina Townsend, 1919b: 541. Type-species, *cavicola* Townsend (orig. des.)=*tripunctata* (Wulp).

Subgenus NEOMUSCINA Townsend

tripunctata (Wulp), 1896: 305 (*Muscina*).—Mexico; Ariz., N. Mex., Tex.
texana Hough, 1899b: 25 (*Muscina*).—Tex.
cavicola Townsend, 1919b: 541.—Ariz.

Subgenus SPILOPTEROMYIA Malloch

Spilopteromyia Malloch, 1921i 422 (as genus). Type-species, *Spilogaster apicata* Stein (orig. des.).

rufoscutella Dodge, 1955a: 150.—Fla. (Keys); Cuba.

Genus PHILORNIS Meinert

Philornis Meinert, 1890a: 304. Type-species, *molesta* Meinert (mon.).
Neomusca Malloch, 1921k: 41. Type-species, *Mydaea obscura* Wulp (mon.).

obscurus (Wulp), 1896: 317 (*Mydaea*).—Mexico; Tex. to Cent. Amer.
porteri Dodge, 1955a: 147.—Fla.

Genus MORELLIA Robineau-Desvoidy

Morellia Robineau-Desvoidy, 1830: 405. Type-species, *agilis* Robineau-Desvoidy (Townsend, 1916d: 8)=*hortorum* Fallén).

micans (Macquart), 1855: 136 (1855: 116) (*Cyrtoneura*).—Md.; Alaska to Nfld., s. to Calif., Okla., Ill., and Ga.

recurva Thomson, 1869: 548 (*Cyrtoneura*).—Calif.

podagrica (Loew), 1857c: 45 (*Cyrtoneura*).—Austria; Alaska to Que., s. to B.C., Mont., and N.Y., Europe.

pulchra Curran, 1926d: 213.—Ont.

scapulata (Bigot), 1878: 35 (*Pyrellia*).—Mexico; s. Tex., s. Fla., Neotropical.

Genus PYRELLIA Robineau-Desvoidy

Pyrellia Robineau-Desvoidy, 1830: 462. Type-species, *vivida* Robineau-Desvoidy (Townsend, 1916d: 8)=*cadaverina* (Linnaeus).

cadaverina (Linnaeus), 1758: 595 (*Musca*).—Sweden; ?N. Amer., Palaearctic.

cyanicolor Zetterstedt, 1845: 1323.—Sweden; Alaska to Que., s. to Calif., S. Dak., Mich., and Ga., Europe.

occidentis Walker, 1852: 347 (*Musca;* preocc. Walker, 1852: 332).—U.S.

setosa Loew, 1869b: 37 (Cent. 8, no. 63).—Ill.

serena, authors, not Meigen.

Genus ORTHELLIA Robineau-Desvoidy

Orthellia Robineau-Desvoidy, 1863b: 837. Type-species, *rectinervis* Robineau-Desvoidy (Townsend, 1916d: 8)=*cornicina* (Fabricius).

Euphoria Robineau-Desvoidy, 1863b: 799 (preocc. Burmeister, 1842). Type-species, *nitidula* Robineau-Desvoidy (Townsend, 1916d: 7)=*caesarion* (Meigen).

Cryptolucilia Brauer and Bergenstamm, 1893: 206 (1893: 118). Type-species, *asiatica* Brauer and Bergenstamm (mon.)=*caesarion* (Meigen).

Pseudopyrellia Girschner, 1893: 306. Type-species, *Musca cornicina* Fabricius (orig. des.).

caesarion (Meigen), 1826: 57 (*Musca*).—Germany; N.W.T. to Que., s. to Calif. and Ga., Europe, Asia.
carolinensis Robineau-Desvoidy, 1830: 457 (*Lucilia*).—Carolina.
compar Robineau-Desvoidy, 1830: 457 (*Lucilia*).—Pa.
viridis Wiedemann, 1830: 354 (*Idia*).—N. Amer.
heraea Walker, 1849: 881 (*Musca*).—?N. Amer.
frontalis Thomson, 1869: 545 (*Pyrellia*).—Calif.
morrilli Townsend, 1908: 120 (*Lucilia*).—Tex.
amoena Harris, 1835: 599 (*Musca*). Nomen nudum.
cornicina, authors (N. Amer.), not Fabricius.

Genus MUSCA Linnaeus

Musca Linnaeus, 1758: 589. Type-species, *domestica* Linnaeus (I.C.Z.N. 1925: 1).
Byomya Robineau-Desvoidy, 1830: 392. Type-species, *violacea* Robineau-Desvoidy (Townsend, 1915k: 434).
Biomyia, emend.
Eumusca Townsend, 1911b: 170 (as subgenus). Type-species, *Musca corvina* Fabricius (orig. des.)=*autumnalis* De Geer.
Promusca Townsend, 1915k: 434. Type-species, *Musca domestica* Linnaeus (orig. des.).
Emusca Malloch, 1925e: 372. Type-species, *Musca autumnalis* De Geer (orig. des.).

autumnalis De Geer, 1776: 83.—Scandinavia; Colo. and N. Dak. to N.S., s. to Kans., Tenn., and Ga., Palaearctic. Immigrant, spreading rapidly since first record in 1952.
domestica Linnaeus, 1758: 596.—Scandinavia; widespread in N. Amer., including Greenland, cosmopolitan.
vicina Macquart, 1851: 226 (1851: 253).—Amer.
contigua Walker, 1852: 344.—U.S. **N. syn.,** C. W. Sabrosky *in litt.*
harpyia Harris, 1869: 335.—Unknown (?Mass.).
flavipennis Bigot, 1887c: clxxxi (also 1887d: 605).—Rocky Mts.
corvina, authors (N. Amer.), not Fabricius.

Subfamily STOMOXYINAE

Flies of the subfamily Stomoxyinae have a slender, strongly sclerotized proboscis. They are vicious biters and suck the blood of

warm-blooded vertebrates. Adults are common in fields, woods, and along shorelines, and they frequent buildings occupied by animals. Larvae live in excrement, manure, or piles of decaying plant material. Stable flies (*Stomoxys*) and horn flies (*Haematobia*) are especially important pests.

Genus HAEMATOBIA Lepeletier and Serville

Haematobia Lepeletier and Serville *in* Latreille et al., 1828: 499. Type-species, *Conops irritans* Linnaeus (Westwood, 1840: 140).

Lyperosia Rondani, 1856: 93. Type-species, *Conops irritans* Linnaeus (orig. des.).

Siphona, authors, not Meigen.

irritans (Linnaeus), 1758: 604 (*Conops*).—Sweden; B.C. to Que., s. to Calif. and Fla., West Indies, Europe.

serrata Robineau-Desvoidy, 1830: 389.—s. France.

cornicola Williston, 1889b: 180.—e. N. Amer.

Genus LYPEROSIOPS Townsend

Lyperosiops Townsend, 1912c: 47. Type-species, *Stomoxys stimulans* Meigen (orig. des.).

alcis (Snow), 1891: 88 (*Haematobia*).—n. Minn.; Alaska, Ont., Nfld., Mich.

Genus STOMOXYS Geoffroy

Stomoxys Geoffroy, 1762: 449, 538. Type-species, *Conops calcitrans* Linnaeus (I.C.Z.N., 1957a: 85). Conserved I.C.Z.N., 1957a: 85.

calcitrans (Linnaeus), 1758: 604 (*Conops*).—Sweden; Alaska, B.C. to N.S., throughout U.S., s. to Argentina and Chile, cosmopolitan.

parasita Fabricius, 1781: 467.—N. Amer. (Wiedemann, 1830: 253).

dira Robineau-Desvoidy, 1830: 387.—N. Amer.

inimica Robineau-Desvoidy, 1830: 387.—N. Amer.

cybira Walker, 1849: 1159.—N.S.

occidentis Walker, 1852: 332 (*Musca*).—U.S.

Unplaced Genus and Species of Muscidae

Genus ACRIDOMYIA Stackelberg

Acridomyia Stackelberg, 1929: 121, 126. Type-species, *sacharovi* Stackelberg (orig. des.).

REFERENCE: Snyder, 1940 (rev.).

canadensis Snyder, 1940: 1.—Man.; Sask.
fumisquama Snyder, 1940: 2.—N.C.

Unplaced Species of Muscidae

aea Walker, 1849: 978 (*Cordylura*).—Ont.
cadaverum Kirby, 1837: 316 (*Musca*).—N. Amer.
dejeanii Robineau-Desvoidy, 1830: 558 (*Nerina*).—Pa.
dubia Curtis, 1835b: lxxix (*Anthomyia*).—N.W.T. (Boothia Peninsula).
nigriceps Bigot, 1887c: clxxxii (also 1887d: 615) (*Curtonevra*).—U.S. (Rocky Mts.).
pallida Say, 1829: 175 (1859b: 366) (*Mesembrina*).—Ind.
terminalis Walker, 1852: 356 (*Anthomyia*).—U.S.

Family GASTEROPHILIDAE

By J. G. Chillcott

The larvae are endoparasitic in mammals.

REFERENCES: Wells and Knipling, 1938 (keys to adults, keys and figs. for 1st and 3d stage larvae; biol.); James, 1948 (synopsis, keys to adults and 1st and 3d stage larvae); Zumpt and Paterson, 1953 (keys to adults and larvae).

Subfamily GASTEROPHILINAE

The larvae develop in the gut of Equidae, and are known as horse bots.

Genus GASTEROPHILUS Leach

Gasterophilus Leach, 1817: 2 (Leach *in* Brewster, 1817: 162). Type-species, *Oestrus equi* Clark (Curtis, 1826: pl. 146) = *intestinalis* (De Geer).

Gastrophilus, emend.
Gastrus, emend.
Enteromyza Rondani, 1857: 20 (unjustified n. name for *Gasterophilus* Leach). Type-species, *Oestrus equi* Clark (aut.) = *intestinalis* (De Geer).

Rhinogastrophilus Townsend, 1918c: 152. Type-species, *Oestrus nasalis* Linnaeus (orig. des.).
Haemorrhoestrus Townsend, 1934c: 406. Type-species, *Oestrus haemorrhoidalis* Linnaeus (orig. des.).
Enteromyia Enderlein, 1934b: 425. Type-species, *Oestrus haemorrhoidalis* Linnaeus (orig. des.).

haemorrhoidalis (Linnaeus), 1758: 584 (*Oestrus*).—Europe; s. Canada and n. U.S., s. to Calif., Mo., and Va., also cosmopolitan.
inermis Brauer, 1858: 464 (*Gastrus*).—Austria; Ill., Europe.
intestinalis (De Geer), 1776: 292 (*Oestrus*).—Europe; B.C. to N.B., throughout U.S., also cosmopolitan.
equi Clark, 1797: 326 (*Oestrus*).—Europe.
nasalis (Linnaeus), 1758: 584 (*Oestrus*).—Europe; N.W.T. to N.S., s. to Calif., Miss., and Va., cosmopolitan.
veterinus Clark, 1797: 328 (*Oestrus*).—Europe.
subjacens Walker, 1849: 687 (*Gastrus*).—N.S.

Family HIPPOBOSCIDAE

By Joseph C. Bequaert

The adults of both sexes are hematophagous and obligate ectoparasites of birds or mammals. Most species are restricted to a narrow range of hosts. Reproduction is by integral viviparity (pupiparity).

REFERENCES: Bequaert, 1942a (rev. of Melophaginae); Bequaert, 1953 and 1954–1957 (rev.).

Subfamily ORNITHOICINAE

Genus ORNITHOICA Rondani

Ornithoica Rondani, 1878: 159. Type-species, *beccariina* Rondani (orig. des.)=*confluenta* (Say).
Anthoica, error.
Ornithoeca, emend.

confluenta (Say), 1823: 103 (1859b: 88) (*Ornithomyia*).—U.S.; Fla., Antilles, S. Amer., Old World.
confluens, emend.
vicina (Walker), 1849: 1144 (*Ornithomyia*).—Jamaica; B.C. to Maine, s. to Calif., La., and S.C., Mexico, Cent. and S. Amer., Antilles.
promiscua Ferris and Cole, 1922: 203.—Calif.
confluens, authors, not Say.
confluenta, authors, not Say.

Subfamily ORNITHOMYIINAE

Tribe ORNITHOMYIINI

Genus ORNITHOMYIA Latreille

Ornithomyia Latreille, 1802: 466 (as *Ornithomya*). Type-species, *Hippobosca avicularia* Linnaeus (mon.). [Because of long usage the author prefers to use the emended spelling of this name—Eds.]

fringillina Curtis, 1836: pl. 585.—England; Alaska to St. Pierre and Miquelon, s. to Calif., Tex., and Miss.

pallida Say, 1823: 103 (1859b: 87) (preocc. Latreille, 1812).—U.S.

chloropus Bergroth, 1901: 146.—Finland.

anchineuria Speiser, 1905: 348 (n. name for *pallida* Say).—U.S.

avicularia, authors, New World, not Linnaeus.

Genus MYIOPHTHIRIA Rondani

Myiophthiria Rondani, 1875b: 464 (as *Myophthiria*). Type-species, *reduvioides* Rondani (mon.). [Because of long usage the author prefers to use the emended spelling of this name—Eds.]

Subgenus BRACHYPTEROMYIA Williston

Brachypteromyia Williston, 1896b: 184 (as genus). Type-species, *femorata* Williston (mon.)=*fimbriata* (Waterhouse).

fimbriata (Waterhouse), 1887: 164 (*Anapera*).—N. Mex.; Wyo. and Nebr. to Ariz. and N. Mex.

femorata Williston, 1896b: 185 (*Brachypteromyia*).—Wyo.

Genus ORNITHOCTONA Speiser

Ornithoctona Speiser, 1902a: 328. Type-species, *Ornithomyia erythrocephala* Leach (orig. des.).

erythrocephala (Leach), 1817: 13 (1818: 559) (*Ornithomyia*).—Brazil; B.C. to N.S., s. to Kans., Miss., and Fla., Mexico, Cent. and S. Amer.

nebulosa Say, 1823: 102 (1859b: 87) (*Ornithomyia*).—U.S.

buteonis Swenk, 1916: 133 (*Ornithomyia*).—Nebr.

fusciventris (Wiedemann), 1830: 611 (*Ornithomyia*).—Ky.; Wash., Calif., and Minn. to Que., s. to Nebr. and Va., Mexico, Cent. and S. Amer., Antilles.

strigilecula Ferris, 1923: 57 (*Ornithomyia*).—Peru.

Genus STILBOMETOPA Coquillett

Stilbometopa Coquillett, 1899b: 336. Type-species, *Ornithomyia fulvifrons* Walker (mon.).

fulvifrons (Walker), 1849: 1145 (*Ornithomyia*).—Jamaica; N.J., Antilles, Costa Rica.

impressa (Bigot), 1885b: 237 (*Olfersia*).—Calif.; Nev., Ariz., N. Mex., Mexico.

podopostyla Speiser, 1904b: 394.—Brazil; Nebr., Iowa, Okla., Tex., Mexico, Cent. and S. Amer.

Genus LYNCHIA Weyenbergh

Lynchia Weyenbergh, 1881: 195. Type-species, *penelopes* Weyenbergh (mon.).

Ornithoponus Aldrich, 1923b: 77. Type-species, *Feronia americana* Leach (orig. des.).

albipennis (Say), 1823: 101 (1859b: 87) (*Olfersia*).—U.S.; B.C. to Que. and s. to Wash., Tex., and Fla., Mexico, Cent. and S. Amer., Antilles, Old World.

ardeae Macquart, 1835: 640 (*Olfersia*).—Sicily.

botaurinorum Swenk, 1916: 128 (*Olfersia*).—Nebr.

scutellaris Swenk, 1916: 129 (*Olfersia*).—Mich.

americana (Leach), 1817: 11 (1818: 557) (*Feronia*).—Ga.; Wash. to N.S., s. to Calif., Tex., and Fla., Mexico, Cent. and S. Amer.

fusca Macquart, 1846: 346 (1846: 218) (*Olfersia*).—Colombia.

bubonis Packard, 1869a: 417 (*Hippobosca*).—Mass.

falconis Harris, 1833: 594 (*Ornithomyia*). Nomen nudum.

angustifrons (Wulp), 1903: 430 (*Olfersia*).—Mexico, Costa Rica; Minn. to N.H., s. to Tex. and Va., Cent. and S. Amer.

hirsuta Ferris, 1927: 249.—Calif.; Idaho, Nev., Utah.

holoptera (Lutz, Neiva, and Lima), 1915: 184 (*Olfersia*).—Brazil; Wis., Ohio, Pa., Mass., S.C., Colombia.

nigra (Perty), 1833: 190 (*Hippobosca*).—Brazil; B.C. to Ariz. and Tex., Minn., Wis., Que., N.Y., Mexico, Cent. and S. Amer.

intertropica Walker, 1849: 1144 (*Ornithomyia*).—Galapagos Is.

pallidilabris Rondani, 1878: 161 (*Olfersia*).—Mexico.

wolcotti (Swenk), 1916: 132 (*Olfersia*).—Mich.; Nebr., N.H., Mexico, Cent. and S. Amer.

Genus MICROLYNCHIA Lutz, Neiva, and Lima

Microlynchia Lutz, Neiva, and Lima, 1915: 185. Type-species *Lynchia pusilla* Speiser (mon.).

pusilla (Speiser), 1902b: 157 (*Lynchia*).—Cuba; Idaho, N. Dak., to Iowa, s. to Calif. and Tex., D.C., Fla., Mexico, Cent. and S. Amer., Antilles.

Genus PSEUDOLYNCHIA Bequaert

Pseudolynchia Bequaert, 1926a: 271. Type-species, *Olfersia maura* Bigot (orig. des.)=*canariensis* (Macquart).

brunnea (Latreille) *in* Olivier, 1812: 544 (*Ornithomyia*).—Carolina; Minn. to Mass., s. to N. Mex., Tex., and Fla., Mexico, Cent. and S. Amer., Antilles.

canariensis (Macquart), 1839: 119 (*Olfersia*).—Canary Is.; Old World, immigrant to New World, Calif. to Wis. and Mass., s. to Tex. and Fla., Mexico, Cent. and S. Amer., Antilles.

maura Bigot, 1885b: 237 (*Olfersia*).—Algeria.

Tribe OLFERSIINI

Genus OLFERSIA Leach

Feronia Leach, 1817: 11 (1818: 557) (preocc. Latreille, 1817). Type-species, *spinifera* Leach (aut.).

Olfersia Leach *in* Brewster, 1817: 162 (n. name for *Feronia* Leach). Type-species, *Feronia spinifera* Leach (Speiser, 1899: 202).

Pseudolfersia Coquillett, 1899b: 336. Type-species, *maculata* Coquillett (mon.)=*fumipennis* (Sahlberg).

bisulcata Macquart, 1847: 111 (1847: 95).—Chile; Tex., ?La.

fumipennis (Sahlberg), 1886: 150 (*Lynchia*).—Finland; B.C., Oreg., Ariz., Minn. to N.H. and s. to Tex. and Fla., Mexico, Cent. and S. Amer., Antilles, Old World.

maculata Coquillett, 1899b: 336 (*Pseudolfersia*).—Wis.

sordida Bigot, 1885b: 239.—Guatemala; Oreg., Utah, Tex., La., Fla., Mexico, Cent. and S. Amer., Antilles.

spinifera (Leach), 1817: 11 (1818: 557) (*Feronia*).—Unknown; La., Fla., Mexico, Cent. and S. Amer., Antilles, Old World.

Subfamily MELOPHAGINAE

Tribe LIPOPTENINI

Genus NEOLIPOPTENA Bequaert

Neolipoptena Bequaert, 1942a: 47. Type-species, *Lipoptena ferrisi* Bequaert (orig. des.).

ferrisi (Bequaert), 1935: 170 (*Lipoptena*).—Calif.; B.C. to Calif. and e. to S. Dak., Mexico.

subulata Coquillett of Ferris and Cole, 1922: 187.

Genus LIPOPTENA Nitzsch

Lipoptena Nitzsch, 1818: 310. Type-species, *Hippobosca cervina* Nitzsch (mon.)=*cervi* (Linnaeus).

Subgenus LIPOPTENA Nitzsch

cervi (Linnaeus), 1758: 611 (*Pediculus*).—Europe; Palaearctic Region, immigrant to N.H., Mass., N.Y., Pa.

subulata Coquillett, 1907d: 290.—N.H.

Subgenus LIPOPTENELLA Bequaert

Lipoptena, subg. **Lipoptenella** Bequaert, 1942a: 55. Type-species, *Melophagus depressus* Say (orig. des.).

depressa (Say), 1823: 104 (1859b: 88) (*Melophagus*).—U.S.; B.C. to Calif. and S. Dak.

mazamae Rondani, 1878: 153.—Tropical Amer.; Tex. to S.C. and Fla., Mexico, Cent. and S. Amer.

Tribe MELOPHAGINI

Genus MELOPHAGUS Latreille

Melophagus Latreille, 1802: 466. Type-species, *Hippobosca ovina* Linnaeus (mon.).

ovinus (Linnaeus), 1758: 607 (*Hippobosca*).—Europe; B.C. to Maine and s. to Calif., La., and N.C., Mexico, Cent. and S. Amer. Immigrant.

montanus Ferris and Cole, 1922: 192 (as ssp.).—Alaska-Yukon border.

Family STREBLIDAE

By Rupert L. Wenzel

Members of this family are pupiparous, obligate, blood-sucking ectoparasites of bats. The females of one Old World genus burrow into the skin and become endoparasites. A few species are subapterous and flightless. The soft white pupae are deposited on the walls of caves, trunks of trees, and so forth, in the immediate vicinity of the host bat roosts, and quickly harden and color. The species are chiefly tropical and subtropical in distribution in both the Old and New Worlds.

REFERENCES: Kessel, 1925 (world rev.); Jobling, 1949 (host relationships, key to New World genera).

Subfamily TRICHOBIINAE

Genus NYCTEROPHILIA Ferris

Nycterophilia Ferris, 1916: 436. Type-species, *coxata* Ferris (orig. des.).

coxata Ferris, 1916: 437.—Calif.; Ariz. to Brazil, Antilles.

Genus TRICHOBIUS Gervais

Trichobius Gervais, 1844: 14. Type-species, *parasiticus* Gervais (mon.).

REFERENCES: Jobling, 1938 (rev.); Ross, 1961 (biol.).

adamsi Augustson, 1943: 52.—Ariz.; s. Calif. to Mexico.

corynorhini Cockerell, 1910a: 59.—Colo.; w. U.S. from Wash., s. to Mexico, Okla. to W. Va.

quadrisetosus Kessel, 1925: 15 (as *major* ssp.).—?Mexico.

major Coquillett, 1899b: 334.—Fla.; Calif. to Kans., s. to Guatemala, Tex. and Fla.

sphaeronotus Jobling, 1939: 494.—Mexico; Ariz., Tex.

Genus PARATRICHOBIUS Lima

Paratrichobius Lima, 1921: 20. Type-species, *Trichobius longicrus* Ribeiro (orig. des.).

Unnamed sp., not *longicrus* (Ribeiro).—Ariz.

Family NYCTERIBIIDAE

By Rupert L. Wenzel

Members of this family are wingless, spiderlike flies, closely related to the Streblidae and very similar to them in biology and distribution.

REFERENCE: Guimarães and d'Andretta, 1956 (rev., New World).

Genus BASILIA Ribeiro

Basilia Ribeiro, 1903: 177. Type-species, *ferruginea* Ribeiro (orig. des., as gen. n., sp. n.).

REFERENCE: Peterson, 1960a (key).

antrozoi (Townsend), 1893d: 79 (*Nycteribia*).—N. Mex.; Oreg. to Kans., s. to Calif. and La., Mexico.

boardmani Rozeboom, 1934: 315.—Fla.; s. Ill., Ga.

corynorhini (Ferris), 1916: 435 (*Penicillidia*).—Calif.; Utah, Okla., Tex.

forcipata Ferris, 1924: 196.—Calif.; B.C. to Mont., s. to Mexico and La.

calverti Fox and Stabler, 1953: 22.—Colo.

rondanii Guimarães and d'Andretta, 1956: 50.—Guatemala; Tex. to Honduras.

Superfamily OESTROIDEA

Family CALLIPHORIDAE

By David G. Hall

The Calliphoridae are the well-known, large, metallic blue, green, or black blow flies that occur in great numbers in almost every region of the world. The adults feed at flowers and on various kinds of organic matter. The larvae are omnivorous, carnivorous, or parasitic. Because of their breeding and feeding habits, blow flies are of considerable importance in the transmission of human disease and in myiasis. Several of the species are responsible for almost all subcutaneous myiasis in the region covered by this catalog.

The section on the tribe Melanomyini has been contributed by William L. Downes, Jr.

REFERENCES: Hall, 1948 (monog.); James, 1955a (Calif.).

Subfamily RHINIINAE

Genus STOMORHINA Rondani

Idia Wiedemann, 1820b: 21 (preocc. Hübner, 1813). Type-species, *Musca lunata* Fabricius (Brauer and Bergenstamm, 1889: 154 (1889: 86); also Brauer, 1893: 507).

Stomorhina Rondani, 1861a: 9 (n. name for *Idia* Wiedemann). Type-species, *Musca lunata* Fabricius (aut.).

Stomatorrhina, *Stomorrhina*, errors or emends.

lunata (Fabricius), 1805: 292 (*Musca*).—Madeira; Bermuda, s. Europe, n. Africa, s. Asia.

Subfamily CHRYSOMYINAE

Tribe CHRYSOMYINI

Genus CHLOROPROCTA Wulp

Chloroprocta Wulp, 1896: 296. Type-species, *semiviridis* Wulp (mon.)=*fuscanipennis* (Macquart).

fuscanipennis (Macquart), 1851: 223 (1851: 250) (*Lucilia*).—Brazil; s. Tex. through Cent. Amer. to Brazil.

semiviridis Wulp, 1896: 296.—Mexico.

Genus COCHLIOMYIA Townsend

Callitroga Brauer, 1883: 74 (in specific synonymy) (also Brauer and Bergenstamm, 1893: 194 (1893: 106), in generic synonymy). Unavailable.

Cochliomyia Townsend, 1915i: 646. Type-species, *Musca macellaria* Fabricius (orig. des.).

Callitroga Hall, 1948: 120. Type-species, *Musca macellaria* Fabricius (orig. des.).

Chrysomya, *Chrysomyia*, authors, not Robineau-Desvoidy.

Compsomyia, authors, not Brauer and Bergenstamm.

In recent years, the generic name *Callitroga* has been used by North American authors for the New World screw-worm flies. However, the new International Code of Zoological Nomenclature rejects availability by citation in synonymy, and *Cochliomyia* is again the valid name.

aldrichi Del Ponte, 1938: 274.—Bahama Is.; S. Fla., Bermuda, West Indies.

laniaria, authors, not Wiedemann.

hominivorax (Coquerel), 1858: 173 (*Lucilia*).—French Guiana; Calif. to Mont., Minn., Ind., and N.J., s. to Chile and Argentina.

americana Cushing and Patton, 1933: 540.—Tex.

macellaria (Fabricius), 1775: 776 (*Musca*).—West Indies; Oreg. to Que. and Maine, s. to Chile and Argentina.

lherminieri Robineau-Desvoidy, 1830: 446 (*Chrysomya*).—Carolina.

coerulescens Robineau-Desvoidy, 1830: 447 (*Chrysomya*).—Carolina.

caerulescens, error.

vittata Macquart, 1843a: 298 (1843: 141) (*Lucilia*).—Unknown (as Australia, error).

certima Walker, 1849: 873 (*Musca*).—Fla.

minima Shannon, 1926d: 124.—Santo Domingo; Fla. (Keys), West Indies.

Genus PARALUCILIA Brauer and Bergenstamm

Paralucilia Brauer and Bergenstamm, 1891: 391 (1891: 87). Type-species, *Calliphora fulvipes* Macquart (mon.)=*fulvicrura* (Robineau-Desvoidy).

Compsomyiops Townsend, 1918c: 153. Type-species, *Calliphora fulvipes* Macquart (orig. des.)=*fulvicrura* (Robineau-Desvoidy).

wheeleri (Hough), 1899a: 284 (*Chrysomyia*).—Calif.; Wash. to Colo., s. to s. Mexico.

Tribe PHORMIINI

Genus PHORMIA Robineau-Desvoidy

Phormia Robineau-Desvoidy, 1830: 465. Type species, *Musca regina* Meigen (Robineau-Desvoidy, 1849: v).

Euphormia Townsend, 1919b: 542. Type-species, *Musca regina* Meigen (orig. des.).

regina (Meigen), 1826: 58 (*Musca*).—Germany; Alaska and N.W.T. to Labr., s. to Mexico and Ga., n. Eurasia, Hawaii.

philadelphica Robineau-Desvoidy, 1830: 466.—Pa.

mollis Walker, 1849: 892 (*Musca*).—Ont.

proxima Walker, 1852: 341 (*Musca*).—Calif.

rufipalpis Jaennicke, 1867: 375 (1868: 67) (*Lucilia*).—Ill.

stigmaticalis Thomson, 1869: 544 (*Lucilia*).—Calif.

nigrina Bigot, 1877: 247 (*Somomyia*).—Ill.

rupicola Bigot, 1887c: clxxx (also 1887d: 603) (*Somomyia*).—Rocky Mts.

rufigena Bigot, 1887c: clxxxi (also 1887d: 598) (*Somomyia*).—Rocky Mts.

Genus BOREELLUS Aldrich and Shannon

Boreellus Aldrich and Shannon *in* Shannon, 1923b: 107. Type-species, *aristatus* Aldrich and Shannon (mon.) = *atriceps* (Zetterstedt).

Mallochomyia Townsend, 1926: 25. Type-species, *johanseni* Townsend (orig. des.) = *atriceps* (Zetterstedt).

atriceps (Zetterstedt), 1845: 1311 (*Sarcophaga*).—Sweden; n. of Arctic Circle, Alaska to Greenland, s. to n. Que., n. Eurasia.

caerulea Malloch, 1919f: 59 (*Phormia*; preocc. Robineau-Desvoidy, 1830).—N.W.T.

aristatus Aldrich and Shannon *in* Shannon, 1923b: 107 (n. name for *caerulea* Malloch).—N.W.T.

johanseni Townsend, 1926: 25 (*Mallochomyia*; n. name for *caerulea* Malloch).—N.W.T.

Genus PROTOPHORMIA Townsend

Protophormia Townsend, 1908: 123. Type-species, *Phormia terraenovae* Robineau-Desvoidy (mon.).

terraenovae (Robineau-Desvoidy), 1830: 467 (*Phormia*).—Nfld.; Alaska to Greenland, s. to Calif., Ariz., and n. Ga., n. and montane areas of Europe, Siberia.

groenlandica Zetterstedt, 1838: 657 (*Musca*).—Greenland, Sweden.

terraenovae Macquart, 1851: 224 (1851: 251) (*Lucilia*).—Nfld.

Genus PROTOCALLIPHORA Hough

Protocalliphora Hough, 1899c: 66. Type-species, *Musca azurea* Fallén (orig. des.).

Apaulina Hall, 1948: 179. Type-species, *Protocalliphora avium* Shannon and Dobroscky (orig. des.).

The larvae are obligatory, blood-sucking parasites of nestling birds. There are a number of undescribed species. A revision is being completed by Curtis W. Sabrosky and Gordon F. Bennett.

aenea Shannon and Dobroscky, 1924: 251 (as *splendida* var.).—N.H. B.C. to Que., s. in mts. to Colo. and Va.

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asiovora Shannon and Dobroscky, 1924: 250 (as *avium* var.).—Wash.; B.C. to Mont., s. to Calif., N. Mex., and Colo.
basingeri Hall, 1948: 190 (*Apaulina*).—Calif. **N. syn.,** C. W. Sabrosky and G. F. Bennett *in litt.*
avium Shannon and Dobroscky, 1924: 250.—N.Y.; Wis., Ont., N.Y., Pa.
azurea (Fallén).—Not Nearctic.
chrysorrhoea (Meigen).—Not Nearctic.
cuprina (Hall), 1948: 191 (*Apaulina*).—Calif.; Wash., Oreg., Idaho, Mont.
hesperia Shannon and Dobroscky, 1924: 251 (as *splendida* var.).—B.C.; sw. Canada, nw. U.S.
hirudo Shannon and Dobroscky, 1924: 252.—Colo.; B.C. to Ont., in west s. to Oreg. and N. Mex., in east s. to n. Ga.
cuprea Shannon and Dobroscky, 1924: 253 (as var.).—Wash.
parva Shannon and Dobroscky, 1924: 253 (as ssp. or var.).—Colo. (as Kans., error).
hirundo Shannon and Dobroscky, 1924: 251 (as *splendida* ssp.).—Wash.; B.C. to Mont., s. to Calif. and Colo., also Ont., N.Y., Mass.
metallica (Townsend), 1919a: 379 (*Phormia*).—N.H.; B.C. to Que., s. to Calif., Colo., and Va.
splendida, authors, not Macquart.
sapphira (Hall), 1948: 200 (*Apaulina*).—Alaska; N.W.T.
sialia Shannon and Dobroscky, 1924: 251 (as *splendida* var.).—N. Amer.; B.C. to Que., s. to Calif., S. Dak., and n. Ga.

Subfamily CALLIPHORINAE

Tribe LUCILIINI

Genus FRANCILIA Shannon

Francilia Shannon, 1924b: 74. Type-species, *alaskensis* Shannon (mon.) = *fuscipalpis* (Zetterstedt).

fuscipalpis (Zetterstedt), 1845: 1306 (*Sarcophaga*).—Scandinavia; Alaska to Labr., n. Scandinavia.
alaskensis Shannon, 1924b: 74.—Alaska.

Genus BUFOLUCILIA Townsend

Bufolucilia Townsend, 1919b: 542. Type-species, *Lucilia bufonivora* Moniez (orig. des.).

REFERENCE: James, 1953 (key).

elongata (Shannon), 1924b: 76 (*Lucilia*).—Wash.; B.C., Oreg., Calif., ?Colo.

silvarum (Meigen), 1826: 53 (*Musca*).—Austria; s. Canada, s. to Calif., Okla., and Va., Eurasia, n. Africa.

sylvarum, emend.

brunicosa Robineau-Desvoidy, 1830: 459 (*Lucilia*).—N. Amer.

nigripalpis Townsend, 1908: 120 (*Lucilia*).—Ohio.

thatuna (Shannon), 1926d: 132 (*Lucilia*).—Idaho; B.C. to Mont., s. to s. Calif. and Colo.

Genus LUCILIA Robineau-Desvoidy

Lucilia Robineau-Desvoidy, 1830: 452. Type-species, *Musca caesar* Linnaeus (Macquart, 1834b: 162; 1834: 26).

illustris (Meigen), 1826: 54 (*Musca*).—Germany; Alaska and N.W.T. to s. Labr., s. to n. Mexico.

consobrina Macquart, 1848a: 217 (1848: 57).—N. Amer. ?Syn.

fraterna Macquart, 1848a: 217 (1848: 57).—N. Amer. ?Syn.

muralis Walker, 1849: 888 (*Musca*).—Ont.

purpurea Townsend, 1908: 122.—Alaska. ?Syn.

caesar, authors (N. Amer.), not Linnaeus.

Genus PHAENICIA Robineau-Desvoidy

Phaenicia Robineau-Desvoidy, 1863b: 750. Type-species, *concinna* Robineau-Desvoidy (Townsend, 1916d: 8)=*sericata* (Meigen).

The species of *Phaenicia* generally are included in *Lucilia* by European authors.

cluvia (Walker), 1849: 885 (*Musca*).—West Indies; Miss. to N.C. and Fla.

pilatei Hough, 1899a: 287 (*Lucilia*).—Ga.

coeruleiviridis (Macquart), 1855: 133 (1855: 113) (*Lucilia*).—Md.; Mich. to Md., s. to Tex. and Fla.

caeruleiviridis, error or emend.

australis Townsend, 1908: 122 (*Lucilia*).—Tenn.

oculata Townsend, 1908: 123 (*Lucilia*).—Ky.

eximia (Wiedemann), 1819: 53 (*Musca*).—Brazil; s. Tex., La., Cent. and S. Amer., P.R.

sylphida Bigot, 1877: 45 (*Somomyia*).—La.

mexicana (Macquart), 1843a: 300 (1843: 143) (*Lucilia*).—Mexico; cent. Calif. to Utah and Tex., s. to Brazil.
unicolor Townsend, 1908: 121 (*Lucilia*).—N. Mex.
infuscata Townsend, 1908: 123 (*Lucilia*).—N. Mex.
pallescens (Shannon), 1924b: 78 (*Lucilia*).—N.C.; Calif., Tenn., and D.C., s. to Mexico and Fla. Syn. of *P. cuprina cuprina* (Wiedemann) by some recent authors, notably Waterhouse and Paramonov (1950) and James (1953).
problematica (Johnson), 1913d: 448 (*Lucilia*).—Bermuda.
sericata (Meigen), 1826: 53 (*Musca*).—Austria; s. Canada to Mexico, cosmopolitan.
sayi Jaennicke, 1867: 375 (1868: 67) (*Lucilia*).—Ill.
barberi Townsend, 1908: 121 (*Lucilia*).—Ariz.
giraulti Townsend, 1908: 121 (*Lucilia*).—Tex.

Unplaced Species of Luciliini

rectinervis Bigot, 1887c: clxxxi (also 1887d: 600) (*Somomyia*).—Rocky Mts.

Tribe CALLIPHORINI

Genus ACRONESIA Hall

Acronesia Hall, 1948: 272. Type-species, *Steringomyia aldrichia* Shannon (orig. des.).
Steringomyia, authors, not Pokorny.

abina Hall, 1948: 274.—Colo.
alaskensis (Shannon), 1923b: 112 (*Steringomyia*).—Alaska; Wyo., Colo.
aldrichia (Shannon), 1923b: 112 (*Steringomyia*).—Colo.; Alaska to Mont., s. to Wash. and Colo., also Que.
anana Hall, 1948: 278.—Alaska; N.W.T., s. Baffin I., n. Que., n. Labr.
collini Hall, 1948: 279.—n. Que.; Y.T. to s. Baffin I., s. to n. Man. and Labr.
montana (Shannon), 1926d: 135 (*Steringomyia*).—Alta.; s. Alaska, n. Man., Ont., Labr.
popoffana (Townsend), 1908: 117 (*Calliphora*).—Alaska; n. Canada.

Genus EUCALLIPHORA Townsend

Eucalliphora Townsend, 1908: 118. Type-species, *Calliphora latifrons* Hough (mon.)=*lilaea* (Walker).

lilaea (Walker), 1849: 894 (*Musca*).—Ont.; Alaska to Ont., s. to n. Mexico and Colo.
ilerda Walker, 1849: 895 (*Musca*).—Ont.
latifrons Hough, 1899a: 286 (*Calliphora*).—Idaho.

Genus ALDRICHINA Townsend

Aldrichiella Rohdendorf, 1931: 177 (preocc. Vaughan, 1903). Type-species, *Calliphora grahami* Aldrich (orig. des.).
Aldrichina Townsend, 1934b: 111 (n. name for *Aldrichiella* Rohdendorf). Type-species, *Calliphora grahami* Aldrich (aut.).
grahami (Aldrich), 1930a: 1 (*Calliphora*).—China (Szechuan Province); Wash. to Colo., s. to Calif. and N. Mex., Siberia to China.

Genus CALLIPHORA Robineau-Desvoidy

Calliphora Robineau-Desvoidy, 1830: 433. Type-species, *Musca vomitoria* Linnaeus (orig. des.).

REFERENCE: James, 1953 (key).

alpina (Zetterstedt), 1845: 1304 (*Sarcophaga*).—Sweden; Greenland, n. Que., n. Europe.
coloradensis Hough, 1899a: 286.—Colo.; Alaska to Ont. and Ind., s. to Mexico.
livida Hall, 1948: 296.—Ga.; Alaska and Y.T. to Ont., s. to Calif. and Ga.
viridescens authors (N. Amer.), not Robineau-Desvoidy.
morticia Shannon, 1923b: 116.—Alaska.
rufipalpis Macquart, 1851: 216 (1851: 243) (preocc. Macquart, 1834).—Amer. Unrecognized.
stygia (Fabricius).—Not Nearctic.
terraenovae Macquart, 1851: 217 (1851: 244).—Nfld.; Alaska to Greenland, s. to Calif., Colo., and n. Fla.
nigribucca Hough, 1899c: 66. Nomen nudum.
nigribarba Shannon, 1923b: 116 (as *vomitoria* var.).—N.Y.
uralensis Villeneuve, 1922b: 515.—U.S.S.R.; Greenland, n. Europe, cent. Europe in mts.
vicina Robineau-Desvoidy, 1830: 435.—La.; Alaska to Que., s. to Mexico, Holarctic, s. S. Amer., s. Africa, s. Australia.
erythrocephala Meigen, 1826: 62 (*Musca*; preocc. De Geer, 1776).—Europe.
rufifacies Macquart, 1851: 216 (1851: 243).—N.Y.
viridescens Robineau-Desvoidy, 1830: 437.—Carolina. Unrecognized.

vomitoria (Linnaeus), 1758: 595 (*Musca*).—Sweden; Alaska to Greenland, s. to Mexico and Va., Hawaii, s. Africa.
obscoena Eschscholz, 1823: 113 (*Musca*).—Alaska.
rubrifrons Townsend, 1908: 116.—B.C.

Genus ONESIA Robineau-Desvoidy

Onesia Robineau-Desvoidy, 1830: 365. Type-species, *floralis* Robineau-Desvoidy (Townsend, 1916d: 8)=*sepulchralis* (Meigen).

bisetosa Hall, 1948: 322.—N.J.
agilis Meigen of Shannon, 1923b: 108.

townsendi Hall, 1948: 324.—Mass.
aculeata Pandellé of Shannon, 1923b: 108.

Genus CYNOMYOPSIS Townsend

Cynomyopsis Townsend, 1915m: 118. Type species, *Cynomya cadaverina* Robineau-Desvoidy (orig. des.).

cadaverina (Robineau-Desvoidy), 1830: 365 (*Cynomya*).—Carolina; Alaska to Greenland, s. to Calif., Tex., and Ga.
myoidea Robineau-Desvoidy, 1830: 436 (*Calliphora*).—Pa.
aurulans Robineau-Desvoidy, 1830: 437 (*Calliphora*).—Carolina.
compressa Robineau-Desvoidy, 1830: 438 (*Calliphora*).—Carolina.
mortisequa Kirby, 1837: 316 (*Musca*).—Alaska.
americana Hough, 1898a: 105 (*Cynomyia*).—La.
texensis Townsend, 1908: 116 (*Calliphora*).—Tex.

Genus CYANUS Hall

Cyanus Hall, 1948: 331. Type-species, *Cynomyia elongata* Hough (orig. des.).

elongatus (Hough), 1898a: 106 (*Cynomyia*).—Wyo.; Oreg. and Alta. to N. Dak., s. to Calif. and Colo.

Genus CYNOMYA Robineau-Desvoidy

Cynomya Robineau-Desvoidy, 1830: 363. Type-species, *Musca mortuorum* Linnaeus (Macquart, 1834b: 176; 1834: 40).

Cyanomyia (error) Wilson, 1932: 89.
Cynomyia, error or emend.

Carcinomyia Townsend, 1915a: 21. Type-species, *Cynomyia hirta* Hough (orig. des.).

hirta Hough, 1898b: 166.—Alaska.
mortuorum (Linnaeus), 1761: 452 (*Musca*).—Sweden; Alaska, Greenland, n. Eurasia.

Unplaced species of Calliphorini

flavipalpis Macquart, 1851: 209 (1851: 236) (*Cynomyia*).—Nfld.

Subfamily POLLENIINAE

Tribe POLLENIINI

Genus POLLENIA Robineau-Desvoidy

Pollenia Robineau-Desvoidy, 1830: 412. Type-species, *Musca rudis* Fabricius (orig. des.).

rudis (Fabricius), 1794: 314 (*Musca*).—Germany; B.C. to N.S., U.S., Europe, n. Africa.
familiaris Harris, 1869: 336 (*Musca*; preocc. Panzer, 1804).—Mass.
obscura Bigot, 1887c: clxxxi (also 1887d: 597).—N. Amer.
hirticollis Harris, 1835: 599 (*Musca*). Nomen nudum.
vagabunda (Meigen), 1826: 72 (*Musca*).—Europe; B.C., P.E.I., N.S.
vespillo (Fabricius).—Not Nearctic.

Tribe MELANODEXIINI

Genus MELANODEXIA Williston

Melanodexia Williston, 1893d: 256. Type-species, *tristis* Williston (mon.).
Melanodexiopsis Hall, 1948: 356. Type-species, *tristina* Hall (orig. des.).

californica Hall, 1948: 354.—Calif.
glabricula (Bigot), 1887c: clxxxii (also 1887d: 594) (*Nitellia*).—Calif.
grandis Shannon, 1926d: 138.—Calif.
pacifica Hall, 1948: 359 (*Melanodexiopsis*).—Calif.
idahoensis (Hall), 1948: 357 (*Melanodexiopsis*).—Idaho.
nox (Hall), 1948: 358 (*Melanodexiopsis*).—Oreg.; Wash., Calif.
satanica Shannon, 1926d: 138.—Calif.; Wash.

tristina (Hall), 1948: 359 (*Melanodexiopsis*).—Calif.
tristis Williston, 1893d: 257.—Calif.

Tribe MELANOMYINI

By William L. Downes, Jr.

Although members of this group have also been placed in the Sarcophagidae or Tachinidae, a better case can be made for assigning them to the Calliphoridae. Four of the species have been reared from snails, including, in North America, *Melanomya obscura* and *M. ordinaria*.

Genus MELANOMYA Rondani

Melanomya Rondani, 1856: 88. Type-species, *Dexia nana* Meigen (orig. des.).

Subgenus ANGIONEURA Brauer and Bergenstamm

Angioneura Brauer and Bergenstamm, 1893: 187 (1893: 99) (as genus). Type-species, *Calobataemyia vetusta* Brauer and Bergenstamm (as "*Myobia vetusta* Stein"; mon.) = *acerba* (Meigen). **N. syn.**

Opelousia Townsend, 1919b: 547. Type-species, *obscura* Townsend (orig. des.). **N. syn.** (genus and subg.).

Opsodexiopsis Townsend, 1935b: 69. Type-species, *Opsodexia abdominalis* Reinhard (orig. des.). **N. syn.** (genus and subg.).

abdominalis (Reinhard), 1929: 6 (*Opsodexia*).—N.H.; Mich. **N. comb.**
flavescens (Reinhard), 1929: 3 (*Opelousia*).—Tex.; ?N.C. **N. comb.**
mitis (Reinhard), 1945b: 76 (*Opelousia*).—Man. **N. comb.**
obscura (Townsend), 1919b: 547 (*Opelousia*).—La.; Y.T. to Que., s. to Tex. and Va. **N. comb.**
addenda West, 1925: 129 (*Chaetona*).—N.Y. **N. syn., n. comb.**
ordinaria (West), 1925: 129 (*Chaetona*).—N.Y.; Alaska to Que., s. to Mich. and N.Y. **N. comb.**

Subgenus OPSODEXIA Townsend

Opsodexia Townsend, 1915a: 20 (as genus). Type-species, *Chaetona bicolor* Coquillett (orig. des.). **N. syn.**

Phalacrodexia Townsend, 1915a: 21. Type-species, *Chaetona flavipennis* Coquillett (orig. des.). **N. syn.** (genus and subg.).

Opelodexia Reinhard, 1945b: 74. Type-species, *artata* Reinhard (orig. des.)=*grisea* (Coquillett). **N. syn.** (genus and subg.).

bicolor (Coquillett), 1899d: 221 (*Chaetona*).—N.H.; Que. and Maine, s. to Tenn. and Ga. **N. comb.**

flavipennis (Coquillett), 1902g: 121 (*Chaetona*).—Ohio; N.C. **N. comb.**

grisea (Coquillett), 1899d: 222 (*Chaetona*).—Ga.; Ill., N.C., S.C. **N. comb.**

artata Reinhard, 1945b: 75 (*Opelodexia*).—N.C. **N. syn.**

Unplaced Species of Calliphoridae

splendida Macquart, 1846: 324 (1846: 196) (*Calliphora*).—Tex.

Family SARCOPHAGIDAE

(Stephanostomatidae, Metopiidae)

By William L. Downes, Jr.

Most adult sarcophagids, or flesh flies, are strong fliers. Apparently they need sugars for survival: Nectar is used, perhaps exclusively by some flies (*Senotainia* spp.), and homopterous honeydew attracts others. The Sarcophaginae will use tree sap and juices from damaged fruits, as well as nectar and honeydew. As far as known, the males of this family take "stations" on various surfaces, and sally out after passing females (or objects mistaken for them). The larval food is exceedingly diverse but almost never consists of plant materials.

Dr. H. R. Dodge read the manuscript and kindly furnished additional distribution data, as well as records of some species not previously known from the Nearctic Region.

References: Aldrich, 1916a (rev., biol., except Miltogrammini), 1930c (syn.); Greene, 1925 (immature stages); Roback, 1954 (male terminalia, phylogeny); Sanjean, 1957 (larvae, N.Y.).

Subfamily MILTOGRAMMINAE

Tribe MILTOGRAMMINI

With rare exceptions, the larvae of this tribe feed on provisions in the nests of wasps or bees, sometimes first destroying the egg of the host. In any event the host larva does not survive. Some females of *Senotainia* locate the larval food by trailing host wasps carrying prey to their nests. This habit is probably common to all members of

that genus and others, such as *Amobia*, in which the females have greatly enlarged facets in the front part of their eyes. Nontrailing females of species known to search out the nests of their hosts have typical eyes and, in addition, somewhat flattened fore tarsi with a mat of fine yellow hairs on the under surface. Almost nothing is known about the biology of the miltogrammines, in which these modifications are absent.

REFERENCE: Allen, 1926b (rev., biol.).

Genus AMOBIA Robineau-Desvoidy

Amobia Robineau-Desvoidy, 1830: 96. Type-species, *conica* Robineau-Desvoidy (mon.)=*signata* (Meigen).
Ammobia Bezzi and Stein, 1907: 519 (preocc. Billberg, 1820), emend.
Pachyophthalmus Brauer and Bergenstamm, 1889: 117 (1889: 49). Type-species, *Tachina signata* Meigen (mon.).

Larvae of this genus develop on the provisions in nests of sphecid wasps such as *Sceliphron* and *Trypoxylon*, and vespids such as *Symmorphus*, *Eumenes*, and *Stenodynerus*.

Subgenus AMOBIA Robineau-Desvoidy

aurifrons (Townsend), 1891c: 354 (*Pachyophthalmus*.—Ill.; Oreg. to Maine, s. to Ariz. and Va. **N. comb.**
signata, authors, not Meigen.
distorta (Allen), 1926b: 15 (*Pachyophthalmus*).—Pa.; B.C. to Maine, s. to Ariz. and Ga. ?also Palaearctic.

Subgenus SARCOMACRONYCHIA Townsend

Sarcomacronychia Townsend, 1892a: 100 (as genus). Type-species *unica* Townsend (orig. des.)=*erythrura* (Wulp).

aberrans Reinhard, 1955a: 128.—Utah.
erythrura (Wulp), 1890: 89 (*Miltogramma*).—Mexico; Wash. to N.Y., s. to s. Calif., Mexico, and Fla. **N. comb.**
unica Townsend, 1892a: 101 (*Sarcomacronychia*).—N. Mex. **N. syn.**
sarcophagoides Townsend, 1892e: 165 (*Sarcomacronychia*).—N. Mex. **N. syn.**
floridensis (Townsend), 1892h: 80 (*Pachyophthalmus*).—Fla.; Wash. to N.J., s. to s. Calif. and Fla.
trypoxylonis Townsend, 1893e: 165 (*Sarcomacronychia*).—Ohio.
hinei (Allen), 1926b: 12 (*Pachyophthalmus*).—La.

Genus EUMACRONYCHIA Townsend

Eumacronychia Townsend, 1892a: 98. Type-species, *decens* Townsend (orig. des.).

REFERENCE: Reinhard, 1939b (rev.).

agnella Reinhard, 1939b: 64.—Tex.
alternata Reinhard, 1939b: 61.—Tex.
crassipalpis Reinhard, 1939b: 60.—Calif. ?=*rohweri*.
decens Townsend, 1892a: 99.—N. Mex.; Calif.
duplicata Reinhard, 1944b: 57.—N. Mex.
elita Townsend, 1892a: 100.—N. Mex.; Calif.
fasciata Coquillett, 1897: 81 (*Senotainia*).—N. Mex.
elongata Allen, 1926b: 93.—Man.
montana Allen, 1926b: 88.—N. Mex.; Calif., Ariz.
nigricornis Allen, 1926b: 90.—Ohio; Mo., N.J., Ga.
prolixa Reinhard, 1939b: 67.—Tex.; Mexico.
rohweri Allen, 1926b: 92.—Colo.; Oreg., Calif.
scitula Reinhard, 1953a: 50.—Calif.
sternalis Allen, 1926b: 89.—Tex.
tortilis Reinhard, 1939b: 65.—Tex.
tricosa Reinhard, 1939b: 63.—Tex.

Genus EUPHYTO Townsend

Euphyto Townsend, 1908: 63. Type-species, *Leucostoma subopaca* Coquillett (orig. des.).

Tetropsis Coquillett, 1910a: 128. Type-species, *modesta* Coquillett (orig. des.)=*subopaca* (Coquillett).

Euphytomima James, 1955e: 283. Type-species, *nomiivora* James (orig. des.). **N. syn.**

E. nomiivora has been reared from nests of *Nomia* bees; *pollinaris* feeds on the stores of *Perdita* bees.

caesia (Reinhard), 1963a: 78 (*Euphytomima*).—Ariz. **N. comb.**
nomiivora (James), 1955e: 284 (*Euphytomima*).—Utah; Calif., Ariz. **N. comb.**
pollinaris Reinhard, 1945b: 69.—Tex.; N. Dak., Kans.
rixosa Reinhard, 1956c: 103.—Calif.
ruficeps Reinhard, 1953a: 49.—Calif.
subopaca (Coquillett), 1897: 69 (*Leucostoma*).—N.J.; Md.
modesta Coquillett, 1910a: 128 (*Tetropsis*).—N.J.

Genus GYMNOPROSOPA Townsend

Gymnoprosopa Townsend, 1892a: 108. Type-species, *polita* Townsend (orig. des.).

argentifrons Townsend, 1892a: 109.—Fla.; Iowa to Md., s. to Tex. and Fla.

filipalpus Allen, 1926b: 100.—Miss.; Tex., Ala., Ga., Fla.

inflaticornis Allen, 1926b: 102.—N. Mex.

latifasciata Reinhard, 1945b: 72.—Tex.

milanoensis Reinhard, 1945b: 74.—Tex.

pallida Allen, 1926b: 101.—Idaho.

polita Townsend, 1892a: 109.—Fla.; Ill. to Conn., s. to Fla.

clarifrons Townsend, 1892a: 109.—Ill.

Genus HILARELLA Rondani

Hilarella Rondani, 1856: 70. Type-species, *Miltogramma hilarella* Zetterstedt (taut.).

H. hilarella is generally associated with fossorial sphecids, but there is one authentic record of it as a parasite of a camel cricket.

hilarella (Zetterstedt), 1844: 1212 (*Miltogramma*).—Scandinavia; B.C. to Mass., s. to s. Calif. and Fla., Mexico, Palaearctic.

siphonina, authors, not Zetterstedt.

Genus MACRONYCHIA Rondani

Macronychia Rondani, 1859: 229, 239 (as *Macronichia*, p. 229). Type-species, *Tachina agrestis* Fallén (mon.).

Amobiopsis Townsend, 1915a: 20. Type-species, *Amobia aurata* Coquillett (orig. des.).

aurata (Coquillett), 1902g: 119 (*Amobia*).—N.H.; B.C. to Maine, s. to Calif. and Fla.

confundens (Townsend), 1915a: 20 (*Amobiopsis*).—N.H.; B.C. to N.S., s. to Mexico and Ga.

utahensis Smith, 1916: 95 (*Amobia*).—Utah. **N. syn.**

Genus METOPIA Meigen

Metopia Meigen, 1803: 280. Type-species, *Musca leucocephala* Rossi (as Panzer; mon.) = *argyrocephala* (Meigen).

M. argyrocephala has been reared from nests of *Lasioglossum* (Halictidae) and *Sphex*, and from nests of other bees and wasps in Europe.

Subgenus METOPIA Meigen

argyrocephala (Meigen), 1824: 372 (*Tachina*).—Europe; Y.T. to Nfld., s. to Mexico and Fla., Palaearctic.

leucocephala Rossi, 1790b: 306 (*Musca*; preocc. Villers, 1789).—Italy.

luggeri Townsend, 1892e: 69.—Minn.

campestris (Fallén), 1820g: 8 (*Tachina*).—Sweden; Alaska to N.S., s. to Calif. and Ga., Palaearctic.

inermis Allen, 1926b: 54.—Utah; s. Man.

lucipeda Reinhard, 1961: 213.—Calif.

opaca Allen, 1926b: 50.—Oreg.; B.C. to Oreg., e. to Mass., also N. Mex.

tessellata Allen, 1926b: 55.—Ohio; Iowa to Maine, s. to Mo. and N.C., also Ariz., ?S. Amer.

Subgenus ALLENANICIA Townsend

Parametopia Townsend, 1916h: 619 (preocc. Reitter, 1884). Type-species, *morrisoni* Townsend (orig. des.)=*lateralis* (Macquart).

Allenanicia Townsend, 1935b: 68 (as genus). Type-species, *Metopia sinipalpis* Allen (orig. des.). **N. status.**

krombeini Sabrosky, 1953a: 50.—Tex.; D.C., Va., N.C.

lateralis (Macquart), 1848a: 208 (1848: 48) (*Degeeria*).—N. Amer.; Wis. to N.H., s. to Kans. and Fla., also Ariz. and ?B.C.

morrisoni Townsend, 1916h: 619 (*Parametopia*).—N.H.

lateropili Allen, 1926b: 57.—Cuba; Calif. to Iowa, Ohio, and Va., s. to Tex. and Fla.

sinipalpis Allen, 1926b: 60.—Va.; Iowa to Mass., s. to Miss.

Genus OPSIDIA Coquillett

Opsidia Coquillett, 1895k: 102. Type-species, *gonioides* Coquillett (orig. des.).

Opsidiopsis Townsend, 1919b: 544. Type-species, *oblata* Townsend (orig. des.). **N. syn.**

gonioides Coquillett, 1895k: 102.—N.J.; Wis. to Que. and Mass., s. to Ind. and Md.

oblata (Townsend), 1919b: 544 (*Opsidiopsis*).—N. Mex.; Wash., Calif., Tex. **N. comb.**

modesta Reinhard, 1922: 334 (*Chaetoplagia*).—Tex.

Genus OPSIDIOTROPHUS Reinhard

Opsidiotrophus Reinhard, 1963a: 80. Type-species, *micidus* Reinhard (orig. des.).

micidus Reinhard, 1963a: 80.—Calif.; Ariz., N. Mex.

Genus PHROSINELLA Robineau-Desvoidy

Phrosinella Robineau-Desvoidy, 1863b: 82, 101 (as *Phrosina*, p. 101, the latter preocc. Risso, 1822). Type-species, *Phrosina argyrina* Robineau-Desvoidy (mon.) = *nasuta* (Meigen).

Euhilarella Townsend, 1915a: 22. Type-species, *Gymnoprosopa fulvicornis* Coquillett (orig. des.)

aldrichi Allen, 1926b: 75.—Idaho; B.C., Alta., Wash., Iowa.
fulvicornis (Coquillett), 1895k: 106 (*Gymnoprosopa*).—N.J.; Y.T. to Labr., s. to Tex. and Fla.
fumosa Allen, 1926b: 74.—Va.; Del., Md.
pilosifrons Allen, 1926b: 76.—Wash.; N.W.T., B.C., Oreg., Calif.
talpina Reinhard, 1961: 212.—Calif.

Genus PTYCHONEURA Brauer and Bergenstamm

Ptychoneura Brauer and Bergenstamm, 1889: 104 (1889: 36). Type-species, *Tachina rufitarsis* Meigen (mon.).

Oestrohilarella Townsend, 1919c: 162. Type-species, *Hilarella aristalis* Coquillett (orig. des.). **N. syn.**

Ouelletia Curran, 1934a: 410. Type-species, *aristalis* Curran (orig. des.) = *aristalis* (Coquillett). **N. syn.**

aristalis (Coquillett), 1897: 129 (*Hilarella*).—Ill.; B.C. to Que., s. to Calif., Ill., and N.Y.
aristalis Curran, 1934a: 410 (*Ouelletia*).—Que. **N. syn.**

Genus SENOTAINIA Macquart

Senotainia Macquart, 1846: 295 (1846: 167) (as *Senetainia*, pp. 295 and 167; as *Senotaina*, pp. 364 and 236). Type-species, *rubriventris* Macquart (orig. des.).

Eusenotainia Townsend, 1915a: 22. Type-species, *Hilarella rufiventris* Coquillett (orig. des.).

Microsenotainia Townsend, 1916h: 618. Type-species, *Senotainia nana* Coquillett (orig. des.).

The adults of this genus frequent sandy areas and are probably all "parasitic" in the nests of fossorial wasps such as *Bicyrtes*.

arenicola Reinhard, 1963a: 77.—Kans.

flavicornis (Townsend), 1891c: 355 (*Miltogramma*).—Ill.; Nebr., Iowa, Mo., Ga., Fla.
similis Townsend, 1891c: 357 (*Miltogramma*).—Ill.
inyoensis Reinhard, 1955a: 131.—Calif.
kansensis (Townsend), 1892e: 68 (*Miltogramma*).—Kans.; Wash. to Iowa, s. to s. Calif. and Fla.
litoralis Allen, 1924: 90.—Miss.; Mass., N.C., Fla.
nana Coquillett, 1897: 81.—N. Mex.; Calif., Ariz., Mexico.
opiparis Reinhard, 1955a: 129.—Tex.
rubriventris Macquart, 1846: 295 (1846: 167).—Tex.; Wash. to Ont. and Conn., s. to Calif. and Fla.
decisa Townsend, 1892h: 81 (*Miltogramma*).—Fla.
rufiventris (Coquillett), 1897: 129 (*Hilarella*).—Miss.; Calif.
setulicosta Allen, 1926b: 31.—Calif.
sinopsis Reinhard, 1955a: 130.—Tex.
trilineata (Wulp), 1890: 89 (*Miltogramma*).—Mexico; B.C. to N.S., s. to Calif. and Fla., ?S. Amer.
americanus Brauer and Bergenstamm, 1891: 361 (1891: 57) (*Arrenopus*).—Ga.
argentifrons Townsend, 1891c: 357 (*Miltogramma*).—Ill.
cinerascens Townsend, 1891c: 358 (*Miltogramma*).—Ill.
vigilans Allen, 1924: 89.—Miss.; Minn. to Mass., s. to Iowa and N.J., also Miss.

Genus SPHENOMETOPA Townsend

Sphenometopa Townsend, 1908: 64. Type-species, *Araba nebulosa* Coquillett (orig. des.).
Euaraba Townsend, 1915a: 20. Type-species, *Araba tergata* Coquillett (orig. des.).
Arabiopsis Townsend, 1915c: 285. Type-species, *cocklei* Townsend (orig. des.).

cocklei (Townsend), 1915c: 286 (*Arabiopsis*).—B.C.; Mont.
nebulosa (Coquillett), 1902a: 200 (*Araba*).—Mexico; Calif., Ariz.
planitarsis Reinhard, 1945b: 72.—Tex.
tergata (Coquillett), 1895k: 103 (*Araba*).—Ill.; B.C. to N.H., s. to Calif., Mexico, and Ga.
violae Reinhard, 1945b: 71.—Tex.; Ga.

Genus TAXIGRAMMA Perris

Taxigramma Perris, 1852: 209. Type-species, *pipiens* Perris (orig. des., as genus n., sp. n.)=*heteroneura* (Meigen). As "Taxigramme" in Macquart, 1849: 359, a vernacular name.

Heteropterina Macquart, 1854: 426. Type-species, *Miltogramma heteroneura* Meigen (mon.).

Nasonimyia Townsend, 1916h: 619. Type-species, *Heteropterina nasoni* Coquillett (orig. des.)=*heteroneura* (Meigen).

heteroneura (Meigen), 1830: 367 (*Miltogramma*).—Germany; B.C. to Man., s. to Calif. and Tex., also Ill., Mich., Ont., and Conn., Palaearctic.

nasoni Coquillett, 1895f: 207 (*Heteropterina*).—Ill.

Tribe PARAMACRONYCHIINI

The larvae of *Brachicoma* feed on bumble bee larvae, and those of *Pseudosarcophaga* parasitize larvae of *Choristoneura fumiferanae* and other Lepidoptera. The larvae of *Wohlfahrtia vigil* develop in pustules in the skin of many young mammals, occasionally including man.

Genus BRACHICOMA Rondani

Brachicoma Rondani, 1856: 69. Type-species, *Tachina nitidula* Meigen (orig. des.; misident.)=*devia* (Fallén).

Brachycoma, emend. or error.

Laccoprosopa Townsend, 1891c: 365. Type-species, *sarcophagina* Townsend (orig. des.).

Bombobrachycoma Townsend, 1919c: 157. Type-species, *Brachycoma davidsoni* Coquillett (orig. des.).

Kennesawmyia Dodge, 1956a: 182. Type-species, *truncatipennis* Dodge (orig. des.)=*sarcophagina* (Townsend). **N. syn.**

Lacchoprosopa Curran *in* Dobroscky, 1925: 280 (also *in* Johannsen, 1928b: 825). Nomen nudum.

davidsoni Coquillett in Davidson, 1894: 172 (*Brachycoma*).—Calif.; Wyo., Colo.

devia (Fallén), 1820g: 6 (*Tachina*).—Sweden; Alaska to e. Ont., ?Wash., ?Idaho, Europe.

sarcophagina (Townsend), 1891c: 366 (*Laccoprosopa*).—Ill.; Iowa to Mass., s. to Mo. and Ga.

truncatipennis Dodge, 1956a: 182 (*Kennesawmyia*).—Ga. **N. syn.**

avium Curran *in* Dobroscky, 1925: 280 (also *in* Johannsen, 1928b: 825) (*Lacchoprosopa*). Nomen nudum.

setosa Coquillett, 1902g: 117 (*Brachycoma*).—N. Mex.; B.C. to Mont., s. to Calif. and N. Mex., also Maine.

Genus CATTASOMA Reinhard

Cattasoma Reinhard, 1947b: 97. Type-species, *mediocre* Reinhard (orig. des.).

festinans Reinhard, 1947b: 98.—Tex.; Mexico.
mediocre Reinhard, 1947b: 97.—Tex.

Genus ERYTHRANDRA Brauer and Bergenstamm

Erythrandra Brauer and Bergenstamm, 1891: 368 (1891: 64). Type-species, *picipes* Brauer and Bergenstamm (mon.).
Trixoclista Townsend, 1892a: 102. Type-species, *distincta* Townsend (orig. des.). **N. syn.**
Sarcoclista Townsend, 1892a: 122. Type-species, *dakotensis* Townsend (orig. des.)=*distincta* (Townsend). **N. syn.**
Eubrachycoma Townsend, 1916e: 19. Type-species, *Brachycoma apicalis* Coquillett (orig. des)=*picipes* Brauer and Bergenstamm.
Rabunmyia Dodge, 1956a: 184. Type-species, *compressa* Dodge (orig. des.)=*distincta* (Townsend). **N. syn.**

distincta (Townsend), 1892a: 103 (*Trixoclista*).—Ill.; Ariz. to S. Dak. and Minn., se. to Ga. **N. comb.**
dakotensis Townsend, 1892a: 123 (*Sarcoclista*).—S. Dak. **N. syn.**
compressa Dodge, 1956a: 184 (*Rabunmyia*).—Ga. **N. syn.**
fattigi Dodge, 1956a: 186 (*Rabunmyia*).—Ga. **N. syn.**
picipes Brauer and Bergenstamm, 1891: 368 (1891: 64).—Ga.; Sask. to Mass., s. to Tex. and Fla.
apicalis Coquillett, 1897: 131 (*Brachycoma*).—Conn.
atlantica Parker, 1919b: 203 (*Sarcofahrtia*).—Conn.

Genus PSEUDOSARCOPHAGA Kramer

Pseudosarcophaga Kramer, 1908b: 201. Type-species, *Musca affinis* Fallén (Enderlein, 1928: 53).
Agria, authors, not Robineau-Desvoidy.

Unnamed sp.—B.C. to N.B., s. to Ariz., Minn., and Pa.
affinis, authors, not Fallén.

Genus SARCOFAHRTIA Parker

Sarcofahrtia Parker, 1916d: 131. Type-species, *ravinia* Parker (orig. des.).
Thelodiscus Aldrich, 1916a: 63.—Type-species, *indivisus* Aldrich (orig. des.)=*ravinia* Parker.

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montanensis Parker, 1919b: 201.—Mont.; B.C., Wash., Idaho, Oreg.
madisoni Parker, 1919b: 201.—Mont. **N. syn.**
femoralis Reinhard, 1937: 63.—Wash.
ravinia Parker, 1916d: 133.—Mass.; N. Dak. to N.B., s. to Ohio and N.J., also Ga.
indivisus Aldrich, 1916a: 64 (*Thelodiscus*).—Mass.

Genus WOHLFAHRTIA Brauer and Bergenstamm

Wohlfahrtia Brauer and Bergenstamm, 1889: 123 (1889: 55). Type-species, *Sarcophila magnifica* Schiner (Brauer, 1893: 501).
Paraphyto Coquillett, 1895k: 105. Type-species, *chittendeni* Coquillett (orig. des.)=*vigil* (Walker).

vigil (Walker), 1849: 831 (*Sarcophaga*).—N.S.; Alaska to N.S., s. to s. Calif., N. Mex., Iowa, and N.J., Europe.
meigenii Schiner, 1862a: 567 (*Sarcophila*).—Austria.
chittendeni Coquillett, 1895k: 105 (*Paraphyto*).—N.Y.
opaca Coquillett, 1897: 123 (*Paraphyto*).—Colo., N. Mex.

Subfamily SARCOPHAGINAE

Much of the synonymy and other details of the following generic classification depends on unpublished information, which is not included because of present space limitations. The subgeneric classifications have been adopted for convenience, but available evidence suggests that not all of these groupings are natural.

Genus ANOLISIMYIA Dodge

Anolisimyia Dodge, 1955b: 183. Type-species, *blakeae* Dodge (orig. des.).

The type-species of this genus was reared from a subcutaneous lesion in the chameleon, *Anolis carolinensis*.

blakeae Dodge, 1955b: 183.—N.C.; Fla.

Genus ARCHIMIMUS Reinhard

Archimimus Reinhard, 1952a: 140. Type-species, *camatus* Reinhard (orig. des.).

camatus Reinhard, 1952a: 140.—Ariz.
sternalis (Reinhard), 1939a: 62 (*Emblemasoma*).—Tex.

Genus ARGORAVINIA Townsend

Argoravinia Townsend, 1917b: 190, 195. Type-species, *Sarcophaga argentea* Townsend (orig. des.) = *modesta* (Wiedemann).

modesta (Wiedemann), 1830: 363 (*Sarcophaga*).—Brazil; Tex., La., Mexico.

Genus BLAESOXIPHA Loew

Blaesoxipha Loew, 1861d: 386. Type-species, *grylloctona* Loew (mon.) ? = *laticornis* (Meigen).

Protodexia Townsend, 1912a: 117. Type-species, *synthetica* Townsend (orig. des.) = *hunteri* (Hough). **N. syn.**

Opsophyto Townsend, 1915a: 23. Type-species, *Sarcophaga opifera* Coquillett (orig. des.).

Tephromyiella Townsend, 1918b: 164 (as *Tephomyiella*, also p. 164). Type-species, *frankliniana* Townsend (orig. des.) = *atlanis* (Aldrich).

Stenaulacotheca Townsend, 1919c: 162. Type-species, *Sarcophaga spatulata* Aldrich (orig. des.). **N. syn.**

Stenolaucotheca, error.

Subgenus ACANTHODOTHECA Townsend

Acanthodotheca Townsend, 1918b: 159 (as genus). Type-species, *Sarcophaga prohibita* Aldrich (orig. des.). **N. syn.**

Acandotheca (error) Roback, 1954: 87.

Eleodiomyia Townsend, 1918b: 160. Type-species, *Sarcophaga eleodis* Aldrich (orig. des.). **N. syn.** (genus).

Sarcophodexia Townsend, 1918b: 161. Type-species, *Sarcophaga hamata* Aldrich (orig. des.). **N. syn.** (genus).

Notochaetopsis Townsend, 1918b: 162. Type-species, *Sarcophaga masculina* Aldrich (orig. des.). **N. syn.** (genus).

Members of this subgenus have been recorded as parasites of the adult scarabaeids *Canthon*, *Copris*, *Phyllophaga*, *Ligyrus*, and *Thyce*, adult tenebrionids, and the cockroach, *Arenivaga bolliana*.

acridiophagoides (Lopes and Downs), 1951: 588 (*Acanthodotheca*).—Brazil; Mich., N.Y. **N. comb.** ? = *alcedo*.

alcedo (Aldrich), 1916a: 132 (*Sarcophaga*).—Ind.; Kans. and Iowa to N.Y., s. to La. and N.C. **N. comb.**

apertella (Parker), 1920b: 106 (*Sarcophaga*).—B.C. **N. comb.**

beameri (Hall), 1931d: 52 (*Sarcophaga*).—Calif. **N. comb.**

complosa (Reinhard), 1947b: 123 (*Sarcophaga*).—Calif.; Alta., Ariz. **N. comb.**

compressa (Reinhard), 1947b: 126 (*Sarcophaga*).—Tex.; Calif. **N. comb.**

eleodis (Aldrich), 1916a: 128 (*Sarcophaga*).—N. Mex.; B.C. to Kans., s. to Calif. and N. Mex. **N. comb.**

excisa (Aldrich), 1916a: 127 (*Sarcophaga*).—Mass.; Minn., Kans. **N. comb.**

hamata (Aldrich), 1916a: 272 (*Sarcophaga*).—La.; Ala., Ga., ?N.C. **N. comb.**

magna (Aldrich), 1916a: 117 (*Sarcophaga*).—Fla.; Ga. **N. comb.**

masculina (Aldrich), 1916a: 130 (*Sarcophaga*).—Ga.; N.C. **N. comb.**

omani (Hall), 1931d: 53 (*Sarcophaga*).—N. Mex.; Calif., Tex. **N. comb.**

prohibita (Aldrich), 1916a: 133 (*Sarcophaga*).—Kans.; Utah, N. Mex., Tex. **N. comb.**

reperta (Reinhard), 1947b: 122 (*Sarcophaga*).—Oreg.; Wash., Calif. **N. comb.**

rudis (Aldrich), 1916a: 125 (*Sarcophaga*).—Ind.; Kans., Mo., Ark., Del., La. **N. comb.**

savoryi (Parker), 1920b: 105 (*Sarcophaga*).—B.C.; Wash., Ariz., N. Mex. **N. comb.**

spretor (Reinhard), 1947b: 121 (*Sarcophaga*).—Utah. **N. comb.**

thyceae (Reinhard), 1945c: 11 (*Sarcophaga*).—Calif. **N. comb.**

Subgenus ACRIDIOPHAGA Townsend

Acridiophaga Townsend, 1917a: 46 (as genus). Type-species, *Sarcophaga aculeata* Aldrich (orig. des.). **N. syn.**

Acridophaga, error.

The members of this subgenus parasitize adult and nymphal grasshoppers.

aculeata (Aldrich), 1916a: 143 (*Sarcophaga*).—Kans.; B.C. to Mass., s. to Utah and Fla. **N. comb.**

angustifrons (Aldrich), 1916a: 142 (*Sarcophaga*).—N. Mex.; B.C., Kans., N.Y., Tenn., N.C., Ga. **N. comb.**

caridei, authors, not Brèthes.

caridei (Brèthes), 1906: 299 (*Sarcophaga*).—Argentina; introd. Ont., not estab.

gavia (Aldrich), 1916a: 145 (*Sarcophaga*; as *aculeata* var.).—N. Mex.; B.C., Kans. **N. comb.**

potanini Rohdendorf, 1928: 46.—Mongolia; Wash., Oreg.

reversa (Aldrich), 1916a: 135 (*Sarcophaga*).—Ind.; B.C. to Que., s. to Calif., Mo., and Mass. **N. comb.**

taediosa (Aldrich), 1916a: 145 (*Sarcophaga;* as *aculeata* var.).—S. Dak.; B.C., Wyo., Kans., N. Mex. **N. comb.**

Subgenus BLAESOXIPHA Loew

As far as known the members of this subgenus normally parasitize grasshoppers.

atlanis (Aldrich), 1916a: 100 (*Sarcophaga*).—N.H.; B.C. to Que., s. to Calif. and Va. **N. comb.**

frankliniana Townsend, 1918b: 164 (*Tephromyiella*).—N.H.

australis (Blanchard), 1942: 344 (*Protodexia*).—Argentina; introd. B.C., Alta., Sask., Ont., not estab.

devulsa (Reinhard), 1947b: 101 (*Sarcophaga*).—Ohio. **N. comb.**

hunteri (Hough) *in* Hunter, 1898: 207 (*Sarcophaga*).—Kans.; B.C. to Mass., s. to Calif. and Fla., Mexico. **N. comb.**

synthetica Townsend, 1912a: 117 (*Protodexia*).—Mass.

aenigma Reinhard, 1947b: 103 (*Sarcophaga*; as ssp.).—N.Y.

neuquenensis (Blanchard), 1942: 356 (*Tephromyiella*).—Argentina; introd. Alta., Ont., not estab.

opifera (Coquillett), 1892f: 22 (*Sarcophaga*).—Calif.; B.C. to Iowa, s. to Calif., Mexico, and Tex. **N. comb.**

spatulata (Aldrich), 1916a: 105 (*Sarcophaga*).—Ohio; S. Dak. **N. comb.**

Subgenus FLETCHERIMYIA Townsend

Fletcherimyia Townsend, 1917b: 191 (as genus). Type-species, *Sarcophaga fletcheri* Aldrich (orig. des.). **N. syn.**

Peltopyga Townsend, 1917b: 191. Type-species, *Sarcophaga celarata* Aldrich (orig. des.). **N. syn.** (genus).

The larvae of this subgenus live in the water in pitcher plant leaves, and feed on other insects drowned therein.

celarata (Aldrich), 1916a: 242 (*Sarcophaga*).—Ala.; N.C. **N. comb.**

fletcheri (Aldrich), 1916a: 96 (*Sarcophaga*).—N.J.; Man., N.Y., N.C. **N. comb.**

jonesi (Aldrich), 1916a: 241 (*Sarcophaga*).—S.C.; Ga. **N. comb.**

rileyi (Aldrich), 1916a: 239 (*Sarcophaga*).—S.C.; N.C., Ala. **N. comb.**

Subgenus KELLYMYIA Townsend

Kellymyia Townsend, 1917b: 191 (as genus). Type-species, *Sarcophaga kellyi* Aldrich (orig. des.). **N. syn.**

Hystricocnema Townsend, 1919c: 160. Type-species, *Sarcophaga robusta* Aldrich (orig. des.) = *plinthopyga* (Wiedemann). **N. syn.** (genus and subg.).

Imparia Roback, 1954: 57. Type-species, *Sarcophaga impar* Aldrich (orig. des.). **N. syn.** (genus and subg.).

Kurtomyia Roback, 1954: 84. Type-species, *Sarcophaga postilla* Reinhard (orig. des.)=*californica* (Parker). **N. syn.** (genus and subg.).

The members of this subgenus are not so strictly parasitic as other members of the genus. Rearing records include adult beetles, grasshoppers, carrion, and old wounds in mammals.

californica (Parker), 1918b: 32 (*Sarcophaga*).—Calif. **N. comb.**
postilla Reinhard, 1947b: 111 (*Sarcophaga*).—Calif.
cessator (Aldrich), 1916a: 84 (*Sarcophaga*).—Calif.; Oreg., Idaho, Ariz., N. Mex., Mexico. **N. comb.**
impar (Aldrich), 1916a: 220 (*Sarcophaga*).—Tex.; Iowa, s. to N. Mex. and Fla. **N. comb.**
kellyi (Aldrich), 1914b: 443 (*Sarcophaga*).—Kans.; B.C. to Ont., s. to N. Mex. **N. comb.**
vericauda Coquillett *in* Hungerford, 1915: 135 (*Sarcophaga*). Nomen nudum.
plinthopyga (Wiedemann), 1830: 360 (*Sarcophaga*).—Virgin Is.; Wash., s. to Mexico and Tex., also Fla., West Indies. **N. comb.**
robusta Aldrich, 1916a: 268 (*Sarcophaga*).—Tex.

Subgenus SERVAISIA Robineau-Desvoidy

Servaisia Robineau-Desvoidy, 1863b: 429 (as genus). Type-species, *Sarcophaga erythrura* Meigen (as *erythrocera;* orig. des.).
Blaesoxiphotheca Townsend, 1918b: 159. Type-species, *caudata* Townsend (orig. des.) ?=*coloradensis* (Aldrich). **N. syn.** (genus and subg.).
Amblycoryphenes Townsend, 1918b: 161. Type-species, *Sarcophag amblycoryphae* Coquillett (orig. des.). **N. syn.** (genus and subg.).
Mantidophaga Townsend, 1919c: 160. Type-species, *stagmomantidis* Townsend (orig. des.). **N. syn.** (genus and subg.).
Servaisia, subg. *Sarpedia* Roback, 1954: 87. Type-species, *Sarcophaga setigera* Aldrich (orig. des.). **N. syn.** (genus).

Species of this subgenus have been reared from *Amblycorypha* (Tettigoniidae), *Melanoplus* spp. (Acrididae), and *Stagmomantis* (Mantidae).

alopecis (Reinhard), 1947b: 106 (*Sarcophaga*).—Iowa. **N. comb.**
amblycoryphae (Coquillett), 1904f: 187 (*Sarcophaga*).—Mass.; S. Dak., Iowa, Mo., N.Y. **N. comb.**
lorena Roback, 1952: 45 (*Sarcophaga*).—N.Y.

coloradensis (Aldrich), 1916a: 139 (*Sarcophaga*).—Colo.; Calif. **N. comb.**

caudata Townsend, 1918b: 159 (*Blaesoxiphotheca*).—Colo. ?Syn.

convena (Reinhard), 1947b: 103 (*Sarcophaga*).—Tex. **N. comb.**

falciformis (Aldrich), 1916a: 137 (*Sarcophaga*).—Calif.; Alta. to Man., s. to Calif. and N.C. **N. comb.**

flavipes (Aldrich), 1916a: 146 (*Sarcophaga*).—Ga. **N. comb.**

ignipes (Reinhard), 1947b: 105 (*Sarcophaga*).—Tex. **N. comb.** Probably=*amblycoryphae*.

pagella (Reinhard), 1947b: 100 (*Sarcophaga*).—Tex. **N. comb.**

prolepsis (Reinhard), 1947b: 120 (*Sarcophaga*).—Ariz. **N. comb.**

putilla (Reinhard), 1947b: 104 (*Sarcophaga*).—Ohio. **N. comb.**

setigera (Aldrich), 1916a: 138 (*Sarcophaga*).—Mass.; Iowa, Conn. **N. comb.**

stagmomantidis (Townsend), 1919c: 160 (*Mantidophaga*).—D.C.; Ill., Tex., N.C. **N. comb.** Probably=*flavipes*.

austinana Reinhard, 1942d: 17 (*Sarcophaga*).—Tex.

uncata (Wulp), 1895: 268, key (descr. 1896: 277) (*Sarcophaga*).—Mexico; Idaho to Que., s. to Utah, Okla., and N.C., also Mexico. **N. comb.**

marginata Aldrich, 1916a: 136 (*Sarcophaga*).—Ind.

websteri (Aldrich), 1916a: 141 (*Sarcophaga*).—Va.; Ohio. **N. comb.**

Subgenus SPECIOSIA Roback

Servaisia, subg. **Speciosia** Roback, 1954: 87. Type-species, *Fletcherimyia speciosa* Lopes (orig. des.). **N. syn.**

speciosa (Lopes), 1946: 121 (*Fletcherimyia*).—Mexico; Ariz., La. **N. comb.**

Subgenus SPIROBOLOMYIA Townsend

Spirobolomyia Townsend, 1917a: 43 (as genus). Type-species, *Sarcophaga singularis* Aldrich (orig. des.). **N. syn.**

B. flavipalpis and *singularis* have been reared from millipeds of the genus *Spirobolus*.

basalis (Walker), 1852: 328 (*Sarcophaga*).—U.S.; Iowa to W. Va., s. to Ala. and Ga. **N. comb.**

deceptiva Aldrich, 1916a: 186 (*Sarcophaga*).—Ala.

flavipalpis (Aldrich), 1916a: 256 (*Sarcophaga*).—Va.; Ind., N.Y., N.C. **N. comb.**

ohioensis (Hall), 1927: 176 (*Sarcophaga*).—Ohio. **N. comb.**

singularis (Aldrich), 1916a: 184 (*Sarcophaga*).—Va.; Ala., Ga. **N. comb.**

Unplaced Species of *Blaesoxipha*

hetaera (Reinhard), 1952a: 146(*Sarcophaga*).—Tex.; Ariz. **N. comb.**

Genus BOETTCHERIA Parker

Boettcheria Parker, 1914a: 65. Type-species, *latisterna* Parker (orig. des.).

The larvae of this genus are scavengers in dead insects, but sometimes may be parasitic. *B. litorosa* has been recorded as a parasite of bumblebees.

bisetosa Parker, 1914a: 69.—N.Y., Vt., Mass.; Alta. to N.H., s. to Fla.

cimbicis (Townsend), 1892f: 126 (*Sarcophaga*).—S. Dak.; S. Dak. to Maine, s. to Miss. and Fla.

fernaldi Parker, 1914a: 72.—Mass.

latisterna Parker, 1914a: 67.—Vt.; Minn. to Que., s. to Tex. and Fla.

irrisoris Reinhard, 1952a: 142 (*Sarcophaga;* as ssp.).—Tex.

litorosa (Reinhard), 1947b: 115 (*Sarcophaga*).—Calif.; Wash., Oreg., ?S. Dak.

carata Roback, 1952: 48.—Calif. **N. syn.**

praevolans (Wulp), 1895: 268, key (descr. 1896: 275) (*Sarcophaga*).—Mexico; Ariz.

siccana Reinhard, 1947b: 117 (*Sarcophaga*).—Ariz.

Genus CAMPTOPS Aldrich

Camptops Aldrich, 1916a: 34. Type-species, *unicolor* Aldrich (orig. des.).

unicolor Aldrich, 1916a: 34.—La.; Iowa, Tex., Ala.

Genus CISTUDINOMYIA Townsend

Cistudinomyia Townsend, 1917a: 48. Type-species, *Sarcophaga cistudinis* Aldrich (orig. des.).

The sole species of this genus parasitizes tortoises.

REFERENCE: Knipling, 1937 (biol.).

cistudinis (Aldrich), 1916a: 278 (*Sarcophaga*).—N.J.; Colo. to N.J., s. to Tex. and Fla.

Genus COLCONDAMYIA Reinhard

Colcondamyia Reinhard, 1963a: 82. Type-species, *falcifera* Reinhard (orig. des.).

Golcondamyia Reinhard, 1963b: 152, emend.

falcifera Reinhard, 1963a: 82.—Nev.

Genus COMASARCOPHAGA Hall

Comasarcophaga Hall, 1931b: 280. Type-species, *texana* Hall (orig. des.).

Tejasomyia Reinhard, 1945b: 68. Type-species, *nexilis* Reinhard (orig. des.) **N. syn.**

nexilis (Reinhard), 1945b: 69 (*Tejasomyia*).—Tex. **N. comb.**

texana Hall, 1931b: 280.—Tex.; Calif.

Genus EMBLEMASOMA Aldrich

Emblemasoma Aldrich, 1916a: 56. Type-species, *erro* Aldrich (orig. des.).

An undescribed species of this genus parasitizes cicadas.

albicoma Reinhard, 1939a: 63.—S. Dak.

erro Aldrich, 1916a: 56.—N.J.; Minn. to N.J., s. to Kans. and Ga., also ?B.C.

faciale Aldrich, 1916a: 58.—Ga.; Fla. Probably=*erro*.

Genus ERUCOPHAGA Reinhard

Erucophaga Reinhard, 1963a: 75. Type-species, *triloris* Reinhard (orig. des.).

triloris Reinhard, 1963a: 75.—Ariz.; Tex.

Genus HELICOBIA Coquillett

Helicobia Coquillett, 1895a: 317. Type-species, *Sarcophaga helicis* Townsend (orig. des.)=*rapax* (Walker).

The Nearctic species of this genus are scavengers or perhaps occasionally parasitic in insects and snails.

morionella (Aldrich), 1930c: 31 (*Sarcophaga*).—Cuba; N.C. to s. Calif., s. to Mexico and Fla., West Indies.

rapax (Walker), 1849: 818 (*Sarcophaga*).—?N. Amer.; Alta. to Que., s. to s. Calif., Mexico, and Fla.

helicis Townsend, 1892k: 220 (*Sarcophaga*).—Ohio.

Genus JOHNSONIA Coquillett

Johnsonia Coquillett, 1895a: 316. Type-species, *elegans* Coquillett (orig. des.).

Subgenus JOHNSONIA Coquillett

J. elegans is reported to parasitize the snail, *Succinia brevis*.

REFERENCE: Hallock, 1938 (key).

bivittata Curran, 1928d: 95.—P.R.; s. Tex.
borealis Reinhard, 1937: 62.—Mich.; Minn., Ohio, Pa., Conn.
elegans Coquillett, 1895a: 316.—Fla.
frontalis Aldrich, 1929c: 1.—Fla.

Subgenus STHENOPYGA Aldrich

Sthenopyga Aldrich, 1916a: 59 (as genus). Type-species, *globosa* Aldrich (orig. des.)=*rufitibia* (Wulp).
Camptopsis Townsend, 1918b: 162. Type-species, *miamensis* Townsend (orig. des.). **N. syn.** (genus and subg.).

miamensis (Townsend), 1918b: 163 (*Camptopsis*).—Fla.; N.C. **N. comb.**
rufitibia (Wulp), 1895: 270 (*Sarcophaga*).—Mexico; Tex., La., N.C.
globosa Aldrich, 1916a: 59 (*Sthenopyga*).—La.
strigosa (Reinhard), 1945b: 67 (*Camptopsis*).—N.Y. **N. comb.**

Genus MECYNOCORPUS Roback

Acandotheca, subg. **Mecynocorpus** Roback, 1954: 89. Type-species, *Sarcophaga salva* Aldrich (orig. des.).

salvum (Aldrich), 1916a: 237 (*Sarcophaga*).—Ind.; Nebr. to Pa., s. to Tex. and Ga.

Genus METOPOSARCOPHAGA Townsend

Metoposarcophaga Townsend, 1917a: 46. Type-species, *Sarcophaga pachyprocta* Parker (orig. des.)=*importuna* (Walker).
Thelylepticocnema Townsend, 1917a: 43. Type-species, *Sarcophaga incurva* Aldrich (orig. des.).
Zygastropyga Townsend, 1917b: 191. Type-species, *aurea* Townsend (orig. des.).
Sabinata Parker, 1921: 112. Type-species, *catalina* Parker (orig. des.)=*villipes* (Wulp).
Cacotrophus Reinhard, 1947b: 99. Type-species, *beameri* Reinhard (orig. des.). **N. syn.**

The larvae of this genus occur in turtle eggs, carrion, mammal wounds, and caterpillars of *Megathymus* butterflies.

aldrichi (Parker), 1921: 114 (*Sabinata*).—Calif.

arizonica (Parker), 1921: 113 (*Sabinata*).—Ariz.; N. Mex.
cantenea Roback, 1952: 48 (*Zygastropyga*).—Ariz. **N. syn.**
aurea (Townsend), 1917b: 195 (*Zygastropyga*).—Ariz.; Calif.
beameri (Reinhard), 1947b: 99 (*Cacotrophus*).—Ariz.; ?Mexico. **N. comb.**
conabilis (Reinhard), 1947b: 124 (*Sarcophaga*).—Tex. **N. comb.**
importuna (Walker), 1849: 819 (*Sarcophaga*).—?N. Amer.; Minn., Iowa, N.Y., Mass., Conn.
pachyprocta Hagen, 1881b: 149 (*Sarcophaga*).—N.Y., Mass. **N. syn.**
pachyprocta Parker, 1916c: 171 (*Sarcophaga*).—Mass.
larga Aldrich, 1916a: 147 (*Sarcophaga*).—N.Y.
incurva (Aldrich), 1916a: 260 (*Sarcophaga*).—N. Mex.; B.C., Oreg., Utah.
insurgens Aldrich, 1916a: 262 (*Sarcophaga*).—N. Mex.
tothilli Parker, 1919a: 155.—B.C. **N. syn.**
pachyproctosa Parker, 1919a: 157.—B.C.; Calif.
sulculata (Aldrich), 1916a: 223 (*Sarcophaga*).—Tex.; Iowa, Kans., Okla.
villipes (Wulp), 1895: 269 (*Sarcophaga*).—Mexico; Ariz.
catalina Parker, 1921: 112 (*Sabinata*).—Ariz.

Genus MICROCERELLA Macquart

Microcerella Macquart, 1851: 209 (1851: 236). Type-species, *rufomaculata* Macquart (orig. des.).
Xenoppia Townsend, 1915a: 20. Type-species, *hypopygialis* Townsend (orig. des.). **N. syn.**
Camptopyga Aldrich, 1916a: 41. Type-species, *aristata* Aldrich (orig. des.) = *hypopygialis* (Townsend). **N. syn.**
Hypopelta Aldrich, 1916a: 49. Type-species, *scrofa* Aldrich (orig. des.). **N. syn.**
Gymnopsoa Townsend, 1919c: 161. Type-species, *texana* Townsend (orig. des.). **N. syn.**

An undescribed species of this genus parasitizes snails.

hypopygialis (Townsend), 1915a: 20 (*Xenoppia*).—Ga.; N.J., Tex., La., Fla. **N. comb.**
aristata Aldrich, 1916a: 42 (*Camptopyga*).—Tex.
scrofa (Aldrich), 1916a: 50 (*Hypopelta*).—Ind.; Wis. to N.J., s. to Kans., La., and Fla. **N. comb.**

texana (Townsend), 1919c: 161 (*Gymnopsoa*).—Tex.; N.Y., Conn., N.C., S.C., Fla. **N. comb.**
nox Hall, 1931a: 217 (*Sarcophaga*).—S.C. **N. syn.**
monela Reinhard, 1947b: 95 (*Xenoppia*).—Fla. **N. syn.**
valgata (Reinhard), 1947b: 96 (*Xenoppia*).—Tex. **N. comb.**

Genus NEOPHYTO Townsend

Neophyto Townsend, 1908: 55. Type-species, *Phyto setosa* Coquillett (orig. des.).
Phytodes Coquillett, 1910a: 127. Type-species, *hirculus* Coquillett (orig. des.). **N. syn.**
Oppiopsis Townsend, 1915a: 20. Type-species, *Brachycoma sheldoni* Coquillett (orig. des.). **N. syn.**
Harbeckia Aldrich, 1916a: 46. Type-species, *tessellata* Aldrich (orig. des.)=*sheldoni* (Coquillett). **N. syn.**

hirculus (Coquillett), 1910a: 127 (*Phytodes*).—Tex. **N. comb.**
nocturnalis Walton, 1915b: 162.—Md.; Ga.
olmaba Brimley, 1927: 235.—N.C.
setosa (Coquillett), 1895k: 99 (*Phyto*).—Ill.; Minn., Mo., Ga.
anomala Townsend, 1908: 55.—Mo. **N. syn.**
sheldoni (Coquillett), 1898c: 236 (*Brachycoma*).—N.Y.: Conn., Pa., N.J., W. Va., Md. **N. comb.**
tessellata Aldrich, 1916a: 47 (*Harbeckia*).—Pa.

Genus OXYSARCODEXIA Townsend

Oxysarcodexia Townsend, 1917b: 191. Type-species, *Sarcophaga peltata* Aldrich (orig. des.).

Subgenus OXYSARCODEXIA Townsend

As far as known, Nearctic members of this subgenus normally breed in dung.

bakeri (Aldrich), 1916a: 270 (*Sarcophaga*).—Cuba; Tex., Mexico, Brazil.
cingarus (Aldrich),1916a: 288 (*Sarcophaga*).—Pa.; Iowa to Que., s. to Kans. and Fla.
comparilis (Reinhard), 1939a: 66 (*Sarcophaga*).—Tex.
galeata (Aldrich), 1916a: 280 (*Sarcophaga*).—Ind.; Iowa to N.Y., s. to Kans., Ark., and Fla.
ochripyga (Wulp), 1895: 269, key (descr. 1896: 285) (*Sarcophaga*).—Mexico; Calif., Tex., La., S. Amer.
peltata (Aldrich), 1916a: 216 (*Sarcophaga*).—P.R.; Fla.
plebeja Lopes, 1946: 142.—Mexico; Tex.

ramosa (Reinhard), 1939a: 64 (*Sarcophaga*).—Tex.
trivialis (Wulp), 1895: 268, key (descr. 1896: 277) (*Sarcophaga*).—Mexico; Ariz., N. Mex.
ventricosa (Wulp), 1895: 268, key (descr. 1896: 274) (*Sarcophaga*).—Mexico; Ont. to Que., s. to Mexico and Fla.
assidua, authors, not Walker.

Subgenus DEXOSARCOPHAGA Townsend

Dexosarcophaga Townsend, 1917c: 221 (as genus). Type-species, *transita* Townsend (orig. des.). **N. syn.**
Sarcomyia Roback, 1954: 64. Type-species, *Sarcophaga scelesta* Hall (orig. des.)=*transita* (Townsend). **N. syn.** (genus and subg.).

transita (Townsend), 1917c: 221 (*Dexosarcophaga*).—Brazil; Tex. **N. comb.**
scelesta Hall, 1931b: 285 (*Sarcophaga*).—Tex. **N. syn.**

Genus PACHYGRAPHIA Brauer and Bergenstamm

Pachygraphia Brauer and Bergenstamm, 1891: 372, 379 (1891: 68, 75). Type-species, *Dexia virgata* Wiedemann (Townsend, 1916d: 8).

Unnamed sp.—Ga.

Genus PECKIA Robineau-Desvoidy

Peckia Robineau-Desvoidy, 1830: 335. Type-species, *imperialis* Robineau-Desvoidy (Coquillett, 1910b: 585)=*praeceps* (Wiedemann).

hillifera (Aldrich), 1916a: 210 (*Sarcophaga*).—Fla.
spectabilis (in part) Aldrich, 1916a: 212 (*Sarcophaga*). U.S. records only.
volucris (Wulp), 1895: 269, key (descr. 1896: 285) (*Sarcophaga*).—Mexico; Tex.

Genus RAVINIA Robineau-Desvoidy

Ravinia Robineau-Desvoidy, 1863b: 434. Type-species, *Sarcophaga haematodes* Meigen (orig. des.)=*pernix* (Harris).
Euravinia Townsend, 1917b: 191. Type-species, *Ravinia communis* Parker (orig. des.)=*querula* (Walker).
Miltoravinia Townsend, 1917b: 191. Type-species, *Sarcophaga planifrons* Aldrich (orig. des.).

The larvae of members of this genus normally occur in dung. *R.* (*Chaetoravinia*) *anandra* seems to be strictly parthenogenetic.

Subgenus CHAETORAVINIA Townsend

Chaetoravinia Townsend, 1917b: 190 (as genus). Type-species, *Helicobia quadrisetosa* Coquillett (orig. des.)=*derelicta* (Walker).

anandra (Dodge), 1956a: 187 (*Chaetoravinia*).—Ga.; Wis. to N.Y., s. to Kans., La., and Fla., also Hawaii. **N. comb.**

assidua (Walker), 1852: 328 (*Sarcophaga*).—U.S.; Ga., Fla.

coachellensis (Hall), 1931c: 182 (*Sarcophaga*).—Calif.

derelicta (Walker), 1852: 322 (*Sarcophaga*).—U.S.; Man. to N.Y., s. to Mexico and Fla.

quadrisetosa Coquillett, 1901c: 17 (*Helicobia*).—D.C.

effrenata (Walker), 1861: 309 (*Sarcophaga*).—Mexico; Ariz., Tex., S. Amer.

errabunda (Wulp), 1895: 268, key (descr. 1896: 278) (*Sarcophaga*).—Mexico; Calif. to Kans., s. to Mexico.

reinhardti Hall, 1928: 346 (*Sarcophaga*).—Tex.

laakei (Hall), 1931c: 181 (*Sarcophaga*).—Tex.; Calif. to N.Y. and Fla.

latisetosa Parker, 1914a: 63.—?Mass.; B.C. to Que., s. to Calif. and Fla. Probably=*assidua*.

Subgenus RAVINIA Robineau-Desvoidy

acerba (Walker), 1849: 824 (*Sarcophaga*).—N.S.; Alaska to N.S., s. to Oreg. and Ohio.

peniculata Parker, 1914a: 58.—Maine.

floridensis (Aldrich), 1916a: 249 (*Sarcophaga*).—Fla.; Ga. Probably=*ochracea*.

lherminieri (Robineau-Desvoidy), 1830: 339 (*Myophora*).—Carolina; Wash. to Ont. and N.Y., s. to Mexico and Ga., also Hawaii.

anxia Walker, 1849: 818 (*Sarcophaga*).—N. Amer.

rediviva Walker, 1849: 823 (*Sarcophaga*).—Ont.

comes Walker, 1852: 323 (*Sarcophaga*).—U.S.

pallinervis Thomson, 1869: 535 (*Sarcophaga*).—Hawaii.

ochracea (Aldrich), 1916a: 255 (*Sarcophaga*; as *communis* var.)—Miss.; Ariz. to N.Y. and Fla.

pectinata (Aldrich), 1916a: 251 (*Sarcophaga*).—Ind.; Utah. to N.Y., s. to Ariz. and Ga.

orbitalis Hall, 1928: 337 (*Sarcophaga*).—Colo. (as Colombia, error).

planifrons (Aldrich), 1916a: 249 (*Sarcophaga*).—N. Mex.; B.C. to Sask. and Iowa, s. to s. Calif. and Tex.
duplicata Hall, 1928: 338 (*Sarcophaga*).—N. Mex.
pusiola (Wulp), 1895: 268, key (descr. 1896: 278) (*Sarcophaga*).—Mexico; Minn. to s. Ont., s. to Ariz. and Ohio.
querula (Walker), 1849: 821 (*Sarcophaga*).—?N. Amer.; B.C. to N. S., s. to n. Calif., Mo., and n. Ga.
avida Walker, 1849: 822 (*Sarcophaga*).—N.S.
rabida Walker, 1849: 823 (*Sarcophaga*).—N.S.
aspera Walker, 1849: 825 (*Sarcophaga*).—?N. Amer.
communis Parker, 1914a: 55.—?Mass.
sueta (Wulp), 1895: 268, key (descr. 1896: 281) (*Sarcophaga*).—Mexico; Calif.

Genus SARCODEXIA Townsend

Sarcodexia Townsend, 1892j: 105. Type-species, *sternodontis* Townsend (orig. des.).

Subgenus RAFAELIA Townsend

Rafaelia Townsend, 1917a: 45 (as genus). Type-species, *rufiventris* Townsend (orig. des.). **N. syn.**
Tylomyia Roback, 1954: 83. Type-species, *Sarcophaga texana* Aldrich (orig. des.). **N. syn.** (genus and subg.).

S. texana (Aldrich) has been reared from carrion and old wounds on mammals.

ampulla (Aldrich), 1916a: 151 (*Sarcophaga*).—Tex. **N. comb.**
rufiventris (Townsend), 1917a: 45 (*Rafaelia*).—Mexico; Okla., Tex. **N. comb.**
texana (Aldrich), 1916a: 294 (*Sarcophaga*).—Tex. **N. comb.**
vernilis (Reinhard), 1947b: 117 (*Sarcophaga*).—Tex. **N. comb.**

Subgenus SARCODEXIA Townsend

The larvae of *S. sternodontis* are scavengers in dead insects and other arthropods, and have also been reported as parasitic on various insects.

sternodontis Townsend, 1892j: 106.—Jamaica; Tex., Ga., Fla., West Indies, S. Amer.
lambens, authors, not Wiedemann.

Subgenus SARCODEXIOPSIS Townsend

Sarcodexiopsis Townsend, 1917b: 190 (as genus). Type-species, *Sarcophaga biseriata* Aldrich (orig. des.). **N. syn.**

Aphelomyia Roback, 1954: 81. Type-species, *Sarcophaga welchi* Hall (orig. des.). **N. syn.** (genus and subg.).

S. welchi has been reared from dead crabs.

servilis (Aldrich), 1916a: 243 (*Sarcophaga*).—Ind.; Kans., Ill., N.Y., Ga. **N. comb.**

welchi (Hall), 1930: 2 (*Sarcophaga*).—Cuba; Fla. **N. comb.**

Subgenus TITANOGRYPA Townsend

Titanogrypa Townsend, 1917a: 44 (as genus). Type-species, *Sarcophaga alata* Aldrich (orig. des.). **N. syn.**

Cucullomyia Roback, 1954: 83. Type-species, *Sarcophaga pedunculata* Hall (orig. des.). **N. syn.** (genus and subg.).

Acandotheca, subg. *Lepyria* Roback, 1954: 89. Type-species, *Sarcophaga melampyga* Aldrich (orig. des.). **N. syn.** (genus and subg.).

The larvae of *S. alata* have been reported from mammal wounds.

alata (Aldrich), 1916a: 109 (*Sarcophaga*; as *melampyga* var.).—Fla. **N. comb.**

melampyga (Aldrich), 1916a: 107 (*Sarcophaga*).—Tex.; Ont., s. to Tex. and Fla. **N. comb.**

pedunculata (Hall), 1931b: 284 (*Sarcophaga*).—Tex.; Mexico. **N. comb.**

placida (in part) Aldrich, 1925c: 24 (*Sarcophaga*). Tex. records only.

Genus SARCOFAHRTIAMYIA Hall

Sarcofahrtiamyia Hall, 1937b: 353. Type-species, *tenta* Hall (orig. des.).

tenta Hall, 1937b: 353.—Argentina; Fla.

Genus SARCOFAHRTIOPSIS Hall

Sarcofahrtiopsis Hall, 1933b: 261. Type-species, *Sarcofahrtia capitata* Curran (mon.).

Unnamed sp.—Fla.

Genus SARCOPHAGA Meigen

Sarcophaga Meigen, 1826: 14. Type-species, *Musca carnaria* Linnaeus (Westwood, 1840: 140).

Sarcotachinella Townsend, 1892a: 110. Type-species, *intermedia* Townsend (orig. des.)=*sinuata* Meigen.

Wohlfahrtiopsis Townsend, 1917a: 45. Type-species, *Sarcophaga johnsoni* Aldrich (orig. des.).

Bercaeopsis Townsend, 1917b: 192, 193, 195. Type-species, *Sarcophaga tetra* Aldrich (orig. des.).

Sarraceniomyia Townsend, 1917b: 192. Type-species, *Sarcophaga sarraceniae* Riley (orig. des.).

Scarabaeophaga Townsend, 1918b: 160. Type-species, *Sarcophaga utilis* Aldrich (orig. des.).

Petrosarcophaga Townsend, 1919b: 543. Type-species, *arizonica* Townsend (orig. des.).

Arachnidomyia Townsend, 1934b: 111. Type-species, *Sarcophaga davidsonii* Coquillett (orig. des.).

Sapromyia Roback, 1954: 64. Type-species, *Sarcophaga bullata* Parker (orig. des.). **N. syn.**

Idoneamima Dodge, 1956b: 242. Type-species, *sabroskyi* Dodge (orig. des.). **N. syn.**

The larvae of this genus feed on a wide variety of foods. Some species feed on carrion in the broadest sense, including dead insects, dead snails, and dead crabs and *Limulus* tossed up on sea beaches, and on dung and other decaying materials. One species has caused ulcerative myiasis in ground squirrels, a kitten, and man. Some species are parasitic in larval or pupal Lepidoptera, grasshoppers, adult scarabaeids (*Phyllophaga*), a snail (*Ventridens*), spiders of several genera, and larvae (presumably) of *Polistes* wasps. Larvae of one species devour eggs in the egg sacs of certain spiders.

acadiana Reinhard, 1947b: 109.—La.

acrophila (Dodge), 1956b: 247 (*Idoneamima*).—Ga.; N.C. **N. comb.**

aldrichi Parker, 1916b: 438.—Mass.; B.C. to se. Canada, s. to Ill. and Conn.

aratrix Pandellé, 1896: 191.—France; Man.

argyrostoma (Robineau-Desvoidy), 1830: 340 (*Myophora*).—Cape Province; Calif. to Que., s. to Tex. and N.C., cosmopolitan.

barbata Thomson, 1869: 533.—Hawaii.

falculata Pandellé, 1896: 185.—France.

arizonica (Townsend), 1919b: 544 (*Petrosarcophaga*).—Ariz.

beameri (Dodge), 1956b: 247 (*Idoneamima*).—Kans. **N. comb.**

bicolor (Dodge), 1956b: 247 (*Idoneamima*).—Ga. **N. comb.** ?= *tarsata*.

bishoppi Aldrich, 1916a: 258.—Tex.; Ariz. to Fla.

bullata Parker, 1916a: 359.—N.Y.; B.C. to Que., s. to Calif. and Fla.

bison Aldrich, 1916a: fig. 110.—Unknown.

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canadensis Hall, 1929: 322.—Alta.
carinata (Dodge), 1956b: 248 (*Idoneamima*).—Ohio. **N. comb.**
citellivora Shewell, 1950: 245.—Alta.; B.C.
cockerellae Aldrich, 1916a: 70.—N. Mex.; B.C., Colo.
cooleyi Parker, 1914b: 417.—Mont.; B.C. to Sask., s. to Ariz. and Kans., also Ont., N.Y.
crassipalpis Macquart, 1839: 112.—Canary Is.; Calif. to Que., s. to N.C., nearly cosmopolitan.
securifera Villeneuve *in* Becker, 1908: 123.—Canary Is.
davidsonii Coquillett, 1892f: 24.—Calif.; Idaho, Tex., Mexico, West Indies.
elanis Reinhard, 1947b: 108.—N.Y.
elongata Aldrich, 1916a: 198.—Colo.; N. Mex.
epitheca Reinhard, 1952a: 143.—N.C.; Ga.
fattigi (Dodge), 1956b: 250 (*Idoneamima*).—Ga. **N. comb.**
fortisa Reinhard, 1947b: 110.—Ohio; Pa.
gracilis Aldrich, 1916a: 202.—Colo.; Utah, Wyo.
haemorrhoidalis (Fallén), 1817d: 237 (*Musca*).—Europe; Oreg. to Que., s. to s. Calif. and Fla., nearly cosmopolitan.
georgina Wiedemann, 1830: 357.—Ga.
aegra Walker, 1849: 821.—Mass.
harpax Pandellé, 1896: 189.—Europe; B.C. to Que., s. to Ariz., Kans., and N.Y.
helicivora (Dodge), 1956b: 250 (*Idoneamina*).—Mich. **N. comb.**
hesterna Reinhard, 1947b: 108.—N.Y.; Iowa, Ont., Vt., Ga.
hinei Aldrich, 1916a: 71.—Ohio; Wash., Alta., Ont., ?N.C.
houghi Aldrich, 1916a: 170.—Mass.; Wash., Iowa., Ill., N.Y., W. Va., Ga.
idonea Aldrich, 1916a: 90.—Mass.; N.Y., W. Va.
montanensis Hallock, 1938: 98.—N.Y. **N. syn.**
johnsoni Aldrich, 1916a: 162.—Va.; Mass. to Tex. along seacoast.
juliaetta Aldrich, 1916a: 200.—Idaho.
libera Aldrich, 1916a: 235.—Mont.; B.C. to Ont., s. to Tenn. and Fla.
louisianensis (Dodge), 1956b: 253 (*Idoneamima*).—La. **N. comb.**
melanura Meigen, 1826: 23.—Europe; Que., N.Y., Mass., W. Va.
mimoris Reinhard, 1947b: 110.—Ohio; Mich. to Pa., s. to Ind. and D.C.
neali Steyskal *in* Dodge, 1956b: 253. Nomen nudum.
minutissima Hall, 1929: 320.—D.C.; Pa., Va.
monticola (Dodge), 1956b: 254 (*Idoneamima*).—Ga.; Iowa, N.C. **N. comb.** ?=*elanis*.
morosa Aldrich, 1925c: 26.—Ont.; Mich., Ohio, N.Y.

nearctica Parker, 1916a: 422 (as *scoparia* ssp.).—?Mass.; B.C. to Maine, s. to Calif. and Ga. Probably=*scoparia*.
occidentalis Aldrich, 1916a: 198.—Idaho; B.C. to Calif., Mont.
ontariensis Hall, 1932a: 102.—Ont.; Mo., N.Y., Ga.
parallela Aldrich, 1916a: 123.—N.J.; Mo. and Ark. to N.Y., s. to Ga.
paulina Hall, 1937a: 212.—Ohio; Md., Ga.
perissa Reinhard, 1952a: 145.—Utah.
perspicax Aldrich, 1916a: 201.—Colo.; Utah, N. Mex.
pleomenda Reinhard, 1953b: 243 (n. name for *mendax* Reinhard).—Tenn.; Ga.
mendax Reinhard, 1947b: 107 (preocc. Walker, 1859).—Tenn.
polistensis Hall, 1933a: 110.—Tex.; Ariz., Okla. ?=*libera*.
pratti (Dodge), 1956b: 258 (*Idoneamima*).—Ga.; W. Va. **N. comb.**
pubicornis (Coquillett), 1902g: 116 (*Brachycoma*).—Idaho. **N. comb.**
pulla Aldrich, 1916a: 72.—Pa.; Ohio, Ga.
rabunensis (Dodge), 1956b: 258 (*Idoneamima*).—Ga. **N. comb.**
sabroskyi (Dodge), 1956b: 245 (*Idoneamima*).—Ga.; Iowa to Mass., s. to Ga. **N. comb.**
sarraceniae Riley, 1874: 238.—S.C.; N.Y., N.C., Ala., Ga.
sarracenioides Aldrich, 1916a: 227 (as *tuberosa* var., but as sp. in key, p. 177).—Ind.; B.C. to Que., s. to Calif., Tex., and N.C.
scoparia Pandellé, 1896: 189.—East Prussia; Alaska.
seagoi (Dodge), 1956b: 259 (*Idoneamima*).—Ga.; N.C. **N. comb.**
semimarginalis Hall, 1931b: 283.—Tex.
shermani Parker, 1923: 124.—B.C.; B.C. to Que., s. to Calif., Kans., and N.Y.
exuberans, authors, not Pandellé.
sigilla Reinhard, 1947b: 118.—Ariz.
sima Aldrich, 1916a: 91.—Md.; Mo., Tenn., W. Va., Ga.
sinuata Meigen, 1826: 22.—Europe; Alaska to Maine, s. to Utah and N.C., Palaearctic.
intermedia Townsend, 1892a: 111 (*Sarcotachinella*).—Ill.
smithi (Dodge), 1956b: 260 (*Idoneamima*).—W. Va. **N. comb.**
snyderi (Dodge), 1956b: 260 (*Idoneamima*).—La. **N. comb.**
statuta Reinhard, 1952a: 144.—Mont.
subaenescens Aldrich, 1925c: 27.—N.J.
subdiscalis Aldrich, 1916a: 219.—N.J.; Iowa.
sudiai (Dodge), 1956b: 261 (*Idoneamima*).—Ga. **N. comb.**
sutilis Reinhard, 1952a: 144.—Tex.; Md., D.C., Ga., Ala. ?=*tarsata*.
tarsata Aldrich, 1916a: 75.—Fla.; La., Ga.

tetona Reinhard, 1952a: 141.—Wyo.
tetra Aldrich, 1916a: 89.—Ohio; Ont., Que., Ga.
thatuna Aldrich, 1916a: 196.—Idaho; B.C., Oreg.
triplasia Wulp, 1895: 269, key (descr. 1896: 283).—Mexico; Iowa, N.Y., La., Fla.
dissidia Parker, 1917: 157 (as *fulvipes* ssp.).—N.Y.
fulvipes, authors, not Macquart.
uliginosa Kramer, 1908a: 153.—Germany; Ont., Mass., Palaearctic.
utilis Aldrich, 1915a: 151.—Ind.; Utah to Que., s. to Ala. and Ga.
vancouverensis Parker, 1918a: 122.—B.C.; Wash., Colo.
wrangeliensis Parker, 1920b: 107.—B.C.; Alaska, Wash., Calif.
cosmeta Reinhard, 1947b: 112.—Wash.
yorkii Parker, 1920a: 265.—N.Y. Probably=*subdiscalis*.

Genus TRICHARAEA Thomson

Tricharaea Thomson, 1869: 540. Type-species, *scatophagina* Thomson (mon.).
Sarcophagula Wulp, 1887: 173. Type-species, *Musca occidua* Fabricius (Coquillett, 1910b: 602). **N. syn.**
Sarothromyia Brauer and Bergenstamm, 1891: 365 (1891: 61). Type-species, *Sarcophila femoralis* Schiner (mon.). **N. syn.**

T. occidua has been reared from dung, decaying vegetable matter, and other wastes; *T. simplex*, from dead snails.

canuta (Wulp), 1896: 289 (*Sarcophagula*).—Mexico; Tex., Fla., S. Amer. **N. comb.**
occidua (Fabricius), 1794: 315 (*Musca*).—West Indies; Tex., Fla., S. Amer. **N. comb.**
simplex (Aldrich), 1916a: 39 (*Sarothromyia;* as *femoralis* var.).—Fla.; S.C. to Tex. along sea coast. **N. comb.**
femoralis, authors, not Schiner.

Genus UDAMOPYGA Hall

Udamopyga Hall, 1938: 255. Type-species, *smagra* Hall (orig. des.).
niagarana (Parker), 1918c: 28 (*Sarcophaga*).—N.Y.; Iowa, Ga.

Unplaced Genus and Species of Sarcophagidae

Genus TEPHROMYIOPSIS Townsend

Tephromyiopsis Townsend, 1919b: 544. Type-species, *Megerlea rufocaudatata* Bigot (orig. des.).
rufocaudatata (Bigot), 1888a: 269 (*Megerlea*).—Rocky Mts.

Unplaced Species of Sarcophagidae

anaces Walker, 1849: 833 (*Sarcophaga*).—?N. Amer.
argyrocephala Macquart, 1846: 320 (1846: 192) (*Sarcophaga*).—Tex.
aterrima Robineau-Desvoidy, 1830: 336 (*Peckia*).—Carolina.
consobrina Robineau-Desvoidy, 1830: 344 (*Myophora*).—Pa.
epilepsalis French, 1900: 263 (*Gastrophilus*).—Ill. First stage larva only.
fulvipes Walker, 1852: 328 (*Sarcophaga*; preocc. Macquart, 1843).—U.S.
grisea Robineau-Desvoidy, 1830: 131 (*Araba*).—N. Amer.
incerta Walker, 1852: 324 (*Sarcophaga*).—Jamaica. Name applied to various spp. in U.S.
leucaniae Townsend, 1893h: 468 (*Sarcophaga*).—Ill.
mantivora Riley, 1875: 180 (*Sarcophaga;* as *carnaria* var.).—Ill. Probably *Blaesoxipha* (*Servaisia*) sp.
pallipes Walker, 1852: 329 (*Sarcophaga*).—U.S. Probably *Blaesoxipha* (*Spirobolomyia* sp.).
stimulans Walker, 1849: 817 (*Sarcophaga*).—?N. Amer. Probably *Ravinia latisetosa* Parker.
viridescens Robineau-Desvoidy, 1830: 342 (*Myophora*).—N.S.

Family TACHINIDAE

(Larvaevoridae)

By Curtis W. Sabrosky and Paul H. Arnaud, Jr.[1]

The larvae of the family Tachinidae are internal parasites in many kinds of insects but especially in the Lepidoptera, to a lesser extent in Coleoptera, Hemiptera, Orthoptera, and Hymenoptera (sawflies), and occasionally in a few others. The parasites usually attack immature stages, but some species regularly parasitize adults. A very few species attack other arthropods, such as terrestrial isopods. The larval feeding usually results in the death of the host. Depending on the species, a parasite may issue from larval, pupal, or adult stage of the host.

Most adult tachinids, which are usually heavily bristled and stout bodied, are strong fliers. Some adults visit flowers, and others may be observed walking rapidly over vegetation or ground, presumably

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in search of hosts or the plants upon which the hosts feed. Reproduction may be by minute microtype eggs, laid on plants and ingested by the hosts when they consume the plant tissue, by macrotype eggs laid on the host itself, or by larvae deposited in or near the host.

Many species have been utilized in biological control projects against insect pests, such as the gypsy and brown-tail moths and the European corn borer.

The taxonomy of the family is difficult and confused. The widely divergent points of view represented by the restricted genera of Townsend and the inclusive genera of Aldrich and others are in strong contrast. In general, our approach has been conservative, though each problem has been approached on its individual merits. In some tribes, the present classification can be regarded as satisfactory, or reasonably so, but for many others this catalog is necessarily only a preliminary organization. Most of the tribes recognized by Townsend (1934a–1942) in his "Manual of Myiology" have been adopted for present convenience, in the absence of any other published arrangement of the Nearctic genera, though with some combinations and generic transfers, notably where we agree with the recent work of Mesnil and coworkers in Europe. This is especially true in the Goniinae. Prior to and during the preparation of this catalog, there appeared a number of fascicles of Mesnil's section on the tachinids in Lindner's "Die Fliegen der Palaearktischen Region" (Mesnil, 1944–1963). Wherever possible, we have used and evaluated this work in relation to the Nearctic fauna. It should be noted that many of the Townsend tribes appear in the Mesnil classification as subtribes, a change that sometimes alters the relationship of the groups but not necessarily their composition.

No available generic key is entirely satisfactory, but any may prove helpful in troublesome cases. However, great differences in the classifications and names adopted will cause considerable difficulty.

Type designations are accepted from Brauer and von Bergenstamm (1889–1893) for some genera but not for others, although some workers have regarded the format of that work as indicating type designation. The International Commission on Zoological Nomenclature ruled in Opinion 98 (I.C.Z.N., 1928: 1) that Brauer and von Bergenstamm did not fix types for older generic names "except in the cases where they distinctly state that the species mentioned is the type of the genus." For new genera, where a new generic and a new specific name depend on the same description, the format is essentially "gen.n., sp.n." and is accepted as original designation (new International Code, Article 68a, i, Stoll et al., 1961: 67).

Distribution is difficult to determine in a family in which there has been so much misunderstanding and misidentification. For maximum

reliability and uniformity of treatment, we have based the distributions primarily on the identifications of H. J. Reinhard, the leading living American authority on the family. These records have been supplemented from other reliable modern revisions, from material verified in the collections before us, and in certain genera by records considered unquestionably acceptable.

REFERENCES: Coquillett, 1897 (rev.); Adams *in* Williston, 1908; Curran, 1934a (keys to genera); Pantel, 1910, 1913 (methods of reproduction, immature stages); Greene, 1921a (puparia); Townsend, 1936a, 1936b (keys, tribes and genera of world); Clausen, 1940 (biol., immature stages), 1956 (biol. control, continental U.S.); Thompson, 1943a–1958 (cat., hosts and parasites); Mesnil, 1944–1963 (monog., Palaearctic Region, in progress); Emden, 1954 (keys, British genera, spp.); Herting, 1960 (biol., especially host lists); McLeod, McGugan, and Coppel, 1962 (biol. control, Canada).

Subfamily RHINOPHORINAE

(Melanophorinae)

The subfamily Rhinophorinae has been placed in the Sarcophagidae or the Tachinidae, or treated as a separate family. The postscutellum (infrascutellum) is distinctly though narrowly developed, and accordingly we believe that the group is best placed as a primitive subfamily of the Tachinidae. *Melanophora roralis*, probably the commonest species, is a parasite of terrestrial isopods.

Genus BEZZIMYIA Townsend

Bezzimyia Townsend, 1919b: 591. Type-species, *busckii* Townsend (orig. des.).

Lutzomyia Curran, 1934a: 387 (preocc. França, 1927). Type-species, *americana* Curran (mon.).

Pseudolutzomyia Rapp, 1945: 278 (n. name for *Lutzomyia* Curran). Type-species, *Lutzomyia americana* Curran (aut.).

americana (Curran), 1934a: 387 (*Lutzomyia*).—Ariz.

latifrons Curran, 1934a: 396, 398 (figs. 52, 59) (*Lutzomyia*).—Ariz. Rejected alternate original name.

busckii Townsend, 1919b: 592.—Panama; ?s.Tex.

Genus MELANOPHORA Meigen

Melanophora Meigen, 1803: 279. Type-species, *Musca grossificationis* Linnaeus (mon.)=*roralis* (Linnaeus).

roralis (Linnaeus), 1758: 597 (*Musca*).—Europe; Kans. to Mich. and N.H., s. to La. and Fla., Palaearctic. ?Immigrant.

stygia Harris, 1835: 599. Nomen nudum.

Genus STYLONEURIA Brauer and Bergenstamm

Styloneuria Brauer and Bergenstamm, 1891: 365 (1891: 61). Type-species, *manni* Brauer and Bergenstamm (mon.).

discrepans (Pandellé), 1896: 132 (*Phyto*).—France; Nfld. (W. L. Downes *in litt.*). ?Immigrant.

Subfamily PHASIINAE

(Gymnosomatinae)

The species of Phasiinae are chiefly parasites of adult Hemiptera-Heteroptera, with a few attacking adult Coleoptera.

REFERENCE: Dupuis, 1963 (monog.).

Tribe GYMNOSOMATINI

REFERENCE: Brooks, 1946a (rev.).

Genus CISTOGASTER Latreille

Cistogaster Latreille, 1829: 511. Type-species, *Musca globosa* Fabricius (Blanchard, 1840: 612).

Pallasia Robineau-Desvoidy, 1830: 239. Type-species, *Musca globosa* Fabricius (Coquillett, 1910b: 582).

amplifrons (Brooks), 1946a: 225 (*Pallasia*).—Alta.

Genus GYMNOCLYTIA Brauer and Bergenstamm

Gymnoclytia Brauer and Bergenstamm, 1893: 157 (1893: 69). Type-species, *Cistogaster divisa* Loew (mon.)=*occidua* (Walker).

Procistogaster Townsend, 1934c: 208. Type-species, *ferruginea* Townsend (orig. des.)=*immaculata* (Macquart).

Siphopallasia Brooks, 1946a: 225. Type-species, *Gymnosoma dubia* West (orig. des.).

atrota (Reinhard), 1935b: 173 (*Cistogaster*).—Ohio. **N. comb.**

dubia (West), 1925: 121 (*Gymnosoma*).—N.Y.; Man. to N.S., s. to Va., also ?Calif.

immaculata (Macquart), 1843a: 233 (1843: 76) (*Cistogaster*).—Carolina; B.C. to Que., entire U.S., Mexico.

pallasii Townsend, 1891b: 142 (*Cistogaster*).—S. Dak.

ferruginea Townsend, 1934c: 208 (*Procistogaster*).—Amer.

minuta Brooks, 1946a: 227.—N.J.; D.C., Va., Tex.

occidentalis Townsend, 1908: 128.—N. Mex.; B.C., Idaho, Calif., Utah, Colo.

occidua (Walker), 1849: 692 (*Gymnosoma*).—N.S.; Mich. to N.S., sw. to Ariz., Mexico, and Ga.

divisa Loew, 1863b: 321 (Cent. 4, no. 88) (*Cistogaster*).—Conn.

americana Brauer and Bergenstamm, 1891: 388 (1891: 84) (*Eliozeta*).—Ga.

unicolor (Brooks), 1946a: 229 (*Procistogaster*).—Tex.; Calif., Utah, Mich., Ark., N.C., Fla.

Genus GYMNOSOMA Meigen

Rhodogyne Meigen, 1800: 39. Type-species, *Musca rotundata* Linnaeus (sub. mon., Hendel, 1908b: 66). Suppressed by I.C.Z.N., 1963b: 339.

Gymnosoma Meigen, 1803: 278. Type-species, *Musca rotundata* Linnaeus (mon.).

canadense (Brooks), 1946a: 220 (*Rhodogyne*).—Que.; Mich. to Que. and N.S., s. to N.C., also B.C. to Nev.

filiola Loew, 1872a: 92 (Cent. 10, no. 66).—Tex.; B.C. to Man., s. to Calif. and La., also Mich.

fuliginosum Robineau-Desvoidy, 1830: 237.—Carolina; B.C. to N.H., s. to Calif., Mexico, and S.C.

latreillii Robineau-Desvoidy, 1830: 237.—Unknown.

occidentale Curran, 1927m: 144.—B.C.; B.C. to Ont., s. to Calif., Tex., and Va.

par Walker, 1849: 692.—N.S; Idaho, Sask. to N.S., s. to Va., also Ga.

Tribe TRICHOPODINI

The species of the tribe Trichopodini are parasites in adult Hemiptera-Heteroptera. The commonest and best-known species is *Trichopoda pennipes*, a parasite of the squash bug.

REFERENCE: Sabrosky, 1950d (key to genera).

Genus Eutrichopoda Townsend

Eutrichopoda Townsend, 1908: 134. Type-species, *nigra* Townsend (orig. des.).

Unnamed sp. (Sabrosky, 1950d: 366).—Panama (as Fla., error).

Genus TRICHOPODA Berthold

Trichopoda Berthold, 1827: 508. Type-species, *Thereva plumipes* Fabricius (Coquillett, 1910b: 616). As "Trichopode" (vernacular) by Latreille, 1825: 498.

Trichiopoda, emend.

Polistomyia Townsend, 1908: 132. Type-species, *Trichopoda trifasciata* Loew (orig. des.) = *plumipes* (Fabricius).

Subgenus GALACTOMYIA Townsend

Galactomyia Townsend, 1908: 135 (as genus). Type-species, *Trichopoda radiata* Loew (orig. des.) = *lanipes* (Fabricius).

Trichopodopsis Townsend, 1913b: 148, 313. Type-species, *Musca pennipes* Fabricius (orig. des.).

REFERENCE: Townsend, 1897b (key).

aurantiaca Townsend, 1891b: 140.—Va. Unrecognized.

lanipes (Fabricius), 1805: 220 (*Thereva*).—Carolina; Kans. to Conn., s. to Mexico and Fla.

formosa Wiedemann, 1830: 268.—Ga.

radiata Loew, 1863b: 321 (Cent. 4, no. 89).—D.C.

pennipes (Fabricius), 1781: 450 (*Musca*).—N. Amer.; Wash. (introd.), Calif. to Ont. and Mass., s. to Mexico and Fla.

hirtipes Fabricius, 1805: 219 (*Thereva*).—Carolina.

pennipes Fabricius, 1805: 219 (*Thereva*; preocc. Fabricius, 1781).—Carolina.

jugatoria Say, 1829: 172 (1859b: 364) (*Phasia*).—Ind.

flavicornis Robineau-Desvoidy, 1830: 284.—Carolina.

cilipes Wiedemann, 1830: 276 (n. name for *pennipes* Fabricius, 1805).—Carolina.

Subgenus TRICHOPODA Berthold

indivisa Townsend, 1897b: 281 (as *histrio* var.).—Mexico; Calif., Ariz., N. Mex., Tex.

plumipes (Fabricius), 1805: 220 (*Thereva*).—Carolina; Kans. to Conn., s. to Tex. and Fla.

histrio Walker, 1849: 697.—Unknown.

trifasciata Loew, 1863b: 322 (Cent. 4, no. 90).—Conn.

subdivisa (Townsend), 1908: 133 (*Polistomyia*).—Calif.

Genus XANTHOMELANODES Townsend

Xanthomelana Wulp, 1892: 188 (preocc. Waterhouse, 1889). Type-species, *gracilenta* Wulp (Coquillett, 1910b: 620).

Xanthomelanodes Townsend, 1893l: 167 (n. name for *Xanthomelana* Wulp). Type-species, *Xanthomelana gracilenta* Wulp (aut.).

Erythrophasia Townsend, 1917d: 127. Type-species, *atripennis* Townsend (orig. des.) = *atripennis* (Say).

REFERENCE: Sabrosky, 1950d (key).

arcuatus (Say), 1829: 173 (1859b: 365) (*Ocyptera*).—Ind.; Wash., Calif. to Wis. to N.H., s. to Mexico and Fla.

atripennis (Say), 1829: 172 (1859b: 363) (*Phasia*).—Ind.; Mich. to Vt., s. to Ark. and Fla., also? Mexico.

corythus Walker, 1849: 797 (*Tachina*).—Ga.

atripennis Townsend, 1891b: 145 (*Wahlbergia*).—Va.

atripennis Townsend, 1917d: 127 (*Erythrophasia*).—Fla.

californicus Townsend, 1908: 129.—Calif.; B.C. to Calif., Mexico, and Tex.

flavipes (Coquillett), 1897: 72 (*Xanthomelana*).—Mass.; Que., N.Y., Vt., Va.

pictipes (Bigot), 1888a: 254 (*Stevenia*).—Wash. Unrecognized.

Tribe PHASIINI

Members of the tribe Phasiini parasitize adult Hemiptera-Heteroptera. The widely used name *Alophora* Robineau-Desvoidy (*Allophora*, emend.) does not apply to Nearctic species.

REFERENCE: Brooks, 1945b (rev.).

Genus ALOPHORELLA Townsend

Alophorella Townsend, 1912c: 45. Type-species, *Thereva obesa* Fabricius (orig. des.).

Alophoropsis Townsend, 1915a: 20. Type-species, *Alophora phasioides* Coquillett (orig. des.).

Euphorantha Townsend, 1915a: 20. Type-species, *Alophora diversa* Coquillett (orig. des.).

Oedematopteryx Townsend, 1916h: 633. Type-species, *Alophora pulverea* Coquillett (orig. des.).

aeneoventris (Williston), 1886a: 296 (*Hyalomyia*).—Wash.; B.C. to N.S., s. to Calif., Tex., and N.C.

robertsonii Townsend, 1891b: 136 (*Hyalomyia*).—Ill.

brevineura West, 1925: 122 (*Phasia*).—N.Y.

furva West, 1925: 123 (*Phasia*).—N.S.

alaskensis (Brooks), 1945b: 663 (*Alophoropsis*).—Alaska. **N. comb.**

diversa (Coquillett), 1897: 45 (*Alophora*).—Mass.; Kans. to Ont. and Que., s. to Tex. and Ga. **N. comb.**
divisa (error) Johnson, 1925b: 184.

fumosa (Coquillett), 1897: 46 (*Alophora*).—N.J.; S. Dak. to N.H., s. to Ariz. and Va. **N. comb.**

nitida (Coquillett), 1897: 45 (*Alophora*).—Va. **N. comb.**

occidentalis (Brooks), 1945b: 664 (*Alophoropsis*).—N. Mex.; B.C., Alta., Mont., Ariz. **N. comb.**

opaca (Coquillett), 1897: 44 (*Alophora*).—Wash.; B.C. **N. comb.**

phasioides (Coquillett), 1897: 46 (*Alophora*).—N.H.; Alaska, B.C., Calif., Ariz., Colo., also Mich. to Que. and N.J. **N. comb.**

polita Brooks, 1945b: 669.—N. Mex.; B.C. to Mont., s. to Ariz. and N. Mex.

pulverea (Coquillett), 1897: 46 (*Alophora*).—Ont.; Wis. to N.B., s. to Miss. and Va., also Wash. **N. comb.**

subopaca (Coquillett), 1897: 47 (*Alophora*).—N.J.; B.C. to Calif. and Tex., also Wis. to N.B., s. to Ill. and S.C. **N. comb.**

Genus EUCLYTIA Townsend

Euclytia Townsend, 1908: 60. Type-species, *Clytia flava* Townsend (orig. des.).

flava (Townsend), 1891c: 372 (*Clytia*).—Ill.; B.C., Calif. to Maine, s. to Tex. and Va.

Genus HYALOMYA Robineau-Desvoidy

Hyalomya Robineau-Desvoidy, 1830: 298. Type-species, *Phasia semicinerea* Meigen (Westwood, 1840: 140)=*pusilla* (Meigen).

Hyalomyia, emend.

Alophorellopsis Townsend, 1927: 209. Type-species, *capitata* Townsend (orig. des.).

Hyalomyiopsis Brooks, 1945b: 676. Type-species, *Hyalomyia aldrichii* Townsend (orig. des.).

aldrichii Townsend, 1891b: 136.—S. Dak.; Alaska, B.C. to Vt., s. to Calif., Mexico, and Ala.
celer Townsend, 1895a: 65.—N. Mex.
pruinosa Robertson, 1901: 285 (*Phorantha*).—Ill.
cara West, 1925: 123 (*Phasia*).—N.Y.

argentifrons (Brooks), 1945b: 675 (*Alophorellopsis*).—B.C.; ?Calif., ?Mexico. **N. comb.**

purpurascens Townsend, 1891b: 137.—Ill.; Wash., Idaho, Calif. to Que., s. to Mexico and Ga.
calyptrata Coquillett, 1897: 44 (*Phorantha*).—Ill., Ky., D.C., Va.
humeralis Robertson, 1901: 286 (*Phorantha*).—Ill.
robusta (Brooks), 1945b: 678 (*Hyalomyiopsis*).—Oreg.; B.C. to Calif. and Kans.

Genus PARAPHORANTHA Townsend

Paraphorantha Townsend, 1915a: 20. Type-species, *Alophora grandis* Coquillett (orig. des.).

auricaudata Brooks, 1945b: 661.—Oreg.; Wash. to Ark., s. to Calif., Mexico, and Tex.
grandis (Coquillett), 1897: 45 (*Alophora*).—Tex.; Ill., Mass., Va., N.C., Miss., Ga.
pollinosa Brooks, 1945b: 660.—Md.; Calif., Ariz., Tex., Miss., Ga.

Genus PHASIA Latreille

Phasia Latreille, 1804: 195. Type-species, *Conops subcoleoptratus* Linnaeus (sub. mon., Latreille, 1805: 379; also desig. Latreille, 1810: 444; as *Thereva subcoleoptrata* Fabricius).
Phorantha Rondani, 1861b: 209. Type-species, *musciformis* Rondani (mon.).
Paraphasia Townsend, 1915a: 20. Type-species, *Alophora fenestrata* Bigot (orig. des.).

albipennis (Brooks), 1945b: 657 (*Paraphasia*).—Sask. **N. comb.**
fenestrata (Bigot), 1888a: 255 (*Alophora*).—Nev.; Wash. to Calif. and Utah, also Ont. and Que., s. to Kans. and N.C.
bridwelli Hine, 1902: 229 (*Phorantha*).—Kans.
bidwelli, error.
magnapennis Johnson, 1904: 19 (*Alophora*).—Que.
phasiatrata Smith, 1915b: 98.—Mass.
nigra (Brooks), 1945b: 658 (*Paraphasia*).—Calif.; Wash. to Calif. and Utah. **N. comb.**
nigrens, authors, not Wulp.

Genus PHASIOMYIA Townsend

Phasiomyia Townsend, 1915a: 20. Type-species, *Alophora splendida* Coquillett (orig. des.).

splendida (Coquillett), 1902g: 105 (*Alophora*).—N.H.; B.C., Alta., Wash., also Mich. to N.B., s. to N.C.
meliceris Reinhard, 1955b: 234.—B.C. **N. syn.**

Genus PHORANTHELLA Brooks

Phoranthella Townsend, 1915a: 23. Nomen nudum (Opinion 205, I.C.Z.N., 1954a: 311).
Phoranthella Townsend, 1936a: 58 (also 1938b: 68). Nomen nudum.
Phoranthella Brooks, 1945b: 672. Type-species, *morrisoni* Brooks (mon.)=*punctigera* (Townsend). The generic name *Phoranthella* appears to date from Brooks (1945b) by a peculiar set of circumstances. Townsend's original publication did not make the name available in nomenclature, and his later works appeared when the "gen.n., sp.n." rule was no longer in effect.

punctigera (Townsend), 1891b: 135 (*Hyalomyia*).—Va.; Idaho to Ariz. to Ga. to Mass., also Ill., Ind.
morrisoni Townsend, 1915a: 23 (also 1936a: 58, 1938b: 68). Nomen nudum.
morrisoni Brooks, 1945b: 673.—Ga.

Genus TRICHOCLYTIA Townsend

Trichoclytia Townsend, 1916h: 633. Type-species, *Clytiomyia atrata* Coquillett (orig. des.).

atrata (Coquillett), 1895j: 53 (*Clytiomyia*).—Wash.; B.C. to Mont., s. to Calif., also Maine to Mass.

Unplaced Species of Phasiini

luctuosa Bigot, 1888a: 255 (*Alophora*).—Rocky Mts. Unrecognized.
occidentis Walker, 1852: 260 (*Hyalomya*).—U.S. Unrecognized.

Tribe FRERAEINI

The known hosts of the tribe Freraeini are adult carabid beetles.

Genus EUGYMNOGASTER Townsend

Gymnogaster Townsend, 1926: 25 (preocc. Gronovius, 1763). Type-species, *Gymnophania montana* Coquillett (orig. des.).
Eugymnogaster Townsend, 1931b: 328 (n. name for *Gymnogaster* Townsend). Type-species, *Gymnophania montana* Coquillett (aut.).

Gymnophania, authors, not Brauer and Bergenstamm.

montana (Coquillett), 1897: 50 (*Gymnophania*).—N.H.; Wash. and Alta. to Minn., s. to Calif. and Colo., also Ohio, N.H., and Maine.

Tribe CATHAROSIINI

Species of the tribe Catharosiini are parasites of adult Lygaeidae.

Genus CATHAROSIA Rondani

Catharosia Rondani, 1868a: 46 (1868: 86). Type-species, *Thereva pygmaea* Fallén (orig. des.).

Sciasma Coquillett, 1897: 69. Type-species, *nebulosa* Coquillett (orig. des.).

Microsciasma Townsend, 1915f: 234. Type-species, *minuta* Townsend (orig. des.). **N. syn.**

lustrans (Reinhard), 1944b: 58 (*Sciasma*).—Calif.; B.C.

minuta (Townsend), 1915f: 234 (*Microsciasma*).—Ariz. **N. comb.**

nebulosa (Coquillett), 1897: 69 (*Sciasma*).—Mass.; Mass. to Tex. and Fla.

Genus PROCATHAROSIA Villeneuve

Petia Coquillett, 1910a: 126 (preocc. Gray, 1839). Type-species, *calva* Coquillett (orig. des.).

Procatharosia Villeneuve, 1924: 31. Type-species, *Leucostoma flavicornis* Zetterstedt (mon.).

calva Coquillett, 1910a: 127.—Idaho; B.C. to Calif. and Tex.

frontalis (Smith), 1917a: 56 (*Sciasma*).—Mass. **N. comb.**

Tribe CYLINDROMYIINI

Members of the tribe Cylindromyiini are chiefly parasites of adult Hemiptera-Heteroptera, although a few parasitize adult Coleoptera.

Genus APINOPS Coquillett

Apinops Coquillett, 1897: 67. Type-species, *ater* Coquillett (orig. des.).

ater Coquillett, 1897: 68.—Ill.; Que. and Maine to Kans. and Ga. also Tex.

Genus APOSTROPHUS Loew

Apostrophus Loew, 1871: 310, 311. Type-species, *suspectus* Loew (Coquillett, 1910b: 509). Coquillett's designation, which referred to a publication by Loew, 1870, that is now known to be 1872, is nevertheless accepted under Article 67g of the International Code of Zoological Nomenclature (Stoll et al., 1961: 65).

anthophilus Loew, 1871: 310.—Germany; N.W.T., Alta.
incompletus (Curran), 1926b: 84 (*Besseria*).—Ont. **N. comb.**

Genus BESKIA Brauer and Bergenstamm

Beskia Brauer and Bergenstamm, 1889: 139 (1889: 71). Type-species, *cornuta* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.) ?=*aelops* (Walker).

aelops (Walker), 1849: 796 (*Tachina*).—Ga.; Ariz. to Va., s. to Mexico and Fla., ?Neotropical.

Genus BESSERIA Robineau-Desvoidy

Besseria Robineau-Desvoidy, 1830: 232. Type-species, reflexa Robineau-Desvoidy (mon.)=*melanura* (Meigen).
Oedemasoma Townsend, 1908: 80. Type-species, *nuda* Townsend (orig. des.)=*brevipennis* (Loew).

brevipennis (Loew), 1863b: 322 (Cent. 4, no. 91) (*Wahlbergia*).—Nebr.; B.C. to N. Dak., s. to Calif., Ariz., and Nebr.
nuda Townsend, 1908: 80 (*Oedemasoma*).—Nev.

Genus CYLINDROMYIA Meigen

Cylindromyia Meigen, 1803: 279. Type-species, *Musca brassicaria* Fabricius (mon.).
Ocypterodes Townsend, 1916h: 631. Type-species, *Ocyptera euchenor* Walker (orig. des.; misident.)=*fumipennis* (Bigot).
Aldrichocyptera Townsend, 1936c: 488. Type-species, *Cylindromyia alticola* Aldrich (mon.).
Ocyptera, authors, not Latreille.

In the Eastern Hemisphere and in older American literature, *Cylindromyia* has usually been known as *Ocyptera* Latreille (1804), but the type-species of the latter, by designation of Latreille (1810), is *Musca lateralis* Fabricius, now a synonym of *Eriothrix rufomaculata* De Geer in the subfamily Dexiinae.

REFERENCE: Aldrich, 1926b (rev.).

Subgenus APINOCYPTERA Townsend

Apinocyptera Townsend, 1915k: 94 (as genus). Type-species, *signata* Townsend (orig. des.).

Odontocyptera Townsend, 1915f: 233. Type-species, *nana* Townsend (orig. des.).

nana (Townsend), 1915f: 233 (*Odontocyptera*).—Mexico (Chih.); Wash. to Kans., s. to Calif., Mexico, and Miss., also N.C., Fla.

signatipennis (Wulp), 1892: 187 (*Ocyptera*).—Mexico; Calif., Tex., Guatemala.

limbata Aldrich, 1926b: 25.—Calif. **N. syn.**

Subgenus CYLINDROMYIA Meigen

alticola Aldrich, 1926b: 16.—Colo.; Mont., S. Dak., Man.

armata Aldrich, 1926b: 22.—Md.; Mont., Calif. to Kans. and N. Mex., Mich., Mass. to Ga.

atra (Röder), 1885: 344 (*Ocyptera*).—P.R.; s. Tex., Mexico.

binotata (Bigot), 1878: 44 (*Ocyptera*).—Md.; Man., Colo. and S. Dak. to N.Y., s. to Tex. and Fla.

argentea Townsend, 1891b: 144 (*Ocyptera*).—D.C., Iowa.

californica (Bigot), 1878: 42 (*Ocyptera*).—Calif.; B.C. to N. Dak., s. to Calif. and Tex., also Mich. and Ind. to N.Y.

intermedia Meigen of Aldrich, 1926b: 12.

decora Aldrich, 1926b: 21.—N.H.; B.C. to N.H., s. to Calif., Tex., and Md.

euchenor (Walker), 1849: 696 (*Ocyptera*).—Mass., Nfld.; Minn. to Nfld., s. to N. Mex. and Fla., also Calif.

lateralis Harris, 1835: 599 (*Ocyptera*). Nomen nudum.

fumipennis (Bigot), 1878: 43 (*Ocyptera*).—Calif.; B.C. to Conn., s. to Calif. and Fla.

vulgaris Aldrich, 1926b: 20.—Va.

propusilla Sabrosky and Arnaud (for *pusilla* Aldrich).—Va.; Wis. to Mass., s. to Va., also Mexico, Tex., Fla. **N. name.**

nigra Aldrich, 1926b: 11 (preocc. Villeneuve, 1917).—Va.

pusilla Aldrich, 1927: 18 (n. name for *nigra* Aldrich but preocc. Meigen, 1824).—Va.

argentea, authors, not Townsend.

uniformis Aldrich, 1926b: 24.—Mexico (D.F.); Calif., Ariz., El Salvador, Trinidad, Dominica.

Subgenus NEOCYPTERA Townsend

Neocyptera Townsend, 1916e: 32 (as genus). Type-species, *Ocyptera dosiades* Walker (orig. des.).

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Aubaeina Enderlein, 1937b: 442. Type-species, *Ocyptera dosiades* Walker (orig. des.).

compressa Aldrich, 1926b: 10.—Alta.; Alta. to Mich., s. to Nev. and Colo.

dosiades (Walker), 1849: 695 (*Ocyptera*).—N.S.; Alaska to Calif., also N. Dak. to N.S., s. to Colo. and N.J.

Unplaced Species of *Cylindromyia*

carolinae (Robineau-Desvoidy), 1830: 232 (*Parthenia*).—Carolina. Unrecognized.

epytus (Walker), 1849: 694 (*Ocyptera*).—Ga. Unrecognized.

Genus EPIGRIMYIA Townsend

Epigrimyia Townsend, 1891c: 375. Type-species, *polita* Townsend (orig. des.).

illinoensis Robertson, 1901: 286.—Ill.; Mich., Ohio, Md., Va., and Tex. to Ga.

polita Townsend, 1891c: 376.—Va.; Kans. to Mich. to N.H., s. to Tex. and Fla., also Ariz.

Genus EUSCOPOLIA Townsend

Euscopolia Townsend, 1892a: 123. Type-species, *dakotensis* Townsend (orig. des.).

Politomyia Reinhard, 1935b: 165. Type-species, *angulineura* Reinhard (orig. des.)=*dakotensis* Townsend.

dakotensis Townsend, 1892a: 124.—S. Dak.; B.C. to Oreg., also Nebr., Mich., Ohio, Va.

angulineura Reinhard, 1935b: 166 (*Politomyia*).—Wash. **N. syn.**

Genus HEMYDA Robineau-Desvoidy

Hemyda Robineau-Desvoidy, 1830: 226. Type-species, *aurata* Robineau-Desvoidy (mon.).

aurata Robineau-Desvoidy, 1830: 226.—Pa.; B.C. to N.H., s. to Calif., Mexico, and Ga.

latipennis Curran, 1924i: 252.—Man.

Genus ICHNEUMONOPS Townsend

Ichneumonops Townsend, 1908: 82. Type-species, *mirabilis* Townsend (orig. des.).

mirabilis Townsend, 1908: 84.—N. Mex.; Ariz., Colo.

Tribe IMITOMYIINI

Genus IMITOMYIA Townsend

Himantostoma Loew, 1863b: 320 (Cent. 4, no. 87) (preocc. Agassiz, 1862). Type-species, *sugens* Loew (mon.).

Imitomyia Townsend, 1912c: 49 (n. name for *Himantostoma* Loew). Type-species, *Himantostoma sugens* Loew (aut.).

Saskatchewania Smith, 1915a: 153. Type-species, *canadensis* Smith (orig. des.) = *sugens* (Loew).

sugens (Loew), 1863b: 320 (Cent. 4, no. 87) (*Himantostoma*).—Ill.; Oreg. to Sask. to Mich., s. to Calif. and Colo.

canadensis Smith, 1915a: 153 (*Saskatchewania*).—Sask.

Tribe CINOCHIRINI

The European *Cinochira atra* Zetterstedt has been reared from a species of Lygaeidae.

Genus CINOCHIRA Zetterstedt

Cinochira Zetterstedt, 1845: 1358. Type-species, *atra* Zetterstedt (mon.).

Baromyia Reinhard, 1957: 100. Type-species, *mitis* Reinhard (orig. des.). **N. syn.**

mitis (Reinhard), 1957: 101 (*Baromyia*).—Tex. **N. comb.**

Tribe LEUCOSTOMATINI

The species of Leucostomatini are parasites of adult Hemiptera and Coleoptera.

Genus CALYPTROSOMUS Reinhard

Calyptrosomus Reinhard, 1956c: 105. Type-species, *dapsilis* Reinhard (orig. des.).

dapsilis Reinhard, 1956c: 105.—Calif.; Ariz., Kans., Okla., Tex.

Genus CLAIRVILLIA Robineau-Desvoidy

Clairvillia Robineau-Desvoidy, 1830: 234. Type-species, *Ocyptera pusilla* Meigen (mon.; misident.) = *biguttata* (Meigen).

Neodionaea Townsend, 1916h: 631. Type-species, *Dionaea nitoris* Coquillett (orig. des.).

amicta Reinhard, 1962a: 169.—Ariz.

nitoris (Coquillett), 1898c: 235 (*Dionaea*).—Oreg.; B.C. to Calif. and Nev.

timberlakei (Walton), 1914c: 91 (*Dionaea*).—Utah; B.C. to S. Dak., s. to Calif., Tex., and Mo.

Genus LEUCOSTOMA Meigen

Leucostoma Meigen, 1803: 279. Type-species, *Ocyptera simplex* Fallén (sub. mon., Meigen, 1824: 234).

Cyclodionaea Townsend, 1915f: 233. Type-species, *acuminata* Townsend (orig. des.)=*aterrimum* (Villers).

Paradionaea Townsend, 1916h: 631. Type-species, *Leucostoma atra* Townsend (orig. des.)=*simplex* (Fallén).

Neopsalida Townsend, 1916h: 632. Type-species, *Leucostoma neomexicana* Townsend (orig. des.)=*aterrimum* (Villers).

Parapsalida Townsend, 1916h: 632. Type-species, *Phyto nigricornis* Townsend (orig. des.)=*gravipes* Wulp.

REFERENCE: Reinhard, 1956b (rev.).

acirostre Reinhard, 1956b: 162.—Tex.; Wash. to Calif. and Tex., also Ind. to N.J. and Va., Miss., Fla., ?Kans., ?Tenn.

aterrimum (Villers), 1789: 548 (*Musca*).—Europe; Calif. to Wyo. and Kans., s. to Mexico and Tex., also Wis., Mich., Ind., Europe.

neomexicana Townsend, 1892e: 169.—N. Mex.

acuminata Townsend, 1915f: 234 (*Cyclodionaea*).—Calif.

effrenatum Reinhard, 1956b: 165.—Utah.

gravipes Wulp, 1890: 207.—Mexico; Wash. to Nebr., s. to Calif., Mexico, and Tex., also Mich. to N.Y., s. to Va.

senilis Townsend, 1892e: 81 (*Phyto*).—N.Y.

nigricornis Townsend, 1892e: 170 (*Phyto*).—N. Mex.

perrarum Reinhard, 1956b: 164.—Utah; Oreg., Calif., Nev., Ariz.

simplex (Fallén), 1820f: 8 (*Ocyptera*).—Sweden; B.C. to N.H., s. to Calif., Tex., and Va.

atra Townsend, 1891c: 380.—Ill.

vapulare Reinhard, 1956b: 165.—Calif.

Tribe STRONGYGASTRINI

The species of Strongygastrini are parasites of adult Coleoptera.

Genus Campogaster Rondani

Campogaster Rondani, 1856: 80. Type-species, *parvula* Rondani (orig. des.)=*exigua* (Meigen).

Syntomogaster Schiner, 1861b: 140. Type-species, *Tachina singularis* Egger (Townsend, 1916b: 9) = *exigua* (Meigen).

exigua (Meigen), 1824: 367 (*Tachina*).—Europe; introd. Wash., Man., N. Dak., Minn., Nebr., N.J., ?estab.

Genus CLISTOMORPHA Townsend

Clistomorpha Townsend, 1892e: 79. Type-species, *hyalomoides* Townsend (orig. des.) = *didyma* (Loew).

REFERENCE: Brooks, 1942 (rev.).

didyma (Loew), 1863b: 320 (Cent. 4, no. 86) (*Xysta*).—Ill.; Calif., Alta., S. Dak. to N.Y., s. to Colo. and Va.
hyalomoides Townsend, 1892e: 80.—N.Y.

Genus HYALOMYODES Townsend

Hyalomyodes Townsend, 1893g: 429. Type-species, *weedii* Townsend (mon.) = *triangulifer* (Loew).

REFERENCE: Brooks, 1942 (key); Thompson, 1954 (biol., immature stages).

californicus Townsend, 1908: 126.—Calif.; ?B.C. ? = *triangulifer*.
robustus Townsend, 1908: 125.—N. Mex.; B.C., Wash., Idaho, Ariz., N.S. to Pa.
triangulifer (Loew), 1863b: 319 (Cent. 4, no. 85) (*Hyalomyia*).—N.Y.; B.C. to N.S., s. to Calif., Mexico, and Ga.
weedii Townsend, 1893g: 430.—N.H.

Tribe HESPEROPHASIINI

REFERENCE: Curran, 1927i (rev., as *Hesperophasia, sens. lat.*).

Genus COLEOPHASIA Townsend

Coleophasia Townsend, 1931b: 327. Type-species, *Hesperophasia pacifica* Curran (orig. des.).

pacifica (Curran), 1927i: 301 (*Hesperophasia*).—Oreg.; Calif.

Genus HESPEROPHASIA Townsend

Hesperophasia Townsend, 1915f: 220. Type-species, *setosa* Townsend (orig. des.).

setosa Townsend, 1915f: 221.—N. Mex.; Ariz., Mexico, Nebr. to N.Y., s. to Kans. and Md.

Genus HESPEROPHASIOPSIS Townsend

Hesperophasiopsis Townsend, 1915f: 221. Type-species, *californica* Townsend (orig. des.).

aldrichi (Curran), 1927i: 301 (*Hesperophasia*).—Sask.; Alta., N. Dak.
californica Townsend, 1915f: 222.—Calif.
nigripennis (Curran), 1927i: 303 (*Hesperophasia*).—Calif.; Oreg. **N. comb.**

Tribe EUTHERINI

The few known hosts of Eutherini are adult Pentatomidae.

Genus EUTHERA Loew

Euthera Loew, 1866b: 46 (Cent. 7, no. 85). Type-species, *tentatrix* Loew (mon.).

REFERENCE: Brooks, 1945a (key).

bicolor Coquillett, 1902g: 114.—Tex.; Ark., Mexico.
setifacies Brooks, 1945a: 79.—B.C.; Wash., Maine.
tentatrix Loew, 1866b: 46 (Cent. 7, no. 85).—N.Y.; Ill. to Mass., s. to Tex. and Fla., also Calif., N. Mex.

Tribe CHIRICAHUIINI

Genus CHIRICAHUIA Townsend

Chiricahuia Townsend, 1918a: 177. Type-species, *cavicola* Townsend (mon.).

cavicola Townsend, 1918a: 178.—Ariz.

Tribe PALPOSTOMATINI

As far as known, the species of Palpostomatini parasitize adult scarabaeid beetles.

Genus Eutrixopsis Townsend

Eutrixopsis Townsend, 1919c: 166. Type-species, *javana* Townsend (orig. des.).

javana Townsend, 1919c: 166.—Java; Japan to Java, introd. N.J., not estab. Townsend, 1938b: 216, maintains that the introduced form, from Japan, was a different species.

Genus Hamaxia Walker

Hamaxia Walker, 1860b: 153. Type-species, *incongrua* Walker (orig. des., as gen. n., sp. n.).

Ochromeigenia Townsend, 1919b: 578. Type-species, *ormioides* Townsend (orig. des.) = *incongrua* Walker.

incongrua Walker, 1860b: 153.—Molucca Is. (Amboina); Japan and Korea to East Indies, introd. Pa. and N.J., not estab.

ormioides Townsend, 1919b: 578 (*Ochromeigenia*).—Java.

Subfamily PROSENINAE

(Dexiinae of authors)

Most of the species of Proseninae parasitize larvae of Coleoptera, but some attack certain lepidopterous larvae and nocturnal Orthoptera.

Tribe GLAUROCARINI

Genus CENOSOMA Wulp

Cenosoma Wulp, 1890: 44, key. Type-species, *signiferum* Wulp (sub. mon., Wulp, 1890: 167).

signiferum Wulp, 1890: 167.—Mexico; Oreg., Calif. to La., also Ont. and Que., s. to Fla.

Genus OESTROPHASIA Brauer and Bergenstamm

Oestrophasia Brauer and Bergenstamm, 1889: 145 (1889: 77). Type-species, *clausa* Brauer and Bergenstamm (Townsend, 1892b: 133).

calva Coquillett, 1920g: 109.—Ariz., Ont.; Calif. to Tex. and Mexico, also Mich. to Mass., s. to Fla.

clausa Brauer and Bergenstamm, 1889: 146 (1889: 78).—Colo.; Idaho, Calif., Utah, Ariz., N. Mex.

setosa Coquillett, 1902g: 110.—Colo.

Tribe ORMIINI

The species of the tribe Ormiini are parasites of nocturnal Orthoptera.

REFERENCES: Sabrosky, 1953c (rev.); Nutting, 1953 (biol.).

Genus EUPHASIOPTERYX Townsend

Euphasiopteryx Townsend, 1915a: 23. Type-species, *Phasiopteryx australis* Townsend (orig. des.).

brevicornis brevicornis (Townsend), 1919b: 548 (*Ormia*).—Tex.
ssp. **nuttingi** Sabrosky, 1953c: 293.—Mass.; N.Y. and Mass., s. to Va., also Kans.
dominicana (Townsend), 1919b: 548 (*Ormia*).—Dominican Republic; Fla., Cuba, P.R., Guatemala, Panama.
ochracea (Bigot), 1888a: 268 (*Pyrrosia*).—Mexico; Colo. to Mo., s. to Ariz. and Mexico, also Mich., N.C., Fla.
montana Townsend, 1912a: 114 (*Phasiopteryx*).—Colo.
reinhardi Sabrosky, 1953c: 291.—Ohio; N.J., Tex.

Genus ORMIA Robineau-Desvoidy

Ormia Robineau-Desvoidy, 1830: 428. Type-species, *punctata* Robineau-Desvoidy (mon.).
Phasiopteryx Brauer and Bergenstamm, 1889: 147 (1889: 79). Type-species, *bilimekii* Brauer and Bergenstamm (Coquillett, 1910b: 588).

bilimekii (Brauer and Bergenstamm), 1889: 147 (1889: 79) (*Phasiopteryx*).—Mexico; Tex.
lineifrons Sabrosky, 1953c: 175.—P.R.; Mexico (Baja Calif.), Tex. to Fla.
punctata Robineau-Desvoidy, 1830: 428.—Antilles; Fla., Cuba, Haiti, P.R.
punctata Coquillett, 1895j: 52 (*Clytiomyia*).—Fla.

Tribe TRIXODINI

Genus TRIXODES Coquillett

Trixodes Coquillett, 1902a: 201. Type-species, *obesus* Coquillett (orig. des.).

obesus Coquillett, 1902a: 202.—Mexico (Chih.); Ariz., N. Mex.

Tribe TRIXINI

Some members of the tribe Trixini parasitize scarabaeid grubs in the soil. Species of *Phasiops* have been reared from *Crambus* larvae webbing maize roots, and from *Tabanus* larvae.

Genus EUMEGAPARIA Townsend

Eumegaparia Townsend, 1908: 58. Type-species, *Megaparia flaveola* Coquillett (orig. des.).

flaveola (Coquillett), 1902g: 121 (*Megaparia*).—Colo.; B.C. to Mont., s. to Ariz. and Colo.

Genus PHASIOPS Coquillett

Phasiops Coquillett, 1899d: 219. Type-species, *flavus* Coquillett (orig. des., as gen. n., sp. n.).

flavus Coquillett, 1899d: 219.—N.J.; Ill. to N.Y. and N.J., also La., Fla.

Tribe AULACEPHALINI

Flies of the genus *Eutrixa* are nocturnal and larviposit in adult *Phyllophaga*.

Genus EUTRIXA Coquillett

Eutrixa Coquillett, 1897: 72. Type-species, *Tachina masuria* Walker (orig. des.; misident.) = *exilis* (Coquillett).

exilis (Coquillett), 1895j: 53 (*Clytiomyia*).—N.H.; Minn. to N.H., s. to Tex. and Ga., also Wash., Calif., Ariz.

laxifrons Reinhard, 1962b: 216.—Ariz.; Calif.

Genus ISIDOTUS Reinhard

Isidotus Reinhard, 1962b: 215. Type-species, *incanus* Reinhard (orig. des.).

incanus Reinhard, 1962b: 216.—Ariz.

Tribe DEXILLINI

(Dexiini of authors)

The species of the tribe Dexillini are parasites of white grubs such as *Phyllophaga*, *Popillia*, and *Melolontha*. For an explanation of the use of Dexiini, see under *Dexia*.

Genus DEXILLA Westwood

Dexilla Westwood, 1840: 140. Type-species, *Musca rustica* Fabricius (orig. des.).

Dexia, authors, not Meigen.

rustica (Fabricius), 1775: 777 (*Musca*).—Denmark; introd. N.Y., ?estab.
vacua (Fallén), 1817d: 240 (*Musca*).—Sweden; introd. N.Y., ?estab.
ventralis (Aldrich), 1925c: 33 (*Dexia*).—Korea; introd. N.J., estab.

Genus MEGAPARIA Wulp

Megaparia Wulp, 1891b: 212, key. Type-species, *venosa* Wulp (sub. mon., Wulp, 1891b: 240.).

venosa Wulp, 1891b: 240.—Mexico; Ariz.

Genus MEGAPARIOPSIS Townsend

Megapariopsis Townsend, 1915a: 22. Type-species, *Megaparia opaca* Coquillett (orig. des.).

opaca (Coquillett), 1899d: 218 (*Megaparia*).—Fla.; Nebr. to Tex., also Va. to Fla.

Genus MICROPHTHALMA Macquart

Microphthalma Macquart, 1843a: 241 (1843: 84). Type-species, *nigra* Macquart (orig. des.) = *disjuncta* (Wiedemann).
Microphthalmia (error) Adams *in* Williston, 1908: 376.
Eumicrophthalma Townsend, 1915l: 97. Type-species, *shannoni* Townsend (orig. des.).

REFERENCE: Aldrich, 1926c (rev.).

disjuncta (Wiedemann), 1824: 45 (*Tachina*; as *disiuncta*).—N. Amer.; B.C. to Ont., all U.S., Mexico, Guatemala.
distincta (error) Aldrich, 1926c: 1, 5.
trifasciata Say, 1829: 174 (1859b: 365) (*Miltogramma*).—Ind.
nigra Macquart, 1843a: 242 (1843: 85).—Pa.
apicalis Walker, 1849: 699 (*Trixa*).—Unknown.
trixoides Walker, 1849: 760 (*Tachina*).—Ga.
europaea Egger, 1860: 801.—Europe; introd. N.Y., not estab.
michiganensis (Townsend), 1892a: 111 (*Megaprosopus*).—Mich.; Alta., S. Dak. to Que., s. to Iowa and Md., also N. Mex., Tex.
phyllophagae Curran, 1925g: 16.—Que.
obsoleta (Wulp), 1890: 87 (*Trixa*).—Mexico; Calif. to N. Mex., Guatemala.
sordida Giglio-Tos, 1893a: 3.—Mexico.
pruinosa Coquillett, 1902a: 200.—N. Mex.
ruficeps Aldrich, 1926c: 6.—N. Mex.; Ariz., Kans., Tex.
shannoni (Townsend), 1915l: 98 (*Eumicrophthalma*).—D.C.

Tribe MYIOPHASIINI

Members of the tribe Myiophasiini are parasites of weevil grubs, and the females larviposit at weevil punctures in plant tissues.

Genus MYIOPHASIA Brauer and Bergenstamm

Myiophasia Brauer and Bergenstamm, 1891: 362 (1891: 58). Type-species, *Tachina aenea* Wiedemann (mon.)=*australis* Townsend.

Phasioclista Townsend, 1891c: 369. Type-species, *metallica* Townsend (orig. des.).

Ennyomma Townsend, 1891c: 371. Type-species, *clistoides* Townsend (orig. des.).

Pseudoclista Brauer and Bergenstamm, 1893: 192 (1893: 104). Type-species, *atra* Brauer and Bergenstamm (orig. des.).

Ennyommopsis Townsend, 1915d: 109. Type-species, *Loewia nigrifrons* Townsend (orig. des.).

Euloewia Townsend, 1915d: 109. Type-species, *Loewia globosa* Townsend (orig. des.).

Megaeuloewia Townsend, 1919b: 545. Type-species, *morinioides* Townsend (orig. des.).

The species of *Myiophasia* are difficult to distinguish and a revision is badly needed. Although the name *aenea* has been applied to several Nearctic species, on the theory that the stated type locality "Montevideo" was an error, it is now known that *Myiophasia* occurs in Uruguay, and we accept the locality as stated.

REFERENCE: Townsend, 1915d (key).

australis Townsend, 1916d: 11 (n. name for *aenea* Wiedemann).—Uruguay. Apparently not Nearctic.

aenea Wiedemann, 1830: 298 (*Tachina;* preocc. Meigen, 1824).—Uruguay.

clistoides (Townsend), 1891c: 371 (*Ennyomma*).—Ill.; Calif., Kans., N. Mex., Tex.

globosa (Townsend), 1892h: 129 (*Loewia*).—Fla.; Ariz., Tex.

lasia Reinhard, 1959b: 225.—Wyo.; Wash., Oreg., Utah.

mesensis (Townsend), 1915d: 110, 112 (*Ennyomma;* as *clistoides* ssp.).—N. Mex.; Kans., Tex.

metallica (Townsend), 1891c: 370 (*Phasioclista*).—Ill.; Kans. to Mich. to N.H., s. to Tex. and Fla.

morinioides (Townsend), 1919b: 546 (*Megaeuloewia*).—N. Mex.; Colo.

neomexicana (Townsend), 1915d: 110, 112 (*Ennyomma*; as *robusta* ssp.).—N. Mex., Mexico.

nigrifrons (Townsend), 1892e: 77 (*Loewia*).—Ill.; Mich.
americana Townsend, 1892e: 78 (*Clista*).—Ill.
oregonensis Townsend, 1915d: 111, 112 (as *setigera* ssp.).—Oreg.; B.C. to Calif. and Utah.
robusta Coquillett, 1897: 51.—Calif.; B.C.
ruficornis (Townsend), 1892e: 77 (*Loewia*).—Mich.; Colo.
setigera Townsend, 1908: 56.—N. Mex.; Oreg. to Colo., s. to Calif. and Tex.
sigilla Reinhard, 1959b: 226.—Wyo.

Tribe MELISONEURINI

Genus MICROCHAETINA Wulp

Microchaetina Wulp, 1891b: 212. Type-species, *cinerea* Wulp (sub. mon., Wulp, 1891b: 241).

REFERENCE: Reinhard, 1942b (key).

cinerea Wulp, 1891b: 241.—Mexico; ?Fla.
mexicana (Townsend), 1892e: 168 (*Rhinophora*).—N. Mex.; Utah to Mo., s. to N. Mex. and Tex., also Fla.
setifacies Reinhard, 1942b: 88.—Kans. **N. syn.**
teleta Reinhard, 1962b: 217.—Calif.; Utah.
valida (Townsend), 1892e: 167 (*Rhinophora*).—N. Mex.; Idaho to Calif., Mexico, and Tex.

Genus ORESTILLA Reinhard

Orestilla Reinhard, 1944b: 62. Type-species, *primoris* Reinhard (orig. des.).

primoris Reinhard, 1944b: 63.—N. Mex.

Genus ORTHOSIMYIA Reinhard

Orthosia Reinhard, 1944b: 60 (preocc. Ochsenheimer, 1816). Type-species, *montana* Reinhard (orig. des.).
Orthosimyia Reinhard, 1944c: 159 (n. name for *Orthosia* Reinhard). Type-species, *Orthosia montana* Reinhard (aut.).

montana (Reinhard), 1944b: 61 (*Orthosia*).—Calif.
palaga (Reinhard), 1944b: 62 (*Orthosia*).—Calif.

Genus PHALACROPHYTO Townsend

Phalacrophyto Townsend, 1915a: 23. Type-species, *Paraphyto sarcophagina* Coquillett (orig. des.).

sarcophagina (Coquillett), 1902g: 118 (*Paraphyto*).—Ill.; Colo. to Ill., s. to Okla.

Genus REINHARDIANA Arnaud

Hypenomyia Townsend, 1919b: 545 (preocc. Grimshaw, 1901). Type-species, *petiolata* Townsend (orig. des.).

Reinhardiana Arnaud, 1952: 58 (n. name for *Hypenomyia* Townsend). Type-species, *Hypenomyia petiolata* Townsend (aut.).

REFERENCE: Reinhard, 1942b (key).

petiolata (Townsend), 1919b: 545 (*Hypenomyia*).—Ariz.; B. C., Oreg. to Colo., s. to Mexico.

Genus STEVENIOPSIS Townsend

Steveniopsis Townsend, 1919b: 546. Type-species, *sinuata* Towsend (orig. des.).

REFERENCE: Reinhard, 1942b (key).

rubidiapex (Reinhard), 1942b: 89 (*Hypenomyia*).—Utah; Wash. to Wyo., s. to Calif. and N. Mex. **N. comb.**

sinuata Townsend, 1919b: 547.—N. Mex.; Wash., Calif., Colo.

subnitens (Reinhard), 1942b: 91 (*Hypenomyia*).—Utah. **N. comb.**

Genus WEBSTERIANA Walton

Websteriana Walton, 1914a: 180. Type-species, *Tricogena costalis* Coquillett (orig. des.).

costalis (Coquillett), 1897: 130 (*Tricogena*).—Colo.; Idaho, Calif. to Kans., N. Mex.

Tribe PROSENINI

The species of Prosenini are parasites of larvae of *Popillia*, *Phyllophaga*, and other Coleoptera.

Genus ARCTOPHYTO Townsend

Arctophyto Townsend, 1915a: 22. Type-species, *Paraphyto borealis* Coquillett (orig. des.).

Oreophyto Townsend, 1916i: 302. Type-species, *ochreicornis* Townsend (orig. des.).

REFERENCE: Curran, 1924l (partial key).

algens Curran, 1926d: 215.—Ont.; Colo.

borealis (Coquillett), 1900h: 439 (1904: 53) (*Paraphyto*).—Alaska; B.C., Idaho.

erythrocera (Thomson), 1869: 523 (*Miltogramma*).—Calif.
gillettei (Townsend), 1892e: 68 (*Trixa*).—Colo.
gilletti, error.
johnsoni West, 1924: 187.—Mass.
marginalis Curran, 1924l: 302.—B.C.; B.C. to Mont., s. to Oreg. and Colo. ?=*borealis*.
ochreicornis (Townsend), 1916i: 302 (*Oreophyto*).—Oreg.; B.C., Calif. ?=*erythrocera*.
ochricornis, error.
regina West, 1924: 187.—Mass.
wickhami Townsend, 1915a: 22.—Alta.; Alaska.
gillettei Townsend of Coquillett, 1897: 122.

Genus ATELOGLOSSA Coquillett

Ateloglossa Coquillett, 1899d: 19 (as *Atelogossa;* correct in Index to Volume, p. 269). Type-species, *cinerea* Coquillett (orig. des., as gen. n., sp. n.).

REFERENCE: Curran, 1930j (key).

cinerea Coquillett, 1899d: 219.—Maine; Iowa to Maine and Conn., also S.C.
wheeleri West, 1924: 186.—Conn. **N. syn.**
calyptrata West, 1925: 128.—N.Y. **N. syn.**
glabra West, 1925: 128.—N.Y.
trivittata Curran, 1930j: 92.—N.Y.

Genus DINERA Robineau-Desvoidy

Dinera Robineau-Desvoidy, 1830: 307. Type-species, *grisea* Robineau-Desvoidy (Townsend, 1916d: 6)=*grisescens* (Fallén).

grisescens (Fallén), 1817d: 243 (*Musca*).—Sweden; B.C. to Maine, s. to Ariz., N. Mex., Kans., and N.J., Europe.
punctata Robineau-Desvoidy, 1830: 308.—Pa.
futilis West, 1924: 191.—N.J.
cremides, authors, not Walker.

Genus DOLICHOCODIA Townsend

Dolichocodia Townsend, 1908: 59. Type-species, *Myocera bivittata* Coquillett (orig. des.).

bivittata (Coquillett), 1902g: 121 (*Myocera*).—N. Mex.; Ariz.
furacis Reinhard, 1958d: 277.—Tex.; Ariz., N. Mex.

Genus HESPERODINERA Townsend

Hesperodinera Townsend, 1919b: 551. Type-species, *cinerea* Townsend (orig. des.).

cinerea Townsend, 1919b: 551.—N. Mex.; B.C. to Man., s. to N. Mex.
rava, authors, in part, not Wulp.

Genus MOCHLOSOMA Brauer and Bergenstamm

Mochlosoma Brauer and Bergenstamm, 1889: 126 (1889: 58). Type-species, *validum* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

REFERENCE: Reinhard, 1958a (rev.).

duplare Reinhard, 1958a: 100.—Mexico; Ariz.
illocale Reinhard, 1958a: 102.—Oreg.; B.C. to Mont., s. to Calif. and N. Mex., also Ohio.
indutile Reinhard, 1958a: 104.—Calif.; Ariz.
opipare Reinhard, 1958a: 105.—Ariz.; N. Mex., Mexico.
validum Brauer and Bergenstamm, 1889: 126, 168 (1889: 58, 100).—Pa.; B.C. to Man. to Mass., s. to Calif., Mexico, Colo., and Pa.

Genus NIMIOGLOSSA Reinhard

Nimioglossa Reinhard, 1945a: 35. Type-species, *ravida* Reinhard (orig. des.).

planicosta Reinhard, 1945a: 36.—Utah; Calif., Ariz.
ravida Reinhard, 1945a: 36.—N. Mex.; Calif., Utah, Ariz., Mexico.

Genus PROSENA Lepeletier and Serville

Calirrhoe Meigen, 1800: 39. Type-species, *Stomoxys siberita* Fabricius (sub. mon., Hendel, 1908b: 68). Suppressed by I.C.Z.N., 1963b: 339.

Prosena Lepeletier and Serville *in* Latreille et al., 1828: 499, 500. Type-species, *Stomoxys siberita* Fabricius (orig. des.).

siberita (Fabricius), 1775: 798 (*Stomoxys*).—Denmark; Europe, introd. ne. U.S., estab. N.J.
sibirita, emend. or error.

Genus PROSENOIDES Brauer and Bergenstamm

Prosenoides Brauer and Bergenstamm, 1891: 370 (1891: 66). Type-species, *papilio* Brauer and Bergenstamm (mon.) =*curvirostris* (Bigot).

REFERENCE: Reinhard, 1954 (rev.).

assimilis Reinhard, 1954: 412.—Tex.; N. Mex. to Kans. and Ark., s. to Mexico, also Ohio.
curvirostris, authors, not Bigot.
flavipes Coquillett, 1895a: 314.—Fla.; Ga., Cuba.
grandis Reinhard, 1954: 413.—Ariz.; Mexico (Chih.).

Genus PTILODEXIA Brauer and Bergenstamm

Ptilodexia Brauer and Bergenstamm, 1889: 119 (1889: 51). Type-species, *carolinensis* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).
Myoceropsis Townsend, 1915a: 23. Type-species, *Rhynchiodexia flavotessellata* Walton (orig. des.).
Rhamphinina, authors, not Bigot.
Rhynchiodexia, authors, not Bigot.
Rhynchodexia, emend.

REFERENCE: Curran, 1930j (key).

A revision of this common but exceedingly difficult group is badly needed. No attempt has been made here to suggest synonymy, or, in most cases, to give distribution. The generic position of most species has been confirmed from the types.

agilis Reinhard, 1943c: 22.—Tex.; N.Y.
albifrons (Walker), 1852: 317 (*Dexia*).—U.S.
arida (Curran), 1930j: 93 (*Rhynchiodexia*).—Ariz.
canescens (Walker), 1852: 310 (*Dexia*).—U.S.
carolinensis Brauer and Bergenstamm, 1889: 119 (1889: 51).—S.C.
cerata (Walker), 1849: 847 (*Dexia*).—N. Amer.
confusa (West), 1924: 185 (*Rhynchodexia*).—N.Y.; Man. to N.H., s. to Tex. and Va.
dubia (Curran), 1930j: 93 (*Rhynchiodexia*).—N.Y.
elevata (West), 1925: 135 (*Rhynchodexia*).—N.Y.; N.J.
levata (error) Curran, 1930j: 93.
flavotessellata (Walton), 1914a: 176 (*Rhynchiodexia*).—N. Mex.
halone (Walker), 1849: 837 (*Dexia*).—Ga.
harpasa (Walker), 1849: 840 (*Dexia*).—N. Amer.
hucketti West, 1925: 131.—N.Y.; N.J.

incerta West, 1925: 131.—N.Y.; Mich., Tex.
leucoptera West, 1925: 132.—N.Y.
major (Bigot), 1888a: 265 (*Rhamphinina*).—Wash., Mexico.
mathesoni (Curran), 1930j: 93 (*Rhynchiodexia*).—Mich.
minor West, 1925: 132.—N.Y.; Ind.
neotibialis West, 1924: 184.—Conn.; N. Dak., Ohio to Mass., s. to Va., also Utah, Colo., Ariz., Tex.
obscura West, 1925: 133.—N.Y.; N.J.
ponderosa (Curran), 1930j: 93 (*Rhynchiodexia*).—Fla.
prexaspes (Walker), 1849: 837 (*Dexia*).—Ga.
proxima West, 1925: 133.—N.Y.
robusta (Curran), 1930j: 93 (*Dinera*).—N.Y.
rufipennis (Macquart), 1843a: 244 (1843: 87) (*Dexia*).—N.S.
simplex (Bigot), 1888a: 266 (*Myocera*).—Mexico; scattered U.S. records (?error).
translucipennis (West), 1925: 135 (*Rhynchodexia*).—N.Y. ?=*leucoptera*.

Unplaced Species of Prosenini

abdominalis Robineau-Desvoidy, 1830: 306 (*Estheria*).—N.S.
tibialis Robineau-Desvoidy, 1830: 306 (*Estheria*).—N.S.

Tribe THERESIINI

Species of Theresiini are parasites in wood-boring coleopterous larvae such as *Monochamus*, in soil-living grubs, and in lepidopterous stalk-borers such as *Diatraea*. A species of *Carinosillus* is a parasite of horse fly larvae.

Genus CARINOSILLUS Reinhard

Carinosillus Reinhard, 1943b: 84. Type-species, *pravus* Reinhard (orig. des.).
Myocera, authors, in part, not Robineau-Desvoidy.
Myiocera, emend. or error.

amicabilis (West), 1925: 130 (*Myiocera*).—N.Y. **N. comb.,** H. J. Reinhard *in litt.*
isolatus (West), 1924: 188 (*Myiocera*).—N.H. **N. comb.**
novaeangliae (West), 1924: 189 (*Myiocera*).—Conn. **N. comb.**
pravus Reinhard, 1943b: 85.—N.Y.; Ariz., Mich., Ohio, N.C.
tabanivorus (Hall), 1937a: 206 (*Myocera*).—Minn.; Wis., Mich. **N. comb.**

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Genus EUCHAETOGYNE Townsend

Euchaetogyne Townsend, 1908: 59. Type-species, *Hystrichodexia roederi* Williston (orig. des.).

roederi (Williston), 1893c: 77 (*Hystrichodexia*).—Ariz.; N. Mex., Mexico.

Genus EUTHERESIA Townsend

Eutheresia Townsend, 1911a: 149. Nomen nudum.
Eutheresia Townsend, 1912a: 117. Type-species, *monohammi* Townsend (orig. des., as gen. n., sp. n.).

interrupta Curran, 1929c: 33.—Ill.; Iowa, Pa., N.C., Tex.
monohammi Townsend, 1912a: 117.—Ga.; Maine to Ga., also Minn.
montana West, 1924: 188.—Vt.
nipigonensis (Curran), 1926b: 89 (*Billaea*).—Ont. **N. comb.,** J. F. McAlpine *in litt.*
satisfacta West, 1925: 129.—N.Y.; Calif., Colo., Mich., D.C., Ga.
sibleyi West, 1925: 130.—N.Y.
trivittata Curran, 1929c: 33.—Ont.

Genus NICEPHORUS Reinhard

Nicephorus Reinhard, 1944b: 64. Type-species, *floridensis* Reinhard (orig. des.).

floridensis Reinhard, 1944b: 64.—Fla.; Ga.

Genus OPSOTHERESIA Townsend

Opsotheresia Townsend, 1919b: 552. Type-species, *obesa* Townsend (orig. des.).
Paraprosena, authors, not Brauer and Bergenstamm.

bigelowi (Curran), 1926b: 88 (*Gymnodexia*).—Iowa; Wis. to Ont., s. to Kans. and Pa. **N. comb.,** H. J. Reinhard *in litt.*
nigricornis Reinhard, 1939a: 67.—Wis. **N. syn.,** H. J. Reinhard *in litt.*
apicalis, authors (as *Paraprosena*), not Robineau-Desvoidy.
obesa Townsend, 1919b: 552.—Md.; N.Y. and Mass., s. to Ga.
protrudens West, 1924: 190 (*Myiocera*).—N.Y. **N. syn.,** H. J. Reinhard *in litt.*
compacta West, 1925: 130 (*Myiocera*).—N.Y. **N. syn.,** H. J. Reinhard *in litt.*

Genus PARATHERESIA Townsend

Paratheresia Townsend, 1915e: 65. Type-species, *signifera* Townsend (orig. des.) = *claripalpis* (Wulp).

The genus *Paratheresia* is predominantly Neotropical, and parasitizes various species of *Diatraea*. There is considerable difference of opinion as to whether proposed names represent environmentally adapted species or races of one variable species.

REFERENCE: Emden, 1949 (nomenclature).

claripalpis (Wulp), 1895: 268, key (1896: 280, descr.) (*Sarcophaga*).—Mexico; introd. La. and Fla., estab. Fla., Neotropical.
signifera Townsend, 1915e: 66.—Peru.

Genus THERESIA Robineau-Desvoidy

Theresia Robineau-Desvoidy, 1830: 325. Type-species, *tandrec* Robineau-Desvoidy (mon.) = *rutilans* (Fabricius).

Sardiocera Brauer and Bergenstamm, 1889: 119 (1889: 51). Type-species, *valida* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.) = *rutilans* (Fabricius).

rutilans (Fabricius), 1781: 436 (*Musca*).—"Americae meridionalis insulis" (possibly is. of S.C. and Ga. coast); Nebr. and Kans. to Maine, s. to Fla., also N. Mex.
valida Wiedemann, 1830: 387 (*Musca*).—S.C. (as Unknown).
tandrec Robineau-Desvoidy, 1830: 326.—Carolina.
ruficornis Bigot, 1888a: 266 (*Myocera*).—Md.
melanogaster Bigot, 1888a: 269 (*Phorostoma*).—N.Y.
valida Brauer and Bergenstamm, 1889: 167 (1889: 99) (*Sardiocera*).—S.C.

Genus URSOPHYTO Aldrich

Ursophyto Aldrich, 1926d: 14. Type-species, *rufigena* Aldrich (orig. des.) = *nigriceps* (Bigot).

nigriceps (Bigot), 1888a: 267 (*Myostoma*).—Wash.; B.C. to Mont., s. to Calif. and Colo.
rufigena Aldrich, 1926d: 14.—Wash. **N. syn.**

Genus VIBRISSOTHERESIA Reinhard

Vibrissotheresia Reinhard, 1943b: 86. Type-species, *pechumani* Reinhard (orig. des.).

pechumani Reinhard, 1943b: 87.—N.Y.

Subfamily TACHININAE

(Larvaevorinae)

Species of the subfamily Tachininae parasitize many kinds of lepidopterous larvae, especially cutworms, armyworms, and stalk borers such as *Diatraea*.

Tribe MACROMYINI

Genus BOMBYLIOMYIA Brauer and Bergenstamm

Bombyliomyia Brauer and Bergenstamm, 1889: 131 (1889: 63). Type-species, *Hystricia flavipalpis* Macquart (mon.).

Tachinalia Curran, 1934a: 442, 466. Type-species, *hispida* Curran (orig. des.) = *soror* (Williston).

soror (Williston), 1886a: 298 (*Hystricia*).—Ariz.; Oreg., Calif., Mexico.

hispida Curran, 1934a: 466 (*Tachinalia*).—Calif. **N. syn.**

flavipalpis, authors, not Macquart.

Genus BOMBYLIOPSIS Townsend

Bombyliopsis Townsend, 1915a: 23. Type-species, *Tachina abrupta* Wiedemann (orig. des.).

Hystricia, authors, not Macquart.

REFERENCE: Curran, 1942a (key, as *Hystricia*).

abrupta (Wiedemann), 1830: 293 (*Tachina*).—N. Amer.; B.C. to N.S., s. to Calif., Mexico, Tex., Minn., and Ga.

vivida Harris, 1841: 411 (*Tachina*).—Mass.

finitima Walker, 1849: 707 (*Tachina*).—N.S., U.S.

fulvida Bigot, 1887b: cxxxix (*Hystricia*).—N. Amer.

Genus CHLOROHYSTRICIA Townsend

Chlorohystricia Townsend, 1927: 244. Type-species, *purpurea* Townsend (orig. des.) = *reinwardtii* (Wiedemann).

cyaneiventris (Wulp), 1884: ccxci (*Hystricia*).—Mexico; Ariz.

Genus MACROMYA Robineau-Desvoidy

Macromya Robineau-Desvoidy, 1830: 322. Type-species, *depressa* Robineau-Desvoidy (Townsend, 1916d: 7).

Unnamed sp.—Ariz., Tex.

Tribe TACHININI

(Larvaevorini, Echinomyini)

The members of the tribe Tachinini parasitize a great variety of lepidopterous larvae.

Genus METOPOTACHINA Townsend

Metopotachina Townsend, 1915a: 21. Type-species, *Echinomyia palpalis* Coquillett (orig. des.).

Fabriciella, authors, in part, not Bezzi.

intermedia (Reinhard), 1942a: 27 (*Fabriciella*).—Calif. **N. comb.**
margella (Reinhard), 1942a: 28 (*Fabriciella*).—N. Mex. **N. comb.**
orbitalis (Reinhard), 1942a: 26 (*Fabriciella*).—Utah; Calif. to Wyo. and Nebr. **N. comb.**
palpalis (Coquillett), 1902g: 120 (*Echinomyia*).—Calif.; N. Mex.
pictilis (Reinhard), 1942a: 25 (*Fabriciella*).—Oreg. **N. comb.**

Genus NOWICKIA Wachtl

Nowickia Wachtl, 1894: 142. Type-species, *Echinomyia regalis* Rondani (orig. des.) = *marklini* (Zetterstedt).

Fabriciodes Townsend, 1916e: 26. Type-species, *montana* Townsend (orig. des.).

Eularvaevora Townsend, 1916e: 27. Type-species, *Tachina algens* Wiedemann (orig. des.; misident.) = *hispida* (Tothill).

Fabriciella, authors, in part, not Bezzi.

References: Tothill, 1924b (rev.); Rowe, 1931 (rev., males); both as *Fabriciella*.

Subgenus ECHINOMYODES Townsend

Echinomyodes Townsend, 1916e: 25 (as genus). Type-species, *piceifrons* Townsend (orig. des.).

actinosa (Reinhard), 1938: 8 (*Fabriciella*).—Colo.; Oreg. **N. comb.**
brevirostris (Tothill), 1924b: 264 (*Fabriciella*).—B.C.; B.C. to Calif. and Colo. **N. comb.**
canadensis (Tothill), 1924b: 264 (*Fabriciella*).—Que.; Alta., Colo., Mich. **N. comb.**
compressa (Tothill), 1924b: 262 (*Fabriciella*).—Colo.; Wash., Oreg., Calif. **N. comb.**
egula (Reinhard), 1938: 9 (*Fabriciella*).—Colo.; Oreg. to Wyo., s. to Calif. and N. Mex. **N. comb.**
evanida (Reinhard), 1953a: 53 (*Fabriciella*).—Colo.; Calif., Utah, Ariz. **N. comb.**

invelata (Reinhard), 1953a:, 51 (*Fabriciella*).—Calif.; Oreg. **N. comb.**

latifacies (Tothill), 1924b: 262 (*Fabriciella*).—Nev.; B.C. to Wyo., s. to Nev. and N. Mex. **N. comb.**

latigena (Tothill), 1924b: 262 (*Fabriciella*).—B.C.; B.C. to Mont., s. to Calif., N. Mex., and Kans., also Mich.—**N. comb.**

longiunguis (Tothill), 1924b: 265 (*Fabriciella*).—B.C. **N. comb.**

lutzi (Curran), 1925e: 256 (*Fabriciella*).—Colo.; Wash. to Wyo., s. to Calif. and N. Mex. **N. comb.**

nigella (Reinhard), 1938: 10 (*Fabriciella*).—Mont.; Calif., Nev., Utah. **N. comb.**

picea (Robineau-Desvoidy), 1830: 44 (*Echinomya*).—N.S. Unrecognized. **N. comb.**

piceifrons (Townsend), 1916e: 25 (*Echinomyodes*).—Vt.; N.W.T. to N.S., s. to Calif., N. Mex., and Mass., also N.C. ?= *picea*. **N. comb.**

plumasana (Reinhard), 1953a: 53 (*Fabriciella*).—Calif.; Ariz. **N. comb.**

spinosa (Tothill), 1924b: 263 (*Fabriciella*).—B.C.; B.C. to Colo., s. to Calif. and Ariz.—**N. comb.**

tahoensis (Reinhard), 1938: 11 (*Fabriciella*).—Nev.; B.C., Calif. Ariz. **N. comb.**

Subgenus FABRICIELLA Bezzi

Fabricia Latreille, 1829: 510 (preocc. de Blainville, 1828). Type-species, *Musca fera* Linnaeus (mon.; misident.)=*ferox* (Panzer). **N. syn.**

Fabricia Robineau-Desvoidy, 1830: 42 (preocc. de Blainville, 1828). Type-species, *Musca ferox* Panzer (mon.). **N. syn.**

Fabriciella Bezzi, 1906: 49 (as genus; n. name for *Fabricia* Robineau-Desvoidy). Type-species, *Musca ferox* Panzer (aut.). **N. syn.**

Larvaevoropsis Townsend, 1916e: 24. Type-species, *Echinomyia dakotensis* Townsend (orig. des.)=*florum* (Walker). **N. syn.**

acuminata (Tothill), 1924b: 260 (*Fabriciella*).—Colo.; Calif., Ariz., N. Mex., Mexico. **N. comb.**

cordiforceps (Rowe), 1931: 649 (*Fabriciella*).—Utah; Wash. to Colo., s. to Calif. and N. Mex. **N. comb.**

florum (Walker), 1849: 722 (*Tachina*).—Ont., N.S.; Wash. to Man. to N.S., s. to Mexico (Chih.), S. Dak., Mich., and Ga. **N. comb.**

dakotensis Townsend, 1892a: 94 (*Echinomyia*).=S. Dak. **N. comb.**

orientalis Townsend, 1916e: 25 (*Larvaevoropsis*).—N.H. **N. comb.**

planiforceps (Tothill), 1924b: 261 (*Fabriciella*).—N.C. **N. comb.**

Subgenus NOWICKIA Wachtl

emarginata (Tothill), 1924b: 260 (*Fabriciella*).—Colo.; Alaska, Alta. **N. comb.**

hispida (Tothill), 1924b: 265 (*Fabriciella*).—Ont.; Alaska, B.C. to N.S., s. to Calif., N. Mex., S. Dak., and N.Y.

ampliforceps Rowe, 1931: 673 (*Fabriciella*).—Alta. **N. syn., N. comb.**

latiforceps (Tothill), 1924b: 266 (*Fabriciella*).—Que.; B.C., Alta., Mont., Ariz., Maine. **N. comb.**

argentea Rowe, 1931: 654 (*Fabriciella*).—Alta. **N. syn., n. comb.**

montana (Townsend), 1916e: 26 (*Fabriciodes*).—N.H.; Oreg., Colo., N.Y., Labr., Maine. **N. comb.**

nivalis (Tothill), 1924b: 264 (*Fabriciella*).—Alaska; Alta. **N. comb.**

pilosa (Tothill), 1924b: 263 (*Fabriciella*).—B.C.; Alaska to Mont., s. to Oreg. and N. Mex., also Mich. to N.B. **N. comb.**

Subgenus RHACHOGASTER Townsend

Rhachogaster Townsend, 1915c: 291 (as genus). Type-species, *kermodei* Townsend (orig. des.)=*algens* (Wiedemann). **N. syn.**

Upodemocera Townsend, 1915f: 228. Type-species, *robinsoni* Townsend (orig. des.)=*nitida* (Wulp). **N. syn.**

Eupodermocera (error) Tothill, 1924b: 258.

algens (Wiedemann), 1830: 285 (*Tachina*).—N. Amer.; Alaska and N.W.T. to Nfld., s. to Calif., Ariz., and Mass. **N. comb.**

lapilaei Robineau-Desvoidy, 1830: 44 (*Echinomya*).—Nfld. **N. comb.**

lugubris Wulp, 1883: 20 (*Echinomyia*).—Que. **N. comb.**

kermodei Townsend, 1915c: 291 (*Rhachogaster*).—B.C. **N. comb.**

eurekana (Reinhard), 1942a: 28 (*Fabriciella*).—Calif.; B.C. **N. comb.**

latianulum (Tothill), 1924b: 266 (*Fabriciella*).—B.C.; B.C. to S. Dak., s. to Calif. and N. Mex., also Ont., N.B. **N. comb.**

latifrons (Tothill), 1924b: 260, 269 (*Fabriciella*).—N.W.T. (Walley, 1933: 168); N.W.T. to Idaho, Colo., and Kans., also Mich. **N. comb.**

nitida (Wulp), 1882a: 82 (*Jurinia*).—Ariz.; B.C. to Calif., Ariz., and Kans, also Ont. and Ohio to Mass. **N. comb.**
robinsoni Townsend, 1915f: 229 (*Upodemocera*).—Wyo. **N. comb.**
rostrata (Tothill), 1924b: 267 (*Fabriciella*).—B.C.; Alaska to Ont., s. to Calif. and N. Mex. **N. comb.**
spineiventer (Tothill), 1924b: 266 (*Fabriciella*).—B.C.; B.C. to Mont., s. to Calif. **N. comb.**

Genus PELETERIA Robineau-Desvoidy

Peleteria Robineau-Desvoidy, 1830: 39. Type-species, *abdominalis* Robineau-Desvoidy (Coquillett, 1910b: 586).
Peletieria, emend.
Echinogaster Lioy, 1864a: 1335. Type-species, *Echinomyia argentifrons* Macquart (mon.)=*prompta* (Meigen).
Chaetopeleteria Mik, 1894a: 100. Type-species, *Echinomyia popelii* Portschinsky (orig. des.).
Peleteriopsis Townsend, 1916h: 630. Type-species, *Echinomyia flaviventris* Wulp (orig. des.).

REFERENCE: Curran, 1925h (rev.).

Subgenus OXYDOSPHYRIA Townsend

Oxydosphyria Townsend, 1926: 40 (as genus). Type-species, *infernalis* Townsend (orig. des.)=*iterans* (Walker).

aclista Reinhard, 1956c: 109.—Mexico; Utah, Colo., N. Mex.
iterans (Walker), 1849: 727 (*Tachina*).—N.S.; B.C. to N.S., s. to Calif., n. Mexico, N. Mex., S. Dak., and Mass.
punctifera Walker, 1849: 728 (*Tachina*).—Mass.
infernalis Townsend, 1926: 41 (*Oxydosphyria*).—N. Mex.

Subgenus PANZERIOPSIS Townsend

Panzeriopsis Townsend, 1915c: 290 (as genus). Type-species, *curriei* Townsend (orig. des.).
Chaetopeleteria, authors, not Mik.

alberta Curran, 1925h: 234.—Alta.; Wash., Calif.
cornigera Curran, 1925h: 232.—B.C.; B.C. and Alta., s. to Calif. and Colo.
cornuta Curran, 1925h: 232.—Alta.; Mont., Wyo., Colo.
cornuticaudata Curran, 1925h: 234.—Alta.; B.C., Wyo., Colo.
curriei (Townsend), 1915c: 291 (*Panzeriopsis*).—B.C.
phairi Curran, 1925h: 233.—B.C.

Subgenus PELETERIA Robineau-Desvoidy

aenea (Staeger) *in* Zetterstedt, 1849: 3217 (*Echinomyia*).—Greenland; N.W.T. (n. Ellesmere I., Baffin I.).

aldrichi Curran, 1925h: 240.—Colo.; Utah., Wyo., N. Mex.

angulata Curran, 1925h: 236.—B.C.; B.C. and Alta., s. to Calif., also Colo.

arctica Malloch, 1919f: 57.—N.W.T.

blanda Curran, 1925h: 241.—Calif.

clara Curran, 1925h: 239.—Alta.; B.C. to Mont., s. to Calif. and N. Mex.

conjuncta Curran, 1925h: 235.—B.C.; Mont., Wyo., Colo., N. Mex.

flaviventris (Wulp), 1888: 32 (*Echinomyia*).—Mexico (Durango); N. Mex.

neglecta (Townsend), 1897a: 148 (*Echinomyia*).—N. Mex.; B.C. to Man., s. to Calif. and N. Mex.

eronis Curran, 1925h: 238.—B.C.

posticata Curran, 1925h: 241.—Calif.; B.C. to Calif. and Ariz., also Colo.

regalis Curran, 1925h: 235.—Colo.; Calif., Wyo., Ariz.

tessellata (Fabricius).—Not Nearctic.

trifasciata Curran, 1925h: 242.=Calif.

Subgenus SPHYROMYIA Bigot

Sphyromyia Bigot, 1884b: cviii (as genus). Type-species, *malleola* Bigot (mon.).

Aphriosphyria Townsend, 1927: 238. Type-species, *communis* Townsend (orig. des.)=*robusta* (Wiedemann).

anaxias (Walker), 1849: 726 (*Tachina*).—N.S.; Sask. to P.E.I., s. to Tenn., also B.C., Nev.

biangulata Curran, 1925h: 255.—Ariz.; B.C. to Wyo., s. to Calif. and N. Mex.

bryanti Curran, 1925h: 250.—Alta.; B.C. to Man., s. to Calif. and Tex.

compascua (Wulp), 1892: 192 (*Echinomyia*).—Mexico (Guerrero); Colo., Ariz., N. Mex.

convexa Curran, 1925h: 51.—N. Mex.; Wash., Colo., Calif., Mexico (Chih.).

haemorrhoa (Wulp), 1867: 145 (*Echinomyia*).—Wis.; B.C. to N.B. and Md., also Calif., Colo., N. Mex.

apicalis Walker, 1852: 275 (*Tachina*; preocc. Meigen, 1824.—Calif. (as Columbia, error; Austen, 1907: 333).

confusa Curran, 1925h: 253.—Ont.

incongrua (Reinhard), 1934e: 68 (*Cuphocera*).—Ariz.; Calif., Colo., Tex. **N. comb.**

incontesta Curran, 1926k: 171 (n. name for *neglecta* Curran).—N. Mex.; Utah, Colo., Ariz., Mexico.

neglecta Curran, 1925h: 243 (preocc. Townsend, 1897).—N. Mex.

malleola (Bigot), 1884b: cix (*Sphyromyia*).—Calif.; B.C. to Man. and Mich., s. to Calif., Mexico, and Tex.

campestre Curran, 1925h: 247.—Man.

mediana Reinhard, 1944b: 71.—Oreg.; Wash., Calif.

neotexensis Brooks, 1949: 23.—Tex.; Colo.

obsoleta Curran, 1925h: 251.—N. Mex.; B.C. to Colo., s. to Costa Rica.

setosa Curran, 1925h: 252.—Mexico (Chih.); Utah, Colo., Ariz., N. Mex.

texensis Curran, 1925h: 246.—Tex.; Calif., Ariz., Okla., Mexico, Costa Rica.

robusta, authors, not Wiedemann.

thomsoni (Williston), 1886a: 302 (*Echinomyia*; n. name for *filipalpis* Thomson).—Calif.; ?Ariz.

filipalpis Thomson, 1869: 517 (*Echinomyia*; preocc. Rondani, 1863).—Calif.

torta Reinhard, 1943c: 21.—Ariz.; Oreg., Calif.

townsendi Curran, 1925h: 252.—Mexico (Chih.); N. Mex., Tex.

valida Curran, 1925h: 255.—S.C.

Unplaced Species of *Peleteria*

hirta (Curtis), 1835b: lxxix (*Tachina*; preocc. Macquart, 1834).—Arctic N. Amer. ?=*aenea*.

rubrifrons (Bigot), 1887b: cxl (*Echinomyia*).—N. Amer.

Genus Tachina Meigen

Larvaevora Meigen, 1800: 38. Type-species, *Musca grossa* Linnaeus (Coquillett, 1910b: 557). Suppressed by I.C.Z.N., 1963b: 339.

Tachina Meigen, 1803: 280. Type-species, *Musca grossa* Linnaeus (Brauer, 1893: 489).

Echinomya Latreille, 1805: 377. Type-species, *Musca grossa* Linnaeus (Westwood, 1840: 138).

vernalis (Robineau-Desvoidy), 1830: 48 (*Echinomya*).—France; Europe, introd. New England, not estab.

magnicornis Zetterstedt, 1844: 996 (*Echinomya*).—Sweden.

Unplaced Species of Tachinini

victoria Townsend, 1897a: 148 (*Echinomyia*).—N. Mex.

Tribe DEJEANIINI

Members of the tribe Dejeaniini parasitize lepidopterous larvae such as *Catocala*, *Malacosoma*, armyworms, etc.

Genus ADEJEANIA Townsend

Adejeania Townsend, 1913c: 103, 104. Type-species, *Tachina armata* Wiedemann (orig. des.).

Trichodejeania Townsend, 1913c: 104. Type-species, *Dejeania vexatrix* Osten Sacken (orig. des.).

Dejeania, authors, not Robineau-Desvoidy.

REFERENCE: Curran, 1947a (rev.).

vexatrix (Osten Sacken), 1877: 343 (*Dejeania*).—Colo.; B.C. to Mont., s. to Calif. and N. Mex., Mexico.

rufipalpis, authors, not Macquart.

Genus ARCHYTAS Jaennicke

Archytas Jaennicke, 1867: 392 (1868: 84). Type-species, *bicolor* Jaennicke (mon.)=*diaphanus* (Fabricius).

Pseudoarchytas Townsend, 1915j: 185. Type-species, *marmoratus* Townsend (orig. des.).

REFERENCES: Curran, 1928c (rev.); Sabrosky, 1955b (*piliventris* complex).

Subgenus ARCHYTAS Jaennicke

amethystinus (Macquart), 1843a: 199 (1843: 42) (*Jurinia*).—Ga. Unrecognized.

apicifer (Walker), 1849: 718 (*Tachina*).—N. Amer.; B.C., Calif. to Ont. and Maine, s. to Mexico and Fla.

vulgaris Curran, 1928c: 204, 276.—Kans.

analis, authors, in part, not Fabricius.

basifulvus, authors, not Fabricius.

californiae (Walker), 1852: 270 (*Tachina*).—Calif.; B.C. to N.S., entire U.S.

amethystinus, authors, not Macquart.

analis, authors, in part, not Fabricius.

apicifera Walker of Curran, 1928c: 203, 253.

incertus (Macquart), 1851: 152 (1851: 179) (*Gonia*).—Argentina; introd. Fla., not estab.

lobulatus Curran, 1928c: 204, 279.—Brazil; s. Tex., Mexico, Neotropical.

marmoratus (Townsend), 1915j: 186 (*Pseudoarchytas*).—Peru; Ariz. to Fla. to N.C., also Kans., s. to Peru.

incertus, N. Amer. authors, not Macquart.

piliventris, authors, not Wulp.

nivalis Curran, 1928c: 203, 254.—D.C.; Mich. to Mass., s. to Ga.

plangens Curran, 1928c: 204, 255.—Ecuador; s. Tex., Mexico, Cent. Amer.

rufiventris Curran, 1928c: 202, 280.—Fla.; N.C., Ga.

Subgenus NEMOCHAETA Wulp

Nemochaeta Wulp, 1888: 38 (as genus). Type-species, *dissimilis* Wulp (mon.).

aterrimus (Robineau-Desvoidy), 1830: 35 (*Jurinia*).—Carolina; Man. to N.B., s. to Calif., Mexico, and Fla.

leucostoma Robineau-Desvoidy, 1830: 37 (*Jurinia*).—Carolina.

metallifera Walker, 1849: 717 (*Tachina*).—Unknown.

carbonifera Walker, 1849: 721 (*Tachina*).—Unknown.

virginiensis Macquart, 1851: 144 (1851: 171) (*Jurinia*).—Va.

atra Walker, 1852: 273 (*Tachina*).—Ga.

errabunda Harris, 1835: 599 (*Tachina*). Nomen nudum.

convexiforceps Brooks, 1949: 23.—Fla.

instabilis Curran, 1928c: 203, 224.—N.J.; Ont. to Conn., s. to Va.

lateralis (Macquart), 1843a: 199 (1843: 42) (*Jurinia*).—Mexico; Calif. to Iowa, s. to Mexico, also B.C., Mont., Ga., Fla.

metallicus (Robineau-Desvoidy), 1830: 35 (*Jurinia*).—Carolina; Calif. to Ont. and N.H., s. to Mexico and Fla.

boscii Robineau-Desvoidy, 1830: 36 (*Jurinia*).—Carolina.

georgica Macquart, 1835: 79 (*Echinomyia*).—Ga.

fuscipennis Jaennicke, 1867: 391 (1868: 83) (*Jurinea*).—N. Amer.

hystricoides Williston, 1886a: 300 (*Jurinia*).—Ariz., N. Mex., Conn., D.C., Va., Ga.

hystrix, authors, not Fabricius.

pilosa Drury of Curran, 1928c: 206.

Genus JURINELLA Brauer and Bergenstamm

Jurinella Brauer and Bergenstamm, 1889: 132 (1889: 64). Type-species, *Jurinia caeruleonigra* Macquart (mon.).

Pseudohystricia Brauer and Bergenstamm, 1889: 132 (1889: 64). Type-species, *Hystricia ambigua* Macquart (mon.).

REFERENCE: Curran, 1947a (rev.).

lutzi Curran, 1947a: 66.—N. Mex.; Colo., Ariz., Mexico.
ambigua, authors, not Macquart.
obesa, authors, not Wiedemann.

Genus JURINIOPSIS Townsend

Juriniopsis Townsend, 1916g: 73. Type-species, *floridensis* Townsend (orig. des.).

REFERENCE: Curran, 1960 (key).

adusta (Wulp).—Apparently not n. of Mexico.

aurifrons Brooks, 1949: 21.—N. Mex.; Utah, Colo., Ariz., Mexico.
metallica, authors, in part, not Robineau-Desvoidy.

floridensis Townsend, 1916g: 73.—Fla.; Mo. to Mass., s. to Tex. and Fla. ?=*myrrhea*.
metallica, authors, in part, not Robineau-Desvoidy.

lampuris Reinhard, 1953d: 93.—Mexico (Morelos); Ariz.

myrrhea (Brauer and Bergenstamm), 1889: fig. 234 (1889: fig. 234) (*Jurinea*).—Pa. (Brauer and Bergenstamm, 1891: 409; 1891: 105).

Genus MICROTRICHOMMA Giglio-Tos

Microtrichomma Giglio-Tos, 1893b: 1. Type-species, *Nemoraea forreri* Wulp (Coquillett, 1910b: 570).

Exopalpus, authors, not Macquart.

pompale (Reinhard), 1941: 58 (*Exopalpus*).—Mich.; Minn. to Que., s. to N.C. **N. comb.**
currani Ouellet, 1942: 81 (*Archytas*).—Que. **N. comb.**

smithi (Wulp), 1890: 50 (*Nemoraea*).—Mexico (V.C.); Fla. **N. comb.**

Genus PARADEJEANIA Brauer and Bergenstamm

Jurinia, subg. **Paradejeania** Brauer and Bergenstamm, 1893: 147, 184 (1893: 59, 96). Type-species, *Dejeania rutilioides* Jaennicke (Coquillett, 1910b: 584).

REFERENCE: Arnaud, 1951 (rev.).

rutilioides rutilioides (Jaennicke), 1867: 394 (1868: 86) (*Dejeania*).—Mexico; Ariz. and Colo., s. to Cent. Amer.

ssp. **nigrescens** Arnaud, 1951: 322.—Calif.; B.C., Oreg.

Genus PARARCHYTAS Brauer and Bergenstamm

Pararchytas Brauer and Bergenstamm, 1894: 76 (1895: 612). Type-species, *Tachina decisa* Walker (mon.).

decisus (Walker), 1849: 715 (*Tachina*).—Ont.; B.C. to P.E.I. and Pa., s. to Calif., Mexico, and N. Mex. in west, also Tenn., Ga.

hammondi Brooks, 1945a: 80.—Ont.; S. Dak. to N.B., s. to Kans. and Ga.

Genus PROTODEJEANIA Townsend

Protodejeania Townsend, 1915a: 21. Type-species, *Dejeania hystricosa* Williston (orig. des.).

REFERENCE: Curran, 1947a (key).

echinata (Thomson), 1869: 516 (*Jurinea*).—Calif.; B.C. to Calif.

hystricosa (Williston), 1886a: 297 (*Dejeania*).—N. Mex. (Townsend, 1931a: 163); Colo., Ariz., Mexico.

willistoni Curran, 1947a: 51.—Ariz. **N. syn.**

Tribe JURINIINI

Species of the tribe Juriniini parasitize lepidopterous larvae.

Genus EPALPUS Rondani

Epalpus Rondani, 1850a: 169. Type-species, *Micropalpus rufipennis* Macquart (Coquillett, 1910b: 538).

Argentoepalpus Townsend, 1919c: 178. Type-species, *Epalpus niveus* Townsend (orig. des.).

albomaculatus (Jaennicke), 1867: 388 (1868: 80) (*Micropalpus*).—Mexico; Ariz., N. Mex., Guatemala.

maculata Williston, 1886a: 304 (*Saundersia*).—N. Mex. **N. syn.**

rufipes (Brooks), 1949: 22 (*Argentoepalpus*).—B.C.; B.C. and Idaho to Calif.

signifer (Walker), 1849: 708 (*Tachina*).—N.S. and unknown; B.C. to N.S., s. to Calif., N. Mex., and N.C.

plagiata Harris, 1835: 599 (*Tachina*). Nomen nudum.

Genus PAREPALPUS Coquillett

Parepalpus Coquillett, 1902g: 120. Type-species, *flavidus* Coquillett (mon.)

REFERENCE: Curran, 1947a (key).

flavidus Coquillett, 1902g: 120.—Colo.; Utah, Ariz., N. Mex.
nigropilosa Wulp of Coquillett, 1897: 145.

Genus RHACHOEPALPUS Townsend

Rhachoepalpus Townsend, 1908: 114. Type-species, *Saundersia testacea* Wulp (Coquillett, 1910b: 599).

REFERENCE: Curran, 1947a (key).

Unnamed sp.—Ariz.

Genus XANTHOEPALPUS Townsend

Xanthoepalpus Townsend, 1914: 157. Type-species, *Saundersia bipartita* Wulp (orig. des.)=*bicolor* (Williston).

bicolor (Williston), 1886a: 304 (*Saundersia*).—N. Mex.; B.C. to Calif., Mexico, and Colo.
melanopygatus Bigot, 1887b: cxli (*Cryptopalpus*).—Wash.

Tribe CUPHOCERINI

Members of the tribe Cuphocerini parasitize lepidopterous larvae, especially cutworms and armyworms.

Genus COPECRYPTA Townsend

Copecrypta Townsend, 1908: 109. Type-species, *Schineria ruficauda* Wulp (mon.).

ruficauda (Wulp), 1867: 146 (*Schineria*).—Wis.; S. Dak. to Mass., s. to Ariz., Mexico, and Fla.
nitens, authors, not Wiedemann.
undulata Say *in* Brauer and Bergenstamm, 1891: 406 (1891: 102) (*Elachipalpus*). Nomen nudum.

Genus DEOPALPUS Townsend

Deopalpus Townsend, 1908: 110. Type-species, *hirsutus* Townsend (orig. des.).
Spanipalpus Townsend, 1908: 110. Type-species, *Trichophora miscelli* Coquillett (orig. des.).
Cuphocera, authors, not Macquart.

Cyphocera, error or emend.

REFERENCE: Reinhard, 1934e (rev.).

beameri (Reinhard), 1934e: 66 (*Cuphocera*).—Calif. **N. comb.**

californiensis (Macquart), 1851: 148 (1851: 175) (*Micropalpus*).—Calif. **N. comb.** Unrecognized.

conformis (Reinhard), 1934e: 54 (*Cuphocera*).—Ariz. **N. comb.**

contiguus (Reinhard), 1934e: 61 (*Cuphocera*).—Calif.; B.C. to S. Dak. s. to Calif. and Mexico, also N.Y. **N. comb.**

stricklandi Curran *in* West, 1928: 819 (*Cuphocera*). Nomen nudum.

flavicornis (Reinhard), 1934e: 58 (*Cuphocera*).—Ariz.; Calif. **N. comb.**

geminatus (Reinhard), 1934e: 55 (*Cuphocera*).—Calif. **N. comb.**

hirsutus Townsend, 1908: 110.—Mexico (Chih.); Oreg. to Maine, s. to Calif., Mexico, and Fla.

aurifrons Reinhard, 1924a: 54 (*Cuphocera*).—Tex.

fucata, authors, not Wulp.

furcata, error.

miscelli (Coquillett), 1897: 139 (*Trichophora*).—Calif. **N. comb.**

parksi (Reinhard), 1934e: 50 (*Cuphocera*).—Tex.; Ariz. **N. comb.**

scutellaris (Reinhard), 1934e: 53 (*Cuphocera*).—Ariz.; Calif. **N. comb.**

torosus (Reinhard), 1934e: 67 (*Cuphocera*).—Oreg.; Calif. **N. comb.**

Tribe LINNAEMYINI

The species of Linnaemyini parasitize a large variety of lepidopterous larvae.

Genus BONNETIA Robineau-Desvoidy

Bonnetia Robineau-Desvoidy, 1830: 55. Type-species, *oenanthis* Robineau-Desvoidy (Townsend, 1916d: 6) = *comta* (Fallén).

Marshamia Robineau-Desvoidy, 1830: 57. Type-species, *analis* Robineau-Desvoidy (Townsend, 1916d: 7) = *comta* (Fallén).

REFERENCE: Brooks, 1944b (rev.).

comta (Fallén), 1810b: 277 (*Tachina*).—Sweden; B.C. to Que. and Maine, entire U.S., Mexico, Palaearctic.

distincta Robineau-Desvoidy, 1830: 54 (*Linnaemya*).—Pa.

analis Robineau-Desvoidy, 1830: 58 (*Marshamia;* preocc. Robineau-Desvoidy, 1830: 54).—Carolina.

nigripes Robineau-Desvoidy, 1830: 58 (*Marshamia*).—?Carolina.

piceus Macquart, 1835: 84 (*Micropalpus;* n. name for *analis* Robineau-Desvoidy, 1830: 58).—Carolina.

Genus CHRYSOTACHINA Brauer and Bergenstamm

Chrysotachina Brauer and Bergenstamm, 1889: 161 (1889: 93). Type-species, *Tachina reinwardtii* Wiedemann (mon.; misident.) = *braueri* Townsend.

Eugymnochaeta Townsend, 1912b: 314. Type-species, *Gymnochaeta alcedo* Loew (orig. des.).

REFERENCE: Curran, 1939a (key).

alcedo (Loew), 1869b: 36 (Cent. 8, no. 61) (*Gymnochaeta*).—Mass.; B.C. to Calif., Mexico, and Colo., also Wis. to N.H., s. to Fla.

equatorialis (Townsend), 1912b: 314 (*Eugymnochaeta*).—Peru; Fla., Brazil.

Genus GYMNOCHETA Robineau-Desvoidy

Gymnocheta Robineau-Desvoidy, 1830: 371. Type-species, *Tachina viridis* Fallén (as Meigen; mon.).

Gymnochaeta, emend.

Chlorometaphyto Townsend, 1919c: 180. Type-species, *Gymnochaeta vivida* Williston (orig. des.).

REFERENCE: Brooks, 1945a (key).

frontalis Brooks, 1945a: 88.—B.C.; Alta.

ruficornis Williston, 1886a: 302.—Pa.; Iowa and Kans. to Mass. and N.J., also Ariz.

rufipalpis Brooks, 1945a: 87.—B.C.

vivida Williston, 1886a: 302.—Pa.; B.C. to Calif. and Colo., also Maine, N.C.

viridis, authors, not Fallén.

Genus HINEOMYIA Townsend

Hinea Townsend, 1916h: 629 (preocc. Gray, 1847). Type-species, *Nemoraea setigera* Coquillett (orig. des.).

Hineomyia Townsend, 1916d: 12 (n. name for *Hinea* Townsend). Type-species, *Nemoraea setigera* Coquillett (aut.).

setigera (Coquillett), 1902g: 111 (*Nemoraea*).—Ohio; Wyo., N.Y., Vt.

Genus LINNAEMYA Robineau-Desvoidy

Linnaemya Robineau-Desvoidy, 1830: 52. Type-species, *silvestris* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 131) = *vulpina* (Fallén).

Linnaemyia, emend. or error.

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Bonellia Robineau-Desvoidy, 1830: 56 (preocc. Rolando, 1822). Type-species, *tessellans* Robineau-Desvoidy (Townsend, 1916d: 6)=*haemorrhoidalis* (Fallén).

Bonellimyia Townsend, 1919c: 177 (n. name for *Bonellia* Robineau-Desvoidy). Type-species, *Bonellia tessellans* Robineau-Desvoidy (aut.)=*haemorrhoidalis* (Fallén).

REFERENCE: Brooks, 1944b (rev., as *Bonellimyia*).

glauca (Brooks), 1944b: 200 (*Bonellimyia*).—Que.; B.C. and Wash. to Colo., also Minn. to N.B. and N.S., s. to Ohio and Conn. **N. comb.**

haemorrhoidalis (Fallén).—Not Nearctic.

picta (Meigen).—Not Nearctic.

speculifera (Walker), 1849: 731 (*Tachina*).—N. Amer. Unrecognized.

subpolita (Brooks), 1944b: 200 (*Bonellimyia*).—Ont.; Utah to N.S., also B.C. **N. comb.**

tessellata (Brooks), 1944b: 198 (*Bonellimyia*).—N.S.; B.C. to Sask., s. to Calif. and Colo., also Mich. to N.S., s. to Mass., also Tenn. **N. comb.**

Genus NIGROBONELLIA Brooks

Nigrobonellia Brooks, 1944b: 202. Type-species, *Linnaemyia varia* Curran (orig. des.).

nigrescens (Curran), 1925g: 15 (*Linnaemyia*).—B. C.; Man.

varia (Curran), 1925g: 14 (*Linnaemyia*).—Labr.; N.W.T. (Baffin I.).

Genus SPILOCHAETOSOMA Smith

Spilochaetosoma Smith, 1917c: 125. Type-species, *californicum* Smith (orig. des.).

californicum Smith, 1917c: 126.—Calif.; Idaho, Utah, Ariz.

Genus TENUIROSTRA Ringdahl

Tenuirostra Ringdahl, 1933b: 17. Type-species, *Lypha arctica* Sack (mon.).

arctica (Sack), 1923: 7 (*Lypha*).—U.S.S.R. (Novaya Zemlya); N.W.T. (n. Ellesmere I., Akpatok I. in Ungava Bay), Greenland.

Genus THOMPSONOMYIA Brooks

Thompsonomyia Brooks, 1944b: 204. Type-species, *Linnaemyia anthracina* Thompson (orig. des.).

anthracina (Thompson), 1911: 266 (*Linnaemyia*).—Ont.; N.W.T. (Baffin I.).

Genus TRAFOIA Brauer and Bergenstamm

Trafoia Brauer and Bergenstamm, 1893: 142 (1893: 54). Type species, *monticola* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

rufipalpis (Bigot), 1888a: 256 (*Exorista*).—Mexico; Colo., N. Mex., El Salvador.

hispida Wulp, 1890: 65 (*Exorista*).—Mexico. **N. syn.**

Tribe ERNESTIINI

The species of Ernestiini are parasites of lepidopterous larvae, especially those of the family Noctuidae.

Genus APPENDICIA Stein

Appendicia Stein, 1924: 54. Type-species, *Tachina truncata* Zetterstedt (mon.).

frontalis (Tothill), 1921: 204, 228 (*Ernestia*).—Alaska, B.C.; Alaska and B.C. to Ont. and N.Y., also Ariz.

solita Reinhard, 1937: 66 (*Ernestia*).—Mich.

Genus MELINOCERA Townsend

Melinocera Townsend, 1915a: 22. Type-species, *Meriania chalybaea* Coquillett (orig. des.).

REFERENCE: Brooks, 1943 (key).

chalybaea (Coquillett), 1902g: 119 (*Meriania*).—Idaho; B.C., Mont., Calif.

flavicornis (Brauer), 1898: 532 (*Panzeria*).—N.H.; B.C. to N.B., s. to Calif., Tex., and N.C.

Genus MERICIA Robineau-Desvoidy

Mericia Robineau-Desvoidy, 1830: 64. Type-species, *erigonea* Robineau-Desvoidy (mon.).

Ernestia, authors, not Robineau-Desvoidy.

REFERENCES: Tothill, 1921 (rev.); Brooks, 1943 (rev., Canadian spp.).

alberta Curran, 1924n: 248.—Alta.; Calif., Nev., Mich.

aldrichi (Townsend), 1892a: 91 (*Hystricia*).—S. Dak.; B.C., Alta., Sask., Mich., Ariz.

ampelus (Walker), 1849: 732 (*Tachina*).—N.S.; B.C. to N.S., s. to Calif. and Md., also Ga.

nigricornis Townsend, 1893h: 467 (*Nemoraea*). Nomen nudum.

nigricornis Williston, 1908: 371, fig. 101 (*Nemoraea*).—Ill. (unpublished). **N. syn.**

arcuata (Tothill), 1921: 205, 248 (*Ernestia*).—Va.; Mich. to N.S., s. to N.C.

bicarina (Tothill), 1921: 204, 272 (*Ernestia*).—B.C.; B.C. to S. Dak., s. to Ariz. and N. Mex., also Ont., N.B.

campestris Curran, 1924n: 249.—Man.; Alta. to N.Y., s. to Ohio.

cobala Reinhard, 1953a: 55.—N. Mex.

degenera (Walker), 1849: 732 (*Tachina*).—Ont. Unrecognized.

fissicarina (Tothill), 1921: 204, 274 (*Ernestia*).—Calif.

hamilla Reinhard, 1953a: 54.—Wash.; Idaho.

incisa (Tothill), 1921: 204, 249 (*Ernestia*).—Pa.; B.C., Mont., Mich., Ohio.

johnsoni (Tothill), 1921: 204, 229 (*Ernestia*).—Mass.; B.C., Mich.

longicarina (Tothill), 1921: 205, 251 (*Ernestia*).—Calif.; Alta., Wash., Oreg.

manitoba Brooks, 1943: 77.—Man.; Mich., N.Y., Vt.

nigropalpis (Tothill), 1921: 204, 247 (*Ernestia*).—B.C.; B.C. to Calif., also Mich. to N.S., s. to Ohio.

occidentalis Brooks, 1943: 77.—B.C.

platycarina (Tothill), 1921: 204, 270 (*Ernestia*).—Va.; B.C. and Wash. to Colo., also Minn. to P.E.I., s. to Va.

radicum (Fabricius).—Not Nearctic.

ruficauda (Brauer), 1898: 539 (*Erigone*).—N. Amer. Unrecognized, probably=*ampelus*.

sulcocarina (Tothill), 1921: 205, 271 (*Ernestia*).—B.C.; Alaska and B.C. to N.Y., also Calif., N. Mex., Colo.

triangularis Curran, 1924n: 247.—Man.; Calif., Ariz., Mich., Ont., N.Y.

Genus METAPHYTO Coquillett

Metaphyto Coquillett, 1897: 89. Type-species, *genalis* Coquillett (orig. des.).

Okanagania Townsend, 1915c: 289. Type-species, *hirta* Townsend (orig. des.).

genalis Coquillett, 1897: 90.—Colo.; B.C. to Sask. and Mont., also Calif. to Utah.

hirta (Townsend), 1915c: 290 (*Okanagania*).—B.C.

setifrons (Brooks), 1943: 71 (*Okanagania*).—B.C.; Idaho, Sask.

Genus OSTRACOPHYTO Townsend

Ostracophyto Townsend, 1915f: 228. Type-species, *aristalis* Townsend (orig. des.).

aristalis Townsend, 1915f: 228.—Calif.; B.C., Wash.

Genus PROMERICIA Brooks

Promericia Brooks, 1943: 69. Type-species, *Mericia fasciventris* Curran (orig. des.).

fasciventris (Curran), 1924n: 248 (*Mericia*).—Que.; B.C., Calif. to Colo., also Man. to Que. and N.Y.

Genus PSEUDOMERIANIA Brooks

Pseudomeriania Brooks, 1943: 69. Type-species, *Ernestia nigrocornea* Tothill (orig. des.).

nigrocornea (Tothill), 1921: 204, 227 (*Ernestia*).—Calif.; Alaska to Sask., s. to Calif. and Colo., also Ont.

fasciata Curran, 1924n: 246 (*Ernestia*).—B.C.

septentrionalis Curran, 1930i: 75 (*Meriania*).—B.C.

Genus XANTHOPHYTO Townsend

Xanthophyto Townsend, 1916h: 627. Type-species, *Nemoraea labis* Coquillett (orig. des.).

Xanthoernestia Townsend, 1926: 39. Type-species, *antennalis* Townsend (orig. des.).

antennalis (Townsend), 1926: 40 (*Xanthoernestia*).—N.H.; B.C., Calif., Utah, N.Y., N.C., Ga.

labis (Coquillett), 1895k: 104 (*Nemoraea*).—Wash.; B.C. to Calif. and N. Mex., also Ont., Vt.

Tribe MELANOPHRYINI

(Melanophryctini)

Genus ATROPHARISTA Townsend

Atropharista Townsend, 1892a: 92. Type-species, *jurinoides* Townsend (orig. des.)=*insolita* (Walker).

insolita (Walker), 1852: 277 (*Tachina*).—U.S.; B.C., Calif. to Colo., S. Dak. to Maine, s. to Ill. and Conn.

jurinoides Townsend, 1892a: 92.—S. Dak.

Genus MELANOPHRYS Williston

Melanophrys Williston, 1886a: 305. Type-species, *flavipennis* Williston (mon.).

flavipennis Williston, 1886a: 306.—Wyo.; Wash. and Alta., s. to Calif. and Wyo.

Tribe APHRIINI

The species of the tribe Aphriini parasitize lepidopterous larvae, including some wood- and stalk-borers.

Genus APACHEMYIA Townsend

Apachemyia Townsend, 1908: 75. Type-species, *Demoticus pallidus* Coquillett (orig. des.).

pallida (Coquillett), 1897: 121 (*Demoticus*).—Colo.; Oreg. to Mont., s. to Calif. and N. Mex.

Genus APHRIA Robineau-Desvoidy

Aphria Robineau-Desvoidy, 1830: 89. Type-species, *abdominalis* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 767)= *longirostris* (Meigen).

georgiana Townsend, 1908: 68.—Ga.

ocypterata Townsend, 1891c: 361.—S. Dak., Minn.; B.C., Wash. to Que. and Maine, s. to Calif., N. Mex., and Va.

occidentalis Townsend, 1908: 68.—Colo. **N. syn.**

Genus NEOFISCHERIA Townsend

Neofischeria Townsend, 1908: 74. Type-species, *flava* Townsend (orig. des.).

flava Townsend, 1908: 75.—Pa.; Ill. to Conn., s. to Va.

Genus NEOSOLIERIA Townsend

Neosolieria Townsend, 1927: 211, 336. Type-species, *nasuta* Townsend (orig. des.).

Parcipromus Reinhard, 1958c: 227. Type-species, *silus* Reinhard (orig. des.). **N. syn.**

sila (Reinhard), 1958c: 228 (*Parcipromus*).—Mexico (Baja Calif.); Calif., Utah. **N. comb.**

Genus PARADEMOTICUS Townsend

Parademoticus Townsend, 1916h: 629. Type-species, *Demoticus piperi* Coquillett (orig. des.).

piperi (Coquillett), 1897: 122 (*Demoticus*).—Wash.; B.C. to Calif., also Colo.

Genus PARAFISCHERIA Townsend

Parafischeria Townsend, 1908: 74. Type-species, *Drepanoglossa venatoris* Coquillett (orig. des.)=*eucerata* (Bigot).

eucerata (Bigot), 1888a: 263 (*Masicera*).—Calif.; Wash. to Calif. and Colo.

venatoris Coquillett, 1895c: 127 (*Drepanoglossa*).—Wash.

Genus PYRAUSTOMYIA Townsend

Pyraustomyia Townsend, 1916h: 627. Type-species, *Panzeria penitalis* Coquillett (orig. des.).

penitalis (Coquillett), 1897: 89 (*Panzeria*).—Mo.; Wis. to Mass., s. to Kans. and Ga.

Tribe LYPHINI

The hosts of the species of Lyphini are chrysomelid grubs.

Genus LYPHA Robineau-Desvoidy

Lypha Robineau-Desvoidy, 1830: 141. Type-species, *Tachina dubia* Fallén (Robineau-Desvoidy, 1863a: 196).

REFERENCE: Brooks, 1945a (key).

dubia (Fallén), 1810b: 284 (*Tachina*).—Sweden; Palaearctic, introd. Mich., e. Canada, N.Y., Mass., Conn., ?estab.

frontalis Brooks, 1945a: 85.—Ont.

fumipennis Brooks, 1945a: 85.—B.C.; Mich., Ohio.

intermedia Brooks, 1945a: 86.—Ont.

maculipennis Aldrich, 1926d: 24.—Wash.; B.C., Que.

melobosis (Walker), 1849: 743 (*Tachina*).—Fla.

addita Walker, 1852: 265, 290 (*Tachina*).—U.S.

parva Brooks, 1945a: 86.—Ont.

setifacies (West), 1925: 124 (*Didyma*).—N.Y.; B.C. to N.B., s. to Ill. and Mass.

Tribe GERMARIINI

Members of the tribe Germariini parasitize lepidopterous larvae, except for one genus that contains parasites of earwigs (Dermaptera), and a few species reared from *Gryllus*, beetles, a centipede, and pupae of Tephritidae.

Genus ASSECLAMYIA Reinhard

Asseclamyia Reinhard, 1956c: 108. Type-species, *sphenofrons* Reinhard (orig. des.).

sphenofrons Reinhard, 1956c: 109. Calif.

Genus BIGONICHETA Rondani

Bigonicheta Rondani, 1845b: 34. Type-species, *mariettii* Rondani (mon.)=*setipennis* (Fallén).
Bigonichaeta, *Bigonochaeta*, emends. or errors.
Digonichaeta, *Digonicheta*, *Digonochaeta*, emends. or errors.

Parasites of earwigs.

spinipennis (Meigen), 1824: 350 (*Tachina*).—France; introd. and estab. B.C. to Oreg. and Utah, also Nfld., not estab. Ont.
setipennis, authors, not Fallén.

Genus CACOZELUS Reinhard

Cacozelus Reinhard, 1943a: 168. Type-species, *riederi* Reinhard (orig. des.).

riederi Reinhard, 1943a: 168.—Oreg.

Genus CHROMATOCERA Townsend

Chromatocera Townsend, 1915a: 21. Type-species, *Eulasiona setigena* Coquillett (orig. des.).

fumator Reinhard, 1962b: 218.—Ariz.
setigena (Coquillett), 1897: 53 (*Eulasiona*).—La.; S. Dak., Kans., Ohio, Md., Tex.

Genus COCKERELLIANA Townsend

Cockerelliana Townsend, 1915f: 216. Type-species, *capitata* Townsend (orig. des.).

capitata Townsend, 1915f: 218.—N. Mex.; Calif., Utah, Ariz.

Genus DICHOCERA Williston

Dichocera Williston, 1895a: 31. Type-species, *lyrata* Williston (mon.).

lyrata Williston, 1895a: 32.—Idaho; B.C. to S. Dak., s. to Calif. and N. Mex., also N.Y., N.H.

robusta Brooks, 1945a: 80.—Alta.; Wash. to Sask., s. to Oreg. and Utah.

Genus EXORISTOIDES Coquillett

Exoristoides Coquillett, 1897: 90. Type-species, *johnsoni* Coquillett (orig. des.).

REFERENCE: Aldrich, 1932b (key).

harrisi Reinhard, 1935b: 160.—Iowa.

johnsoni Coquillett, 1897: 91.—N.C.; B.C. to Calif. and Ariz., also S. Dak., Va., N.C., Tex., and La.

Genus HELIOPLAGIA Townsend

Helioplagia Townsend, 1934c: 211. Type-species, *amazonica* Townsend (orig. des.).

slossonae (Coquillett), 1897: 91 (*Exoristoides*).—Maine, N.H., N.J.; Mich. to Que. and Maine, s. to Miss. and Fla.

spinipennis Coquillett, 1897: 95 (*Exorista*).—Ga.

Genus HOMALACTIA Townsend

Homalactia Townsend, 1915a: 21. Type-species, *Exoristoides harringtoni* Coquillett (orig. des.).

REFERENCE: Curran, 1926b (key).

brimleyi Curran, 1926b: 86.—Ont.

facula Reinhard, 1959a: 161.—Calif.

harringtoni (Coquillett), 1902g: 110 (*Exoristoides*).—Ont.; Man. to N.H., s. to Wis. and Va.

Genus IMPECCANTIA Reinhard

Impeccantia Reinhard, 1961: 204. Type-species, *claterna* Reinhard (orig. des.).

claterna Reinhard, 1961: 205.—Ariz.; N. Mex.

Genus LYDINA Robineau-Desvoidy

Lydina Robineau-Desvoidy, 1830: 124. Type-species, *nitida* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 111)= *aenea* (Meigen).

Polidea Macquart, 1848b: 92. Type-species, *Tachina aenea* Meigen (Coquillett, 1910b: 593).

Polidaria Curran, 1934a: 429, 444, 464. Type-species, *Tachina areos* (Walker (mon.).

americana (Townsend), 1892e: 78 (*Tryphera*).—Ill.; Minn. and Ill. to Mass. and Conn., also Md., Ga.

areos (Walker), 1849: 766 (*Tachina*).—N. Amer.; Oreg., Idaho, Calif., Ind.

polidoides (Townsend), 1892e: 79 (*Tryphera*).—N.Y.; Idaho, Minn. to N.S., s. to Va.

americana Townsend, 1892e: 82 (*Polidea*; preocc. Townsend, 1892e: 78).—Mich.

Genus MACTOMYIA Reinhard

Mactomyia Reinhard, 1958c: 228. Type-species, *fracida* Reinhard (orig. des.).

fracida Reinhard, 1958c: 229.—Ariz.; Calif., Utah, N. Mex.

Genus MAUROMYIA Coquillett

Mauromyia Coquillett, 1897: 51. Type-species, *pulla* Coquillett (orig. des.).

pulla Coquillett, 1897: 52.—N.H.; Oreg., Minn. to N.H. and Pa., also N. Mex., Ga.

Genus METATACHINA Townsend

Metatachina Townsend, 1919b: 588. Type-species, *mellifrons* Townsend (orig. des.).

mellifrons Townsend, 1919b: 588.—Maine.

Genus NEODICHOCERA Walton

Neodichocera Walton, 1914a: 184. Type-species, *tridens* Walton (orig. des.)=*orientalis* (Coquillett).

Dichoceropsis Townsend, 1916b: 178. Type-species, *Dichocera orientalis* Coquillett (orig. des.).

orientalis (Coquillett), 1897: 138 (*Dichocera*).—Mass.; Mont., Utah, Ariz., N. Mex.

tridens Walton, 1914a: 185.—N. Mex.

Genus PARADMONTIA Coquillett

Paradmontia Coquillett, 1902g: 106. Type-species, *brevis* Coquillett (orig. des.).

brevis Coquillett, 1902g: 106.—Fla.; Mont., Iowa to Md. and Va., also La.

Genus PETINARCTIA Villeneuve

Petinarctia Villeneuve, 1928: 306. Type-species, *Peteina stylata* Brauer and Bergenstamm (mon.).

Rhynchopeteina Townsend, 1931b: 459. Type-species, *Peteina stylata* Brauer and Bergenstamm (orig. des.).

Pseudopetina Ringdahl, 1933b: 17. Type-species, *Peteina stylata* Brauer and Bergenstamm (mon.). **N. syn.**

stylata (Brauer and Bergenstamm), 1891: 387 (1891: 83) (*Peteina*).—Greenland; N.W.T., Sweden.

Genus PLAGIOSIPPUS Reinhard

Plagiosippus Reinhard, 1962a: 172. Type-species, *invasor* Reinhard (orig. des.).

invasor Reinhard, 1962a: 173.—Ariz.; Calif.

Genus TROCHILODES Coquillett

Trochilodes Coquillett *in* Johnson, 1903a: 102. Type-species, *skinneri* Coquillett (orig. des.).

leonardi (West), 1925: 134 (*Rhamphina*).—N.Y. **N. comb.**

skinneri Coquillett *in* Johnson, 1903a: 103.—N. Mex.; B.C. to Wyo., s. to Calif. and N. Mex.

Tribe CAMPYLOCHETINI

The species of Campylochetini are parasites of lepidopterous larvae.

Genus CHAETOPHLEPSIS Townsend

Chaetophlepsis Townsend, 1915g: 422. Type-species, *tarsalis* Townsend (orig. des.).

Coloradalia Curran, 1934a: 444. Type-species, *ocellaris* Curran (orig. des.)=*eudryae* (Smith). **N. syn.**

REFERENCE: Reinhard, 1952c (rev.).

atriceps Reinhard, 1952c: 21.—Ohio.

canora Reinhard, 1952c: 18.—N.Y.

eudryae (Smith), 1916: 94 (*Hypochaeta*).—Mass.; Colo., Ark., Conn., Miss.
ocellaris Curran, 1934a: 467 (*Coloradalia*).—Colo. **N. syn.** *tarsalis*, authors, not Townsend.
nasellensis Reinhard, 1952c: 18.—Wash.
orbitalis Webber, 1931: 2.—Mass.; B.C., Ont. to N.H. and R.I., also Md.
polita Brooks, 1945a: 83.—Miss.; Oreg., Calif., Wis., Ont.
ucayali Townsend of Reinhard, 1952c: 17.
rindgei Reinhard, 1952c: 20.—Calif.
semiothisae Brooks, 1945a: 82.—Ont.; Minn. to N.S., s. to Ohio and Md., also B.C.
teliosis Reinhard, 1952c: 18.—N.C.; B.C.
townsendi (Smith), 1916: 94 (*Hypochaeta*).—Fla.

Genus PARAHYPOCHAETA Brauer and Bergenstamm

Parahypochaeta Brauer and Bergenstamm, 1891: 337 (1891: 33). Type-species, *heteroneura* Brauer and Bergenstamm (mon.).

heteroneura Brauer and Bergenstamm, 1891: 337 (1891: 33).—N. Amer.

Tribe VORIINI

The species of the tribe Voriini parasitize many kinds of lepidopterous larvae.

Genus ANZAMYIA Reinhard

Agathomyia Reinhard, 1959b: 228 (preocc. Verrall, 1901). Type-species, *cordata* Reinhard (orig. des.).
Anzamyia Reinhard, 1960: 103 (n. name for *Agathomyia* Reinhard). Type-species, *Agathomyia cordata* Reinhard (aut.).

cordata (Reinhard), 1959b: 229 (*Agathomyia*).—Calif.

Genus ATHRYCIA Robineau-Desvoidy

Athrycia Robineau-Desvoidy, 1830: 111. Type-species, *erythrocera* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 830).
Blepharigena Rondani, 1856: 69. Type-species, *Tachina trepida* Meigen (orig. des.; misident.) = *curvinervis* (Zetterstedt).
Paraplagia Brauer and Bergenstamm, 1891: 354 (1891: 50). Type-species, *Tachina trepida* Meigen (mon.).

cinerea (Coquillett), 1895k: 101 (*Paraplagia*).—Ill., D.C.; B.C. to Colo. to Mass., s. to Mexico (Chih.) and Va. **N. comb.** *spinosula*, authors, not Bigot.

Genus CATALINOVORIA Townsend

Catalinovoria Townsend, 1926: 37. Type-species, *cauta* Townsend (orig. des.).

Sthenopleura Aldrich, 1926a: 18. Type-species, *latifrons* Aldrich (orig. des.)=*cauta* Townsend.

The genus *Catalinovoria* is closely related to the Palaearctic *Hypovoria* Villeneuve, of which it may prove to be a synonym or subgenus.

cauta Townsend, 1926: 38.—Ariz.; B.C. to N.Y., s. to Calif., Mexico, and Va.

latifrons Aldrich, 1926a: 18 (*Sthenopleura*).—N. Mex.

rigidirostris, authors, not Wulp.

discalis Brooks, 1945a: 81.—N.B.; Alta., Sask., Idaho, Calif., Ohio.

Genus CHAETOPLAGIA Coquillett

Chaetoplagia Coquillett, 1895k: 98. Type-species, *atripennis* Coquillett (orig. des.).

atripennis Coquillett, 1895k: 98.—D.C.; Calif. to N.Y., s. to Mexico and Fla.

aterrima (error) Williston, 1908: 368.

Genus CYRTOPHLEBA Rondani

Cyrtophleba Rondani, 1856: 68. Type-species, *Tachina ruricola* Meigen (orig. des.).

Cyrtophlebia, *Cyrtophloeba*, emends.

coquilletti Aldrich, 1926a: 12 (n. name for *horrida* Coquillett).—Ill., N.Y., Mass.; B.C. to Calif. and N. Mex., also Mich. to Mass., s. to Ill. and N.J.

horrida Coquillett, 1895k: 101 (preocc. Giglio-Tos, 1893).—Ill., N.Y., Mass.

nitida Curran, 1930i: 74.—Man.; B.C., Alta., Wash., Colo., also Man. to Que. and Va.

Genus EUCYRTOPHLOEBA Townsend

Eucyrtophloeba Townsend, 1916i: 316. Type-species, *rhois* Townsend (orig. des.).

horrida (Giglio-Tos), 1893b: 6 (*Cyrtophloeba*).—Mexico; Ariz., Tex.

Genus EUPTILOPAREIA Townsend

Euptilopareia Townsend, 1961i: 319. Type-species, *Paraplagia erucicola* Coquillett (orig. des.).

erucicola (Coquillett), 1897: 78 (*Paraplagia*).—Mo.; Idaho.
vicinalis Reinhard, 1956a: 125.—Calif.

Genus GINGLYCHAETA Aldrich

Ginglychaeta Aldrich, 1926a: 21. Type-species, *seriata* Aldrich (orig. des.).

seriata Aldrich, 1926a: 21.—Colo.; Wash.

Genus GONIOCHAETA Townsend

Goniochaeta Townsend, 1891c: 351. Type-species, *plagioides* Townsend (orig. des.).

fuscibasis Aldrich, 1926a: 24.—Calif.
plagioides Townsend, 1891c: 352.—N. Mex.; Calif., Utah, Ariz., Tex.

Genus MELETERUS Aldrich

Meleterus Aldrich, 1926a: 20. Type-species, *montanus* Aldrich (orig. des.).

montanus Aldrich, 1926a: 20.—Mexico (Chih.); N. Mex.
nuperus Reinhard, 1956a: 123.—Ga.

Genus MENETUS Aldrich

Menetus Aldrich, 1926a: 23. Type-species, *Brachicoma macropogon* Bigot (orig. des.).

macropogon (Bigot), 1888a: 259 (*Brachicoma*).—Calif.

Genus METAPLAGIA Coquillett

Metaplagia Coquillett, 1895k: 102. Type-species, *occidentalis* Coquillett (orig. des.).

occidentalis Coquillett, 1895k: 103.—Calif.; Tex.

Genus METAVORIA Townsend

Metavoria Townsend, 1915l: 101. Type-species, *orientalis* Townsend (orig. des.).

brevicornis (Brooks), 1945a: 81 (*Metaplagia*).—Man.; Sask., Ont., P.E.I., N.H. **N. comb.**

facialis Reinhard, 1956a: 123.—Utah; Calif.
latifrons Reinhard, 1956a: 121.—Tex.
orientalis Townsend, 1915l: 101.—Va.; Mich. to Mass., s. to Tex. and Ga.

Genus PLAGIOMIMA Brauer and Bergenstamm

Plagiomima Brauer and Bergenstamm, 1891: 384 (1891: 80). Type-species, *disparata* Brauer and Bergenstamm (mon.).
Siphoplagia Townsend, 1891c: 349. Type-species, *anomala* Townsend (orig. des.) = *spinosula* (Bigot).

REFERENCE: Aldrich, 1926a (rev.).

Subgenus PLAGIOMIMA Brauer and Bergenstamm

alternata Aldrich, 1926a: 27.—Fla.; Ohio.
auriceps Aldrich, 1926a: 28.—Va.; Ohio to Md., s. to Ga.
brevirostris Reinhard, 1962b: 219.—Ariz.
cognata Aldrich, 1926a: 27.—Md.; Iowa to N.J., s. to Tex. and N.C.
euethes Reinhard, 1957: 104.—Ariz.
haustellata Reinhard, 1944b: 59.—Kans.; Utah, Nebr., Tex.
spinosula (Bigot), 1888a: 262 (*Heteropterina*).—N. Amer.; Calif., Ariz., Colo., N. Mex., Tex.
anomala Townsend, 1891c: 350 (*Siphoplagia*).—N. Mex.

Subgenus SIPHOPLAGIOPSIS Townsend

Siphoplagiopsis Townsend, 1917d: 123 (as genus). Type-species, *similis* Townsend (orig. des.). **N. status.**

abdominalis Aldrich, 1926a: 27.—Colo.
faceta Reinhard, 1957: 105.—Tex.; Mexico.
similis (Townsend), 1917d: 124 (*Siphoplagiopsis*).—Md.; N.Y. and N.J. to S.C., also Colo., Ill., Tex.

Genus PSILOPLEURA Reinhard

Psilopleura Reinhard, 1943a: 165. Type-species, *arida* Reinhard (orig. des.).

arida Reinhard, 1943a: 166.—Utah; Calif., Ariz., N. Mex.

Genus UCLESIA Girschner

Uclesia Girschner, 1901: 69. Type-species, *fumipennis* Girschner (mon.).
Euclesia (error) Aldrich, 1926a: 24.

Atractouclesia Townsend, 1931b: 460. Type-species, *Uclesia retracta* Aldrich (orig. des.). **N. syn.**
Uclesiopsis Townsend, 1931b: 461. Type-species, *Uclesia varicornis* Curran (orig. des.). **N. syn.**

REFERENCE: Curran, 1927i (key).

retracta Aldrich, 1926a: 24.—Wash.; Alta.
varicornis Curran, 1927i: 300.—N. Dak.
zonalis Curran, 1927i: 299.—B.C.; Wash., Utah, Wyo.

Genus VORIA Robineau-Desvoidy

Voria Robineau-Desvoidy, 1830: 195. Type-species, *latifrons* Robineau-Desvoidy (mon.)=*ruralis* (Fallén).
Plagia Meigen, 1838: 201. Type-species, *Tachina verticalis* Meigen (Rondani, 1856: 69)=*ruralis* (Fallén).

aurifrons (Townsend), 1892e: 67 (*Plagia*).—Pa.; Mich. to Mass., s. to Ill. and Va.
ruralis (Fallén), 1810b: 265 (*Tachina*).—Sweden; B.C., U.S. se. to Miss. and D.C., Mexico, Europe.
americana Wulp, 1890: 102 (*Plagia*).—Mexico.

Genus WAGNERIA Robineau-Desvoidy

Wagneria Robineau-Desvoidy, 1830: 126. Type-species, *gagatea* Robineau-Desvoidy (mon.)=*costata* (Fallén).

REFERENCE: Reinhard, 1955c (rev.).

cornuta Curran, 1928b: 49.—Mass.; N.B. to Ohio and Conn.
major Curran, 1928b: 48.—Ark.; Mass., Miss., Ga., Fla.
ocellaris Reinhard, 1955c: 55.—Oreg.; Wash., Idaho, Calif.
pacata Reinhard, 1955c: 56.—Ohio; Alta., N. Dak., Calif., Colo.
vernata West, 1925: 127.—N.Y.; Minn. to Que., s. to Colo. and Conn., also B.C., Idaho, Calif.

Subfamily DEXIINAE

The food habits of the subfamily Dexiinae are varied. In addition to many lepidopterous larvae, some coleopterous larvae are parasitized, and a scattering of parasitism on other insects has been reported.

The divergent usage of the name Dexiinae is discussed under the genus *Dexia* below.

Tribe THELAIRINI

The hosts of the tribe Thelairini are lepidopterous larvae, notably in the families Noctuidae and Arctiidae.

Genus SPATHIDEXIA Townsend

Spathidexia Townsend, 1912a: 110. Type-species, *clemonsi* Townsend (orig. des.).

REFERENCE: Arnaud, 1960 (rev.).

cerussata Reinhard, 1934a: 152.—Ohio; Mich., Conn.
clemonsi Townsend, 1912a: 110.—Mass.; Mich. to Maine, s. to Ky. and N.C., also N. Mex., Tex.
creolensis Reinhard, 1955a: 131.—Fla.; La.
dunningii (Coquillett), 1895j: 54 (*Thryptocera*).—Ill.; Alta. to N.B., entire U.S., also P.R., Jamaica.
rasilis Reinhard, 1934a: 153.—Wis.
nexa Reinhard, 1953d: 94.—Mexico (D.F.); Ariz.
reinhardi Arnaud, 1960: 26.—Tex.; Sask. to N.B., s. to Calif. and Miss.

Genus THELAIRA Robineau-Desvoidy

Thelaira Robineau-Desvoidy, 1830: 214. Type-species, *abdominalis* Robineau-Desvoidy (Townsend, 1916d: 9)=*nigripes* (Fabricius).

americana Brooks, 1945a: 88.—Que.; B.C. to N.S., entire U.S., Mexico.
leucozona, authors, not Panzer.
nigripes, authors, not Fabricius.
bryanti Curran, 1925f: 281.—Alta.; Alaska, Alta. to Calif. and Colo.

Tribe DEXIINI

Genus DEXIA Meigen

Dexia Meigen, 1826: 33. Type-species, *Musca volvulus* Fabricius (Westwood, 1840: 139).
Phyllomya Robineau-Desvoidy, 1830: 213. Type-species, *Musca volvulus* Fabricius (mon.).
Neadmontia Townsend, 1912d: 164. Type-species, *Admontia limata* Coquillett (orig. des.).
Ocypterosoma Townsend, 1915a: 19. Type-species, *Admontia polita* Coquillett (orig. des.).

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The generic name *Dexia*, and the higher categories Dexiini and Dexiinae founded upon it, have been subject to very diverse usage. The nomenclaturally correct use, based on the oldest valid type designation for *Dexia*, is that adopted by Townsend and followed here. European and older American literature use the name *Phyllomya* for the present genus, and *Dexia* instead of *Dexilla* of this catalog (see tribe Dexillini, subfamily Proseninae).

REFERENCE: Curran, 1927m (key, as *Phyllomya*).

fuscicosta (Curran), 1927m: 147 (*Phyllomya*).—B.C.

limata (Coquillett), 1902g: 105 (*Admontia*).—Idaho; Calif., Colo., Man.

polita (Coquillett), 1898c: 234 (*Admontia*).—N.Y.; Mich. and Ohio to Maine, also Fla.

Tribe MACQUARTIINI

Species of the tribe Macquartiini parasitize a variety of hosts, including larvae of chrysomelid beetles, of various lepidopterous families, and of sawflies.

Genus ALASKOPHYTO Townsend

Alaskophyto Townsend, 1915c: 285. Type-species, *Muscopteryx obscura* Coquillett (orig. des.).

obscura (Coquillett), 1902g: 116 (*Muscopteryx*).—Alaska.

Genus ANTHOMYIOPSIS Townsend

Anthomyiopsis Townsend, 1916e: 20. Type-species, *cypseloides* Townsend (orig. des.).

cypseloides Townsend, 1916e: 21.—N.H.; Alaska.

Genus ATHANATUS Reinhard

Phytopsis Townsend, 1915a: 20 (preocc. Hall, 1947). Type-species, *Amobia californica* Coquillett (orig. des.).

Athanatus Reinhard, 1947a: 15. Type-species, *knowltoni* Reinhard (orig. des.)=*californicus* (Coquillett).

Phytopsis Hall, though proposed for "?Plantae," is based on a type-species now considered to represent the work of an animal.

californicus (Coquillett), 1895k: 100 (*Amobia*).—Calif.; Oreg., Idaho, Utah, Colo. **N. comb.**

knowltoni Reinhard, 1947a: 16.—Utah.

Genus DYSCOLOMYIA Reinhard

Dyscolomyia Reinhard, 1959b: 226. Type-species, *lucina* Reinhard (orig. des.).

lucina Reinhard, 1959b: 227.—Calif.

Genus EUBRACHYMERA Townsend

Eubrachymera Townsend, 1919c: 162. Type-species, *debilis* Townsend (orig. des.).

debilis Townsend, 1919c: 162.—S. Dak.; N. Dak. to Maine, s. to Tenn.

Genus EULASIONA Townsend

Eulasiona Townsend, 1892a: 119. Type-species, *comstocki* Townsend (orig. des.).

REFERENCE: Curran, 1927m (key).

Subgenus EULASIONA Townsend

comstocki Townsend, 1892a: 120.—N.Y.; Minn. to Que., s. to Kans. and Va., also B.C., Calif., Ariz., Ga.

nigra Curran, 1924g: 194.—B.C.; B.C. to Calif. and Ariz., also ?Mich.

Subgenus PARAMUSCOPTERYX Townsend

Paramuscopteryx Townsend, 1915f: 218 (as genus). Type-species, *genalis* Townsend (orig. des.). **N. status.**

Townsendina Curran, 1934a: 427, 464. Type-species, *fasciata* Curran (orig. des.). **N. syn.** (genus and subg.).

fasciata (Curran), 1934a: 464 (*Townsendina*).—Colo. **N. comb.**

genalis (Townsend), 1915f: 219 (*Paramuscopteryx*).—Idaho; Wash. to Calif. and Colo., also Vt.

Genus GIBSONOMYIA Curran

Gibsonomyia Curran, 1925f: 281. Type-species, *nigricosta* Curran (orig. des.).=*washingtoniana* (Bigot).

washingtoniana (Bigot), 1888a: 269 (*Morinia*).—Wash.; B.C. to Mont., s. to Calif. and Colo.

nigricosta Curran, 1925f: 282.—Alta.

Genus GRISDALEMYIA Curran

Steinia Brauer and Bergenstamm, 1893: 136 (1893: 48) (preocc. Diesing, 1866). Type-species, *Tachina protuberans* Zetterstedt (mon.) = *callida* (Meigen).

Steiniella Berg, 1898: 17 (n. name for *Steinia* Brauer and Bergenstamm, but preocc. Schuett, 1895). Type-species, *Tachina protuberans* Zetterstedt (aut.) = *callida* (Meigen).

Grisdalemyia Curran, 1926c: 133. Type-species, *bigelowi* Curran (orig. des.).

Psiloneura Aldrich, 1926d: 23. Type-species, *flavisquama* Aldrich (orig. des.) = *bigelowi* Curran.

aldrichi Curran, 1926c: 135.—Calif.; B.C.

bigelowi Curran, 1926c: 134.—Ont.; Calif., Mich., Ohio.

flavisquama Aldrich, 1926d: 23 (*Psiloneura*).—Mich.

setosa Reinhard, 1937: 72.—S. Dak.; Nebr.

Genus ICTERICOPHYTO Townsend

Ictericophyto Townsend, 1916h: 626. Type-species, *Eulasiona spinosa* Coquillett (orig. des.).

Celotrophus Reinhard, 1958d: 280. Type-species, *soporis* Reinhard (orig. des.) = *catskillensis* (West). **N. syn.,** H. J. Reinhard *in litt.*

catskillensis (West), 1925: 125 (*Eulasiona*).—N.Y.; Mich., Ohio.

soporis Reinhard, 1958d: 281 (*Celotrophus*).—Ohio. **N. syn.,** H. J. Reinhard *in litt.*

spinosa (Coquillett), 1897: 53 (*Eulasiona*).—Alaska; B.C., Ont., Que.

tibialis (Curran), 1927m: 150 (*Eulasiona*).—Que.; B.C.

Genus LASIONALIA Curran

Lasionalia Curran, 1934a: 437, 467. Type-species, *cinerea* Curran (orig. des.).

cinerea Curran, 1934a: 467.—Minn.; Wash., Calif., Ohio, N.C.

Genus MELEDONUS Aldrich

Meledonus Aldrich, 1926d: 15. Type-species, *latipennis* Aldrich (orig. des.).

albiceps Reinhard, 1956a: 126.—Calif.; Utah.

latipennis Aldrich, 1926d: 16.—Calif.

lindensis Reinhard, 1953a: 57.—Wash.

Genus METOPOMUSCOPTERYX Townsend

Metopomuscopteryx Townsend, 1915f: 219. Type-species, *Muscopteryx tibialis* Coquillett (orig. des.).

fatigantis Reinhard, 1958d: 284.—Calif.
incurata Reinhard, 1958d: 283.—Ariz.
tibialis (Coquillett), 1902g: 115 (*Muscopteryx*).—Idaho; B.C. to Calif., Ariz., and Mo.

Genus MINELLA Robineau-Desvoidy

Minella Robineau-Desvoidy, 1830: 209. Type-species, *nitida* Robineau-Desvoidy (mon.) = *nigrita* (Fallén).

americana Reinhard, 1943c: 14.—Ohio.

Genus MUSCOPTERYX Townsend

Muscopteryx Townsend, 1892e: 170. Type-species, *chaetosula* Townsend (orig. des.).
Psammoppia Townsend, 1915a: 20. Type-species, *Brachycoma pulverea* Coquillett (orig. des.) = *chaetosula* Townsend.

REFERENCE: Reinhard, 1944a (rev.).

chaetosula Townsend, 1892e: 171.—Mexico (Chih.); B.C., Wash., Calif., Ariz., Kans., Tex.
pulverea Coquillett, 1897: 132 (*Brachycoma*).—Tex.
hiemalis Reinhard, 1944a: 355.—Wis.
hilaris Reinhard, 1944a: 355.—Tex.; Miss., Ga.
hinei Reinhard, 1944a: 354.—Fla.
longiseta Reinhard, 1944a: 355.—Calif.
nitida Reinhard, 1944a: 357.—Calif.
parilis Reinhard, 1944a: 356.—Tex.; Calif., Ariz., Wyo.
petentis Reinhard, 1958d: 280.—Ariz.; Mexico (Baja Calif.).

Genus MYIOCLONIA Reinhard

Myioclonia Reinhard, 1945a: 28. Type-species, *erythrocera* Reinhard (orig. des.).

albertana Reinhard, 1945a: 29.—Alta.
erythrocera Reinhard, 1945a: 29.—Tenn.; Ont.
nigricornis Reinhard, 1945a: 30.—Wash.

Genus OCHROCERA Townsend

Ochrocera Townsend, 1916e: 17. Type-species, *vaginalis* Townsend (orig. des.).

vaginalis Townsend, 1916e: 18.—N.H.; Maine.

Genus PELATACHINA Meade

Hyria Robineau-Desvoidy, 1863a: 1100 (preocc. Lamarck, 1819). Type-species, *Tachina tibialis* Fallén (as Meigen; orig. des.).

Tachina, subg. **Pelatachina** Meade, 1894: 109 (n. name for *Hyria* Robineau-Desvoidy). Type-species, *tibialis* Fallén (aut.).

Eohyria Townsend, 1915a: 23. Type-species, *Pelatachina pellucida* Coquillett (orig. des.). **N. syn.,** L. P. Mesnil *in litt.*

REFERENCE: Curran, 1927d (key).

limata Coquillett, 1902g: 107.—Idaho; B.C. to N. Dak., s. to Calif.
orillia Curran, 1927d: 23.—Ont.; Mich.
pellucida Coquillett, 1897: 65.—U.S.; B.C., Wash., Oreg., Colo., Ont.

Genus PSEUDOMORINIA Wulp

Pseudomorinia Wulp, 1891b: 213, 259. Type-species, *pictipennis* Wulp (sub. mon., Wulp, 1891b: 260).

pictipennis Wulp, 1891b: 260.—Mexico (Guerrero); Ariz.

Genus XANTHOCERA Townsend

Xanthocera Townsend, 1915a: 22. Type-species, *clistoides* Townsend (orig. des.).

atra Townsend, 1919b: 569.—Ill.; N.Y., N.J.
clistoides Townsend, 1915a: 22.—Ill.; Kans.
johnsoni Townsend of Coquillett, 1897: 64 (in *Hyalurgus*).
lucentis Reinhard, 1962a: 174.—N.Y.

Tribe HYALURGINI

The species of *Hyalurgus* parasitize Tenthredinidae.

Genus Hyalurgus Brauer and Bergenstamm

Hyalurgus Brauer and Bergenstamm, 1893: 136 (1893: 48). Type-species, *Tachina crucigera* Zetterstedt (mon.; misident.) = *lucidus* (Meigen).

lucidus (Meigen), 1824: 268 (*Tachina;* n. name for *diaphana* Fallén).—Sweden; Europe, introd. Man., ?estab.
diaphana Fallén, 1820g: 33 (*Tachina;* preocc. Fabricius, 1805).—Sweden.

Tribe ICELIINI

Genus ERVIA Robineau-Desvoidy

Ervia Robineau-Desvoidy, 1830: 225. Type-species, *Ocyptera triquetra* Olivier (mon.).

Paranaphora Townsend, 1908: 72. Type-species, *diademoides* Townsend (orig. des.)=*triquetra* (Olivier).

triquetra (Olivier), 1812: 423 (*Ocyptera*).—Carolina; Kans. to N.Y., s. to Cent. Amer. and Ga.

mestor Walker, 1849: 741 (*Tachina*).—N. Amer. (as New Zealand, error).

diademoides Townsend, 1908: 73 (*Paranaphora*).—Miss.

Tribe ZELIINI

The hosts of the species of Zeliini are coleopterous larvae.

Genus METADEXIA Coquillett

Metadexia Coquillett, 1899d: 220. Type-species, *tricolor* Coquillett (orig. des., as gen. n., sp. n.).

tricolor Coquillett, 1899d: 220.—La.; Nev. to Pa., s. to Mexico, La., and Md.

Genus MINTHOZELIA Townsend

Minthozelia Townsend, 1919b: 556. Type-species, *montana* Townsend (orig. des.).

REFERENCE: Reinhard, 1946b (rev.).

argentosa Reinhard, 1946b: 55.—Tex.; Ariz.
gracilis Reinhard, 1946b: 56.—N. Mex.; Calif. to Tex.
metalis Reinhard, 1946b: 57.—Ohio; Pa., N.C.
mira Reinhard, 1946b: 56.—Tex.
montana Townsend, 1919b: 557.—Ariz.
nitens Reinhard, 1946b: 58.—Ariz.; Calif., Nev., N. Mex.
ruficauda Reinhard, 1946b: 58.—N.Y.

Genus ZELIA Robineau-Desvoidy

Zelia Robineau-Desvoidy, 1830: 314. Type-species, *rostrata* Robineau-Desvoidy (Coquillett, 1910b: 621)=*vertebrata* (Say).

Leptoda Wulp, 1885: 196. Type-species, *Dexia gracilis* Wiedemann (Wulp, 1891b: 250)=*vertebrata* (Say).

Euzelia Townsend, 1915a: 23. Type-species, *Zelia wildermuthii* Walton (orig. des.).

rufina (Bigot), 1885c: xxvi (*Homodexia*).—Calif.

vertebrata (Say), 1829: 176 (1859b: 366) (*Dexia*).—Ind.; Wash. to to Colo. to Que. and Maine, s. to Mexico and Fla.

gracilis Wiedemann, 1830: 373 (*Dexia*).—Unknown.

rostrata Robineau-Desvoidy, 1830: 315.—N. Amer.

wildermuthii Walton, 1914a: 177.—N. Mex.; Calif., Colo.

zonata (Coquillett), 1895a: 315 (*Gymnodexia*).—Fla.; Ind. to N.J., s. to Fla.

Tribe URAMYINI

Species of the tribe Uramyini parasitize various lepidopterous larvae.

Genus ANAPORIA Townsend

Anaporia Townsend, 1919b: 560. Type-species, *Aporia limacodis* Townsend (orig. des.).

REFERENCE: Aldrich, 1921a (key, in *Pseudeuantha*).

limacodis (Townsend), 1892m: 275 (*Aporia*).—N.Y.; Mich. to Maine, s. to Ga.

coquilletti Aldrich, 1921a: 90 (*Pseudeuantha*).—Mass.

pristis (Walker), 1849: 841 (*Dexia*).—Mass.; Mich. to N.H., s. to Ga.

basalis Walker, 1852: 281 (*Tachina*; preocc. Walker, 1836).—Unknown.

johnsoni Townsend, 1892e: 81 (*Macquartia*).—Pa. **N. syn.**

isae Coquillett, 1897: 96 (*Exorista*).—D.C. **N. syn.**

rubripes (Aldrich), 1921a: 91 (*Pseudeuantha*).—Fla.; Tex.

Genus PARAPORIA Townsend

Aporia Macquart, 1846: 296 (1846: 168) (preocc. Hübner, 1819). Type-species, *quadrimaculata* Macquart (mon.).

Neaporia Townsend, 1908: 67 (n. name for *Aporia* Macquart, but preocc. Gorham, 1897). Type-species, *Aporia quadrimaculata* Macquart (aut.).

Paraporia Townsend, 1912c: 48 (n. name for *Neaporia* Townsend). Type-species, *Aporia quadrimaculata* Macquart (aut.).

quadrimaculata (Macquart), 1846: 297 (1846: 169) (*Aporia*).—Colombia; Ariz., Mexico, Neotropical.

Genus PSEUDEUANTHA Townsend

Pseudeuantha Townsend, 1915g: 416. Type-species, *linellii* Townsend (orig. des.)=*indita* (Walker).

REFERENCE: Aldrich, 1921a (key).

indita (Walker), 1861: 306 (?*Lydella*).—Mexico; Ariz., El Salvador.
caloptera Bigot, 1888a: 263 (*Tricoliga*).—Mexico.
umbratilis Reinhard, 1935b: 164.—Tex.; Ariz., Mexico.

Genus URAMYA Robineau-Desvoidy

Uramya Robineau-Desvoidy, 1830: 215. Type-species, *producta* Robineau-Desvoidy (mon.).
Uromacquartia Townsend, 1916h: 626. Type-species, *halisidotae* Townsend (orig. des.).

aldrichi Reinhard.—Not n. of Mexico.
halisidotae (Townsend), 1916h: 626 (*Uromacquartia*).—Oreg.; B.C. to Calif. and Ariz.

Tribe URODEXIINI

The species of Urodexiini are chiefly parasites of beetle larvae, and a few attack roaches.

Genus CHAETONODEXODES Townsend

Chaetonodexodes Townsend, 1916i: 321. Type-species, *rafaeli* Townsend (orig. des.).

The species of *Chaetonodexodes* parasitize chrysomelid larvae.

vanderwulpi (Townsend), 1892h: 131 (*Myothyria*).—Fla.; Calif. and Colo. to Fla. **N. comb.**

Genus CHOLOMYIA Bigot

Cholomyia Bigot, 1884d: xxxvii. Type-species, *inaequipes* Bigot (mon.).

inaequipes Bigot, 1884d: xxxvii.—Mexico; Wis. and Ont. to Mass., s. to Ariz., Cent. Amer., and Fla.
nigriceps Williston, 1908: 353, fig. 146.—Unknown.
longipes, authors, not Fabricius.
flavipes Coquillett *in* Johnson, 1905b: 78 (*Metadexia*). Nomen nudum.

Genus PHYLLOPHILOPSIS Townsend

Phyllophila Townsend, 1915a: 21 (preocc. Guenée, 1852). Type-species, *Chaetona nitens* Coquillett (orig. des.).

Phyllophilopsis Townsend, 1915b: 78 (n. name for *Phyllophila* Townsend). Type-species, *Chaetona nitens* Coquillett (aut.).

evanida Reinhard, 1958b: 233.—Va.; N.Y. and Mass. to Va.

nitens (Coquillett), 1899d: 221 (*Chaetona*).—N.H.; Ohio to Maine, s. to Ga.

americana, authors (as *Chaetona*), not Bigot.

Tribe EBENIINI

Genus CHAETONOPSIS Townsend

Chaetonopsis Townsend, 1915a: 21. Type-species, *Chaetona spinosa* Coquillett (orig. des.).

Neonyctia Townsend, 1919c: 163. Type-species, *ciliata* Townsend (orig. des.)=*spinosa* (Coquillett). **N. syn.**

spinosa (Coquillett), 1899d: 222 (*Chaetona*).—Pa.; Kans. to N.Y. and R.I., s. to Okla. and Ga.

ciliata Townsend, 1919c: 163 (*Neonyctia*).—Kans. **N. syn.**

Tribe SOPHIINI

Genus EUANTHA Wulp

Euantha Wulp, 1885: 198. Type-species, *Dexia dives* Wiedemann (mon.)=*litturata* (Olivier).

litturata (Olivier), 1812: 423 (*Ocyptera*).—Carolina; Colo., Pa., Ky., Ga., Fla., Mexico.

liturata, emend. or error.

dives Wiedemann, 1830: 377 (*Dexia*).—Ky.

pictipennis Macquart, 1843a: 224 (1843: 67) (*Sericocera*).—Pa.

Genus EUCORDYLIGASTER Townsend

Eucordyligaster Townsend, 1917d: 123. Type-species, *Cordyligaster septentrionalis* Townsend (orig. des.).

Cordyligaster, authors, not Macquart.

septentrionalis (Townsend), 1909: 250 (*Cordyligaster*).—Md.; Kans. to Pa., s. to La. and Fla.

minuscula, authors, not Wulp.

Tribe ERIOTHRIXINI

The species of Eriothrixini are parasites of lepidopterous larvae.

Genus ATROPHOPALPUS Townsend

Atrophopalpus Townsend, 1892h: 130. Type-species, *angusticornis* Townsend (orig. des.).

REFERENCE: Reinhard, 1934d (rev., in *Ceratomyiella*).

angusticornis Townsend, 1892h: 131.—Fla.; Ga.

orbitalis (Reinhard), 1934d: 16 (*Ceratomyiella*).—N.J.; Miss. **N. comb.** The species is not renamed because it has escaped from the secondary homonymy created in *Ceratomyiella* when Townsend (1939b: 181) transferred *Paradidyma orbitalis* Coquillett, 1904 (Neotropical), to that genus. If *Atrophopalpus* and *Ceratomyiella* finally prove to be synonymous, as once suggested, *orbitalis* Reinhard will require a new name.

Genus CATEMOPHRYS Townsend

Wulpia Brauer and Bergenstamm, 1893: 128, 188 (1893: 40, 100) (preocc. Bigot, 1886). Type-species, *aperta* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.)=*sequens* (Townsend).

Catemophrys Townsend, 1908: 65. Type-species, *Vanderwulpia sequens* Townsend (orig. des.).

Brauerimyia Townsend, 1908: 65 (n. name for *Wulpia* Brauer and Bergenstamm). Type-species, *Wulpia aperta* Brauer and Bergenstamm (aut.)=*sequens* (Townsend).

sequens (Townsend), 1892e: 172 (*Vanderwulpia*).—N. Mex.; Ariz. to Ala., s. to Mexico.

aperta Brauer and Bergenstamm, 1893: 128, 188 (1893: 40, 100) (*Wulpia*).—Mexico (V.C.).

Genus CERATOMYIELLA Townsend

Ceratomyiella Townsend, 1891c: 379. Type-species, *conica* Townsend (orig. des.).

REFERENCE: Reinhard, 1934d (rev.).

bicincta Reinhard, 1934d: 13.—Tex.; Calif. to Ark., s. to Mexico.

conica Townsend, 1891c: 380.—Ill.; Kans. to N.Y., s. to Tex. and Ga.

Genus EPIDEXIA Townsend

Epidexia Townsend, 1912a: 112. Type-species, *filamentosa* Townsend (orig. des.)=*pulverea* (Coquillett).

mimela Reinhard, 1953c: 96.—Tex.; Mexico.

pulverea (Coquillett), 1897: 115 (*Masicera*).—Ga., Fla.; Tex., La., Md. to Fla.

filamentosa Townsend, 1912a: 112.—Fla.

Genus MICROMINTHO Townsend

Micromintho Townsend, 1919b: 554. Type-species, *melania* Townsend (orig. des.).

Metallicomintho Townsend, 1919b: 555. Type-species, *abdominalis* Townsend (orig. des.)=*melania* Townsend.

REFERENCE: Reinhard, 1955c (rev.).

melania Townsend, 1919b: 555.—Ariz.; Alta., Calif. to New England and Fla.

abdominalis Townsend, 1919b: 555 (*Metallicomintho*).—Ariz.

cinerosa Reinhard, 1923: 268 (*Metachaeta*; preocc. Coquillett, 1902, when in *Wagneria*).—Tex.

distincta Curran, 1928b: 49 (*Wagneria*; n. name for *cinerosa* Reinhard).—Tex.

Genus PARADIDYMA Brauer and Bergenstamm

Paradidyma Brauer and Bergenstamm, 1891: 382 (1891: 78). Type-species, *Didyma validinervis* Wulp (mon.).

Atrophopoda Townsend, 1891c: 373. Type-species, *singularis* Townsend (orig. des.).

Lachnomma Townsend, 1892a: 103. Type-species, *magnicornis* Townsend (orig. des.)=*singularis* (Townsend).

Phytoadmontia Townsend, 1916h: 626. Type-species, *Admontia setigera* Coquillett (orig. des.).

REFERENCE: Reinhard, 1934d (rev.).

affinis Reinhard, 1934d: 35.—Tex; B.C., Calif. to Mass., s. to Mexico and Fla.

apicalis Reinhard, 1934d: 33.—Tex.; Ariz., N.C., Fla., Mexico, Guatemala.

aristalis Reinhard, 1934d: 28.—N. Mex.; Ariz.

cinerescens Reinhard, 1934d: 26.—Utah.

crassiseta Reinhard, 1934d: 27.—Mexico (Chih.); Ariz., N. Mex.

neglecta (West), 1925: 125 (*Eulasiona*).—N.Y.; Iowa.
neomexicana Reinhard, 1934d: 23.—N. Mex.; Ariz., ?Idaho.
obliqua Reinhard, 1934d: 22.—Idaho; Wash. and Idaho, s. to Calif. and Tex.
retracta Reinhard, 1934d: 26.—Utah. **N. syn.**
petiolata Reinhard, 1934d: 39.—Ind.; Iowa to Mich. to N.J. and Va., also Ga.
setigera (Coquillett) *in* Baker, 1904: 36 (*Admontia*).—Calif.; Ariz.
singularis (Townsend), 1891c: 374 (*Atrophopoda*).—Ill.; Mont. to Mass., s. to Calif., Mexico, and Fla.
magnicornis Townsend, 1892a: 104 (*Lachnomma*).—N. Mex.

Genus PERISCEPSIA Gistel

Scopolia Robineau-Desvoidy, 1830: 268 (preocc. Hübner, 1825 or earlier). Type-species, *Musca carbonaria* Panzer (Zetterstedt, 1844: 1239).
Periscepsia Gistel, 1848: x (n. name for *Scopolia* Robineau-Desvoidy). Type-species, *Musca carbonaria* Panzer (aut.).
Phoricheta Rondani, 1861a: 8 (n. name for *Scopolia* Robineau-Desvoidy). Type-species, *Musca carbonaria* Panzer (aut.).
Metachaeta Coquillett, 1895k: 98. Type-species, *atra* Coquillett (orig. des.) = *laevigata* (Wulp).
Eutricogena Townsend, 1915a: 23. Type-species, *Tricogena setipennis* Coquillett (orig. des.) = *clesides* (Walker).
Neophorichaeta Smith, 1915b: 100. Type-species, *johnsoni* Smith (orig. des.) = *clesides* (Walker).
Polideosoma Townsend, 1915f: 226. Type-species, *rohweri* Townsend (orig. des.).
Wagneria, authors, in part, not Robineau-Desvoidy.

REFERENCE: Reinhard, 1955c (rev., *Wagneria sens. lat.*).

cinerosa (Coquillett), 1902g: 116 (*Phorichaeta*).—Ariz.; B.C. to Mont., s. to Calif., Ariz., and Colo. **N. comb.**
clesides (Walker), 1849: 757 (*Tachina*).—N. Amer.; Alaska to Sask., s. to Oreg., also Minn. to N.B. and Maine, s. to Ohio. **N. comb.**
setipennis Coquillett, 1897: 130 (*Tricogena*).—N.H. **N. comb.**
johnsoni Smith, 1915b: 100 (*Neophorichaeta*).—Maine. **N. comb.**
ontario Curran, 1926b: 87 (*Peteina*).—Ont. **N. comb.**

helymus (Walker), 1849: 795 (*Tachina*).—Maine; Alaska, B.C., and Que., U.S., s. to Calif., N. Mex., Kans., and Conn. **N. comb.**

sequax Williston *in* Cook, 1884: 424 (1884: 5; 1885: 83) (*Scopolia*).—Mich. **N. comb.**

labradorensis (Brooks), 1945a: 92 (*Petinops*).—Labr. **N. comb.**

laevigata (Wulp), 1890: 205 (*Rhinophora*).—Mexico; B.C. and Que., U.S., s. to Calif., Tex., and Va., Mexico, Guatemala. **N. comb.**

atra Coquillett, 1895k: 99 (*Metachaeta*).—Ill. **N. comb.**

carbonaria, authors, not Panzer.

helymus, authors, not Walker.

polita (Brooks), 1945a: 92 (*Eutricogena*).—B.C.; Oreg. **N. comb.**

rohweri (Townsend), 1915f: 227 (*Polideosoma*).—Colo.; Wash. to Mont. and Colo. **N. comb.**

Genus VANDERWULPIA Townsend

Vanderwulpia Townsend, 1891c: 381. Type-species, *atrophopodoides* Townsend (orig. des.).

atrophopodoides Townsend, 1891c: 381.—N. Mex.; Calif. to Tex., s. to Mexico (Chih.).

Tribe LESKIINI

Species of the tribe Leskiini are parasites of lepidopterous larvae, especially of concealed kinds such as borers, leaf rollers, and case-makers.

The generic classification of the tribe is subject to wide difference of opinion. It has been suggested that *Leskiomima*, *Dejeaniopalpus*, and *Leskiella* are synonyms of *Genea*, and perhaps this will ultimately be the arrangement. However, it seems better to recognize them as distinct taxa until the classification of the entire tribe can be thoroughly reviewed, rather than to propose synonymy that might soon have to be revised. The four nominal genera are covered by James (1947) in his revision of the Leskiini with setulose first vein.

Dexia analis Say, a name once used commonly in this and other tribes, has been applied to several species and is best left unrecognized.

REFERENCE: James, 1947 (partial rev.).

Genus DEJEANIOPALPUS Townsend

Dejeaniopalpus Townsend, 1916i: 312. Type-species, *texensis* Townsend (orig. des.).

texensis Townsend, 1916i: 312.—Tex.; Tex., Mich., Que. to Va.

Genus EUMYOBIA Townsend

Eumyobia Townsend, 1911a: 146 (also 1912b: 312). Type-species, *flava* Townsend (orig. des., as gen. n., sp. n.).

Unnamed sp.—Ga.

Genus GENEA Rondani

Genea Rondani, 1850a: 172. Type-species, *maculiventris* Rondani (mon.) = *trifaria* (Wiedemann).

aurea James, 1947: 112.—Va.; Kans. to Mich. and N.Y., s. to Fla.

Genus JAYNESLESKIA Townsend

Jaynesleskia Townsend, 1934c: 395. Type-species, *Leskiomima jaynesi* Aldrich (orig. des.).

Unnamed sp.—Kans., Fla.

Genus LESKIELLA James

Leskiella James, 1947: 96. Type-species, *brevirostris* James (orig. des.).

brevirostris James, 1947: 97.—Ga.; Ill. to Md., s. to Fla.

Genus LESKIOMIMA Brauer and Bergenstamm

Leskiomima Brauer and Bergenstamm, 1891: 372, 406 (1891: 68, 102) (as *Lesciomima*, p. 372 (68) in part). Type-species, *Stomoxys tenera* Wiedemann (mon.).

Leskiomera (error) Banks, 1912: 110.

cinerea James, 1947: 101.—Fla.

tenera (Wiedemann), 1830: 251 (*Stomoxys*).—N. Amer. (as Unknown; Townsend, 1939b: 224); Wis. to Que. and N.S., s. to Tex. and Fla.

Genus MYOBIOPSIS Townsend

Myobiopsis Townsend, 1916h: 628. Type-species, *similis* Townsend (orig. des.).

Leskiopalpus Townsend, 1916h: 629. Type-species, *calidus* Townsend (orig. des.) = *depilis* (Coquillett). **N. syn.**

depilis (Coquillett), 1895a: 313 (*Myiobia*).—Fla.; Mich. to Mass., s. to Miss. and Fla. **N. comb.**

calidus Townsend, 1916h: 629 (*Leskiopalpus*).—N.Y. **N. comb.**

similis Townsend, 1916h: 628.—Mass.; Nebr., Iowa, N.Y., Maine, Conn., N.J.

pallida Harris, 1835: 599 (*Stomoxys*). Nomen nudum.

Genus SIPHOCLYTIA Townsend

Siphoclytia Townsend, 1892a: 116. Type-species, *robertsonii* Townsend (orig. des.).

robertsonii Townsend, 1892a: 117.—Fla.; Tex., La., Ga.

Genus SIPHOLESKIA Townsend

Sipholeskia Townsend, 1916h: 628. Type-species, *Drepanoglossa occidentalis* Coquillett (orig. des.).

loriola Reinhard, 1955d: 126.—Tex.; Mexico.
occidentalis (Coquillett), 1895c: 126 (*Drepanoglossa*).—Calif.; Calif. to Colo., s. to Mexico (Chih.).
gilensis Townsend, 1897e: 40 (*Myobia*).—N. Mex.
eucerata, authors, not Bigot.

Tribe TELOTHYRIINI

Genus LESKIOPSIS Townsend

Leskiopsis Townsend, 1916h: 627. Type-species, *Myiobia thecata* Coquillett (orig. des.).

thecata (Coquillett), 1895k: 105 (*Myiobia*).—Pa.; Ohio to Mass., s. to Fla.

Subfamily GONIINAE

(Exoristinae)

Tribe ACEMYINI

The hosts of the tribe Acemyini are members of the order Orthoptera.

Genus ACEMYA Robineau-Desvoidy

Acemya Robineau-Desvoidy, 1830: 202. Type-species, *subrotunda* Robineau-Desvoidy (Rondani, 1856: 75)=*acuticornis* (Meigen).
Acemyia, emend. or error.
Euacemyia Townsend, 1912d: 163. Type-species, *Acemyia tibialis* Coquillett (orig. des.).

masurius (Walker), 1849: 753 (*Tachina*).—N. Amer. Unrecognized.
tibialis Coquillett, 1897: 116.—Calif.; B. C. to Que., s. to Calif. and Tex.

Genus CERACIA Rondani

Ceracia Rondani, 1865: 221 (1865: 49). Type-species, *mucronifera* Rondani (mon.).

dentata (Coquillett), 1895a: 311 (*Acemyia*).—Calif., Ala., Fla.; B.C. to Ont., all U.S., Mexico.

Genus EUHALIDAYA Walton

Euhalidaya Walton, 1914d: 130 (as *Euhallidaya*, error). Type-species, *severinii* Walton (orig. des.)=*genalis* (Coquillett).

Orphanotrophus Reinhard, 1943b: 82. Type-species, *orbitalis* Reinhard (orig. des.)=*genalis* (Coquillett).

The sole species of this genus has been reared from *Diapheromera femorata*, a common walking stick.

genalis (Coquillett), 1897: 83 (*Biomyia*).—Ga.; Calif., Ariz., Kans., Wis., Ohio, Pa., Md., Va.

severinii Walton, 1914d: 130.—Wis.

orbitalis Reinhard, 1943b: 83 (*Orphanotrophus*).—Ohio.

Genus HEMITHRIXION Brauer and Bergenstamm

Hemithrixion Brauer and Bergenstamm, 1891: 357 (1891: 53). Type-species, *oestriforme* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Coquillettina Walton, 1915a: 104. Type-species, *plankii* Walton (orig. des.).

oestriforme Brauer and Bergenstamm, 1891: 357 (1891: 53).—Colo.; B.C. to Man., s. to Tex.

plankii (Walton), 1915a: 105 (*Coquillettina*).—N.J.; Wis., Ill.

Tribe BLONDELIINI

(Compsilurini, Trypherini in part)

The tribe Blondeliini corresponds to that recognized by Mesnil (1960). It includes most of the Compsilurini of Townsend and a large share of his tribe Trypherini. A variety of hosts is parasitized including larvae of Lepidoptera, Coleoptera, and tenthredinid Hymenoptera.

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Genus ADORYPHOROPHAGA Townsend

Adoryphorophaga Townsend, 1931b: 469. Type-species, *Doryphorophaga aberrans* Townsend (orig. des.).

aberrans (Townsend), 1916c: 217 (*Doryphorophaga*).—Va.; S. Dak. to Ont. and Mass., s. to Mo. and Va.

sedula (Reinhard), 1935c: 392 (*Doryphorophaga*).—Ohio; Colo. to N.Y., s. to Tex. and Fla.

patrita Reinhard, 1935c: 394 (*Doryphorophaga*).—Ohio. **N. syn.,** H. J. Reinhard *in litt.*

Genus ANOXYNOPS Townsend

Anoxynops Townsend, 1927: 274, 286. Type-species, *conicus* Townsend (orig. des.).

aldrichi (Curran), 1926d: 217 (*Paralispe*).—Que.; Mich. to Que., s. to Va., also Ariz., Tex. **N. comb.**

Genus APACHEPROSPHERYSA Townsend

Apacheprospherysa Townsend, 1926: 27. Type-species, *orbitalis* Townsend (orig. des.).

orbitalis Townsend, 1926: 28.—N. Mex.

Genus APLOMYIOPSIS Villeneuve

Aplomyiopsis Villeneuve, 1933: 125. Type-species, *galerucellae* Villeneuve (mon.).

Synaplomyia Villeneuve, 1934: 181 (unjustified n. name for *Aplomyiopsis* Villeneuve). Type-species, *Aplomyiopsis galerucellae* Villeneuve (aut.).

The hosts are larvae of Chrysomelidae and of the leaf-feeding coccinellid, *Epilachna*.

epilachnae (Aldrich), 1923e: 95 (*Paradexodes*).—Mexico; introd. 19 States, not estab. **N. comb.**

galerucellae Villeneuve, 1933: 125.—Oreg.; Calif.

lathami (Curran), 1925f: 284 (*Lydella*).—N.Y.; Ill. and Mich. to Mass., s. to Tenn. **N. comb.**

nana (Curran), 1929f: 506 (*Dexodes*).—B.C.; Calif.

opaca (Reinhard), 1945a: 30 (*Lixophaga*).—Wash.; Alta., Wyo., Mich., Que. **N. comb.**

seticauda (Reinhard), 1930b: 200 (*Masicera*).—Tex. **N. comb.**

unicolor (Smith), 1917b: 137 (*Pilatea*).—Maine, N.H., Mass., Conn.; Mont., N. Mex., N.Y., Labr. **N. comb.**

vexans (Curran), 1925c: 151 (*Hypostena*).—N.S.

xylota (Curran), 1927d: 22 (*Dexodes*).—Ont.; Wis. to Ont. and R.I.

Genus APOROTACHINA Meade

Tachina, subg. **Aporotachina** Meade, 1894: 109. Type-species, *angelicae* Meigen (Coquillett, 1910b: 509).

Neothelaira Townsend, 1912a: 109. Type-species, *dexina* Townsend (orig. des.).

Aulicomyia Reinhard, 1943b: 80. Type-species, *invulnerata* Reinhard (orig. des.)=*dexina* (Townsend). **N. syn.**

chaetoneura (Coquillett), 1897: 115 (*Masicera*).—N.H.; B.C. and Alta., s. to Calif. and Colo., also Mich. to Maine and Conn. **N. comb.**

dexina (Townsend), 1912a: 109 (*Neothelaira*).—Mass.; Ohio to Maine and R.I. **N. comb.**

aurifrons Coquillett, 1897: 115 (*Masicera*; preocc. Doleschall, 1858).—N.H. **N. comb.**

invulnerata Reinhard, 1943b: 81 (*Aulicomyia*).—Ohio. **N. comb.**

pusilla (Reinhard), 1953b: 244 (*Neothelaira*).—Mo.; N.C. **N. comb.**

Genus BLONDELIA Robineau-Desvoidy

Blondelia Robineau-Desvoidy, 1830: 122. Type-species, *Tachina nigripes* Fallén (Coquillett, 1910b: 515; Suspension of the Rules required).

Phrynolydella Townsend, 1919b: 572. Type-species, *polita* Townsend (orig. des.).

Pseudoeribea Townsend, 1926: 26. Type-species, *paradexoides* Townsend (orig. des.).

Anetia, authors, not Robineau-Desvoidy.

Lydella, authors, not Robineau-Desvoidy.

Acceptance of *nigripes* as the type-species of *Blondelia* is desirable for reasons of stability and universality. The earliest valid designation, by Townsend (1916d: 6), named *B. pallidipalpis* Robineau-Desvoidy, but this is a nomen dubium. Coquillett (1910b), although in agreement with long-established usage, technically failed to designate as type one of the originally included species, and Suspension of the Rules is required to validate his designation of *nigripes*.

connecta (Curran), 1925f: 286 (*Lydella*).—B.C. **N. comb.**

eufitchiae (Townsend), 1892d: 286 (*Masicera*).—Colo. **N. comb.**

hyphantriae (Tothill), 1922: 43 (*Lydella*).—B.C.; Minn. to Ont. and Mass., s. to D.C., also B.C., Wash., Colo. **N. comb.** ?=*obconica*.

hyphantriae Townsend, 1893h: 467 (*Nemoraea*). Nomen nudum.

inclusa (Hartig), 1838: 285 (*Tachina*).—Germany; Europe, introd. Que., not estab.

nigripes nigripes (Fallén), 1810b: 270 (*Tachina*).—Sweden; Europe, introd. N.H., Mass., Conn., not estab.

ssp. *piniariae* (Hartig), 1838: 283 (*Tachina*; as sp.).—Germany; Europe, introd. Maine, N.H., R.I., not estab.

obconica (Walker), 1852: 296 (*Tachina*).—U.S. **N. comb.**

paradexoides (Townsend), 1926: 27 (*Pseudoeribea*).—Mass. **N. comb.** ?=*eufitchiae*.

polita (Townsend), 1919b: 572 (*Phrynolydella*).—Ariz.; N. Mex., Mexico (Chih.). **N. comb.**

strigata, authors, not Wulp.

Genus CELATORIA Coquillett

Celatoria Coquillett, 1890: 235. Type-species, *crawii* Coquillett (orig. des.)=*diabroticae* (Shimer).

Chaetophleps Coquillett, 1895j: 51. Type-species, *setosa* Coquillett (orig. des.).

Neocelatoria Walton, 1914b: 13. Type-species, *ferox* Walton (mon.)=*setosa* (Coquillett).

diabroticae (Shimer), 1871: 219 (*Tachina*).—Ill.; Wash. to Mass., s. to Calif., Mexico, and Ga.

crawii Coquillett, 1890: 235.—Calif.

galerucae Harris, 1835: 599 (*Ocyptera*). Nomen nudum.

setosa (Coquillett), 1895j: 51 (*Chaetophleps*).—Md.; Oreg. to Mass., s. to Calif. and Ga.

ferox Walton, 1914b: 13 (*Neocelatoria*).—Md.

Genus CHARASOMA Reinhard

Charasoma Reinhard, 1952b: 10. Type-species, *subole* Reinhard (orig. des.).

pammelan Reinhard, 1952b: 12.—Oreg.; Calif.

reside Reinhard, 1952b: 12.—Ohio; Mich.

subole Reinhard, 1952b: 11.—Tex.; N.Y.

Genus COMPSILURA Bouché

Compsilura Bouché, 1834: 58. Type-species, *Tachina concinnata* Meigen (Coquillett, 1910b: 526).

The common *Compsilura concinnata* is probably the most polyphagous of the tachinids, with an estimated 200 known hosts among larvae of Lepidoptera. It is an especially valuable parasite of the gypsy moth.

concinnata (Meigen), 1824: 412 (*Tachina*).—Europe; introd. and estab., Minn. to P.E.I., s. to N.J., also B.C. to Calif.

Genus CRYPTOMEIGENIA Brauer and Bergenstamm

Cryptomeigenia Brauer and Bergenstamm, 1891: 311 (1891: 7). Type-species, *setifacies* Brauer and Bergenstamm (mon.).

Emphanopteryx Townsend, 1892a: 120. Type-species, *eumyothyroides* Townsend (orig. des.).

Eumyothyria Townsend, 1892a: 121. Type-species, *illinoiensis* Townsend (orig. des.).

Meigeniella Coquillett, 1902g: 104. Type-species, *hinei* Coquillett (orig. des.).

The species of *Cryptomeigenia* parasitize *Phyllophaga* larvae. The genus itself is easily recognized, but specific identification is virtually impossible at present.

REFERENCE: Curran, 1926k (rev., Canadian spp.)

brimleyi Reinhard, 1947a: 17.—N.C.; Ga.
crassipalpis Reinhard, 1947a: 18.—N.Y.
demylus (Walker), 1849: 779 (*Tachina*).—?N. Amer.
dubia Curran, 1926k: 164.—Ont.
eumyothyroides (Townsend), 1892a: 121 (*Emphanopteryx*).—N.Y.
flavibasis Curran, 1927m: 145.—Ill.
hinei (Coquillett), 1902g: 104 (*Meigeniella*).—Ohio.
illinoiensis (Townsend), 1892a: 122 (*Eumyothyria*).—Ill.
illinoisensis, error.
menapis (Walker), 1849: 769 (*Tachina*).—N. Amer. (as Sweden, error).
conica Harris, 1835: 599 (*Tachina*). Nomen nudum.
muscoides Curran, 1926k: 157.—Man.
nigripes Curran, 1926k: 162.—Ont.
nigripilosa Curran, 1926k: 161.—B.C.
ochreigaster Curran, 1926k: 165.—Man.
ontario Curran, 1926k: 159.—Ont. ?=*menapis*.
pedestris (Walker), 1852: 313 (*Dexia*).—U.S.
prisca (Walker), 1849: 780 (*Tachina*).—N.S.
simplex Curran, 1926k: 163.—Que.
theutis (Walker), 1849: 778 (*Tachina*).—N.S.
triangularis Curran, 1926k: 160.—Que.

Genus DOLICHOTARSUS Brooks

Dolichotarsus Brooks, 1945a: 94. Type-species, *kingi* Brooks (orig. des.).

griseus Brooks, 1945a: 95.—B.C.
kingi Brooks, 1945a: 95.—Sask.; Wash., N. Mex.
livescens Reinhard, 1958c: 226.—N. Mex.

Genus DORYPHOROPHAGA Townsend

Doryphorophaga Townsend, 1912d: 164. Type-species, *Lydella doryphorae* Riley (orig. des.).

REFERENCE: Reinhard, 1935c (rev.).

australis Reinhard, 1935c: 389.—Tex.; Ariz., Mexico, Fla.
doryphorae (Riley), 1869: 111 (*Lydella*).—Mo.; B.C. to N.S., s. to Ariz., Mexico, and S.C.
aerata Coquillett, 1897: 100 (*Exorista*).—Ill. **N. syn.**
macella Reinhard, 1935c: 390.—Tex.; Man. to Mass., s. to Calif., Mexico, and Fla.

Genus ELEPHANTOCERA Townsend

Elephantocera Townsend, 1915]: 98. Type-species, *greenei* Townsend (orig. des.).

greenei Townsend, 1915l: 99 .—N.J.; Ont.

Genus ERIBELLA Mesnil

Eribella Mesnil, 1960: 654. Type-species, *Masicera polita* Coquillett (mon.).

The known hosts for the genus *Eribella* are larvae of Pterophoridae.

exilis (Coquillett), 1897: 156 (*Masicera*).—Mass.; Mich. to N.B., s. to R.I. **N. comb.**
tothilli Curran, 1925c: 152 (*Hypostena*).—N.B. **N. syn., n. comb.**
tenthredinidarum Townsend of Coquillett, 1897: 114 (*Masicera*).
polita (Coquillett), 1902g: 114 (*Masicera*).—N. Mex.; B.C., Sask., Colo., Iowa, Mich., Ohio, Vt.

Genus ERYNNIOPSIS Townsend

Erynniopsis Townsend, 1926: 30. Type-species, *rondanii* Townsend (orig. des.).

extricata (West), 1925: 127 (*Hyperecteina*).—N.Y. **N. comb.** ?=*rondanii*.
rondanii Townsend, 1926: 30.—Europe; introd. 10 States, Idaho and Calif. to Mass., estab. only Calif.
nitida, authors (in *Erynnia*), not Robineau-Desvoidy.

Genus EUCELATORIA Townsend

Eucelatoria Townsend, 1909: 249. Type-species, *Tachina armigera* Coquillett (orig. des.).

armigera (Coquillett), 1889: 332 (*Tachina*).—Calif.; Calif. to Tex. and Mexico, also West Indies, introd. and estab. Hawaii.

rubentis (Coquillett), 1895a: 310 (*Achaetoneura*).—Fla.; Tenn., S.C., Ga.

Genus EUCELATORIOPSIS Townsend

Eucelatoriopsis Townsend, 1927: 276. Type-species, *teffeensis* Townsend (orig. des.).

Tachinophytopsis Townsend, 1927: 277. Type-species, *carinata* Townsend (orig. des.). **N. syn.**

Our species has been reared from the larvae of several cassidine Chrysomelidae.

dimmocki (Aldrich), 1932a: 5 (*Anetia*).—Mass.; N. Dak. to N.H., s. to Ariz., Mexico, and Fla. **N. comb.**

Genus LIXOPHAGA Townsend

Lixophaga Townsend, 1908: 86. Type-species, *parva* Townsend (orig. des.).

Euzenillia Townsend, 1911a: 148. Type-species, *aurea* Townsend (orig. des., as gen.n., sp.n.)=*variabilis* (Coquillett).

Euzenilliopsis Townsend, 1916g: 76. Type-species, *diatraeae* Townsend (orig. des.).

Erycioides Curran, 1930j: 103. Type-species, *thoracica* Curran (orig. des.). **N. syn.**

Prolixophaga Townsend, 1934c: 404. Type-species, *Lixophaga plumbea* Aldrich (orig. des.).

Variability, relationships, and synonymy in the commonly occurring genus *Lixophaga* are poorly understood.

References: Aldrich, 1925d (rev.); Curran, 1935b (key, males).

alberta (Curran), 1925c: 154 (*Hypostena*).—Alta.

diatraeae (Townsend), 1916g: 76 (*Euzenilliopsis*).—Cuba (as La., error); Neotropical, introd., La., Fla., estab. Fla.

fasciata Curran, 1930j: 100.—N.Y.; Mich., Ohio.

impatiens (Curran), 1925c: 154 (*Hypostena*).—Man.

jennei Aldrich, 1926d: 18.—Ark.; La., Fla.

mediocris Aldrich, 1925d: 136.—Va.; Ill. to N.J., s. to Miss. and Fla.

nigribasis Curran, 1930j: 100.—N.Y.; Mich.

orbitalis Aldrich, 1926d: 17.—Calif.

parva Townsend, 1908: 86.—Tex.
plumbea Aldrich, 1925d: 134.—Va.; Utah to Ont. and Conn., s. to Ariz. and Fla.
thoracica (Curran), 1930j: 103 (*Erycioides*).—N.Y. **N. comb.**
variabilis (Coquillett), 1895j: 57 (*Hypostena*).—Ill.; Man. to Maine, s. to Tex. and Fla., also B.C., Calif.
aurea Townsend, 1911a: 148 (*Euzenillia*).—Mass.

Genus LYDELLOHOUGHIA Townsend

Lydellohoughia Townsend, 1927: 280. Type-species, *nana* Townsend (orig. des.).

tenella (Reinhard), 1937: 65 (*Dexodes*).—Calif.; Ariz. **N. comb.**

Genus Lydinolydella Townsend

Lydinolydella Townsend, 1927: 278. Type-species, *metallica* Townsend (orig. des.).

metallica Townsend, 1927: 325.—Brazil; introd. N.J., Md., not estab.

Genus MEIGENIA Robineau-Desvoidy

Meigenia Robineau-Desvoidy, 1830: 198. Type-species, *Tachina floralis* Fallén (as Robineau-Desvoidy; Robineau-Desvoidy, 1863a: 1065; misident.)=*mutabilis* (Fallén).
Collatia Curran, 1934a: 423, 464. Type-species, *Zenillia submissa* Aldrich and Webber (mon.). **N. syn.**

albicincta (Reinhard), 1924b: 272 (*Pilatea*).—Tex. **N. comb.**
mutabilis (Fallén), 1810b: 273 (*Tachina*).—Sweden; Europe, introd. N.J., not estab.
floralis, authors, not Fallén.
submissa (Aldrich and Webber), 1924a: 30 (*Zenillia*).—N. Mex.; Alta. to S. Dak., s. to Ariz. and N. Mex., also Ohio. **N. comb.**
ornata Reinhard, 1937: 71 (*Collatia*).—Colo. **N. syn., n. comb.**

Genus MEIGENIELLOIDES Townsend

Meigenielloides Townsend, 1919b: 573. Type-species, *cinerea* Townsend (orig. des.).
Synoris Aldrich, 1926d: 12. Type-species, *coquilletti* Aldrich (orig. des.)=*cinerea* Townsend.

cinerea Townsend, 1919b: 574.—N. Mex.; Wash. to Wyo., s. to Mexico.
coquilletti Aldrich, 1926d: 13 (*Synoris*).—Calif.
pedestris, authors (in *Hypostena*), not Walker.

Genus METADORIA Brauer and Bergenstamm

Metadoria Brauer and Bergenstamm, 1893: 117 (1893: 29). Type-species, *mexicana* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.)=*barbata* (Bigot).

levis (Aldrich and Webber), 1924a: 86 (*Phorocera*).—N.J.; Nebr. and Kans. to N.Y. and N.J. **N. comb.**

Genus MYIOPHARUS Brauer and Bergenstamm

Myiopharus Brauer and Bergenstamm, 1889: 161 (1889: 93). Type-species, *metopia* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Parkeriellus Smith, 1916: 96. Type-species, *flavipalpis* Smith (orig. des.)=*dorsalis* (Coquillett).

canadensis Reinhard, 1945a: 31.—Que.; Ont.
dorsalis (Coquillett), 1898c: 236 (*Exorista*).—Pa.; Idaho to Ont. and N.Y., s. to Calif., Tex., Iowa, and N.J.
flavipalpis Smith, 1916: 97 (*Parkeriellus*).—Mont.
securis Reinhard, 1945a: 30.—Tex.

Genus OPSOMEIGENIA Townsend

Opsomeigenia Townsend, 1919b: 577. Type-species, *Hypostena pusilla* Coquillett (orig. des.).

flavipalpis (Reinhard), 1934b: 187 (*Anetia*).—Tex. **N. comb.**
pusilla (Coquillett), 1895j: 58 (*Hypostena*).—Ill.; Mo. to Md., also Tex.
parvula Reinhard, 1934b: 186 (*Anetia*).—Tex. **N. syn., n. comb.**

Genus OSWALDIA Robineau-Desvoidy

Oswaldia Robineau-Desvoidy, 1863a: 840. Type-species, *muscaria* Robineau-Desvoidy (orig. des.)=*muscaria* (Fallén).

Aubaeanetia Townsend, 1919b: 569. Type-species, *assimilis* Townsend (orig. des.).

Parameigenia Townsend, 1919b: 576. Type-species, *Paradexodes albifacies* Townsend (orig. des.).

Subgenus DEXODES Brauer and Bergenstamm

Dexodes Brauer and Bergenstamm, 1889: 87, 128 (1889: 19, 60) (as genus). Type-species, *Tachina spectabilis* Meigen (Brauer, 1893: 476; misident.)=*albisquama* (Zetterstedt).

Paradexodes Townsend, 1908: 101. Type-species, *aurifrons* Townsend (orig. des.).

aurifrons (Townsend), 1908: 101 (*Paradexodes*).—Mass.; Utah, Mich., Ohio.

minor (Curran), 1925f: 283 (*Lydella*).—Que.; Que. to Mich. and N.J., also Kans., N.C. **N. comb.**

sartura (Reinhard), 1959b: 234 (*Dexodes*).—N.Y.; Ohio. **N. comb.**

Subgenus OSWALDIA Robineau-Desvoidy

albifacies (Townsend), 1908: 102 (*Paradexodes*).—N.H.; Ont. to N.B., s. to Md.

anorbitalis (Brooks), 1945a: 96 (*Aubaeanetia*).—Que.; Ont., Md. **N. comb.**

assimilis (Townsend), 1919b: 570 (*Aubaeanetia*).—N.H.; N. Dak. to N.B., s. to Miss. and Ga.

conica (Reinhard), 1934b: 189 (*Dexodes*).—Wis. **N. comb.**

valida (Curran), 1927d: 21 (*Dexodes*).—Ont.; Wis. to Ont., s. to Ohio and Conn. **N. comb.**

Genus OXYNOPS Townsend

Oxynops Townsend, 1912a: 110. Type-species, *serratus* Townsend (orig. des.)=*anthracinus* (Bigot).

Euchaetophleps Townsend, 1916h: 625. Type-species, *Chaetophleps polita* Coquillett (orig. des.)=*anthracinus* (Bigot).

anthracinus (Bigot), 1888a: 259 (*Degeeria*).—Mexico; N. Dak. to Mass., s. to N. Mex., Mexico, and Fla.

nitens Coquillett, 1897: 63 (*Hypostena*).—Fla.

polita Coquillett, 1902g: 107 (*Chaetophleps*).—S. Dak.

serratus Townsend, 1912a: 110.—Fla.

Genus PANACEMYIA Townsend

Panacemyia Townsend, 1919c: 164. Type-species, *panamensis* Townsend (orig. des.).

Nimiocauda Reinhard, 1943b: 78. Type-species, *erilis* Reinhard (orig. des.).

erilis (Reinhard), 1943b: 79 (*Nimiocauda*).—N.Y.; Mass.

pallipes Reinhard, 1953b: 246.—Tex.; Ga.

verticalis Reinhard, 1953b: 247.—Ohio; Mass.

Genus PARALISPE Brauer and Bergenstamm

Paralispe Brauer and Bergenstamm, 1891: 337 (1891: 33). Type-species, *brasiliana* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Stomatolydella Townsend, 1919b: 570. Type-species, *infernalis* Townsend (orig. des.).

infernalis (Townsend), 1919b: 570 (*Stomatolydella*).—N. Mex.; Ariz. to Ill. and Ohio, s. to Mexico and Fla.

barbata Bigot of Allen, 1929: 683 (as *barbarta*).

inconspicua, authors (in *Didyma*), not Wulp.

Genus PHOENICIOMYIA Townsend

Phoeniciomyia Townsend, 1915f: 231. Type-species, *arizonica* Townsend (orig. des.).

arizonica Townsend, 1915f: 231.—Ariz.

Genus PHRYNOFRONTINA Townsend

Phrynofrontina Townsend, 1919b: 579. Type-species, *convexa* Townsend (orig. des.)=*discalis* (Coquillett).

discalis (Coquillett), 1902g: 114 (*Sturmia*).—Wis.; Minn. to Maine, s. to Ga. also Alta., Utah.

convexa Townsend, 1919b: 580.—Md.

Genus PSEUDOMYOTHYRIA Townsend

Pseudomyothyria Townsend, 1892a: 131. Type-species, *indecisa* Townsend (orig. des.)=*ancilla* (Walker).

Epidexiopsis Townsend, 1916i: 308. Type-species, *orbitalis* Townsend (orig. des.)=*ancilla* (Walker). **N. syn.**

ancilla (Walker), 1852: 299 (*Tachina*).—U.S.; Utah to Mich. and N.Y., s. to Mexico and Fla.

indecisa Townsend, 1892a: 132.—Ill.

orbitalis Townsend, 1916i: 308 (*Epidexiopsis*).—Fla. **N. syn., n. comb.**

Genus SCHIZOCEROPHAGA Townsend

Schizocerophaga Townsend, 1916g: 77. Type-species, *leibyi* Townsend (orig. des.).

leibyi Townsend, 1916g: 77.—N.C.; Kans. to Va., s. to Ariz., La., and S.C.

Genus SITOPHAGA Gistel

Fabricia Meigen, 1838: 250 (preocc. de Blainville, 1828). Type-species, *Tachina pacta* Meigen (mon.)=*cinerea* (Fallén).

Sitophaga Gistel, 1848: ix (n. name for *Fabricia* Meigen). Type-species, *Tachina pacta* Meigen (aut.)=*cinerea* (Fallén).

Biomya Rondani, 1856: 72. Type-species, *Tachina pacta* Meigen (present des.)=*cinerea* (Fallén). **N. syn.**

Biomyia, emend.

Viviania Rondani, 1861a: 48, 53 (as *Viviana*, p. 48) (n. name for *Fabricia* Meigen). Type-species, *Tachina pacta* Meigen (aut.)=*cinerea* (Fallén). **N. syn.**

Pseudatractocera Townsend, 1892a: 107. Type-species, *neomexicana* Townsend (orig. des.). **N. syn.**

Eubiomyia Townsend, 1916g: 74. Type-species, *calosomae* Townsend (orig. des.). **N. syn.**

The difficult genus *Sitophaga* is in need of revision. The hosts are adult Coleoptera, including *Phyllophaga*, *Carabus*, and *Eleodes*.

One of the commonly used names for the genus, *Biomya*, is easily confused with *Byomya* Robineau-Desvoidy (1830), a muscid. Both names have been emended to *Biomyia*.

angustifrons (Reinhard), 1930a: 104 (*Viviania*).—Tex.; Fla., Cuba. **N. comb.**

arrisor (Reinhard), 1959a: 157 (*Viviania*).—Calif. **N. comb.**

aurigera (Coquillett), 1895a: 309 (*Masiphya*).—Fla.; Miss. **N. comb.**

pedita Reinhard, 1959a: 158 (*Viviania*).—Fla. **N. syn., n. comb.**

calosomae (Townsend), 1916g: 74 (*Eubiomyia*).—Mass.; N.B., N.S., Pa. **N. comb.**

obscura Curran, 1925f: 285 (*Lydella*).—N.S. **N. syn.,** J. F. McAlpine *in litt.*, **n. comb.**

calosomae Coquillett *in* Burgess, 1897: 431 (1897: 83) (*Pseudatractocera*). Nomen nudum.

eleodivora (Walton), 1918: 25 (*Biomyia*).—Nebr. **N. comb.**

georgiae (Brauer and Bergenstamm), 1891: 312 (1891: 8) (*Viviania*).—Ga.; Kans. to N.Y. and Conn., s. to Tex. and Fla. **N. comb.**

lachnosternae Townsend, 1908: 106 (*Viviania*).—Ill. **N. comb.**

lateralis (Curran), 1925f: 284 (*Lydella*).—B.C. **N. comb.**

leechi (Curran), 1932c: 12 (*Erycia*).—B.C. **N. comb.**

mutabilis (Coquillett) *in* Baker, 1904: 37 (*Biomya*).—Nev. **N. comb.**

neomexicana (Townsend), 1892a: 108 (*Pseudatractocera*).—N. Mex.; Wash., Idaho, Kans., Calif. to Tex. **N. comb.**

nocturnalis (Reinhard), 1930a: 104 (*Viviania*).—Tex.; Ark. **N. comb.**

sordicolor (Townsend), 1891c: 359 (*Masicera*).—Ill.; Nebr. to N.Y., s. to Ark. and S.C. **N. comb.**

Genus SPATHIMEIGENIA Townsend

Spathimeigenia Townsend, 1915a: 19. Type-species, *spinigera* Townsend (orig. des.).

Hylotomomyia Townsend, 1916e: 31. Type-species, *Admontia hylotomae* Coquillett (orig. des.).

Neoswaldia Mesnil, 1960: 655. Type-species, *Hylotomomyia buckelli* Curran (mon.). **N. syn.**

The species of *Spathimeigenia* are parasites of tenthredinid larvae. The status and correct identification of some of the commonest forms are still in doubt.

REFERENCES: Aldrich, 1931a (rev.); Reinhard, 1958e (notes).

aurifrons Curran, 1930k: 246.—Que.; Wis. to Que. and Pa.

bridwelli Aldrich, 1931a: 9.—Kans.

buckelli (Curran), 1926d: 216 (*Hylotomomyia*).—B.C.

dolopis Reinhard, 1958e: 208.—Oreg.

dolosa Reinhard, 1958e: 209.—Tex.

erecta Aldrich, 1931a: 8.—Mich.; Ont.

erronis Reinhard, 1958e: 212.—Tex.

fivoris Reinhard, 1958e: 211.—Calif.

hylotomae (Coquillett), 1898c: 233 (*Admontia*).—Mass.; Mich. to Mass., s. to Tex. and Fla.

consternata West, 1925: 126 (*Hyperecteina*).—N.Y. **N. syn.**

mexicana Aldrich, 1931a: 5.—Mexico (Michoacan); Ariz.

nigriventris Smith, 1917b: 139.—Mass.

spinigera Townsend, 1915a: 19.—Md.; Pa. to Tex. and Fla.

demylus Walker of Coquillett, 1897: 54 (*Admontia*).

texensis Aldrich, 1931a: 9.—Tex.; Ariz., Mexico.

Genus TACHINOPHYTO Townsend

Tachinophyto Townsend, 1892a: 130. Type-species, *floridensis* Townsend (orig. des.).

floridensis Townsend, 1892a: 131.—Fla.; Md., Mexico.

Genus THELAIRODORIA Townsend

Thelairodoria Townsend, 1927: 266. Type-species, *thrix* Townsend (orig. des.).

setinervis (Coquillett), 1910a: 129 (*Exorista*).—Tenn.; Tex. to Ohio and Fla. **N. comb.**
floscula Reinhard, 1958b: 241.—Fla. **N. syn.**

Genus THEMATHECA Reinhard

Thematheca Reinhard, 1961: 207. Type-species, *medeola* Reinhard (orig. des.).

medeola Reinhard, 1961: 208.—Mexico (Oaxaca); Ariz.

Genus TINALYDELLA Townsend

Tinalydella Townsend, 1927: 265. Type-species, *tinensis* Townsend (orig. des.).

procincta (Reinhard), 1935b: 170 (*Anetia*).—Tex.; Fla.

Genus TORYNOTACHINA Townsend

Torynotachina Townsend, 1915l: 102. Type-species, *quinteri* Townsend (orig. des.).

quinteri Townsend 1915l: 102.—Md.; N.Y., Pa.

Genus TRYPHEROMYIA Reinhard

Trypheromyia Reinhard, 1945a: 32. Type-species, *pallens* Reinhard (orig. des.).

pallens Reinhard, 1945a: 32.—Ohio; Iowa, Va., Mexico.

Genus UROPHYLLOPSIS Townsend

Urophyllopsis Townsend, 1916h: 625. Type-species, *Admontia retiniae* Coquillett (orig. des.).

retiniae (Coquillett), 1897: 54 (*Admontia*).—Calif.; Oreg.

Genus VELOCIA Robineau-Desvoidy

Velocia Robineau-Desvoidy, 1863a: 950. Type-species, *cursoria* Robineau-Desvoidy (Townsend, 1916d: 9)=*luctuosa* (Meigen).

Amedoria Brauer and Bergenstamm, 1889: 106 (1889: 38). Type-species, *Hypostena medorina* Schiner (mon.)=*luctuosa* (Meigen).

Methypostena Townsend, 1908: 67. Type-species, *Hypostena barbata* Coquillett (orig. des.).

Odontosoma Townsend, 1916h: 633. Type-species, *Celatoria spinosa* Coquillett (orig. des.)=*barbata* (Coquillett).

Arrhinomyia, authors, not Brauer and Bergenstamm.

Degeeria, authors, not Meigen.

Medina, authors, not Robineau-Desvoidy.

In the latest European monograph of the family (Mesnil, 1962), *Velocia* is placed as a subgenus of *Medina*. The two are unquestionably closely related, but we prefer to regard them as distinct genera.

barbata (Coquillett), 1895j: 57 (*Hypostena*).—N.H.; Alaska, B.C. and Idaho to N.B., thence s. to Va., also Calif., Kans., Tex., La., Ga.

spinosa Coquillett, 1897: 60 (*Celatoria*).—N.H.

ouelleti Curran, 1925c: 150 (*Hypostena*).—Que.

luctuosa, authors, not Meigen.

Genus Vibrissina Rondani

Vibrissina Rondani, 1861a: 35. Type-species, *Tachina demissa* Meigen (orig. des.; misident.)=*turrita* (Meigen).

turrita (Meigen), 1824: 401 (*Tachina*).—Europe; Asia, Japan, introd. Man., ?estab.

Genus XIPHOMYIA Townsend

Xiphomyia Townsend, 1917d: 125. Type-species, *gladiatrix* Townsend (orig. des.).

auriceps Aldrich, 1926d: 11.—Va.; Ga.

texana Reinhard, 1923: 267.—Tex.; Ariz., Miss., Ohio, Va.

insignis Reinhard, 1934b: 188 (*Dexodes*).—Tex. **N. syn., n. comb.**

Tribe NEOMINTHOINI

Genus EUPELECOTHECA Townsend

Eupelecotheca Townsend, 1919c: 169. Type-species, *celer* Townsend (orig. des.).

Pantagathus Reinhard, 1935b: 168. Type-species, *alogus* Reinhard (orig. des.)=*celer* Townsend.

celer Townsend, 1919c: 169.—D.C.; S. Dak. and Iowa to Conn., s. to Fla.

alogus Reinhard, 1935b: 169 (*Pantagathus*).—Iowa.

rufilabris Wulp of Coquillett, 1897: 103 (*Phorocera*).

Genus PELECOTHECA Townsend

Pelecotheca Townsend, 1919c: 168. Type-species, *panamensis* Townsend (orig. des.).

curulis (Reinhard), 1943c: 18 (*Pantagathus*).—La.; N.Y., Tex., Miss., Ga.
panamensis Townsend of Allen, 1929: 687.

Tribe EXORISTINI

(including Phorocerini and Phoriniini of Townsend)

The tribe Exoristini contains numerous parasites of lepidopterous larvae and some of tenthredinid larvae, plus one that attacks a weevil, *Listroderes*. Some species of the tribe are notably polyphagous, and some are of great importance in biological control.

In the latest European revision (Mesnil, 1960), *Exorista* includes *Guerinia*, *Podotachina*, and *Tachinomyia* as subgenera, but we prefer to recognize them as distinct genera. Another major difference is that Mesnil considers *Stomatomyia* a subgenus of *Spoggosia*, and *Euphorocera* a synonym of *Spoggosia* in the strict sense. There is clearly a close relationship, but we prefer to retain them as separate genera.

It is noteworthy that true *Phorocera*, one of the most widely used genera in the Nearctic literature, does not occur in North America. *Phorocera* species in the sense of the well-known revision by Aldrich and Webber (1924a) are referred in this catalog to 13 genera in 5 different tribes, in addition to a number left for the present in the "Unplaced species of Erycini."

REFERENCES: Mesnil, 1956, 1960 (keys).

Genus BESSA Robineau-Desvoidy

Bessa Robineau-Desvoidy, 1863b: 164. Type-species, *secutrix* Robineau-Desvoidy (orig. des.)=*selecta* (Meigen).

Ptychomyia Brauer and Bergenstamm, 1889: 89 (1889: 21). Type-species, *Tachina selecta* Meigen (mon.).

Daeochaeta Townsend, 1892a: 97. Type-species, *harveyi* Townsend (orig. des.).

Our species of *Bessa* are parasites of tenthredinid larvae, especially of the subfamily Nematinae.

REFERENCE: Mesnil, 1960 (key).

harveyi (Townsend), 1892a: 98 (*Daeochaeta*).—Maine; s. N.W.T. to Nfld., s. to Wash. and Ohio, also Calif., Ariz.
harvei (error) Mesnil, 1960: 632.

tenthredinidarum Townsend, 1892d: 285 (*Masicera*).—Ont.
selecta, authors, not Meigen.

selecta (Meigen), 1824: 377 (*Tachina*).—Europe; introd. N. Amer., distribution uncertain, probably confused with *harveyi*.

Genus CHAETEXORISTA Brauer and Bergenstamm

Chaetexorista Brauer and Bergenstamm, 1894: 80 (1895: 616). Type-species, *javana* Brauer and Bergenstamm (mon.).

javana Brauer and Bergenstamm, 1894: 80 (1895: 616).—Java; Oriental Region, introd. Mass., estab. Host: The Oriental moth, *Cnidocampa flavescens* (Walker).

Genus DIPLOSTICHUS Brauer and Bergenstamm

Diplostichus Brauer and Bergenstamm, 1889: 93 (1889: 25). Type-species, *tenthredinum* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.)=*janitrix* (Hartig).

The species are parasites of tenthredinid larvae.

lophyri (Townsend), 1892d: 289 (*Phorocera*).—Ont.; B.C. to N.S., s. to Calif., Ohio, and Fla. **N. comb.**

petiolata Coquillett, 1897: 98 (*Exorista*).—Va. **N. syn., n. comb.**

hamata Aldrich and Webber, 1924a: 62 (*Phorocera*).—Conn. **N. syn.**

sellersi Hall, 1939: 243.—Oreg.; B.C., Calif.

Genus Epiplagiops Blanchard

Epiplagiops Blanchard, 1943: 450. Type-species, *littoralis* Blanchard (orig. des.).

The sole included species is a parasite of larvae of the vegetable weevil, *Listroderes*. The genus is in the *Euphorocera-Stomatomyia* complex, and may prove to be a synonym.

littoralis Blanchard, 1943: 451.—Argentina; Uruguay, introd. Calif., not estab.

Genus EUPHOROCERA Townsend

Euphorocera Townsend, 1892a: 112. Type-species, *tachinomoides* Townsend (orig. des.).

Neophorocera Townsend, 1912d: 163. Type-species, *Phorocera edwardsii* Williston (orig. des.).

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Plagiotachina Townsend, 1927: 261. Type-species, *peruviana* Townsend (orig. des.).

arnaudi (Reinhard), 1956c: 106 (*Phorocera*).—Calif.; Nev., Utah, Ariz., Nebr. **N. comb.**

claripennis (Macquart), 1848a: 209 (1848: 49) (*Phorocera*).—N. Amer.; recorded Alaska to Ont., all U.S., Mexico, but probably a mixture with *edwardsii*.

clunalis (Reinhard), 1956c: 107 (*Phorocera*).—Tex. **N. comb.**

edwardsii (Williston), 1889a: 1921 (*Phorocera*).—Unknown; distribution confused with *claripennis* (see above). **N. comb.**

flaviceps (Bigot), 1887b: cxli (*Cryptopalpus*).—Rocky Mts. Unrecognized. **N. comb.**

floridensis Townsend, 1916c: 217.—Fla.; Ariz. to Md., s. to Mexico and Fla.

indivisa (Aldrich and Webber), 1924a: 64 (*Phorocera*).—Tex. **N. comb.**

omissa (Reinhard), 1934b: 193 (*Phorocera*).—Tex.; N. Mex., Kans., Ark., S.C.

subnitens (Aldrich and Webber), 1924a: 65 (*Phorocera*).—Va. **N. comb.**

tachinomoides Townsend, 1892a: 112.—N. Mex.; Calif. to S. Dak., s. to Mexico and Tex.

vibrissata (Brauer and Bergenstamm), 1891: 351 (1891: 47) (*Podotachina*).—N.Y. ?=*edwardsii* or *claripennis*. **N. comb.**

Genus EXORISTA Meigen

Exorista Meigen, 1803: 280. Type-species, *Musca larvarum* Linnaeus (mon.).

Eutachina Brauer and Bergenstamm, 1889: 98 (1889: 30). Type-species, *Musca larvarum* Linnaeus (mon.).

Cyclotaphrys Townsend, 1909: 246. Type-species, *anser* Townsend (orig. des.)=*fallax* (Meigen).

Tachina, authors, not Meigen.

REFERENCE: Mesnil, 1960 (key).

fallax (Meigen), 1824: 321 (*Tachina*).—Germany; Palaearctic, ?introd. New England.

anser Townsend, 1909: 246 (*Cyclotaphrys*).—U.S.S.R.

fasciata fasciata (Fallén), 1820g: 5 (*Tachina*).—Sweden; Greenland, n. Europe.

ssp. *moreti* (Robineau-Desvoidy), 1853b: 534 (*Tachina*; as sp.).—France; s. Europe, n. Africa, introd. New England, not estab.

segregata Rondani, 1859: 181 (*Chetogena*).—Italy.

japonica (Townsend), 1909: 247 (*Tachina*).—Japan; China, introd. New England, not estab.

larvarum (Linnaeus), 1758: 596 (*Musca*).—Europe; introd. New England, estab.

mella (Walker), 1849: 767 (*Tachina*).—N.S.; B.C. to N.S., all U.S.
melba, error.
orgyiae LeBaron, 1871: 16 (*Tachina*).—Ill.
clisiocampae Townsend, 1891f: 83 (*Tachina*).—Maine.
orgyiae Townsend, 1892d: 284 (*Tachina*; preocc. LeBaron, 1871).—W. Va.
fernaldi Williston *in* Forbush and Fernald, 1896: 387 (*Achaetoneura*).—Mass.
orgyiarum Townsend, 1908: 107 (*Tachina*; n. name for *orgyiae* Townsend).—W. Va.
larvarum, authors, not Linnaeus.

Genus GUERINIA Robineau-Desvoidy

Guerinia Robineau-Desvoidy, 1830: 196. Type-species, *festiva* Robineau-Desvoidy (Coquillett, 1910b: 548)=*rustica* (Fallén).

dydas (Walker), 1849: 748 (*Tachina*).—Ont.; s. Canada, all U.S.
spinosula Townsend, 1891c: 353 (*Tachina*).—Ill.
tenthredinivora Townsend, 1892d: 285 (*Tachina*).—Ont.
rustica, authors, not Fallén.
simulans, authors, not Meigen.

rufostomata (Bigot), 1888a: 260 (*Tachina*).—Rocky Mts. Unrecognized.

rustica (Fallén), 1810b: 264 (*Tachina*).—Sweden; ?N. Amer., Europe.
simulans Meigen, 1824: 306 (*Tachina*).—Europe.

trudis Reinhard, 1951: 8.—Utah; B.C. to N. Dak., s. to Calif. and Ariz.

Genus GUERINIOPSIS Reinhard

Gueriniopsis Reinhard, 1943a: 166. Type-species, *plausilis* Reinhard (orig. des.)=*setipes* (Coquillett).

setipes (Coquillett), 1902g: 112 (*Frontina*).—S. Dak.; Man. to Pa., s. to S. Dak. and Iowa. **N. comb.**
plausilis Reinhard, 1943a: 167.—Man. **N. syn.**

Genus PALPEXORISTA Townsend

Palpexorista Townsend, 1926: 28. Type-species, *phoroceroides* Townsend (orig. des.)=*imitator* (Aldrich and Webber).

Yahuartachina Townsend, 1927: 261. Type-species, *yahuarphrynoides* Townsend (orig. des.). **N. syn.**

REFERENCE: Aldrich and Webber, 1924a (key, in *Phorocera*).

cocciphila (Aldrich and Webber), 1924a: 53 (*Phorocera*).—D.C.; Ohio. **N. comb.**

coccyx (Aldrich and Webber), 1924a: 64 (*Phorocera*).—Va.; Mich. to N.Y., s. to Ga., also Tex. **N. comb.**

heros, authors, not Schiner.

longiuscula, authors, not Walker.

einaris (Smith), 1912: 119 (*Phorocera*).—Mass.; Mich. to Mass., s. to Fla., also Tex. **N. comb.**

imitator (Aldrich and Webber), 1924a: 63 (*Phorocera*).—Conn.; Ohio to Mass., s. to Fla., also Tex.

phoroceroides Townsend, 1926: 29.—Mass.

pellecta (Reinhard), 1957: 106 (*Phorocera*).—Ariz. **N. comb.**

stolida (Reinhard), 1957: 107 (*Phorocera*).—Ohio; Ga. **N. comb.**

sulcata (Aldrich and Webber), 1924a: 66 (*Phorocera*).—Ga.; R.I. to Ga., also Tex. **N. comb.**

tuxedo (Curran), 1930j: 110 (*Phorocera*).—N.Y. **N. comb.**

virilis (Aldrich and Webber), 1924a: 52 (*Phorocera*).—D.C.; Ohio, N.Y. **N. comb.**

Genus PARASETIGENA Brauer and Bergenstamm

Parasetigena Brauer and Bergenstamm, 1891: 339, 401 (1891: 35, 97). Type-species, *Chetogena segregata* Rondani (mon.; misident.) = *agilis* (Robineau-Desvoidy).

Under various names, one species was introduced as a parasite of the gypsy moth, *Porthetria dispar* (Linnaeus).

agilis (Robineau-Desvoidy), 1830: 132 (*Phorocera*).—France; Europe, introd. and estab., New England, N.Y.

silvestris Robineau-Desvoidy, 1863a: 531 (*Duponchelia*).—France.

sylvestris, emend.

segregata, authors, not Rondani.

Genus Phorocera Robineau-Desvoidy

Phorocera Robineau-Desvoidy, 1830: 131. Type-species, *agilis* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 509; misident.) = *assimilis* (Fallén).

Chetogena Rondani, 1856: 68. Type-species, *Tachina gramma* Meigen (orig. des.) = *assimilis* (Fallén).

Chaetogena, emend. or error.

Robineau-Desvoidy (1863a) designated *assimilis*, and showed *agilis*, an originally included species, in its synonymy. However, this *agilis* was a misidentification, or possibily based on a nontypical original specimen. The true *agilis* is a *Parasetigena* (q.v.).

Phorocera in the sense of the well-known revision by Aldrich and Webber (1924a) is a mixture of at least 13 genera distributed among 5 tribes in this catalog.

obscura (Fallén), 1810b: 283 (*Tachina*).—Sweden; introd. N.S., not estab.

Genus Podotachina Brauer and Bergenstamm

americana Brauer and Bergenstamm, 1891: 351 (1891: 47).—Unknown (as N.Y., error) =*sorbillans* (Wiedemann). Not Nearctic.

Genus PSEUDOTACHINOMYIA Smith

Pseudotachinomyia Smith, 1917a: 54. Type-species, *webberi* Smith (orig. des.)=*slossonae* (Townsend).

REFERENCE: Reinhard, 1935a (rev.).

aequalis Reinhard, 1935a: 133.—Tex.; Colo. to N.Y., s. to Tex.
compascua Reinhard, 1935a: 135.—Wash.; Alta., Utah.
longiforceps Brooks, 1945a: 89.—Ont.; Que., N.Y., Conn.
slossonae (Townsend), 1908: 108 (*Euphorocera*).—N.H.; Ill. to Ont. and N.H., s. to S.C., also Tex.
webberi Smith, 1917a: 54.—Mass.
cinerea, authors, not Wulp.

Genus SPOGGOSIA Rondani

Spoggosia Rondani, 1859: 182. Type-species, *occlusa* Rondani (mon).=*echinura* (Robineau-Desvoidy).

Murdockiana Townsend, 1916h: 622. Type-species, *Euphorocera gelida* Coquillett (orig. des.). **N. syn.,** L. P. Mesnil *in litt.*

gelida (Coquillett), 1897: 101 (*Euphorocera*).—Alaska; Y.T., N.W.T. (Southampton I.). **N. comb.**

Genus STOMATOMYIA Brauer and Bergenstamm

Stomatomyia Brauer and Bergenstamm, 1889: 98 (1889: 30). Type-species, *Chetogena filipalpis* Rondani (mon.).

Plagiprospherysa Townsend, 1892a: 113. Type-species, *valida* Townsend (orig. des.)=*parvipalpis* (Wulp).

Tachinopsis Coquillett, 1897: 120. Type-species, *mentalis* Coquillett (orig. des.)=*parvipalpis* (Wulp).

Plagiops Townsend, 1911a: 141. Type-species, *littoralis* Townsend (orig. des., as gen. n., sp. n.)=*floridensis* (Townsend).

floridensis (Townsend), 1892a: 114 (*Plagiprospherysa*).—Fla.; Nebr., Tex., Ga.

littoralis Townsend, 1911a: 141 (also 1912a: 107) (*Plagiops*).—Fla.

litoralis, error.

parvipalpis (Wulp), 1890: 124 (*Prospherysa*).—Mexico; B.C. to Calif., Mexico, and Tex.

valida Townsend, 1892a: 113 (*Plagiprospherysa*).—N. Mex.

mentalis Coquillett, 1897: 120 (*Tachinopsis*).—Wash.

Genus TACHINOMYIA Townsend

Tachinomyia Townsend, 1892a: 96. Type-species, *robusta* Townsend (orig. des.)=*panaetius* (Walker).

REFERENCE: Webber, 1941 (rev.).

acosta Webber, 1941: 299.—N.J.; Mich. to Mass. and N.J., also B.C. to Calif., Ga.

apicata Curran, 1926k: 171.—Que.; Man. to N.S., s. to Mo. and Va., also B.C., Alta.

cana Webber, 1941: 298.—Mass.; Man. to Mass., s. to Tex.

dakotensis Webber, 1941: 302.—S. Dak.; B.C. to Man. and Mich., s. to Calif.

floridensis Townsend, 1892a: 97.—Fla.

montana (Smith), 1917b: 140 (*Allophorocera*).—Mont.; B.C. to Mont., s. to Calif. and Ariz.

nigricans Webber, 1941: 301.—Mass.; N. Dak. to Que., s. to S. Dak. and N.J., also B.C., Ga.

panaetius (Walker), 1849: 767 (*Tachina*).—N.S.; S. Dak. to N.S., s. to Kans. and N.J.

pansa Walker, 1849: 787 (*Tachina*).—N. Amer., N.S.

violenta Walker, 1849: 788 (*Tachina*).—N.S.

irrequieta Walker, 1849: 789 (*Tachina*).—N.S.

robusta Townsend, 1892a: 96.—Mich. (Curran, 1926k: 169, lectotype).

similis (Williston), 1893d: 256 (*Prospherysa*).—Calif.; B.C. to Man., s. to Calif. and Ariz.

occidentalis Curran, 1926k: 170.—B.C.

variata Curran, 1926k: 169.—Ont.; B.C. to N.B., s. to Calif., Mexico, Kans., and N.J.

Tribe SIPHONINI

(Crocutini, Actiini)

With few exceptions, the species of the tribe Siphonini are small and parasitize the larvae of various Microlepidoptera such as *Laspeyresia*, *Rhyacionia*, *Tortrix*, and *Tinea*.

There is wide disagreement on the makeup of the tribe. As here constituted, it is a combination of Townsend's two tribes, the Actiini and Siphonini, minus a scattering of genera referred in this catalog to eight other tribes. Some of the remaining genera (e.g., *Clausicella* and *Elfia*) have also been referred elsewhere, some even into the Tachininae, by Mesnil in his work on the Palaearctic fauna, but for the present we leave them in the Siphonini, with which they are customarily associated by general habitus and biology. We have grouped the genera in three subtribes to assist in future analysis of the relationships.

Subtribe CORONIMYIINA

The genera *Crocinosoma*, *Drepanoglossa*, and *Philocalia* are atypical.

Genus CLAUSICELLA Rondani

Clausicella Rondani, 1856: 61. Type-species, *suturata* Rondani (orig. des., as gen. n., sp. n.).

Siphophyto Townsend, 1892a: 127. Type-species, *floridensis* Townsend (orig. des.). **N. syn.**

Epigrimyia, authors, in part, not Townsend.

REFERENCE: Reinhard, 1946c (rev.).

floridensis (Townsend), 1892a: 128 (*Siphophyto*).—Fla.; B.C., Ont., all U.S. **N. comb.**

neomexicana (Townsend), 1892a: 128 (*Siphophyto*).—N. Mex.; Calif. to Kans. and Tex. **N. comb.**

opaca (Coquillett), 1895c: 128 (*Siphophyto*).—Calif.; Calif. to Iowa and Tex. **N. comb.**

politura (Reinhard), 1946c: 85 (*Siphophyto*).—Que.; S. Dak., Mich., N.H., N.B. **N. comb.**

americana Brauer and Bergenstamm *in* Coquillett, 1897: 75 (*Gymnopareia*). Nomen nudum.

setigera (Coquillett), 1895c: 127 (*Siphophyto*).—Calif.; B.C. to Calif. and Wyo., also Wis. to Ont. and N.Y., s. to La. and Fla. **N. comb.**

trinidadensis Townsend of Fattig, 1949: 31 (*Siphocrocuta*).

turmalis (Reinhard), 1946c: 86 (*Siphophyto*).—N.Y.; Wis. to Que., s. to Tex. and Ga., also ?Calif. **N. comb.**

Genus CORONIMYIA Townsend

Coronimyia Townsend, 1892a: 128. Type-species, *geniculata* Townsend (orig. des.).

Epigrimyia, authors, in part, not Townsend.

REFERENCE: Reinhard, 1946c (rev.).

geniculata Townsend, 1892a: 129.—Ill.; Ill. to Ont. and N.Y., s. to La. and Ga.

melitarae Reinhard, 1946c: 91.—Calif.

Genus CROCINOSOMA Reinhard

Crocinosoma Reinhard, 1947a: 20. Type-species, *cornuale* Reinhard (orig. des.).

cornuale Reinhard, 1947a: 21.—Tex.; Va. to Ga. to Mexico.

Genus DREPANOGLOSSA Townsend

Drepanoglossa Townsend, 1891c: 377. Type-species, *lucens* Townsend (orig. des.).

lucens Townsend, 1891c: 378.—N. Mex.; N. Dak., Colo., Calif., Ariz.

pavonacea (Reinhard), 1939a: 72 (*Siphoclytia*).—Ohio; Ill. to N.Y., s. to Ga., also Tex. **N. comb.**

Genus GINGLYMIA Townsend

Ginglymia Townsend, 1892a: 118. Type-species, *acrirostris* Townsend (orig. des.).

Ginglymyia, error or emend.

acrirostris Townsend, 1892a: 119.—Mich.; N.Y., Ohio, Tex.

Genus LASIONEURA Coquillett

Lasioneura Coquillett, 1895j: 50. Type-species, *johnsoni* Coquillett (orig. des.).

bicolor (Curran), 1923l: 246 (*Ginglymia*).—B.C. ?=*johnsoni*.

johnsoni Coquillett, 1895j: 50.—Wash.; B.C. to Wyo., s. to Calif. and Mexico.

Genus PHILOCALIA Reinhard

Philocalia Reinhard, 1939a: 70. Type-species, *tenuirostris* Reinhard (orig. des.).

Evanalia Strickland, 1941: 64. Type-species, *medicinensis* Strickland (orig. des.) = *tenuirostris* Reinhard.

tenuirostris Reinhard, 1939a: 71.—Mont.; Alta., Ill., Ind.
medicinensis Strickland, 1941: 64 (*Evanalia*).—Alta.

Subtribe SIPHONINA

Several atypical genera have been left here for the present, until their relationships can be studied: *Eucoronimyia, Evidomyia, Lispideosoma, Paralispidea, Phantasiomyia, Phasiostoma,* and *Slossonaemyia.*

Genus ACTIA Robineau-Desvoidy

Actia Robineau-Desvoidy, 1830: 85. Type-species, *pilipennis* Robineau-Desvoidy (Emden, 1954: 63; Suspension of the Rules required) = *lamia* (Meigen).

Gymnophtalma Lioy, 1864a: 1341. Type-species, *Tachina crassicornis* Meigen (mon.; misident.) = *pilipennis* (Fallén).

Polychaetoneura Walton, 1914c: 90. Type-species, *elyii* Walton (orig. des.) = *americana* (Townsend).

Actiopsis Townsend, 1917d: 121. Type-species, *autumnalis* Townsend (orig. des.).

Xanthoactia Townsend, 1919b: 585. Type-species, *Lasioneura valloris* Coquillett (orig. des.).

Thryptocera, authors, not Macquart.

The genus *Actia* was proposed for two new species, *cingulata* and *pilipennis*. The first reviser, Robineau-Desvoidy (1850, 1851b), restricted *Actia* to *pilipennis* and relatives and referred *cingulata* to a new genus *Elfia*. Unfortunately, Coquillett (1910b), the first to validly designate a type for *Actia*, cited *cingulata*. Although usage is somewhat divided, most authors have followed Robineau-Desvoidy's clear intent, as we have done above. However, Suspension of the Rules is required to suppress the designation by Coquillett.

Many undescribed species are known, and the available key is of limited use.

REFERENCE: Curran, 1933a (rev.).

americana (Townsend), 1892e: 69 (*Thryptocera*).—D.C.; Wis. to Maine, s. to Ariz., Mexico, and Fla.
elyii Walton, 1914c: 91 (*Polychaetoneura*).—Conn.

autumnalis (Townsend), 1917d: 122 (*Actiopsis*).—Md.; N.Y., N.H., Va.

diffidens Curran, 1933a: 5.—N.S.; B.C. to N.S., s. to Mich. and N.Y.

flavipes (Coquillett), 1897: 58 (*Thryptocera*).—N.H.; N.Y.

interrupta Curran, 1933a: 6.—N.Y.; B.C. to N.B., s. to Calif., Mexico, and D.C.

pilipennis, authors, not Fallén.

nudibasis Stein, 1924: 135.—Germany; introd. Ont., Mass., and Conn., not estab.

ontario Curran, 1933a: 4.—Ont.; Mich., Ohio, N.Y.

palloris (Coquillett), 1895j: 50 (*Lasioneura*).—N.H.; Ont. and Que., s. to N.Y. and Maine.

panamensis Curran, 1933a: 3.—Panama Canal Zone; Calif., Tex.

rufescens (Greene), 1934a: 34 (*Actiopsis*).—S. Dak.; Ill., Ohio, Ga.

Genus APHANTORHAPHA Townsend

Aphantorhapha Townsend, 1919b: 586. Type-species, *arizonica* Townsend (orig. des.).

arizonica Townsend, 1919b: 586.—Ariz.

atoma Reinhard, 1947a: 19.—Tex.

hurdi Reinhard, 1959a: 161.—Calif.

Genus CHAETOSTIGMOPTERA Townsend

Chaetostigmoptera Townsend, 1916h: 624. Type-species, *Chaetophleps crassinervis* Walton (orig. des.).

crassinervis (Walton), 1913: 51 (*Chaetophleps*).—Md.; Md. to Fla. to La., also Ohio.

Genus EUCORONIMYIA Townsend

Isoglossa Coquillett, 1895c: 125 (preocc. Casey, 1893). Type-species, *hastata* Coquillett (orig. des.).

Eucoronimyia Townsend, 1908: 84 (n. name for *Isoglossa* Coquillett). Type-species, *Isoglossa hastata* Coquillett (aut.).

Eucoronimyia is an aberrant genus that may not belong here.

hastata (Coquillett), 1895c: 126 (*Isoglossa*).—Calif.; Colo., Tex.

Genus EVIDOMYIA Reinhard

Evidomyia Reinhard, 1958c: 226. Type-species, *infida* Reinhard (orig. des.).

Evidomyia is close to *Eucoronimyia*, and like the latter it may belong elsewhere.

infida Reinhard, 1958c: 226.—Calif.

Genus LISPIDEOSOMA Reinhard

Lispideosoma Reinhard, 1943a: 164. Type-species, *flavipes* Reinhard (orig. des.).

flavipes Reinhard, 1943a: 165.—Wis.; Wash.

Genus MESSIOMYIA Reinhard

Messiomyia Reinhard, 1955d: 124. Type-species, *triconis* Reinhard (orig. des.).

triconis Reinhard, 1955d: 125.—Tex.

Genus PARALISPIDEA Townsend

Paralispidea Townsend, 1915a: 20. Type-species, *Admontia unispinosa* Coquillett (orig. des.).

aperta Reinhard, 1958b: 237.—Mass.; N.Y., Ohio.
unispinosa (Coquillett), 1898c: 234 (*Admontia*).—La.; Md.

Genus PHANTASIOMYIA Townsend

Phantasiomyia Townsend, 1915f: 225. Type-species, *gracilis* Townsend (orig. des.).

atripes (Coquillett), 1897: 58 (*Thryptocera*).—Mass. (?error for Calif.), Ariz.
gracilis Townsend, 1915f: 226.—N. Mex.; Calif., Ariz.

Genus PHASIOSTOMA Townsend

Phasiostoma Townsend, 1915f: 224. Type-species, *aristale* Townsend (orig. des.).

aristale Townsend, 1915f: 225.—N. Mex.

Genus PSEUDOSIPHONA Townsend

Pseudosiphona Townsend, 1916h: 622. Type-species, *Siphona brevirostris* Coquillett (orig. des.).

brevirostris (Coquillett), 1897: 76 (*Siphona*).—?R.I. (as Mo., error); N.H., Conn.

Genus SIPHONA Meigen

Crocuta Meigen, 1800: 39. Type-species, *Musca geniculata* De Geer (Coquillett, 1910b: 528). Suppressed by I.C.Z.N., 1963b: 339.

Siphona Meigen, 1803: 281. Type-species, *Conops irritans* Linnaeus (as *Stomoxys irritans* Fabricius; mon.; misident.) = *geniculata* (De Geer).

Bucentes Latreille, 1809: 339. Type-species, *cinereus* Latreille (mon.) = *geniculata* (De Geer).

Siphonopsis Townsend, 1916h: 622. Type-species, *Siphona plusiae* Coquillett (orig. des.).

REFERENCE: Curran, 1932d (key).

conata (Reinhard), 1959a: 162 (*Siphonopsis*).—Calif. **N. comb.**
geniculata (De Geer), 1776: 38 (*Musca*).—Europe; Man. to N.H., s. to Kans. and Ga.
illinoiensis Townsend, 1891c: 368.—Ill.; Kans. to Ont., s. to Tex. and Fla.
intrudens (Curran), 1932d: 14 (*Bucentes*).—Pa.; Ont., N.Y.
lurida Reinhard, 1943c: 20.—Oreg.; Calif.
lutea (Townsend), 1919b: 584 (*Crocuta*).—N.H.; Minn., Mich.
plusiae Coquillett, 1895c: 125.—Calif.; Ariz., Tex., Mexico.
tenuis Curran, 1933b: 10.—Ont.; Mich., Ohio, Que., Vt.

Genus SLOSSONAEMYIA Townsend

Slossonaemyia Townsend, 1916h: 624. Type-species, *Chaetophleps rostrata* Coquillett (orig. des.).

angulicornis (Curran), 1930j: 97 (*Elephantocera*).—N.Y. **N. comb.**
rostrata (Coquillett), 1898c: 235 (*Chaetophleps*).—Fla.

Subtribe NEAERINA

Genus ACRONARISTA Townsend

Acronarista Townsend, 1908: 85. Type-species, *mirabilis* Townsend (orig. des.).

cornuta Reinhard, 1931a: 26.—La.; Ga.
mirabilis Townsend, 1908: 86.—Fla.

Genus ACRONARISTOPSIS Townsend

Acronaristopsis Townsend, 1919c: 178. Type-species, *bahamensis* Townsend (orig. des.).

Unnamed spp.—Ark., Fla.

Genus APHELOGLUTUS Greene

Apheloglutus Greene, 1934a: 28, 32 (also as *Apeloglutus*, p. 32). Type-species, *latifrons* Greene (orig. des.).

latifrons Greene, 1934a: 32.—Colo.; B.C.

Genus DICHAETONEURA Johnson

Dichaetoneura Johnson, 1907a: 9. Type-species, *leucoptera* Johnson (mon.).

REFERENCE: Thompson, 1953a (biol., immatures).

leucoptera Johnson, 1907a: 9.—Mass.; Minn. to P.E.I., s. to Md.

Genus ELFIA Robineau-Desvoidy

Elfia Robineau-Desvoidy, 1850: 190. Type-species, *Actia cingulata* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 672).

Craspedothrix Brauer and Bergenstamm, 1893: 150 (1893: 62). Type-species, *vivipara* Brauer and Bergenstamm (mon.).

Lispidea Coquillett, 1895j: 51. Type-species, *palpigera* Coquillett (orig. des.). **N. syn.**

Plectops Coquillett, 1897: 57. Type-species, *melissopodis* Coquillett (orig. des.). **N. syn.**

Goliathocera Townsend, 1915a: 21. Type-species, *Clausicella antennalis* Coquillett (orig. des.)=*setigera* (Thomson). **N. syn.**

Lophosiocera Townsend, 1916h: 623. Type-species, *curriei* Townsend (orig. des.). **N. syn.**

Nephopteropsis Townsend, 1916h: 623. Type-species, *Clausicella johnsoni* Coquillett (orig. des.). **N. syn.**

Phylacteropoda Townsend, 1916h: 623. Type-species, *Clausicella tarsalis* Coquillett (orig. des.). **N. syn.**

aenea (Coquillett), 1895j: 57 (*Hypostena*).—Calif.; N. Mex., Mexico (Chih.). **N. comb.**

amplicornis (James), 1955d: 83 (*Plectops*).—Wash.; Oreg., Colo. **N. comb.**

curriei (Townsend), 1916h: 623 (*Lophosiocera*).—Wyo.; Utah. **N. comb.**

erisma (Reinhard), 1962b: 219 (*Plectops*).—Ariz. **N. comb.**

erotema (Reinhard), 1958b: 238 (*Nephopteropsis*).—N.Y.; Va. **N. comb.**

johnsoni (Coquillett), 1897: 56 (*Clausicella*).—Pa.; Minn. to Mass., thence to Fla. **N. comb.**

manca (Greene), 1934a: 31 (*Plectops*).—Md.; Tenn., Va., Ga. **N. comb.**

melissopodis (Coquillett), 1897: 57 (*Plectops*).—D.C.; Mich. to Mass., s. to Tex. and Fla. **N. comb.**

nigra (Brooks), 1945a: 93 (*Phylacteropoda*).—Man.; N.Y., N.H., Md. **N. comb.**

palpigera (Coquillett), 1895j: 52 (*Lispidea*).—Ill.; Ill. to Mass., s. to Miss. **N. comb.**

pruinosa (Malloch), 1927b: 91 (*Plectops*).—Md.; Calif., Va., Ga. **N. comb.**

setigera (Thomson), 1869: 527 (*Lophosia*).—Calif.; Oreg., Utah. **N. comb.**

antennalis Coquillett, 1895j: 56 (*Clausicella*).—Calif. **N. comb.**

tarsalis (Coquillett), 1895j: 56 (*Clausicella*).—Ill.; Ont. and Que., s. to Ill. and Md. **N. comb.**

usitata (Coquillett), 1897: 56 (*Clausicella*).—N.H.; Alaska, Mo., Maine. **N. comb.**

Genus EURYCEROMYIA Townsend

Euryceromyia Townsend, 1892a: 115. Type-species, *robertsonii* Townsend (orig. des.).

robertsonii Townsend, 1892a: 116.—Ill.; Ill. and Mich. to Mass., also Va.

Genus PHYTOMYPTERA Rondani

Phytomyptera Rondani, 1845b: 32, 33. Type-species, *nitidiventris* Rondani (mon.)=*nigrina* (Meigen).

walleyi Brooks, 1945a: 91.—Que.

Genus PSEUDAPINOPS Coquillett

Pseudapinops Coquillett, 1902g: 108. Type-species, *niger* Coquillett (orig. des.).

niger Coquillett, 1902g: 108.—Idaho; B.C. to Calif., also Pa. to Va.

rogalis Reinhard, 1955a: 132.—Calif.

Genus SCHIZACTIA Townsend

Schizactia Townsend, 1926: 31. Type-species, *Schizotachina vitinervis* Thompson (orig. des.).

ruficornis (Greene), 1934a: 33 (*Schizotachina*).—Fla. **N. comb.**

vitinervis (Thompson), 1911: 268 (*Schizotachina*).—Mass.; Minn. to N.H., thence s. to Fla.

Genus SCHIZOTACHINA Walker

Tachina, subg. **Schizotachina** Walker, 1852: 264. Type-species, *convecta* Walker (Coquillett, 1910b: 261).

convecta (Walker), 1852: 276 (*Tachina*).—U.S.; Calif. to Mich., Mass., and Fla.
exul (Walker), 1852: 277 (*Tachina*).—U.S. Unrecognized.
longicornis (Coquillett), 1902g: 106 (*Neaera*).—N.Y.; S. Dak. to Ont. and Mass., s. to Calif. and Fla.

Tribe GRAPHOGASTRINI

The flies of the tribe Graphogastrini parasitize larvae of Microlepidoptera.

REFERENCE: Brooks, 1942 (rev.).

Genus CLASTONEURIOPSIS Reinhard

Clastoneuriopsis Reinhard, 1939a: 68. Type-species, *meralis* Reinhard (orig. des.).
Neopsalidopteryx Brooks, 1942: 142. Type-species, *Clistomorpha alberta* Curran (orig. des.). **N. syn.,** H. J. Reinhard *in litt.*

alberta (Curran), 1927i: 298 (*Clistomorpha*).—Alta.; Wash., Utah. **N. comb.**
deceptor (Curran), 1927i: 298 (*Clistomorpha*).—B.C.; Wash., Utah, Colo. **N. comb.**
meralis Reinhard, 1939a: 69.—Wash.

Genus PSALIDOPTERYX Townsend

Psalidopteryx Townsend, 1916e: 21. Type-species, *slossonae* Townsend (orig. des.).

alaskensis Brooks, 1942: 148.—Alaska.
brunnea Brooks, 1942: 147.—Alta.; B.C., Idaho, Utah, Colo., Wis.
dorsalis (Coquillett), 1902g: 108 (*Hyalomyodes*).—Idaho; B.C., Nev., Utah.
fuscisquamis Brooks, 1942: 149.—Alta.
fuscipennis (error) Strickland, 1946: 173.
grandis Brooks, 1942: 149.—Wyo.; Wash., N. Mex., Colo.
macdunnoughi Brooks, 1942: 146.—P.E.I.
nuda Brooks, 1942: 147.—B.C.
orientalis Brooks, 1942: 146.—Va.
pollinosa Brooks, 1942: 148.—B.C.
pseudonuda Brooks, 1942: 147.—B.C.; Idaho.
psilocorsiphaga Brooks, 1942: 149.—Que.; Ohio, N.S.
slossonae Townsend, 1916e: 22.—N.H.; Que.

Tribe ADMONTIINI

(Trichopareiini)

The members of the tribe Admontiini are parasites of tipulid larvae.

Genus ADMONTIA Brauer and Bergenstamm

Admontia Brauer and Bergenstamm, 1889: 104 (1889: 36). Type-species, *podomyia* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Trichopareia Brauer and Bergenstamm, 1889: 103 (1889: 35). Type-species, *Tachina seria* Meigen (mon.).

Trichoparia, error or emend.

Admontiopsis Townsend, 1915a: 19. Type-species, *Admontia tarsalis* Coquillett (orig. des.).

Euadmontia Townsend, 1915a: 19. Type-species, *Admontia pergandei* Coquillett (orig. des.).

Euhyperecteina Townsend, 1915a: 19. Type-species, *Admontia nasoni* Coquillett (orig. des.).

Xenadmontia Townsend, 1915a: 22. Type-species, *Hypostena degeerioides* Coquillett (orig. des.).

Iconomedina Townsend, 1916h: 626. Type-species, *Degeeria washingtonae* Coquillett (orig. des.).

REFERENCE: Curran, 1927i (partial key).

badiceps Reinhard, 1958d: 279.—Wash.

degeerioides (Coquillett), 1895j: 58 (*Hypostena*).—D.C.; Mich. to N.H., s. to Va., also Utah.

aestivalis West, 1925: 126 (*Hyperecteina*).—N.Y. **N. syn.**

bishopi West, 1925: 126 (*Hyperecteina*).—N.Y. **N. syn.**

dubia Curran, 1927i: 297.—Sask. ?=*pollinosa*.

duospinosa (West), 1925: 127 (*Hyperecteina*).—N.Y.; Pa., D.C.

nasoni Coquillett, 1895j: 55.—Ill.; Wis., Mich., Ind., N.J.

rufochaeta Curran, 1927i: 296.—Wis.

ruficeps (error) Aldrich, 1929d: 35.

offella Reinhard, 1962b: 223.—Ariz.

pergandei Coquillett, 1895j: 54.—D.C.; Tenn. to Md., s. to Miss. and Ga., also Mass.

americana Brauer and Bergenstamm, 1891: 410 (1891: 106). Nomen nudum.

pollinosa Curran, 1927i: 296.—Man.; Sask., S. Dak.

tarsalis Coquillett, 1898c: 234.—La.; Oreg., Fla.

washingtonae (Coquillett), 1895k: 104 (*Degeeria*).—N.H.

Tribe HYPERECTEININI

The species of Hyperecteinini parasitize Orthoptera, adult beetles, and a few lepidopterous larvae such as those of *Diatraea*.

Genus CARTOCOMETES Aldrich

Cartocometes Aldrich, 1929c: 9. Type-species, *io* Aldrich (orig. des.).

io Aldrich, 1929c: 10.—N.Y.; Ont., Vt., Mass.

Genus EUTHYPROSOPA Townsend

Euthyprosopa Townsend, 1892a: 106. Type-species, *petiolata* Townsend (orig. des.).

petiolata Townsend, 1892a: 107.—N. Mex.

Genus GILVELLA Mesnil

Gilvella Mesnil, 1960: 654. Type-species, *Hypostena gilvipes* Coquillett (mon.).

REFERENCE: Reinhard, 1942c (key, as *Oedematocera*, part).

gilvipes (Coquillett), 1897: 61 (*Hypostena*).—Ga. (unpublished); Mass. to Fla. to Tex., also Mo.

optata (Reinhard), 1942c: 107 (*Oedematocera*).—N.Y.; Ohio and N.Y. to Fla., also Tex., La. **N. comb.**

Genus GREMLINOTROPHUS Reinhard

Gremlinotrophus Reinhard, 1943a: 163. Type-species, *derisus* Reinhard (orig. des.).

derisus Reinhard, 1943a: 163.—Ohio; Alta., Mont., Calif., Colo.

Genus HYPERECTEINA Schiner

Hyperecteina Schiner, 1861b: 143. Type-species, *metopina* Schiner (orig. des., as gen. n., sp. n.) = *cinerea* (Perris).

Centeter Aldrich, 1923d: 3. Type-species, *cinerea* Aldrich (orig. des.) = *aldrichi* Mesnil.

The species are parasites of adult Scarabaeidae.

aldrichi Mesnil, 1953a: 50 (n. name for *cinerea* Aldrich).—Japan; introd., estab., N.Y., Pa., N.J., Mass., Conn., D.C.

cinerea Aldrich, 1923d: 4 (*Centeter;* preocc. Perris, 1852).—Japan.

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cinerea (Perris), 1852: 206 (*Metopia*).—France; Europe, n. Africa, introd. N.Y., ?estab.

metopina Schiner, 1861b: 144 (also 1862a: 537).—Austria.

longicornis (Fallén), 1810b: 282 (*Tachina*).—Sweden; Europe, introd. N.Y., ?estab.

Genus MIAMIMYIA Townsend

Miamimyia Townsend, 1916i: 308. Type-species, *cincta* Townsend (orig. des.).

cincta Townsend, 1916i: 309.—Fla.

Genus OEDEMATOCERA Townsend

Oedematocera Townsend, 1916h: 621. Type-species, *Hypostena flaveola* Coquillett (orig. des.).

The hosts are various Orthoptera.

REFERENCE: Reinhard, 1942c (key).

flaveola (Coquillett), 1897: 61 (*Hypostena*).—N.H.; Kans. to Ont. and N.H., s. to Ga.

Genus ORAPHASMOPHAGA Reinhard

Oraphasmophaga Reinhard, 1958d: 284. Type-species, *Paraphasmophaga pictipennis* Reinhard (orig. des.).

pictipennis (Reinhard), 1935b: 167 (*Paraphasmophaga*).—Tex.

Genus PHASMOPHAGA Townsend

Phasmophaga Townsend, 1909: 243. Type-species, *antennalis* Townsend (orig. des.).

antennalis Townsend, 1909: 244.—Wis.; Kans., N.Y., Tex.

meridionalis Townsend, 1909: 244.—Tex.

Genus ROESELIOPSIS Townsend

Roeseliopsis Townsend, 1915a: 23. Type-species, *Racodineura americana* Coquillett (orig. des.).

americana (Coquillett), 1897: 66 (*Racodineura*).—Ga.; Ill., Fla.

floridensis Greene, 1934a: 30.—Fla.

Genus STENONEURA Reinhard

Stenoneura Reinhard, 1945a: 33. Type-species, *serotina* Reinhard (orig. des.).

serotina Reinhard, 1945a: 33.—Tex.; Fla.

Tribe ERYTHROCERINI

The hosts of the Erythrocerini are adult scarabaeid beetles, larvae of Microlepidoptera, and earwigs (*Forficula*).

Genus CANELOMYIA Reinhard

Canelomyia Reinhard, 1958d: 282. Type-species, *fumator* Reinhard (orig. des.).

fumator Reinhard, 1958d: 282.—Ariz.

Genus Elodia Robineau-Desvoidy

Elodia Robineau-Desvoidy, 1863a: 936. Type-species, *gagatea* Robineau-Desvoidy (orig. des.)=*tragica* (Meigen).

flavipalpis Aldrich, 1933a: 21.—Japan; Korea, introd. ne. U.S., not estab.

subfasciata Aldrich, 1933a: 22.—Japan; introd. ne. U.S., not estab.

tragica (Meigen), 1824: 408 (*Tachina*).—Germany; Europe, introd. Ont., not estab.

Genus ERYNNIA Robineau-Desvoidy

Erynnia Robineau-Desvoidy, 1830: 125. Type-species, *nitida* Robineau-Desvoidy (mon.)=*ocypterata* (Fallén).

Tortriciophaga Townsend, 1916h: 625. Type-species, *Pseudomyothyria tortricis* Coquillett (orig. des.).

Anachaetopsis, authors, not Brauer and Bergenstamm.

tortricis (Coquillett), 1895j: 55 (*Pseudomyothyria*).—Calif.; B.C. to Nfld., s. to Calif., Mexico, and Va.

vagans Aldrich, 1923a: 54 (*Anachaetopsis*).—Oreg. **N. comb.**

columbia Curran, 1925c: 153 (*Hypostena*).—B.C. **N. comb.**

imitator Curran, 1925c: 154 (*Hypostena*).—B.C. **N. comb.**

Genus OCYTATA Gistel

Roeselia Robineau-Desvoidy, 1830: 145 (preocc. Hübner, 1825). Type-species, *arvensis* Robineau-Desvoidy (Townsend, 1916d: 8)=*pallipes* (Fallén).

Ocytata Gistel, 1848: x (n. name for *Roeselia* Robineau-Desvoidy). Type-species, *Roeselia arvensis* Robineau-Desvoidy (aut.) = *pallipes* (Fallén).

Racodineura Rondani, 1861a: 31 (n. name for *Roeselia* Robineau-Desvoidy). Type-species, *Roeselia arvensis* Robineau-Desvoidy (aut.) = *pallipes* (Fallén).

Rhacodineura Bezzi *in* Bezzi and Stein, 1907: 378, emend.

The only known species of *Ocytata* is a well-known parasite of earwigs.

pallipes (Fallén), 1820g: 22 (*Tachina*).—Sweden; Europe, introd. Oreg., ?estab. **N. comb.**

antiqua Meigen, 1824: 412 (*Tachina*).—Europe. **N. comb.**

Tribe FRONTININI

The known hosts of the tribe Frontinini are lepidopterous larvae and adult beetles of the genus *Eleodes*.

Genus CLOACINA Reinhard

Cloacina Reinhard, 1945a: 34. Type-species, *filialis* Reinhard (orig. des.).

filialis Reinhard, 1945a: 35.—Tex.; Utah, Ariz., N. Mex.

Genus ELEODIPHAGA Walton

Eleodiphaga Walton, 1918: 23. Type-species, *caffreyi* Walton (orig. des.).

The hosts of *Eleodiphaga* are beetles of the genus *Eleodes*.

caffreyi Walton, 1918: 24.—N. Mex.; Idaho, Ariz.
martini Reinhard, 1937: 69.—Idaho.
pollinosa Walton, 1918: 24.—N. Mex.; Calif.

Genus HYPERTROPHOCERA Townsend

Hypertrophocera Townsend, 1891c: 360. Type-species, *parvipes* Townsend (orig. des.).

Neotractocera Townsend, 1892a: 105. Type-species, *anomala* Townsend (orig. des.) = *parvipes* Townsend.

parvipes Townsend, 1891c: 361.—N. Mex.; Mexico (Chih.).

anomala Townsend, 1892a: 106 (*Neotractocera*).—N. Mex.

Genus ISTOCHETA Rondani

Istocheta Rondani, 1859: 171. Type-species, *frontosa* Rondani (mon.) = *marmorata* (Fabricius).

Histochaeta, emend.

claripennis Reinhard, 1943c: 15.—Utah; Wash., Wyo.

Genus ORGANOMYIA Townsend

Organomyia Townsend, 1915f: 232. Type-species, *frontalis* Townsend (orig. des.).

frontalis Townsend, 1915f: 232.—N. Mex.; Tex.

owenii Reinhard, 1930c: 263 (*Macromeigenia*).—Tex. **N. syn.**

Genus PARAPHASMOPHAGA Townsend

Paraphasmophaga Townsend, 1915f: 223. Type-species, *clavis* Townsend (orig. des.).

clavis Townsend, 1915f: 223.—N. Mex.; Calif., Ariz.

dissita Reinhard, 1962b: 221.—Ariz.; Calif.

Tribe GONIINI

The species of the tribe Goniini parasitize a great variety of lepidopterous larvae, especially cutworms and army worms.

We have divided the genera between two subtribes, the Goniina and the Chaetogaediina. Mesnil (1949b) has referred some genera of the latter to the Sturmiini, but we are inclined to believe that they are closer to the typical Goniini.

Subtribe GONIINA

Genus ACROGLOSSA Williston

Acroglossa Williston, 1889a: 1916. Type-species, *hesperidarum* Williston (mon.).

Cnephalomyia Townsend, 1911a: 144. Type-species, *floridana* Townsend (orig. des., as gen. n., sp. n.) ?=*hesperidarum* Williston.

Cnephaliops Townsend, 1915a: 23. Type-species, *Pseudogonia ruficauda* Townsend (orig. des.) = *hesperidarum* Williston.

finitima (Snow), 1895a: 184 (*Cnephalia*).—N. Mex. ?=*hesperidarum*.

floridana (Townsend), 1911a: 144 (*Cnephalomyia*).—Fla. ?=*hesperidarum*.

hesperidarum Williston, 1889a: 1917.—N.H.; Calif. to S. Dak. to N.B., s. to Mexico and Fla.
obsoleta Townsend, 1892e: 66 (*Pseudogonia*).—N.Y.
ruficauda Townsend, 1892e: 66 (*Pseudogonia*).—S. Dak.

Genus ARAVAIPA Townsend

Aravaipa Townsend, 1919b: 589. Type-species, *atrophopoda* Townsend (orig. des.).

atrophopoda Townsend, 1919b: 589.—Ariz.

Genus CHAETOCRANIA Townsend

Chaetocrania Townsend, 1915a: 23. Type-species, *Spallanzania antennalis* Coquillett (orig. des.).

antennalis (Coquillett), 1897: 136 (*Spallanzania*).—Calif.; Nev., Utah, Ariz.

Genus DISTICHONA Wulp

Distichona Wulp, 1890: 44. Type-species, *varia* Wulp (mon.).
Pseudogermaria Brauer and Bergenstamm, 1891: 352 (1891: 48). Type-species, *georgiae* Brauer and Bergenstamm (mon.).
Paragermaria Townsend, 1909: 247. Type-species, *autumnalis* Townsend (orig. des.)=*georgiae* (Brauer and Bergenstamm).

georgiae (Brauer and Bergenstamm), 1891: 352 (1891: 48) (*Pseudogermaria*).—Ga.; Ill. to Mass., s. to Ala. and Ga.
facialis Coquillett, 1902g: 117 (*Gaediopsis*).—Ga. **N. syn., n. comb.**
autumnalis Townsend, 1909: 247 (*Paragermaria*).—Mass.
auriceps, authors, not Coquillett.
varia, authors, in part, not Wulp.

Genus EUCNEPHALIA Townsend

Eucnephalia Townsend, 1892e: 166. Type-species, *gonoides* Townsend (orig. des.).

gonoides Townsend, 1892e: 167.—N. Mex.; Ariz.

Genus GONIA Meigen

Salmacia Meigen, 1800: 38. Type-species, *Musca capitata* De Geer (Coquillett, 1910b: 602). Suppressed by I.C.Z.N., 1936b: 339.

Gonia Meigen, 1803: 280. Type-species, *bimaculata* Wiedemann (present des.). The long-recognized type-species, *Musca capitata* De Geer, designated by Curtis, 1835a: pl. 533, was first referred to *Gonia* in 1826. However, Wiedemann (1819) had described two species in *Gonia*, and these are the first included species in the sense of the Code.

Reaumuria Robineau-Desvoidy, 1830: 79. Type-species, *Musca capitata* De Geer (Robineau-Desvoidy, 1863a: 733; misident.) = *ornata* Meigen.

Cystogonia Townsend, 1915a: 21. Type-species, *Gonia turgida* Coquillett (orig. des.).

Knabia Townsend, 1915c: 286. Type-species, *hirsuta* Townsend (orig. des.) = *frontosa* Say.

Cnephalogonia Townsend, 1916b: 178. Type-species, *Gonia distincta* Smith (orig. des.).

Phosococephalops Townsend, 1927: 237. Type-species, *fulvus* Townsend (orig. des.) = *pallens* Wiedemann.

Setigonia Brooks, 1944a: 221. Type-species, *Gonia setigera* Tothill (orig. des.). **N. syn.**

Fuscigonia Brooks, 1944a: 223. Type-species, *Gonia fuscicollis* Tothill (orig. des.). **N. syn.**

Rhedia Robineau-Desvoidy of Brooks, 1944a: 223.

Numerous genera have been proposed for the species included here in *Gonia*, but we do not regard them as even of subgeneric significance.

REFERENCES: Morrison, 1940 (rev., males); Brooks, 1944a (rev.).

albagenae Morrison, 1940: 349.—B.C.; B.C. to Calif. and Colo.

aldrichi Tothill, 1924a: 209.—Alta.; B.C. to N.B., s. to Ariz. and Va.

atra Cockerell, 1889b: 3 (also 1889c: 106) (as *frontosa* var.; preocc. Meigen, 1826).—Colo. Unrecognized; ? = *frontosa*.

aturgida Brooks, 1944a: 233.—Idaho; Wash. to Sask., s. to Calif. and Ariz.

breviforceps Tothill, 1924a: 210.—Alta.; B.C. to Mont., s. to Calif. and Ariz., also Mich.

brevipulvilli Tothill, 1924a: 211.—N.B.; B.C. to N.B., s. to Calif. and Mass., also D.C.

capitata (De Geer).—Not Nearctic.

carinata Tothill, 1924a: 208.—Utah; Calif., Wyo.

contumax Brooks, 1944a: 233.—Wash.; Calif., Utah.

crassicornis (Fabricius), 1794: 328 (*Musca*).—West Indies; s. Fla., Neotropical.

pallens, authors, not Wiedemann.

distincta Smith, 1915b: 99.—Mass.; Alta. to N.B., s. to Ohio and Conn., also Colo., N.C.

frontosa Say, 1829: 175 (1859b: 365).—Upper Missouri River; Alaska, B.C. to Que., s. to Calif. and N.C.

philadelphica Macquart, 1843a: 208 (1843: 51).—Pa.

albifrons Walker, 1849: 798.—Ont.

hirsuta Townsend, 1915c: 287 (*Knabia*).—Sask.

basalis Harris, 1835: 599. Nomen nudum.

tarda Harris, 1835: 599. Nomen nudum.

fuscicollis Tothill, 1924a: 207.—Ind.; Sask. and Man., s. to Nebr. and Tenn., also Md.

grandipulvilli Morrison, 1940: 345.—Alta.; B.C. to Que., s. to Calif.

longiforceps Tothill, 1924a: 208.—Alta.; B.C. to Ont., s. to Calif. and Okla.

discalis Morrison, 1940: 347.—B.C.

longipulvilli Tothill, 1924a: 211.—B.C.; B.C. to N. Dak., s. to Calif., Mexico, and Tex., also Hawaii (immigrant).

nigra (Brooks), 1944a: 225 (*Rhedia*).—Sask.; B.C.

occidentalis Brooks, 1944a: 234.—B.C.; B.C. to Mont., s. to Calif. and Ariz.

pilosa Brooks, 1944a: 231.—Man.; Wash. to Man., s. to Calif. and Utah.

porca Williston, 1887a: 10.—Oreg.; B.C. to Man., s. to Calif. and Ariz.

reinhardi Brooks, 1944a: 232.—Colo.; Wash. to Wyo., s. to Calif. and Ariz.

robusta Brooks, 1944a: 234.—Alta.; Calif.

sagax Townsend, 1892e: 65.—Iowa; Colo. and Okla. to Wis. and Conn.

senilis Williston, 1887a: 10.—Kans.; Colo. and Ariz. to Fla., also Mich., N.Y.

sequax Williston, 1887a: 12.—Calif.; B.C. to Mass., s. to Calif., Mexico, Mich., and Conn.

exul Williston, 1887a: 11.—N.Y., Mass., Conn.

vertebrata Harris, 1835: 599. Nomen nudum.

setifacies (Brooks), 1944a: 225 (*Rhedia*).—Sask.; Idaho, Man. **N. comb.**

setigera Tothill, 1924a: 199.—Mass.; B.C. to Ont. and Mass., s. to Calif., Ariz., and N.J.

smithi Brooks, 1944a: 235.—Ont.; Man., P.E.I.

texensis Reinhard, 1924c: 357.—Tex.; Miss., Mexico. ?=*crassicornis*.

turgida Coquillett, 1897: 134.—Calif.; B.C., Oreg., Idaho, Mont.

Genus IMAGUNCULA Reinhard

Imaguncula Reinhard, 1958c: 230. Type-species, *tabida* Reinhard (orig. des.).

tabida Reinhard, 1958c: 230.—Ariz.; N. Mex., Mexico.

Genus OLENOCHAETA Townsend

Olenochaeta Townsend, 1892a: 114. Type-species, *kansensis* Townsend (orig. des.).

kansensis Townsend, 1892a: 115.—Kans.; Kans. to Ohio and Md., s. to Calif. and Fla.

varia, authors, in part, not Wulp.

Genus ONYCHOGONIA Brauer and Bergenstamm

Onychogonia Brauer and Bergenstamm, 1889: 100 (1889: 32). Type-species, *Gonia interrupta* Rondani (mon.).

Goniocnephalia Townsend, 1915f: 222. Type-species, *melanica* Townsend (orig. des.). **N. syn.**

REFERENCE: Brooks, 1944a (key).

fissiforceps (Tothill), 1924a: 207 (*Gonia*).—B.C.; B.C. and Alta., s. to Calif. and Colo.

magna Brooks, 1944a: 227.—Utah; Wash. to Mont., s. to Calif. and Colo.

melanica (Townsend), 1915f: 222 (*Goniocnephalia*).—N. Mex.; Wyo. **N. comb.**

tenuiforceps (Morrison), 1940: 356 (*Gonia*).—Labr.; Alaska, Alta., Idaho.

yukonensis (Tothill), 1924a: 210 (*Gonia*).—Y.T.; Y.T., s. to Oreg. and Colo., also Ont.

Genus SPALLANZANIA Robineau-Desvoidy

Spallanzania Robineau-Desvoidy, 1830: 78. Type-species, *gallica* Robineau-Desvoidy (Coquillett, 1910b: 606)=*hebes* (Fallén).

Cnephalia Rondani, 1856: 62. Type-species, *Tachina hebes* Fallén (orig. des.).

colludens Reinhard, 1958c: 231.—Tex.; Nev., Ariz., S.C.

hebes (Fallén), 1820g: 11 (*Tachina*).—Sweden; B.C. to Mass., s. to Calif., Mexico, and Fla., Palearctic.

bucephala Meigen, 1824: 252 (*Tachina*).—Austria.

pansa Snow, 1895a: 182 (*Cnephalia*).—N. Mex.

Subtribe CHAETOGAEDIINA, N. subtribe

Certain genera referred to the Sturmiini by Mesnil appear to us to be more closely related to the typical Goniini. However, they differ notably from the Goniina in having the ocellar bristles proclinate, and they are segregated here as a distinct group.

Genus CHAETOGAEDIA Brauer and Bergenstamm

Chaetogaedia Brauer and Bergenstamm, 1891: 336 (1891: 32). Type-species, *Prospherysa vilis* Wulp (Townsend, 1908: 94).

Phrissopolia Townsend, 1908: 93. Type-species, *Prospherysa crebra* Wulp (mon.).

Eophrissopolia Townsend, 1926: 36. Type-species, *acroglossoides* Townsend (orig. des.) = *townsendi* Sabrosky and Arnaud.

Frontinogaedia Townsend, 1926: 37. Type-species, *Baumhaueria analis* Wulp (orig. des.).

The name *crebra* has been widely misapplied in the past to most of the species here recognized as distinct.

analis (Wulp), 1867: 148 (*Baumhaueria*). = Wis.; Wis. to Vt., s. to Kans. and Va., also ?N. Mex., ?Tex., ?Fla.

acroglossoides Townsend, 1891c: 367 (*Frontina*).—Ill.

crebra (Wulp), 1890: 120 (*Prospherysa*).—Mexico; Calif., Ariz., N. Mex.

desertorum (Townsend), 1908: 94 (*Phrissopolia*).—N. Mex.; Ariz.

monticola (Bigot), 1887b: cxl (also 1888a: 91) (*Blepharipeza*).—Rocky Mts.; Calif. to Tex., introd. and estab. Hawaii.

rufifrons (Wulp), 1890: 121 (*Prospherysa*).—Mexico; N. Mex.

townsendi Sabrosky and Arnaud (for *acroglossoides* Townsend).—Md.; N. Dak., Ohio, N.C. **N. name.**

acroglossoides Townsend, 1926: 37 (*Eophrissopolia;* preocc. Townsend, 1891).—Md.

Genus CHAETOGLOSSA Townsend

Chaetoglossa Townsend, 1892a: 125. Type-species, *picticornis* Townsend (orig. des.).

nigripalpis Townsend, 1892a: 126.—Fla. ? = *picticornis*.

picticornis Townsend, 1892a: 126.—Fla.; S. Dak., Kans., Ill., Ariz., Tex., Mexico.

violae Townsend, 1892a: 126.—Fla.

Genus GAEDIOPHANA Brauer and Bergenstamm

Gaediophana Brauer and Bergenstamm, 1893: 123, 201 (1893: 35, 113). Type-species, *atra* Brauer and Bergenstamm (mon.) = *lugubris* (Wulp).

Chaetogaediopsis Townsend, 1916h: 620. Type-species, *Gaediopsis cockerellii* Coquillett (orig. des.) = *lugubris* (Wulp).

The genus *Gaediophana* was long considered to consist of one species, as shown below, but Reinhard (1951: 5) has described a second species from Mexico, *G. monnula*, recognized chiefly by distinctive male genitalia. It is different from *cockerellii*, of which the type is before us, but the relationship of these two to earlier names may now be questioned, pending restudy of the types of the latter.

lugubris (Wulp), 1890: 53 (*Mystacella*).—Mexico; Ariz. to Tex.

tenebricosa Wulp, 1890: 77 (*Phorocera*).—Mexico. **N. syn., n. comb.,** J. M. Aldrich notes.

atra Brauer and Bergenstamm, 1893: 123, 201 (1893: 35, 113).—Mexico.

cockerellii Coquillett, 1902g: 117 (*Gaediopsis*).—N. Mex.

Genus GAEDIOPSIS Brauer and Bergenstamm

Gaediopsis Brauer and Bergenstamm, 1891: 336, 401 (1891: 32, 97) (also 1893: 190; 1893: 102). Type-species, *mexicana* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Poliophrys Townsend, 1908: 90. Type-species, *sierricola* Townsend (orig. des.).

Subgenus GAEDIOPSIS Brauer and Bergenstamm

mexicana Brauer and Bergenstamm, 1891: 336 (1891: 32).—Mexico; Ariz., Tex.

organensis (Townsend), 1908: 93 (*Poliophrys*).—N. Mex.

sierricola (Townsend), 1908: 93 (*Poliophrys*).—Mexico (Chih.); Calif. to Tex.

serricolor, error.

Subgenus EUGAEDIOPSIS Townsend

Eugaediopsis Townsend, 1916h: 620 (as genus). Type-species, *Gaediopsis ocellaris* Coquillett (orig. des.).

Eugaedia Townsend, 1916h: 621. Type-species, *Gaediopsis setosa* Coquillett (orig. des.).

flavipes Coquillett, 1895k: 100.—Ala.; Ark. to S.C., s. to Fla., also Va.

ocellaris Coquillett, 1902g: 118.—Ohio; Mich. to N.H., s. to Ill. and Va.

rubentis (Reinhard), 1961: 209 (*Eugaediopsis*).—Ariz.; Mexico. **N. comb.**

setosa Coquillett, 1897: 136.—Calif.; B.C. to Calif., Mexico, and N. Mex.

monticola Townsend, 1898c: 269.—N. Mex. **N. syn.**

vinnula (Reinhard), 1961: 210 (*Eugaediopsis*).—Ariz. **N. comb.**

Genus HESPEROMYIA Brauer and Bergenstamm

Hesperomyia Brauer and Bergenstamm, 1889: 114 (1889: 46). Type-species, *erythrocera* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Oestroplagia Townsend, 1919b: 566. Type-species, *petiolata* Townsend (orig. des.).

erythrocera Brauer and Bergenstamm, 1889: 114 (1889: 46).—Tex.; N. Mex., Okla.

petiolata (Townsend), 1919b: 567 (*Oestroplagia*).—Ariz.

Genus TOROSOMYIA Reinhard

Torosomyia Reinhard, 1935b: 171. Type-species, *parallela* Reinhard (orig. des.).

parallela Reinhard, 1935b: 172.—Kans.

Tribe BELVOSIINI

The generally bulky flies of the Belvosiini parasitize large heterocerous larvae.

Genus ATACTA Schiner

Atacta Schiner, 1868: 328. Type-species, *brasiliensis* Schiner (orig. des.).

Atactomima Townsend, 1916j: 15. Type-species, *crescentis* Townsend (orig. des.). **N. syn.**

REFERENCE: Aldrich, 1925c (rev.).

brasiliensis Schiner, 1868: 328.—Brazil; Tex. to Fla., thence n. to Va., Neotropical.

apicalis Coquillett, 1897: 83.—Ga.

crassiceps Aldrich, 1925c: 30.—Va.; Okla. and Tex. to Ga., also Md., Va.

Genus ATACTOPSIS Townsend

Atactopsis Townsend, 1917c: 229. Type-species, *facialis* Townsend (orig. des.).

Paratacta Reinhard, 1923: 266. Type-species, *facialis* Reinhard (orig. des.) = *reinhardi* Sabrosky and Arnaud.

reinhardi Sabrosky and Arnaud (for *facialis* Reinhard).—Tex. **N. name.**

facialis Reinhard, 1923: 266 (*Paratacta;* preocc. Townsend, 1917).—Tex.

Genus BELVOSIA Robineau-Desvoidy

Belvosia Robineau-Desvoidy, 1830: 103. Type-species, *bicincta* Robineau-Desvoidy (mon.).

Belvoisia, error or emend.

Latreillia Robineau-Desvoidy, 1830: 104 (preocc. Roux, 1830). Type-species, *Musca bifasciata* Fabricius (Coquillett, 1910b: 558).

Willistonia Brauer and Bergenstamm, 1889: 97 (1889: 29). Type-species, *Musca esuriens* Fabricius (mon.; misident.) = *aldrichi* (Townsend).

Latreillimyia Townsend, 1908: 104 (n. name for *Latreillia* Robineau-Desvoidy). Type-species, *Musca bifasciata* Fabricius (aut.).

Belvosiopsis Townsend, 1927: 248. Type-species, *brasiliensis* Townsend (orig. des.) = *weyenberghiana* Wulp.

REFERENCE: Aldrich, 1928 (rev.).

argentifrons Aldrich, 1928: 32.—Va.; N.Y., Ga.

auratilis Reinhard, 1951: 1.—Mexico (Michoacan); Tex.

bicincta Robineau-Desvoidy, 1830: 103.—Carolina, Antilles; Kans., Carolina, Ariz. to Tex., s. through Cent. Amer. and West Indies to Brazil.

bifasciata (Fabricius), 1775: 777 (*Musca*).—West Indies (as Amer.); Calif. to Mass., s. to Mexico and West Indies.

bifuscata, error.

borealis Aldrich, 1928: 28.—Pa.; Mich. to Vt., s. to N. Mex. and Fla. also Calif.

orion Brimley, 1928: 205.—N. C. **N. syn.**

canadensis Curran, 1927m: 152.—Sask.; Alta. to Mich. and Ohio, s. to Colo. and Ark.

ciliata Aldrich, 1928: 22.—Mexico; Mo., Panama, Brazil.

pollinosa Rowe, 1933: 123.—Ill.

semiflava Aldrich, 1928: 11.—N. Mex.; Calif. to Ohio, s. to Mexico and Ga.

splendens Curran, 1927m: 153.—Sask.; Sask. to Mich., s. to Kans.

townsendi Aldrich, 1928: 33.—Va.; Kans. to N.J., s. to Tex. and Fla.

Genus TRIACHORA Townsend

Triachora Townsend, 1908: 105. Type-species, *Latreillia unifasciata* Robineau-Desvoidy (mon.).

Goniomima Townsend, 1908: 105. Type-species, *Belvosia luteola* Coquillett (mon.). **N. syn.**

REFERENCE: Aldrich, 1928 (rev., in *Belvosia*).

luteola (Coquillett), 1900g: 253 (*Belvosia*).—P.R.; Tex., Fla. **N. comb.**

omissa (Aldrich), 1928: 21 (*Belvosia*).—Va.; Ohio, Md., D.C., Ark., Ga. **N. comb.**

slossonae (Coquillett), 1895a: 312 (*Belvosia*).—Fla.; La.

unifasciata (Robineau-Desvoidy), 1830: 105 (*Latreillia*).—Pa.; Wis. to Maine, s. to Tex. and Ga., also Cuba.

flavicauda Riley, 1870c: 51 (*Exorista*).—Mo.

Tribe HARRISIINI

The species of Harrisiini parasitize lepidopterous larvae.

REFERENCE: Brooks, 1947 (rev.).

Genus LESCHENAULTIA Robineau-Desvoidy

Leschenaultia Robineau-Desvoidy, 1830: 324. Type-species, *cilipes* Robineau-Desvoidy (Townsend, 1916d: 7) = *leucophrys* (Wiedemann).

Blepharipeza Macquart, 1843a: 211 (1843: 54). Type-species, *rufipalpis* Macquart (mon.) = *leucophrys* (Wiedemann).

Rileya Brauer and Bergenstamm, 1893: 121 (1893: 33) (preocc. Ashmead, 1888). Type-species, *americana* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.).

Rileymyia Townsend, 1893a: 277 (n. name for *Rileya* Brauer and Bergenstamm). Type-species, *Rileya americana* Brauer and Bergenstamm (aut.).

adusta (Loew), 1872a: 92 (Cent. 10, no. 67) (*Blepharipeza*).—Calif.; Ariz., N. Mex.

americana (Brauer and Bergenstamm), 1893: 121 (1893: 33) (*Rileya*).—Calif.; B.C. to Mont., s. to Calif.

triseta Brooks, 1947: 181 (*Rileymyia*).—B.C.

exul (Townsend), 1892e: 64 (*Blepharipeza*).—N.H.; Ont. to N.B., s. to Ohio and Va.
incauta Harris, 1835: 599 (*Tachina*). Nomen nudum.
fulvipes (Bigot), 1887b: cxl (*Blepharipeza*).—Wash.; B.C. to Sask., s. to Ariz. and Tex., also ?Md.
rufescens Townsend, 1892a: 90 (*Blepharipeza*).—?Md.
grossa Brooks, 1947: 176.—Ariz.; Nev., N. Mex.
halisidotae Brooks, 1947: 176.—Ont.; Wis. to Que., s. to Ohio and N.J.
hospita Reinhard, 1952b: 7.—Mexico (Michoacan); N. Mex.
leucophrys (Wiedemann), 1830: 308 (*Tachina*).—Brazil; B.C. to Ont., all U.S., Neotropical.
rufipalpis Macquart, 1843a: 212 (1843: 55) (*Blepharipeza*).—Mexico, Cuba.

Genus PARACHAETA Coquillett

Parachaeta Coquillett, 1897: 123. Type-species, *Blepharipeza bicolor* Macquart (orig. des.; misident.)=*fusca* Townsend.

bicolor (Macquart), 1846: 286 (1846: 158) (*Blepharipeza*).—Tex.; Mexico.
fusca Townsend, 1916d: 11.—N.Y.; Kans. to Maine and Md.
bicolor, authors, in part, not Macquart.
inermis, authors, not Bigot.

Tribe STURMIINI

The tribe Sturmiini as here recognized is basically that of Townsend, minus *Winthemia* and relatives (see next tribe). The hosts are lepidopterous caterpillars, with a few records from tenthredinid larvae.

Genus BLEPHARIPA Rondani

Blepharipa Rondani, 1856: 71. Type-species, *Senometopia ciliata* Macquart (orig. des.)=*scutellata* (Robineau-Desvoidy).
Ugimyia Rondani, 1870: 137. Type-species, *sericariae* Rondani (mon.) ?=*zebina* (Walker). ?Syn.
Blepharipoda Brauer and Bergenstamm, 1889: 96 (1889: 28) (preocc. Randall, 1840). Type-species, *Nemoraea scutellata* Robineau-Desvoidy (mon.).
Crossocosmia Mik, 1890: 313. Type-species, *Ugimyia sericariae* Rondani (as Cornalia; orig. des.) ?=*zebina* (Walker). ?Syn.

The status of *Ugimyia* and *Crossocosmia* is complicated by the questionable identity of Rondani's *sericariae*, which was based on

larvae and pupae that might conceivably have belonged to a different genus than *Blepharipa*. The adult of "*sericariae*," described later in 1870 by Cornalia, and accepted by some as probably conspecific with Rondani's species, is a synonym of *B. zebina* (Walker).

Blepharipa scutellata is one of the most successful parasites of the gypsy moth.

schineri (Mesnil), 1939: 32 (*Blepharipoda*).—Austria; Europe, China, Japan, introd. New England, not estab.

flavoscutellata Zetterstedt of Schiner, 1862a: 482.

sericariae, authors, not Rondani or Cornalia.

scutellata (Robineau-Desvoidy), 1830: 73 (*Nemoraea*).—Europe; introd. and estab. New England, N.Y.

Genus BOLOMYIA Brauer and Bergenstamm

Bolomyia Brauer and Bergenstamm, 1891: 347 (1891: 43). Type-species, *Mystacella violacea* Wulp (mon.)=*rufata* (Bigot).

rufata (Bigot), 1888a: 257 (*Exorista*).—Mexico; Ariz., Cent. Amer.

Genus DRINO Robineau-Desvoidy

Drino Robineau-Desvoidy, 1863a: 250. Type-species, *volucris* Robineau-Desvoidy (orig. des.)=*lota* (Meigen).

Zygosturmia Townsend, 1911a: 142. Type-species, *inca* Townsend (orig. des., as gen. n., sp. n.).

Laximasicera Curran, 1927d: 14. Type-species, *sexualis* Curran (orig. des.)=*bakeri* (Coquillett). **N. syn.,** L. P. Mesnil *in litt.*

Cubaemyia Townsend, 1931a: 179. Type-species, *Tachina cubaecola* Jaennicke (orig. des.). **N. syn.**

Sturmia, authors, not Robineau-Desvoidy.

antennalis (Reinhard), 1922: 330 (*Pseudochaeta*).—Tex.; Ariz. to S.C. **N. comb.**

bakeri (Coquillett), 1897: 112 (*Sturmia*).—Colo.; B.C. to Sask., s. to Colo., also Mich., N.B. **N. comb.**

sexualis Curran, 1927d: 14 (*Laximasicera*).—Alta. **N. syn., n. comb.**

bohemica Mesnil, 1949a: 23.—Czechoslovakia; Europe, introd. and estab. Ont. to Nfld. and N.S., also introd. but not estab. B.C., Sask., Man.

inconspicua, authors, in part, not Meigen.

crescentis (Reinhard), 1944b: 69 (*Sturmia*).—Tex.; Colo. and Kans. to Mexico, also N.Y., Ohio, N.C. **N. comb.**

cubaecola (Jaennicke), 1867: 382 (1868: 74) (*Tachina*).—Cuba; s. Tex., P.R. **N. comb.**

gilva (Hartig), 1838: 288 (*Tachina*).—Germany; Palaearctic.

var. *aurora* Mesnil, 1949a: 15 (as sp.).—Japan; introd. N.B., not estab.

inca (Townsend), 1911a: 142 (also 1912b: 323) (*Zygosturmia*).—Peru; s. Calif. to Fla., also Va., N.C.

incompta (Wulp), 1890: 99 (*Brachycoma*).—Mexico (Guerrero); Calif. to Maine, s. to Mexico and Fla.

inquinata Wulp, 1890: 107 (*Masicera*).—Mexico (Morelos). **N. comb.**

inconspicua (Meigen), 1830: 369 (*Tachina*).—Germany; Europe, introd. Ont. to P.E.I. and New England. Introduced as *inconspicua*, but now considered probably a complex of up to 5 species, only *bohemica* being recovered.

gilva, authors, not Hartig.

pilatei (Coquillett), 1897: 111 (*Sturmia*).—Ga.; Calif. to Ga., also Tenn., N.C. **N. comb.**

rhoeo (Walker), 1849: 778 (*Tachina*).—Unknown; N. Dak. to N.Y., s. to Calif., Mexico, and Fla., also Jamaica. **N. comb.**

protoparcis Townsend, 1892i: 70 (*Masicera*).—Jamaica. **N. syn.**

distincta, authors, not Wiedemann.

Genus GYMNOERYCIA Townsend

Gymnoerycia Townsend, 1916i: 312. Type-species, *rubra* Townsend (orig. des.).

rubra Townsend, 1916i: 313.—Fla.

Genus MASIPHYOMYIA Reinhard

Masiphyomyia Reinhard, 1944b: 65. Type-species, *alearis* Reinhard (orig. des.).

REFERENCE: Reinhard, 1944b (rev.).

alearis Reinhard, 1944b: 66.—Tex.

comosa Reinhard, 1944b: 67.—Colo.; B.C. and Alta. to Calif. and Colo.

longicornis Reinhard, 1944b: 67.—Tex.; Oreg., Calif., Ariz.

paralis Reinhard, 1944b: 67.—N. Mex.; Calif., Ariz.

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Genus MICROSILLUS Aldrich

Microsillus Aldrich, 1926d: 20. Type-species, *Houghia baccharis* Reinhard (orig. des.).

baccharis (Reinhard), 1922: 332 (*Houghia*).—Tex.

Genus MILONIUS Reinhard

Milonius Reinhard, 1955d: 127. Type-species, *scordalus* Reinhard (orig. des.).

scordalus Reinhard, 1955d: 127.—Tex.; Mexico.

Genus MIMOLOGUS Reinhard

Mimologus Reinhard, 1955d: 129. Type-species, *effetus* Reinhard (orig. des.).

effetus Reinhard, 1955d: 130.—Calif.

Genus MYOTHYRIOPSIS Townsend

Myothyriopsis Townsend, 1919b: 575. Type-species, *bivittata* Townsend (orig. des.) ?=*picta* (Wulp).

picta (Wulp), 1890: 108 (*Masicera*).—Mexico; Tex.

Genus MYSTACELLA Wulp

Mystacella Wulp, 1890: 51. Type-species, *solita* Wulp (Coquillett 1910b: 573).

Macromeigenia Brauer and Bergenstamm, 1891: 311 (1891: 7). Type-species, *Tachina chrysoprocta* Wiedemann (mon.). **N. syn.**

REFERENCE: Reinhard, 1930c (rev.).

chrysoprocta (Wiedemann), 1830: 309 (*Tachina*).—Unknown; Mich. to Mass., s. to Tex. and Ga., also Mexico to Costa Rica. **N. comb.**

interrupta Walker, 1852: 295 (*Tachina*).—Ga. **N. syn.**

frioensis (Reinhard), 1922: 329 (*Ernestia*).—Tex.; B.C., Idaho, Ariz., N. Mex. **N. comb.**

Genus Pales Robineau-Desvoidy

Pales Robineau-Desvoidy, 1830: 154. Type-species, *florea* Robineau-Desvoidy (Coquillett, 1910b: 582)=*pavida* (Meigen). Not *Pales* Meigen, 1800, suppressed by I.C.Z.N., 1963b.

Ctenophorocera Brauer and Bergenstamm, 1891: 342 (1891: 38). Type-species, *experta* Brauer and Bergenstamm (Townsend, 1916d: 6) = *sarcophagaeformis* (Jaennicke).

Neopales Coquillett, 1910b: 575 (n. name for *Pales* Robineau-Desvoidy). Type-species, *florea* Robineau-Desvoidy (aut.) = *pavida* (Meigen).

pavida (Meigen), 1824: 398 (*Tachina*).—Germany; introd. New England, not estab.

Genus SIPHOSTURMIA Coquillett

Siphosturmia Coquillett, 1897: 83. Type-species, *Argyrophylax rostrata* Coquillett (orig. des.).

Siphosturmiopsis Townsend, 1915k: 91. Type-species, *rafaeli* Townsend (orig. des.).

Mesnil (1949a, b, 1950) considers this group to be a subgenus of *Drino*.

REFERENCES: Reinhard, 1931b (rev., partial key), 1934c (partial key).

confusa Reinhard, 1931b: 6.—Tex.; Calif. to Tex.
normula authors, not Wulp.

maltana Reinhard, 1951: 7.—Mont.; Calif., N. Mex.

melampyga (Reinhard), 1931b: 9 (*Siphosturmiopsis*).—Tex.; Wash., N. Mex., Ill. to Vt., Fla. **N. comb.**

melitaeae (Coquillett), 1897: 121 (*Demoticus*).—Calif. **N. comb.**
rufiventris Reinhard, 1934c: 18 (*Siphosturmiopsis*).—Calif. **N. syn., n. comb.**

oteroensis (Reinhard), 1934c: 16 (*Siphosturmiopsis*).—N. Mex. **N. comb.**

phyciodis (Coquillett), 1897: 109 (*Sturmia*).—Md., Mass.; Kans. to Mass., s. to Tex. and N.C. **N. comb.**

rostrata (Coquillett), 1895k: 106 (*Argyrophylax*).—Ala.; Ohio to Md., s. to Tex. and Fla.

Genus STURMIA Robineau-Desvoidy

Sturmia Robineau-Desvoidy, 1830: 171. Type-species, *vanessae* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 888) = *bella* (Meigen).

Although our species are atypical *Sturmia*, they are left here until their proper generic position can be established.

chrysoprocta Reinhard, 1924b: 273.—Kans.; Colo., N. Mex., Tex.

harrisinae Coquillett, 1897: 111.—U.S.; Ohio, N.Y., Calif. to Tex., Fla., Mexico.
tuxedo Curran, 1930j: 102 (*Erycia*).—N.Y.
unispinosa Reinhard, 1930b: 199 (*Masicera*).—Tex.

Genus TOWNSENDIELLOMYIA Baranov

Sturmia, subg. **Townsendiellomyia** Baranov, 1932: 73. Type-species *Zygobothria nidicola* Townsend (orig. des.).

nidicola (Townsend), 1908: 99 (*Zygobothria*).—Austria; Europe, introd. and estab. New England.

Genus ZIZYPHOMYIA Townsend

Zizyphomyia Townsend, 1916i: 317. Type-species, *celer* Townsend (orig. des.) = *limata* (Coquillett). ? = *Drino*.

limata (Coquillett), 1902g: 113 (*Sturmia*).—La.; Kans., Ohio, Tex. to Miss.
celer Townsend, 1916i: 318.—Tex.

Tribe WINTHEMIINI

Genus HEMISTURMIA Townsend

Hemisturmia Townsend, 1927: 262, 316 (as *Humisturmia*, p. 262). Type-species, *carcelioides* Townsend (orig. des.).
Ceratochaeta Brauer and Bergenstamm of Coppel, 1960: 97.

tortricis (Coquillett), 1897: 103 (*Phorocera*).—Mo.; B.C. to Vt., s. to Calif., Mexico, Miss., and N.J. **N. comb.**

Genus NEMORILLA Rondani

Nemorilla Rondani, 1856: 66. Type-species, *Tachina maculosa* Meigen (orig. des.).

The principal hosts are Microlepidoptera.

REFERENCE: Aldrich and Webber, 1924a (rev.).

floralis (Fallén), 1810b: 287 (*Tachina*).—Sweden; Palaearctic, introd. Ont., Ohio, Mass., Conn. ?estab.
insolens Aldrich and Webber, 1924a: 6.—Mass.; Ohio, Conn., R.I., N.C.
maculosa (Meigen), 1824: 265 (*Tachina*).—France, Germany; Palaearctic, introd. Ont., ?estab.
parva (Coquillett), 1897: 100 (*Exorista*).—Colo.

pyste (Walker), 1849: 754 (*Tachina*).—N.S.; B.C. to N.S., all U.S., Mexico.
phycitae LeBaron, 1872: 123 (*Tachina*).—Ill.
scudderi Williston, 1889a: 1921 (*Exorista*).—Tex.
arvicola Meigen of Parrott and Schoene, 1912: 30 (*Exorista*).
floralis, N. Amer. authors, not Fallén.
maculosa, N. Amer. authors, not Meigen.

Genus OMOTOMA Lioy

Omotoma Lioy, 1864a: 1338. Type-species, *Tachina amoena* Meigen (Townsend, 1916d: 8).
Homotoma, emend. (preocc. Guérin-Méneville, 1844).
Nemosturmia Townsend, 1926: 34. Type-species, *pilosa* Townsend (orig. des.) =*fumiferanae* (Tothill).

fumiferanae (Tothill), 1912: 2 (*Winthemia*).—B.C.; B.C. to Nfld., s. to Ariz. and Ga.
pilosa Townsend, 1926: 35 (*Nemosturmia*).—N.H.
amoena, authors, not Meigen.

Genus ORASTURMIA Reinhard

Orasturmia Reinhard, 1947a: 21. Type-species, *vallicola* Reinhard (orig. des.).

vallicola Reinhard, 1947a: 22.—Tex.

Genus PSEUDOLOMYIA Reinhard

Pseudolomyia Reinhard, 1962a: 175. Type-species, *scissilis* Reinhard (orig. des.).

scissilis Reinhard, 1962a: 176.—Ohio; Ariz., Tex.

Genus WINTHEMIA Robineau-Desvoidy

Winthemia Robineau-Desvoidy, 1830: 173. Type-species, *Tachina variegata* Meigen (as Fabricius; Robineau-Desvoidy, 1863a: 207).
Trisisyropa Townsend, 1916e: 28. Type-species, *vesiculata* Townsend (orig. des.).
Okea Townsend, 1916g: 74. Type-species, *Winthemia okefenokeensis* Smith (orig. des.).
Neowinthemia Townsend, 1919b: 583. Type-species, *abdominalis* Townsend (orig. des.).

Winthemia quadripustulata and *W. rufopicta*, here listed in the usual sense, may be either extremely variable or complexes of easily confused species. Mesnil (1949b: 82) has expressed the opinion that *quadripustulata* of Reinhard (1931c) is actually *variegata* Meigen, but we have seen no North American specimens that agree with the latter and many that agree with European *quadripustulata*.

REFERENCE: Reinhard, 1931c (rev.).

abdominalis (Townsend), 1919b: 583 (*Neowinthemia*).—Va.; Ohio, Pa., Conn., Ga.

antennalis Coquillett, 1902g: 115.—Calif.; N. Mex.

borealis Reinhard, 1931c: 27.—Man.; B.C., Oreg., Man. to N.S.

cecropia (Riley), 1870a: 101 (*Exorista*).—Ill.; Kans., Mich., Ont., N.Y., Conn.

platysamiae Townsend, 1892d: 288 (*Exorista*).—N.Y.

cecropiae Reinhard, 1931c: 34.—Ill.

citheroniae Sabrosky, 1948c: 65.—Fla.; Ill., Md.

datanae (Townsend), 1892d: 288 (*Exorista*).—N.Y.; B.C. to Ont., s. to Oreg., Ill., and Fla., also N. Mex., Mexico.

deilephilae (Osten Sacken), 1887b: 164 (*Tachina*).—Unknown (presumed Mo.); Oreg. to Mich., s. to Calif., Mexico, and Fla.

duplicata Reinhard, 1931c: 17.—N. Mex.

imitator Reinhard, 1931c: 39.—Tex.

infesta (Williston) *in* Forbes, 1885: 65 (*Exorista*).—Ill., Pa. Unrecognized, ?=*quadripustulata*.

intermedia Reinhard, 1931c: 41.—Tex.; Utah to Mass., s. to Tex. and Fla., also Mexico to Brazil.

intonsa Reinhard, 1931c: 28.—B.C.

leucanae (Kirkpatrick), 1861: 358 (*Exorista*).—Ohio. Unrecognized.

leucaniae, error.

militaris (Walsh), 1861: 367 (*Senometopia*).—Ill. Unrecognized.

montana Reinhard, 1931c: 36.—Ariz.; N.Y., Mexico.

occidentis Reinhard, 1931c: 22.—B.C.; Wash., Mont., Man., Ariz., N. Mex., Mexico, Mich., also introd. Ont. and Nfld., ?estab.

okefenokeensis Smith, 1916: 95.—Ga.; Fla., Cuba.

ostensackenii (Kirkpatrick), 1861: 358 (*Exorista*).—Ohio. Unrecognized.

polita Reinhard, 1931c: 21.—Mass.; Ohio.

quadripustulata (Fabricius), 1794: 324 (*Musca*).—Germany; Wash. to Vt., s. to Calif. and Fla.

illinoensis Robertson, 1901: 286.—Ill.

rufopicta (Bigot), 1888a: 259 (*Chetolyga*).—Rocky Mts.; Man. to Vt. and Mass., s. to Calif. and Fla., also B.C.

rufonotata Bigot, 1888a: 257 (*Chetolyga*).—Rocky Mts. **N. syn.**

ciliata Townsend, 1891c: 363 (*Exorista*).—Ill.

sinuata Reinhard, 1931c: 25.—Md.; N. Dak. to Maine, s. to Mexico and Ga.

texana Reinhard, 1931c: 19.—Tex.

vesiculata (Townsend), 1916e: 28 (*Trisisyropa*).—Maine.

Tribe MASIPHYINI

Genus IGNOTOMYIA Reinhard

Ignotomyia Reinhard, 1961: 210. Type-species, *cunina* Reinhard (orig. des.).

cunina Reinhard, 1961: 211.—Ariz.

Genus PHASIOPSIS Townsend

Phasiopsis Townsend, 1912a: 108. Type-species, *floridana* Townsend (orig. des.).

floridana Townsend, 1912a: 108.—Fla.

Genus PROMASIPHYA Townsend

Promasiphya Townsend, 1927: 379. Type-species, *Masiphya confusa* Aldrich (orig. des.).

confusa (Aldrich), 1925b: 109 (*Masiphya*).—Fla.; Ariz. to Md., s. to Mexico and Fla.

brasiliana Brauer and Bergenstamm of Coquillett, 1897: 82.

var. **irrisor** Reinhard, 1962b: 222.—Calif.; Nev., Ariz., Tex., Ill.

townsendi (Aldrich), 1925b: 110 (*Masiphya*; as *confusa* var.)—Ariz.; Tex., Mexico.

Tribe CARCELIINI

Most species of the tribe Carceliini parasitize lepidopterous larvae; a few attack sawflies.

Genus ANGUSTIOPSIS Reinhard

Angustiopsis Reinhard, 1959b: 231. Type-species, *saginata* Reinhard (orig. des.).

saginata Reinhard, 1959b: 231.—Tex.

Genus CARCELIA Robineau-Desvoidy

Carcelia Robineau-Desvoidy, 1830: 176. Type-species, *bombylans* Robineau-Desvoidy (Townsend, 1916d: 6).

Parexorista Brauer and Bergenstamm, 1889: 87, 161 (as *Paraexorista*, p. 87) (1889: 19, 93). Type-species, *Exorista cheloniae* Rondani (mon.)=*lucorum* (Meigen).

REFERENCE: Sellers, 1943 (rev.).

amplexa (Coquillett), 1897: 98 (*Exorista*).—N.H.; Minn. to Que. and Maine, s. to Kans. and Fla., also Ariz., P.R.

hemerocampae Townsend, 1909: 248 (*Sisyropa*).—Mass.

griseomicans, authors, not Wulp.

diacrisiae Sellers, 1943: 61.—Ind.; Ind. to Conn., s. to Ala. and Fla.

formosa (Aldrich and Webber), 1924a: 23 (*Zenillia*).—Mass.; Mich. to Mass., s. to Mo. and Fla., also Ariz., N. Mex.

gnava (Meigen), 1824: 330 (*Tachina*).—Europe; introd. Wash., Maine, N.H., Mass., Conn., not estab.

bombylans, authors, not Robineau-Desvoidy.

inflatipalpis (Aldrich and Webber), 1924a: 24 (*Zenillia*).—Va.; B.C., Ind., N.Y., Tex., Fla.

lagoae (Townsend), 1891d: 159 (*Exorista*).—Mexico; Ohio, D.C. to Fla., also Tex., Miss., Mexico, Jamaica.

flavirostris, authors, not Wulp.

laxifrons Villeneuve, 1912: 90.—Europe; introd. and estab. New England. Host: *Nygmia phaeorrhoea* (Donovan).

cheloniae, authors, in part, not Rondani.

malacosomae Sellers, 1943: 50.—Mass.; B.C. to N.B. and N.J., also Calif., Colo., Tex., Tenn., Ga.

cheloniae, authors, in part, not Rondani.

olenensis Sellers, 1943: 67.—Mass.; B.C., Que.

perplexa Sellers, 1943: 65.—N.J.; N.Y., Maine, Mass., Conn.

protuberans (Aldrich and Webber), 1924a: 15 (*Zenillia*).—Vt.

reclinata (Aldrich and Webber), 1924a: 32 (*Zenillia*).—N. Mex.; B.C., Ont., all U.S.

separata (Rondani), 1859: 134 (*Exorista*; as sp.).—Italy; Palaearctic, introd. ne. U.S., not estab. =*excisa* (Fallén) var.

tibialis (Reinhard), 1931c: 11 (*Winthemia*).—France (as Mass., error). =*processioneae* (Ratzeburg). Not Nearctic.

yalensis Sellers, 1943: 69.—Idaho; B.C., Calif., Ont. to Maine and Mass.

Genus EUSISYROPA Townsend

Eusisyropa Townsend, 1908: 97. Type-species, *Tachina blanda* Osten Sacken (mon.).

REFERENCES: Sellers, 1943 (key, in *Zenillia*); Thompson, 1953a (biol., immature stages).

blanda (Osten Sacken), 1887b: 162 (*Tachina*).—Mass. (as Unknown); B.C., Wash., Ont. to P.E.I., s. to Ariz. and Fla.

proserpina Williston, 1889a: 1919 (*Exorista*; as var.).—Unknown.

boarmiae (Coquillett), 1897: 95 (*Exorista*).—Miss. (Townsend, 1908: 98; Sellers, 1943: 22); Ark. to Md., s. to Tex. and Fla.

hypenae Coquillett *in* Howard, 1897: 47 (*Exorista*). Nomen nudum.

collina (Reinhard), 1944b: 68 (*Zenillia*).—Ariz.; Calif., Okla. **N. comb.**

virilis (Aldrich and Webber), 1924a: 40 (*Zenillia*; as *blanda* ssp.).—Ill. (as N.Y., error); B.C., Wash., Calif. to Maine, s. to Mexico and Ga.

Genus GYMNOCARCELIA Townsend

Gymnocarcelia Townsend, 1919b: 582. Type-species, *ricinorum* Townsend (orig. des.).

ricinorum Townsend, 1919b: 582.—Fla.; Calif. to Ont. and N.H., s. to Mexico and Fla.

albifrons Walker, 1852: 283 (*Tachina*; preocc. Walker, 1836).—U.S.

noctuae Harris, 1835: 599 (*Tachina*). Nomen nudum.

Genus HUBNERIA Robineau-Desvoidy

Hubneria Robineau-Desvoidy, 1847: 601. Type-species, *Carcelia nigripes* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 279) = *affinis* (Fallén).

Huebneria, emend.

estigmenensis (Sellers), 1943: 79 (*Aplomya*).—Vt.; Idaho to Ont. and Maine, s. to Calif., Ariz., and R.I. **N. comb.**

affinis, authors, not Fallén.

Genus HYPHANTROPHAGA Townsend

Hyphantrophaga Townsend, 1892l: 247. Type-species, *Meigenia hyphantriae* Townsend (orig. des.).

desmiae (Sellers), 1943: 16 (*Zenillia*).—Calif.

euchaetiae (Sellers), 1943: 13 (*Zenillia*).—N.Y.; Ohio to Mass., s. to Md.

hyphantriae (Townsend), 1891h: 176 (*Meigenia*).—N. Mex.; B.C., Mich., Ohio, Calif. to N.C. and Fla.

ceratomiae Coquillett, 1897: 101 (*Exorista*).—Kans., Mo., Tex.

Genus SISYROPA Brauer and Bergenstamm

Sisyropa Brauer and Bergenstamm, 1889: 163 (1889: 95). Type-species, *Tachina thermophila* Wiedemann (mon.).

Oxexorista Townsend, 1912d: 165. Type-species, *Exorista eudryae* Townsend (orig. des.). Opinion differs on whether the type-species was misidentified (see Townsend, 1936b: 210, 211; Sellers, 1943: 98).

REFERENCE: Sellers, 1943 (rev.).

alypiae Sellers, 1943: 101.—Mass.; B.C., Mont., Vt., Conn., Miss., Mexico.

eudryae (Townsend), 1892d: 287 (*Exorista*).—N.Y.; Wis. to Que. and Maine, s. to Kans., Miss., and N.C.

thompsoni Townsend, 1915a: 21 (*Oxexorista*).—Ohio.

Tribe EUMASICERINI

(Trypherini, in part)

Townsend's tribe Trypherini is not recognized in this catalog. Many of its well-known genera (*Lixophaga*, *Doryphorophaga*, etc.) are referred to the Blondeliini, and a few to other tribes. There remains a characteristic group of genera, with strong Neotropical affinities, which appears to merit tribal status near the Carceliini, though possibly a subtribe of the latter. As far as known, the flies deposit microtype eggs on plant surfaces.

Genus EUMASICERA Townsend

Eumasicera Townsend, 1909: 249. Type-species, *coccidella* Townsend (orig. des.)=*sternalis* (Coquillett).

sternalis (Coquillett), 1897: 109 (*Sturmia*).—Mo.; N.Y. and Mass. to Va., also Mo., Tex.

coccidella Townsend, 1909: 249.—Mass.

Genus HOUGHIA Coquillett

Houghia Coquillett, 1897: 118. Type-species, *setipennis* Coquillett (orig. des.).

setipennis Coquillett, 1897: 118.—Ga.; N.C. to Tex. and Fla.

Genus HYPERTROPHOMMA Townsend

Hypertrophomma Townsend, 1915l: 99. Type-species, *opacum* Townsend (orig. des.).

opacum Townsend, 1915l: 100.—N.J.; N.Y., Ohio, Tex.

Genus METOPIOPS Townsend

Metopiops Townsend, 1912b: 338. Type-species, *mirabilis* Townsend (orig. des.). ?=*Pseudochaeta.*

pyralidis (Coquillett), 1897: 117 (*Pseudochaeta*).—D.C.; Kans. to Ont. and Mass., s. to Tex. and Fla.

Genus PACIDIANUS Reinhard

Pacidianus Reinhard, 1943b: 88. Type-species, *hirsutus* Reinhard (orig. des.).

hirsutus Reinhard, 1943b: 89.—Mich.; Ohio.
persimilis Reinhard, 1943b: 90.—N.Y.; Mich., Ont., Va.

Genus PHAENOPSIS Townsend

Phaenopsis Townsend, 1912b: 362. Type-species, *arabella* Townsend (orig. des.).

REFERENCE: Reinhard, 1946a (rev.).

venusta Reinhard, 1946a: 120.—Tex.

Genus PSEUDOCHAETA Coquillett

Pseudochaeta Coquillett, 1895a: 309. Type-species, *argentifrons* Coquillett (orig. des.).
Cylindromasicera Townsend of Townsend, 1941a: 260, in part (La. sp.).

REFERENCE: Reinhard, 1946a (rev.).

argentifrons Coquillett, 1895a: 310.—Calif. (Coquillett, 1897: 116); Ont., Que., N.Y., Calif. to Fla.
canadensis Brooks, 1945a: 93.—Que. **N. syn.**

brooksi Sabrosky and Arnaud, 1963: 155.—Fla.; Tex., Miss., Va., s. to Fla.

argentifrons Coquillett of Reinhard, 1946a: 116.

clurina Reinhard, 1946a: 119.—Tex.

finalis Reinhard, 1946a: 114.—Tex.

frontalis Reinhard, 1946a: 114.—Tex.; Kans., Ariz., La.

marginalis Reinhard, 1946a: 118.—Tex.

perdecora Reinhard, 1946a: 115.—Tex.; Fla.

robusta (Reinhard), 1924b: 271 (*Oxynops*).—Tex.; Md. **N. comb.**

siminina Reinhard, 1946a: 117.—Ohio; Mich., Ont., Mass., Ark., Tex.

Tribe ERYCIINI

(Masicerini, Lydellini, Phrynoini)

The species of Eryciini parasitize a great variety of lepidopterous larvae, with a few parasitic on sawfly larvae.

Genus ANGUSTIA Sellers

Angustia Sellers, 1943: 107. Type-species, *Zenillia angustivitta* Aldrich and Webber (orig. des.).

angustivitta (Aldrich and Webber), 1924a: 18 (*Zenillia*).—N.Y.; Pa.

Genus APLOMYA Robineau-Desvoidy

Aplomya Robineau-Desvoidy, 1830: 184. Type-species, *zonata* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 459, 460) = *confinis* (Fallén).

Aplomyia, emend.

Platymya Robineau-Desvoidy, 1830: 116. Type-species, *aestivalis* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 191) = *nemestrina* (Meigen).

Platymyia, emend.

Phebellia Robineau-Desvoidy, 1846: 37. Type-species, *aestivalis* Robineau-Desvoidy (mon.). In *Aplomya*, the type-species is a secondary homonym, but it will not be renamed pending study of the classification.

Eumea Robineau-Desvoidy, 1863a: 302. Type-species, *locuples* Robineau-Desvoidy (orig. des.) ? = *mitis* (Meigen).

Myxexoristops Townsend, 1911b: 170. Type-species, *Myxexorista pexops* Brauer and Bergenstamm (mon.) = *blondeli* (Robineau-Desvoidy).

Epimasicera Townsend, 1912c: 51. Type-species, *Tachina westermanni* Zetterstedt (orig. des.) = *spernenda* (Zetterstedt).

Exorista, authors, not Meigen.
Zenillia, authors, not Meigen.

Aplomya is retained here in its broad sense, chiefly because there is still much difference of opinion on the restricted genera or subgenera to be recognized, and even on the generic or subgeneric assignment of some of the species. Certain Nearctic forms appear to be intermediates, and cast doubt on some of the segregates. Until the classification has stabilized, and with the advantage of a modern revision of the Nearctic species, we prefer to maintain *Aplomya* in its wider application.

Certain of the restricted segregates adopted in the current European literature, and occasionally used in North America, are listed here as synonyms, in order that the references and type fixations will be available for future reference. The species *polita* and *theclarum* are typical *Aplomya*, but *caesar* and *mitis* would be referred to *Eumea*, *fronto*, *neurotomae*, and *nox* to *Myxexoristops*, *epicydes*, *imitator*, and *trichiosomae* to *Phebellia* (a group of parasites on cimbicid sawflies), *trisetosa* to *Phonomyia*, and *confusionis* and *hortulana* to *Platymya*. At least some of these groupings may prove to be morphologically and biologically justified, at some hierarchial level.

REFERENCES: Sellers, 1943 (rev.); Mesnil, 1954 (key to genera of "Masicerina").

blondeli (Robineau-Desvoidy), 1830: 161 (*Phryxe*).—Europe; introd. Man., ?estab.

caesar (Aldrich), 1916b: 20 (*Exorista*).—Ont.; B.C. to N.B., s. to Calif., Tex., and Va.

nigripalpis Townsend, 1896: 330 (*Exorista;* preocc. Macquart, 1849).—?Ill.

cerurae Sellers, 1943: 94.—Mass.

confusionis Sellers, 1943: 86.—N.H.; B.C. to N.H., s. to Calif. and Mass., also D.C.

crassiseta (Aldrich and Webber), 1924a: 29 (*Zenillia*).—Ind.; Man. to Mass., s. to Ark. and Ga.

doloma Reinhard, 1958b: 239.—W. Va.; Mont., Wyo.

epicydes (Walker), 1849: 786 (*Tachina*).—Ont.; B.C. to Ont. and Maine, s. to Calif., Wyo., and R.I.

coerulea Aldrich and Webber, 1924a: 23 (*Zenillia*).—Mass.

fronto (Coquillett), 1897: 96 (*Exorista*).—N.H.; B.C., Idaho, Calif., Wyo., Ohio.

helvina (Coquillett), 1897: 96 (*Exorista*).—N.H.; B.C., Wash., Minn. to Maine and N.J.

hortulana (Meigen), 1824: 330 (*Tachina*).—Germany; B.C. to Ont., Europe.

imitator Sellers, 1943: 93.—B.C.; Alta., Wash.

mitis (Meigen), 1824: 335 (*Tachina*).—Europe; introd. e. Canada, Mich. to Mass., s. to Ind. and Pa., ?estab.

neurotomae Sellers, 1943: 85.—N.J.; Oreg., Nev., N.H. to Pa. and N.J.

nox (Hall), 1937a: 203 (*Zenillia*).—Japan; introd. B.C. and N.B., not estab. =*blondeli* ssp. *stolida* (Stein). **N. syn.,** L. P. Mesnil *in litt.*, **n. comb.**

pheosiae Sellers, 1943: 95.—Maine; Mass.

polita (Coquillett), 1897: 99 (*Exorista*).—Ga.

theclarum (Scudder) *in* Osten Sacken, 1887b: 166 (*Tachina*).—Unknown; B.C. to Que. and Maine, s. to Calif., Miss., and Va.

chrysophani Townsend, 1891e: 197 (*Exorista*).—Iowa.

confinis, authors, not Fallén.

trichiosomae Sellers, 1943: 94.—Maine; ?B.C.

trisetosa (Coquillett), 1902g: 110 (*Exorista*).—Idaho; Wash. to Pa., s. to Calif. and N. Mex.

Genus BUQUETIA Robineau-Desvoidy

Buquetia Robineau-Desvoidy, 1847: 286. Type-species, *musca* Robineau-Desvoidy (mon.).

Eipogona Rondani, 1868c: 588. Type-species, *Masicera setifacies* Rondani (mon.)=*musca* Robineau-Desvoidy.

Eupogona, emend.

Both European and North American species are parasites of *Papilio* larvae.

obscura (Coquillett), 1897: 124 (*Winthemia*).—Md.; Iowa to Mass., also Tex., Md.

pollinosa Reinhard, 1922: 333 (*Blepharipeza*).—Tex.

americana Curran, 1927m: 148 (*Eipogona*).—Iowa.

Genus CATAGONIOPSIS Townsend

Catagoniopsis Townsend, 1926: 29. Type-species, *infernalis* Townsend (orig. des.)=*specularis* (Aldrich and Webber).

facialis (Coquillett), 1897: 105 (*Phorocera*).—Tex.; Calif., Ariz., N. Mex. **N. comb.**

meracanthae (Greene), 1921c: 126 (*Phorocera*).—Md.; Va.

specularis (Aldrich and Webber), 1924a: 70 (*Phorocera*).—N. Mex.; B.C. to Calif. and N. Mex.

infernalis Townsend, 1926: 30.—N. Mex.

Genus CEROMASIA Rondani

Masicera, subg. **Ceromasia** Rondani, 1856: 71. Type-species, *florum* Macquart (Brauer, 1893: 476; misident.) = *rubrifrons* (Macquart).

auricaudata Townsend, 1908: 102.—Idaho; B.C. to Mont., s. to Calif. and N. Mex., also introd. Man. to Nfld. and N.B., ?estab.

rutila Meigen of Curran, 1927d: 16 (*Erycia*), in part.

aurifrons Townsend, 1908: 102.—N.H.; Mich., Ohio, Mass., N.S.

festinans, authors, not Meigen.

rutila Meigen of Curran, 1927d: 16 (*Erycia*), in part.

borealis Brooks, 1945a: 89.—N.W.T.; Alta., ?Alaska.

Genus CHRYSOEXORISTA Townsend

Chrysoexorista Townsend, 1915g: 435. Type-species, *viridis* Townsend (orig. des.).

Chrysomasicera Townsend, 1915f: 230. Type-species, *borealis* Townsend (orig. des.) = *ochracea* (Wulp). **N. syn.**

dawsoni (Sellers), 1943: 29 (*Zenillia*).—Ariz.

fulgoris (Sellers), 1943: 24 (*Zenillia*).—N. Mex. **N. comb.**

lineata (Wulp), 1890: 54 (*Mystacella*).—Mexico (Tabasco); Colo., Ariz., N. Mex., Tex., Cent. Amer.

marginata (Aldrich and Webber), 1924a: 17 (*Zenillia*).—Colo.

ochracea (Wulp), 1890: 63 (*Exorista*).—Mexico; N. Mex., Costa Rica. **N. comb.**

borealis Townsend, 1915f: 230 (*Chrysomasicera*).—N. Mex. **N. comb.**

Genus CLEMELIS Robineau-Desvoidy

Clemelis Robineau-Desvoidy, 1863a: 481. Type-species, *Zenillia ciligera* Robineau-Desvoidy (orig. des.) = *pullata* (Meigen).

unipilum (Aldrich and Webber), 1924a: 83 (*Phorocera*).—Oreg. **N. comb.**

Genus CYZENIS Robineau-Desvoidy

Cyzenis Robineau-Desvoidy, 1863a: 544. Type-species, *Phryno hemisphaerica* Robineau-Desvoidy (orig. des.) = *albicans* (Fallén).

Pseudodidyma Townsend, 1915c: 287. Type-species, *pullula* Townsend (orig. des.).

albicans (Fallén), 1810b: 286 (*Tachina*).—Sweden; Europe, introd. and estab. N.S.

pullula (Townsend), 1915c: 288 (*Pseudodidyma*).—Alaska; B.C., Idaho.

pullula, authors (*Didyma*), not Wulp.

Genus EUCEROMASIA Townsend

Euceromasia Townsend, 1912a: 112. Type-species, *spinosa* Townsend (orig. des.).

floridensis Reinhard, 1957: 109.—Fla.; Tex., N.C.

neptis Reinhard, 1947a: 23.—Tex.; Mo.

solata Reinhard, 1947a: 24.—Tex.

spinosa Townsend, 1912a: 112.—Mass.

Genus EUEXORISTA Townsend

Euexorista Townsend, 1912d: 166. Type-species, *Tachina futilis* Osten Sacken (orig. des.).

futilis (Osten Sacken), 1887b: 161 (*Tachina*).—Unknown (?Mass.); B.C. to Que. and Maine, s. to Calif. and N.C.

vanessae Harris, 1835: 599 (*Tachina*). Nomen nudum.

Genus EUFRONTINA Brooks

Eufrontina Brooks, 1945a: 90. Type-species, *Frontina spectabilis* Aldrich (orig. des.).

ethniae Brooks, 1945a: 91.—Ont.

spectabilis (Aldrich), 1916b: 21 (*Frontina*).—Ont.; B.C., Man. to Que. and Maine, also W. Va.

Genus FRONTINIELLA Townsend

Frontiniella Townsend, 1918d: 21. Type-species, *parancilla* Townsend (orig. des., as gen. n., sp. n.).

parancilla Townsend, 1918d: 21 (as *pararcilla*, error).—Mich.; Mich. to Conn., s. to Calif., Mexico, and Fla.

stilla Reinhard, 1943c: 17 (*Achaetoneura*).—Tex.

ancilla, authors, not Walker.

Genus LESPESIA Robineau-Desvoidy

Lespesia Robineau-Desvoidy, 1863a: 567. Type-species, *Erycia ciliata* Macquart (mon.).

Achaetoneura Brauer and Bergenstamm, 1891: 334 (1891: 30). Type-species, *hesperus* Brauer and Bergenstamm (Coquillett, 1910b: 502)=*frenchii* (Williston).

Parafrontina Brauer and Bergenstamm, 1893: 115 (1893: 27). Type-species, *apicalis* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.)=*archippivora* (Riley).

Rileyella Townsend, 1909: 249. Type-species, *Tachina aletiae* Riley (orig. des.).

Masiceropsis Townsend, 1916b: 178. Type-species, *Masicera pauciseta* Coquillett (orig. des.)=*archippivora* (Riley).

Ypophaemyia Townsend, 1916g: 75. Type-species, *malacosomae* Townsend (orig. des.)=*archippivora* (Riley).

Frontina, authors, not Meigen.

REFERENCES: Webber, 1930 (rev., as *Achaetoneura*); Beneway, 1963 (rev.).

aletiae (Riley), 1879: 162 (*Tachina*).—Fla. (as Unknown; Townsend, 1941a: 224); Ill. to Ont. and N.J., s. to Calif. and Fla.

fraterna Comstock, 1880b: 303 (*Tachina*).—Ala.

anonyma (Riley), 1872: 129 (*Tachina*).—Mo. Unrecognized, **N. comb.**

archippivora (Riley), 1871: 150 (*Tachina*).—Mo.; B.C. to Ont., all U.S., Mexico. This name is commonly credited to Williston (1889a).

websteri Townsend, 1891k: 206 (*Meigenia*).—Ind.

promiscua Townsend, 1891f: 84 (*Phorocera*).—Maine.

apicalis Brauer and Bergenstamm, 1893: 115 (1893: 27) (*Parafrontina*).—Tex. (as N. Amer.; Townsend, 1941a: 218).

pauciseta Coquillett, 1897: 114 (*Masicera*).—Calif.

malacosomae Townsend, 1916g: 75 (*Ypophaemyia*).—N.C.

ciliata (Macquart), 1834b: 294 (1834: 158) (*Erycia*).—France (but apparently accidentally introd. from N. Amer.); B.C. to N.S., s. to Calif. and Ariz. in West, and to D.C. in East.

samiae Webber, 1930: 15 (*Achaetoneura*).—Maine.

cuculliae (Webber), 1930: 18 (*Achaetoneura*).—Va.; Man. to Maine, s. to Tex. and Fla.

datanarum (Townsend), 1892d: 287 (*Masicera*).—Minn., Ont., N.Y.; Que., R.I., Conn., N.J.

anisotae Webber, 1930: 13 (*Achaetoneura*).—N.J.

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dimmocki (Webber), 1930: 20 (*Achaetoneura*).—Mass.; Man., Ohio, Pa., Md.

dubia (Williston), 1889a: 1924 (*Masicera*).—Unknown. Unrecognized, **N. comb.**

euchaetiae (Webber), 1930: 11 (*Achaetoneura*).—N.Y.; S. Dak. to Ont. and N.H., s. to Kans. and N.J.

ferruginea (Reinhard), 1924b: 269 (*Frontina*).—Tex.

frenchii (Williston), 1889a: 1923 (*Masicera*).—Maine; B.C. to N.S., all U.S.

longicornis Wiedemann, 1830: 325 (*Tachina*; preocc. Fallén, 1810).—Unknown. **N. comb.**

hesperus Brauer and Bergenstamm, 1891: 334 (1891: 30) (*Achaetoneura*).—N. Amer.

sphingivora Townsend, 1892d: 286 (*Masicera*).—W. Va.

malacosomae Curran, 1925c: 155 (*Frontina*; preocc. Townsend, 1916).—N.S.

sordida Curran, 1926k: 171 (*Frontina*; n. name for *malacosomae* Curran).—N.S.

fulvipalpis (Bigot), 1888a: 263 (*Masicera*).—Rocky Mts. Unrecognized, **N. comb.**

laniiferae (Webber), 1930: 33 (*Achaetoneura*).—Mexico; Fla.

melalophae (Allen), 1926a: 192 (*Achaetoneura*).—Miss.; B.C. to N.B., s. to Calif., Tex., and Va.

pholi (Webber), 1930: 27 (*Achaetoneura*).—Mass.; Mo.

rileyi (Williston), 1889a: 1924 (*Masicera*).—Unknown; Tex. to Fla.

schizurae (Townsend), 1891i: 187 (*Masicera*).—Kans.; B.C. to Ariz. and N. Mex. in the West, Kans. to Ont. and Mass., s. to Tex. and Fla. in the East.

schizurae Coquillett, 1897: 113 (*Sturmia*; preocc. Townsend, 1891).—Wash.

piperi Townsend, 1908: 98 (*Argyrophylax*; n. name for *schizurae* Coquillett).—Wash.

testacea (Webber), 1930: 25 (*Achaetoneura*).—D.C.; N.Y. to N.C., also Kans., Tex.

violenta, authors, not Walker.

texana (Webber), 1930: 24 (*Achaetoneura*).—Tex.; Mexico.

westonia (Webber), 1930: 24 (*Achaetoneura*).—Calif.

Genus LYDELLA Robineau-Desvoidy

Lydella Robineau-Desvoidy, 1830: 112. Type-species, *grisescens* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 855).

Lydella, subg. *Anetia* Robineau-Desvoidy, 1863a: 868 (preocc. Hübner, 1823). Type-species, *occlusa* Robineau-Desvoidy (orig. des.)=*grisescens* Robineau-Desvoidy.

REFERENCE: Herting, 1959 (rev.).

deckeri (Curran), 1929a: 12 (*Erycia*).—Iowa. Unrecognized. ?=*radicis*.

grisescens Robineau-Desvoidy.—Not Nearctic, not introd.

radicis (Townsend), 1916a: 19 (*Andrina*).—D.C.; B.C. to Que. and Maine, s. to Calif., Mexico, Miss., and Va.

nigrita Townsend, 1891c: 358 (*Masicera;* preocc. Robineau-Desvoidy, 1863).—Ill.

intermedia Villeneuve, 1932: 272 (as *stabulans* var.).—Mich., France.

myoidaea, N. Amer. authors, not Robineau-Desvoidy.

senilis, N. Amer. authors, in part, not Meigen.

stabulans (Meigen).—Not Nearctic.

thompsoni Herting, 1959: 428.—Germany; Palaearctic, introd. and estab. Man. to Que., s. to Mo., Ala., and N.C. Host: *Ostrinia* [formerly *Pyrausta*] *nubilalis* (Hübner).

grisescens, authors, not Robineau-Desvoidy.

senilis, authors, in part, not Meigen.

Genus MADREMYIA Townsend

Madremyia Townsend, 1916i: 305. Type-species, *parva* Townsend (orig. des.)=*saundersii* (Williston).

saundersii (Williston), 1889a: 1922 (*Phorocera*).—New England; B.C. to Nfld., s. to Calif., Mexico, Ill., and Mass.

parva Townsend, 1916i: 306.—Mexico (Chih.).

Genus Masicera Macquart

Masicera Macquart, 1834b: 285 (1834: 149). Type-species, *Tachina silvatica* Fallén (Robineau-Desvoidy, 1863a: 872, 880).

silvatica (Fallén), 1810b: 268 (*Tachina*).—Sweden; Europe, introd. New England, not estab.

sylvatica, emend.

Genus Metagonistylum Townsend

Metagonistylum Townsend, 1927: 379. Type-species, *minense* Townsend (orig. des.).

minense Townsend, 1927: 381.—Brazil; introd. La., Fla., not estab.

Genus NILEA Robineau-Desvoidy

Nilea Robineau-Desvoidy, 1863a: 275. Type-species, *innoxia* Robineau-Desvoidy (orig. des.).

Phyllophorocera Townsend, 1916h: 621. Type-species, *Phorocera sternalis* Coquillett (orig. des.). **N. syn.**

Eutritochaeta Townsend, 1919b: 580. Type-species, *carpocapsae* Townsend (orig. des.) ?=*noctuiformis* (Smith). **N. syn.**

carpocapsae (Townsend), 1919b: 580 (*Eutritochaeta*).—Ark. ?=*noctuiformis*. **N. comb.**

noctuiformis (Smith), 1915b: 101 (*Neopales*).—Mass.; Mich., Maine. **N. comb.**

sternalis (Coquillett), 1902g: 111 (*Phorocera*).—N.H.; B.C. to Que. and Maine, s. to Wyo. and Ohio. **N. comb.**

Genus OBOLOCERA Townsend

Obolocera Townsend, 1919c: 180. Type-species, *Homoeonychia rapae* Smith (orig. des.).

rapae (Smith), 1917b: 139 (*Homoeonychia*).—Mass.

Genus PATELLOA Townsend

Patelloa Townsend, 1916h: 619. Type-species, *Phorocera leucaniae* Coquillett (orig. des.).

Pateloa (error) Curran, 1934a: 444.

Patelloapsis Townsend, 1927: 263, 345. Type-species, *similis* Townsend (orig. des.). **N. syn.**

fuscimacula (Aldrich and Webber), 1924a: 48, 73 (*Phorocera*; as *fusicimacula*, p. 48).—Calif.; B.C.

leucaniae (Coquillett), 1897: 104 (*Phorocera*).—D.C.; Mich. to N.B., s. to Tex. and Fla.

pachypyga (Aldrich and Webber), 1924a: 70 (*Phorocera*).—Mass.; B.C., Idaho, Calif., Mich. to Mass., s. to Mo. and Md.

pluriseriata (Aldrich and Webber), 1924a: 73 (*Phorocera*).—Calif.; Utah, Colo., Mexico. **N. comb.**

reinhardi (Aldrich and Webber), 1924a: 74 (*Phorocera*).—Mich.; B.C., Kans., Ohio, N.Y.

setifrons (Aldrich and Webber), 1924a: 71 (*Phorocera*).—Sask.; ?Calif. **N. comb.**

silvatica (Aldrich and Webber), 1924a: 72 (*Phorocera*).—B.C.; Oreg., Calif., Minn. to Mass. **N. comb.**

Genus PHRYXE Robineau-Desvoidy

Phryxe Robineau-Desvoidy, 1830: 158. Type-species, *athaliae* Robineau-Desvoidy (Robineau-Desvoidy, 1863a: 329, 358) = *vulgaris* (Fallén).

Plagiophryxe Townsend, 1926: 32. Type-species, *pecosensis* Townsend (orig. des.).

REFERENCE: Sellers, 1943 (rev.).

pecosensis (Townsend), 1926: 33 (*Plagiophryxe*).—N. Mex.; Alaska, B.C. to Nfld., s. to Calif., N. Mex., and Mass.

vulgaris (Fallén), 1810b: 282 (*Tachina*).—Sweden; B.C. and Idaho to Calif., also Wis. to N.B. and N.J.

hirsuta Osten Sacken, 1887b: 163 (*Tachina*).—Unknown.

Genus PILATEA Townsend

Pilatea Townsend, 1916b: 178. Type-species, *Masicera celer* Coquillett (orig. des.).

Sisyrosturmia Townsend, 1926: 35. Type-species, *chaetosa* Townsend (orig. des.). **N. syn.**

Erycia, authors, not Robineau-Desvoidy.

Masicera, N. Amer. authors, in part, not Macquart.

REFERENCE: Curran, 1927d (key, as *Erycia*).

aldrichi (Curran), 1927d: 17 (*Erycia*).—B.C.; Alta., Idaho, Calif. **N. comb.**

arator (Aldrich), 1925c: 32 (*Masicera*).—Pa.; Mich. to Que., s. to Va., also Tex. **N. comb.**

australis (Coquillett), 1897: 110 (*Sturmia*).—Fla. **N. comb.**

celer (Coquillett), 1897: 114 (*Masicera*).—La.; Calif. to Mich. and Fla.

chaetosa (Townsend), 1926: 36 (*Sisyrosturmia*).—N.H.; ?N.Y. **N. comb.**

delecta (Curran), 1927d: 16 (*Erycia*).—Man.; B.C., Vt. **N. comb.**

flavitarsa (Reinhard), 1934b: 191 (*Erycia*).—Calif.; Wash., Oreg. **N. comb.**

occidentalis (Coquillett), 1897: 110 (*Sturmia*).—Wash.; B.C. to Calif. and Colo. **N. comb.**

levata Reinhard, 1934b: 193 (*Erycia*).—Calif. **N. comb.**

picata (Reinhard), 1953a: 58 (*Erycia*).—Calif. **N. comb.**

ruficornis Smith, 1917b: 138.—N.H.

sectilis (Reinhard), 1953a: 59 (*Erycia*).—Wyo. **N. comb.**

varifrons (Curran) 1927d: 18 (*Erycia*).—B.C. **N. comb.**

Genus PROPHRYNO Townsend

Prophryno Townsend, 1927: 262, 353. Type-species, *aurulans* Townsend (orig. des.).

marginalis (Aldrich and Webber), 1924a: 84 (*Phorocera*).—Tex. **N. comb.**

parviteres (Aldrich and Webber), 1924a: 80 (*Phorocera*).—Tex.; Ariz. to Md. and Ga. **N. comb.**

flavicauda, authors, in part, not Wulp.

Genus PSEUDOPERICHAETA Brauer and Bergenstamm

Pseudoperichaeta Brauer and Bergenstamm, 1889: 92 (1889: 24). Type-species, *major* Brauer and Bergenstamm (orig. des., as gen. n., sp. n.) = *palesioidea* (Robineau-Desvoidy).

Anoxycampta, authors, in part, not Bigot.

erecta (Coquillett), 1902g: 112 (*Phorocera*).—Ark.; B.C. to Que., all U.S.

loxostegeae Reinhard, 1922: 331 (*Exorista*).—Tex.

insidiosa (Robineau-Desvoidy), 1863a: 338 (*Phryxe*).—France; Europe, Japan, introd. Mich. to N.S., s. to Ind. and Pa., ?estab.

roseanae Brauer and Bergenstamm, 1891: 332 (1891: 28) (*Myxexorista*).—Unknown.

major, authors, not Brauer and Bergenstamm.

palesioidea (Robineau-Desvoidy), 1830: 160 (*Phryxe*).—France; Oreg., Europe.

trizonata Zetterstedt, 1844: 1166 (*Tachina*).—Sweden.

Genus THELYMYIA Brauer and Bergenstamm

Thelymyia Brauer and Bergenstamm, 1891: 330 (1891: 26). Type-species, *loewii* Brauer and Bergenstamm (mon.) = *saltuum* (Meigen).

REFERENCE: Sellers, 1943 (rev.).

curriei (Coquillett), 1897: 94 (*Exorista*).—N. Dak.; Alta. to N.Y., s. to S. Dak. and Ohio, also Tex.

disparis Reinhard, 1959b: 230.—Ariz.

erecta Sellers, 1943: 105.—Idaho; B.C., Wash., Utah.

mathesoni (Reinhard), 1937: 68 (*Zenillia*).—N.Y.; Man., Ohio. **N. comb.**, H. J. Reinhard *in litt.*

Genus TSUGAEA Hall

Tsugaea Hall, 1939: 240. Type-species, *nox* Hall (orig. des.).

nox Hall, 1939: 242.—Oreg.; B.C., Calif., Nev.

Genus ZENILLIA Robineau-Desvoidy

Zenillia Robineau-Desvoidy, 1830: 152. Type-species, *Musca libatrix* Panzer (Robineau-Desvoidy, 1863a: 471).

Our native species may not be true *Zenillia*, but it has not been possible to place them at this time.

REFERENCE: Sellers, 1943 (rev.).

angustata (Wulp), 1890: 70 (*Exorista*).—Mexico (Guerrero); Tex.
coquilletti Aldrich and Webber, 1924a: 18.—Tex.
blandita (Coquillett), 1897: 96 (*Exorista*).—N.H.; Wis. to Maine, s. to Ohio and R.I., also D.C.
browni Curran, 1933b: 11.—Ont.
libatrix (Panzer), 1798: 12 (*Musca*).—Germany; Europe, introd. New England, not estab.
scolex Reinhard, 1953a: 56.—Calif.

Unplaced Species of Eryciini

The following species may be found to fall in genera known at present only from the Palaearctic Region. All except the later described species may be identified in keys to *Phorocera* and *Zenillia* in Aldrich and Webber (1924a).

anassa Reinhard, 1959a: 160 (*Phorocera*).—Idaho.
comstocki Williston, 1889a: 1922 (*Phorocera*).—S.C. (Aldrich and Webber, 1924a: 78); Ill., N.C., Ga., Tex.
festinans Aldrich and Webber, 1924a: 85 (*Phorocera*).—N. Mex.; B.C., Calif.
halisidotae Aldrich and Webber, 1924a: 84 (*Phorocera*).—Idaho; B.C., Calif.
incrassata Smith, 1912: 121 (*Phorocera*).—Idaho; B.C., Oreg., also introd. Ont., N.B., Nfld., ?estab.
lobeliae Coquillett, 1897: 97 (*Exorista*).—Md., D.C., Va.; Mich. to Conn., s. to Tex. and Fla.
mitis Curran, 1930j: 108 (*Phorocera*).—N.Y.
regilla Reinhard, 1959a: 158 (*Phorocera*).—Calif.; Ariz.
signata Aldrich and Webber, 1924a: 86 (*Phorocera*).—S.C.; Tenn., Miss.
xanthura Aldrich and Webber, 1924a: 82 (*Phorocera;* preocc. Wulp, 1890).—Tenn. **N. syn.**
nitelae Aldrich and Webber, 1924b: 195 (*Phorocera;* n. name for *xanthura* Aldrich and Webber).—Tenn. **N. syn.**
flavicauda, authors, in part, not Wulp.
texana Aldrich and Webber, 1924a: 79 (*Phorocera*).—Tex.; Ariz., Mexico.

ustulata Reinhard, 1959a: 159 (*Phorocera*).—Calif.; Utah, N.Y., N.J.
valens Aldrich and Webber, 1924a: 20 (*Zenillia*).—N.Y.; Minn. and Nebr. to Mass.
victoria Aldrich and Webber, 1924b: 195 (*Phorocera;* n. name for *tenuiseta* Aldrich and Webber).—B.C.
tenuiseta Aldrich and Webber, 1924a: 82 (*Phorocera;* preocc. Macquart, 1846).—B.C.

Unplaced Genus and Species of Tachinidae

Genus OTOMASICERA Townsend

Otomasicera Townsend, 1912a: 113. Type-species, *patella* Townsend (orig. des.).

patella Townsend, 1912a: 113.—Mass. Egg and 1st stage maggot; adult lost.

Unplaced Species of Tachinidae

abzoe Walker, 1849: 846 (*Dexia*).—Ga.
americana Bigot, 1888a: 256 (*Eribrissa*).—Wash. Territory.
analis Robineau-Desvoidy, 1830: 315 (*Zelia*).—Carolina.
analis Say, 1829: 177 (1859b: 367) (*Dexia*).—Ind. ?Leskiini.
antennata Walker, 1852: 298 (*Tachina*).—U.S.
apicalis Robineau-Desvoidy, 1830: 316 (*Zelia*).—Carolina.
atra Robineau-Desvoidy, 1830: 288 (*Clytia*).—Carolina. ?*Myiophasia*.
candens Walker, 1849: 720 (*Tachina*).—N.S. (?error).
cremides Walker, 1849: 842 (*Dexia*).—N. Amer.
hybreas Walker, 1849: 785 (*Tachina*).—Ont. ?*Ceromasia*.
inermis Bigot, 1887b: cxl (*Blepharipeza*).—N. Amer.
maculosa Coquillett, 1895a: 313 (*Hypostena*).—Fla.
melanocera Robineau-Desvoidy, 1830: 312 (*Dexia*).—Carolina.
nigrifacies Bigot, 1888a: 258 (*Chetolyga*).—Rocky Mts.
ogoa Walker, 1849: 841 (*Dexia*).—N.S.
parva Bigot, 1888a: 260 (*Phorocera*).—Rocky Mts.
postica Walker, 1852: 310 (*Dexia*).—Ga.
pumila Robineau-Desvoidy, 1863a: 622 (*Peleteria*).—Amer.
rufonotata Bigot, 1888a: 269 (*Morphomyia*).—Calif.
septentrionalis Walker *in* Lord, 1866: 339 (*Eurigaster*).—B.C.
serva Walker, 1852: 349 (*Musca*).—U.S.
setinervis Coquillett, 1898c: 236 (*Hypostena*).—Fla.
triangularis Wulp, 1867: 149 (*Dexia*).—Wis.
velox Robineau-Desvoidy, 1830: 316 (*Zelia*).—Carolina.

Family CUTEREBRIDAE

By J. G. Chillcott

Larvae of the Nearctic species develop in the skin of various rodents and lagomorphs. The adults are known as rodent bot flies and rabbit bot flies. The published keys are not entirely satisfactory.

REFERENCES: Swenk, 1905 (synopsis); Bau, 1929c (key).

Genus CUTEREBRA Clark

Cuterebra Clark, 1815: 64, 70. Type-species, *Oestrus cuniculi* Clark (Desmarest, 1859: 247).

Cutiterebra, emend.

Trypoderma Wiedemann, 1830: 256. Type-species, *Musca americana* Fabricius (Coquillett, 1910b: 618).

Bogeria Austen, 1895: 391. Type-species, *princeps* Austen (orig. des.).

Atrypoderma Townsend, 1919b: 592. Type-species, *Musca americana* Fabricius (orig. des.).

Orthocuterebra Bau, 1929b: 543. Type-species, *Cuterebra lepusculi* Townsend (Aldrich, 1931b: 117)=*princeps* (Austen).

Paracuterebra Bau, 1929b: 543. Type-species, *Oestrus cuniculi* Clark (Aldrich, 1931b: 117).

Protocuterebra Bau, 1929b: 543. Type-species, *Musca americana* Fabricius (Aldrich, 1931b: 117).

Pseudobogeria Bau, 1931b: 206. Type-species, *Musca buccata* Fabricius (orig. des.).

aldrichi Austen, 1933: 704.—Calif.

americana (Fabricius), 1775: 774 (*Musca*).—Amer.; Wyo., Colo., Calif. to N. Mex., also Ga.

cauterium Clark, 1815: 70.—Ga.

polita Coquillett, 1898a: 10.—Wyo.

angustifrons Dalmat, 1942a: 418.—Iowa.

approximata Walker *in* Lord, 1866: 338.—B.C.; ?Ariz.

beameri Hall, 1943: 25.—Kans.

buccata (Fabricius), 1776: 305 (*Oestrus*).—Carolina; Minn. to N.S., s. to Tex. and Fla.

baccata (error) Lugger, 1897: 229.

purivora Clark, 1815: 70.—Amer.

scudderi Townsend, 1917f: 27 (*Bogeria*).—Tex., D.C., Md.

cuniculi (Clark), 1797: 299 (*Oestrus*).—Ga.; Fla.

cyanella P. R. Jones, 1906: 391.—Nebr.

emasculator Fitch, 1856b: 478 (1859: 160).—N.Y.; Mich. to Que. and Mass., s. to Ala.
scutellaris Brauer, 1863: 230.—N. Amer.
buccator (error) Williston, 1884a: 426.
enderleini Bau, 1929c: 5(key) (1931a: 20, descr.)—Tex., Ga.
fasciata Swenk, 1905: 184.—Nebr.; B.C., N.B., N. Mex.
fontinella Clark, 1827: 410.—Ill.; Minn. to Ont. and Mass., s. to Ill. and Ga.
fontanella, error or emend.
grisea Coquillett, 1904a: 11.—B.C.; N.W.T. to N.S., s. to Utah and N.J.
horripilum Clark, 1815: 70.—Ga.; Minn. to N.S., s. to Tex. and Fla.
abdominalis Swenk, 1905: 182.—Nebr.
cuniculi, authors, not Clark.
jellisoni Curran, 1942a: 78.—Oreg.; Nev., Utah, Ariz.
latifrons Coquillett, 1898a: 10.—Calif.
lepivora Coquillett, 1898a: 9.—Calif., Wyo.
leporivora Aldrich, 1905: 419, emend.
nitida Coquillett, 1898a: 10.—Calif.
peromysci Dalmat, 1942b: 45.—Iowa.
princeps (Austen), 1895: 393 (*Bogeria*).—Mexico (Son.); Wash. to S. Dak., s. to Ariz., Mexico, and Tex.
lepusculi Townsend, 1897d: 8.—N. Mex.
albifrons Swenk, 1905: 183.—Wyo.
ruficrus (Austen), 1933: 711 (*Bogeria*).—Colo.; Oreg. to Colo., s. to Calif. and Tex.
similis Johnson, 1903a: 101.—N. Mex.
sterilator Lugger, 1897: 229.—Minn.
subbuccata Bau, 1929a: 305.—Nev.
tenebrosa Coquillett, 1898a: 11.—Oreg., Calif., Colo.; B.C. to S. Dak., s. to Calif. and Colo.
thomomuris Jellison, 1949: 483.—Mont.

Family OESTRIDAE

(including Hypodermatidae)

By J. G. Chillcott

The larvae are endoparasitic in mammals.

REFERENCES: James, 1948 (synopsis, figs.); Zumpt, 1957 (classif.).

Subfamily OESTRINAE

The larvae develop in the nasal cavities and pharynges of various Artiodactyla and Perrisodactyla. Our common species is the sheep bot fly.

Genus OESTRUS Linnaeus

Oestrus Linnaeus, 1758: 584. Type-species, *ovis* Linnaeus (Curtis, 1826: pl. 106).

Cephalemyia Latreille *in* S.N.A., 1818: 273. Type-species, *Oestrus ovis* Linnaeus (mon.).

ovis Linnaeus, 1758: 585.—Sweden; Alta., Ont., throughout U.S., cosmopolitan.

Subfamily CEPHENEMYIINAE

Genus CEPHENEMYIA Latreille

Cephenemyia Latreille *in* S.N.A., 1818: 271. Type-species, *Oestrus trompe* Modeer (mon.).

Cephenomyia, emend.

Cephalemya (error) Curran, 1934a: 414.

The larvae develop in the nasal cavities and pharynges of Cervidae. These nose bots occur throughout the U.S. and much of Canada, but the distribution of the species is not well known.

REFERENCE: Bennett and Sabrosky, 1962 (rev., adults and larvae).

apicata Bennett and Sabrosky, 1962: 438.—Calif.; B.C., Alta., Mont.

jellisoni Townsend, 1941b: 161.—Mont.; B.C. to w. Ont., s. to Calif., cent. Tex., and Colo.

macrotis Brauer, 1863: 211, 279.—N. Amer. Unrecognized.

macrotis Bau, 1928: 458.—N. Amer.

phobifer (Clark), 1815: 69 (*Oestrus*).—Ga.; N. Dak. to Ont. and Maine, s. to Ga., also Tex. and La.

phobifera, emend.

abdominalis Aldrich, 1915b: 149.—N.Y.

pratti Hunter, 1916: 170.—Tex.; Oreg. to Mont., s. to Ariz., n. Mexico, and Tex.

trompe (Modeer), 1786: 134 (*Oestrus*).—Lapland; n. Alaska to Labr. and Nfld., n. Holarctic.
nasalis, authors, not Linnaeus. See *Gasterophilus*.
ulrichii Brauer.—Not Nearctic.

Subfamily HYPODERMATINAE

Genus HYPODERMA Latreille

Hypoderma Latreille *in* S.N.A., 1818: 272. Type-species, *Oestrus bovis* Linnaeus (mon.).
Lithohypoderma Townsend, 1917e: 129. Type-species, *Musca ascarides* Scudder (orig. des.).

Mature larvae are found in the skin of Artiodactyla. North American species of the subgenus *Hypoderma* are cattle grubs; *H.* (*Oedemagena*) *tarandi* is a reindeer grub.

REFERENCES: Bishopp et al., 1926 (biol.); Patton, 1936 (rev.); James, 1948 (synopsis).

Subgenus HYPODERMA Latreille

bovis (Linnaeus), 1758: 584 (*Oestrus*).—Europe; Alaska, Canada, n. U.S., s. to Calif., n. Tex., and N.C., Holarctic. Far-south records in the U.S. and West Indies are from imported cattle.
lineatum (Villers), 1789: 349 (*Oestrus*).—Europe; B.C. to Que., throughout U.S., cosmopolitan.
supplens Walker, 1849: 685 (*Oestrus*).—N.S.
bonassi Brauer, 1875: 75.—Colo.

Subgenus OEDEMAGENA Latreille

Oedemagena Latreille *in* S.N.A., 1818: 272 (as genus). Type-species, *Oestrus tarandi* Linnaeus (mon.).

tarandi (Linnaeus), 1758: 584 (*Oestrus*).—Sweden; Arctic to Hudsonian zones, s. to B.C., Ont., Nfld., ?Labr.
terraenovae Knab, 1913: 155.—Nfld.

Unplaced Genus and Species of Oestridae

Genus SUIOESTRUS Townsend

Suioestrus Townsend, 1921: 134. Type-species, *cookii* Townsend (orig. des.).

The larvae were found in a domestic pig.

cookii Townsend, 1921: 134.—W. Va.

Unplaced Genus of Diptera

Scatophora Robineau-Desvoidy, 1830: 811. Type-species, *carolinensis* Robineau-Desvoidy (Spuler, 1924d: 378). The type-species is unrecognized.

Unplaced Species of Diptera

americana Walker, 1848: 28 (*Asthenia*).—Ont. Unrecognized.
atra Fabricius, 1780: 203 (*Tipula*).—Greenland. Unrecognized.
carolinensis Robineau-Desvoidy, 1830: 811 (*Scatophora*).—Carolina. Unrecognized.
hematophila Laboulbène, 1882: 223 (*Simulia*).—Nfld. Unrecognized.
qualis Say, 1829: 176 (1859b: 366) (*Cordylura*).—Ind. Unrecognized.
tenuis Walker, 1861: 331 (?*Asteia*).—U.S. Unrecognized.

Nomina Nuda

The following nomina nuda have not been identified.

abdominalis Harris, 1835: 597 (*Stratyomys*).
achaeta James, 1938d: 73 (*Asilus*).
acrididarum Townsend, 1893h: 468 (*Sarcophaga*).
acuminatus Van Duzee *in* Parent, 1933: 166 (*Condylostylus*).
aenobarbus Loew *in* Osten Sacken, 1878c: 82 (*Neoitamus*).
aeneobarba, error.
albionense Rothfels, 1956: 120 (*Prosimulium*).
albitarsis Harris, 1835: 595 (*Chironomus*).
aliata Hopkins, 1895: 159 (*Sciara*).
alternata Harris, 1835: 595 (*Tipula*).
amoenifrons Harris, 1835: 597 (*Stratyomys*).
analis Harris, 1835: 598 (*Milesia*).
angulatus Harris, 1835: 598 (*Syrphus*).
annulipes Harris *in* Johnson, 1925c: 85 (*Myopa*).
ansatus Harris, 1835: 596 (*Asilus*).
antennata Coquillett *in* Hine, 1904b: 91 (*Gonia*).
appendiculata Harris, 1835: 597 (*Platypeza*).
appensus Harris, 1835: 598 (*Helophilus*).
aquilae Brodie and White, 1883: 57 (*Hippobosca*). ?=*Lynchia americana*.
articulosa Harris, 1835: 596 (*Bibio*).
atribarbis Say *in* Harris, 1835: 596 (*Asilus*).
atritarsata Harris, 1835: 596 (*Empis*).
aurata Harris, 1835: 596 (*Thereva*).

auratilis Sherman, 1920: 14 (*Allodia*).
auricincta Harris, 1835: 597 (*Leptis*).
auricoma Sherman, 1920: 13 (*Boletina*).
aurinota Harris *in* Johnson, 1925c: 88 (*Tachina*). ?=*Archytas apicifer* or *californiae*.
basalis Harris, 1835: 598 (*Volucella*).
bidentata Fisher *in* Shaw, 1941a: 170 (*Platyura*).
binotatus Harris *in* Johnson, 1925c: 79 (*Syrphus*).
biplagiata Say *in* Johnson, 1925c: 64 (*Leia*).
biplagiatus Harris, 1835: 595 (*Tanypus*).
borealis Stein *in* Baker, 1904: 33 (*Limnophora*).
calceatum Harris, 1835: 595 (*Simulium*).
calceola Harris, 1835: 600 (*Anthomyia*).
calceolus Say *in* Johnson, 1925c: 76 (*Asilus*).
cauta Harris, 1835: 600 (*Tetanocera*).
cernua Sherman, 1920: 13 (*Leia*).
cinctipes Harris, 1835: 600 (*Trypeta*).
claracollis Harris, 1835: 595 (*Chironomus*).
colon Harris, 1835: 600 (*Ortalis*).
consors Loew *in* Hagen, 1881a: 44 (*Aricia*).
crataegiplica Osten Sacken, 1878c: 6 (*Cecidomyia;* orig. as *crataegi plica* Walsh, 1869: 80).
cumberlandensis Alexander *in* Rogers, 1930: 49 (*Molophilus*).
debilipes Harris, 1835: 595 (*Ceratopogon*).
dubius Say *in* Johnson, 1925c: 72 (*Mulio*)
elevatus Harris, 1835: 596 (*Hybos*).
encaustus Harris, 1835: 598 (*Syrphus*).
facialis Harris *in* Johnson, 1925c: 85 (*Conops*).
fascicollis Harris, 1835: 598 (*Eristalis*).
fascipennis Harris, 1835: 597 (*Xylophagus*).
flavipes Coquillett *in* Cockerell, 1898b: 155 (*Siphonella*).
floridensis Bromley, 1950a: 234 (*Bombomima*).
fulviana Harris *in* Johnson, 1925c: 76 (*Laphria*).
glauconotatus Harris, 1835: 596 (*Asilus*).
globulus Osten Sacken, 1878c: 6 (*Cecidomyia;* orig. as *crataegi globulus* Walsh, 1869: 80).
gnava Harris, 1835: 598 (*Milesia*).
goniphora Harris, 1835: 600 (*Anthomyia*).
goniophora, error.
gophori Brodie *in* Brodie and White, 1883: 54 (*Cuterebra*).
guttulatus Harris, 1835: 595 (*Anopheles;* as *quadrimaculatus* var.).
heros Harris, 1835: 597 (*Xylophagus*).
hirtidorsum Tothill, 1924b: 269 (*Fabriciella*).
humeralis Harris, 1835: 597 (*Leptis*).

incisuralis Harris, 1835: 597 (*Xylophagus*).
interrupta Harris, 1835: 599 (*Conops*).
isabella Fisher *in* Shaw and Fisher, 1952: 194 (*Azana*).
ischiaca Harris, 1835: 600 (*Anthomyia*).
ischiaca Harris, 1835: 598 (*Milesia*).
ischiacus Harris, 1835: 597 (*Chrysops*).
johannseni Fisher *in* Strickland, 1946: 161 (*Dynastosoma*).
johannseni Sherman, 1920: 13 (*Neuratelia*).
lapsans Harris, 1835: 600 (*Lauxania*). =*Minettia* sp.
lateralis Harris, 1835: 595 (*Chironomus*).
lateralis Harris, 1835: 599 (*Dexia*). =*Ptilodexia* sp.
lenis Harris, 1835: 600 (*Anthomyia*).
limbipennis Coquillett *in* Cockerell, 1898b: 155 (*Pachycerina*).
limbus Osten Sacken, 1878c: 6 (*Cecidomyia;* orig. as *crataegi limbus* Walsh, 1869: 80).
longiseta Fisher *in* Wray, 1950: 28 (*Platyura;* as *discoloria* ssp.).
lunatifrons Harris, 1835: 599 (*Anthomyia*).
maculipennis Harris *in* Johnson, 1925c: 63 (*Chironomus*).
majuscula Sherman, 1920: 13 (*Boletina*).
maxima Sherman, 1920: 14 (*Allodia*).
neobscura Shannon *in* Johannsen, 1928b: 801 (*Xylota*).
nigrina Sherman, 1920: 14 (*Trichonta*).
noctivaga Sherman, 1920: 13 (*Boletina*).
notatifrons Harris, 1835: 600 (*Anthomyia*).
nudipennis Loew *in* Packard, 1869a: 408 (*Sarcophaga*).
nuphera Harris, 1835: 600 (*Ortalis*). ?=*Eurosta asteris* or *solidaginis*.
obesa Harris, 1835: 599 (*Echinomyia*). ?=*Peleteria iterans*.
obliqua Harris, 1835: 598 (*Milesia*).
obscura Fisher *in* Shaw, 1940: 50 (*Mycetophila;* as *fungorum* var.).
oedipodinis Townsend, 1893h: 468 (*Sarcophaga*). ?=*Blaesoxipha* sp.
ornata Harris *in* Johnson, 1925c: 68 (?*Oxycera*).
partiarius Say *in* Johnson, 1925c: 76 (*Asilus*).
parviceps Loew *in* Hagen, 1881a: 44 (*Aricia*).
pecten Fisher *in* Strickland, 1946: 161 (*Coelosia*).
pectenipes Say *in* Johnson, 1925c: 78 (*Rhamphomyia*).
placida Harris, 1835: 600 (*Cordylura*).
plagiata Harris, 1835: 596 (*Thereva*).
politus Harris, 1835: 597 (*Xylophagus*).
protenta Sherman, 1920: 14 (*Allodia*).
pterelas Harris, 1835: 598 (*Eristalis*).
pulchella Bromley, 1950a: 234 (*Bombomima*).
pulsator Harris *in* Johnson, 1925c: 97 (*Seioptera*).
putricola Cole *in* Barrett, 1932: 295 (*Euxesta*).
quadrangula Sherman, 1920: 14 (*Allodia*).

quadrifasciata Harris, 1835: 600 (*Trypeta*).
quadripunctata Harris, 1835: 597 (*Stratyomys*).
reces Harris, 1835: 600 (*Anthomyia*).
rubidapex Harris, 1835: 599 (*Tachina*). ?=*Peleteria haemorrhoa*.
ruficornis Harris, 1835: 598 (*Chrysogaster*).
rufipes Harris *in* Johnson, 1925c: 83 (*Xylota*).
schinophora Loew *in* Hagen, 1881a: 44 (*Aricia*).
scutellaris Loew *in* Parent, 1929a: 173 (*Sciopus*).
scutellata Harris, 1835: 595 (*Trichocera*).
scutellatus Harris, 1835: 597 (*Sargus*).
seorsa Sherman, 1920: 13 (*Phthinia*).
septentrionalis Alexander *in* Johannsen, 1928b: 691 (*Antocha*).
serrosa Pettey, 1918a: 331 (*Sciara*).
simulatus Harris, 1835: 598 (*Syrphus*).
spuria Curran *in* Dobroscky, 1925: 280 (*Sarcophaga*).
squamosella Kieffer, 1913a: 23 (*Neolasioptera;* n. name for nonexistent "*squamosa* Felt, 1909: 483").
squamosa Felt *in* Kieffer, 1913a: 23.
stigmata Harris *in* Johnson, 1925c: 71 (*Leptis*).
stricklandi Fisher *in* Strickland, 1946: 161 (*Exechia*).
subnigra Fisher, 1938b: 222 (*Sceptonia*).
subsimplex Loew *in* Hagen, 1881a: 50 (*Coenosia*).
tarsata Loew *in* Hagen, 1881a: 49 (*Hylemyia*).
tenebrosa Coquillett *in* Slosson, 1895: 6 (*Chaetona*).
tenebrosa Sherman, 1920: 13 (*Boletina*).
teretus Harris, 1835: 598 (*Syrphus*).
timida Harris, 1835: 600 (*Anthomyia*).
trichosa Fisher *in* Strickland, 1946: 160 (*Macrocera*).
trifasciata Harris, 1835: 597 (*Leptis*).
triplagiata Harris, 1835: 595 (*Leia*).
tuberculata Harris, 1835: 598 (*Sericomyia*).
tudicornis Harris, 1835: 598 (*Merodon*).
univittata Sherman, 1920: 13 (*Coelosia*).
vancouverensis Sherman, 1920: 13 (*Paratinia*).
velox Harris, 1835: 600 (*Phora*).
viridicincta Harris, 1835: 597 (*Stratyomys*).
vittata Sherman, 1920: 13 (*Phthinia*).
vittatifrons Harris, 1835: 598 (*Syrphus*).
vittatum Harris *in* Johnson, 1925c: 63 (*Asindulum*).
vittipennis Harris, 1835: 595 (*Tipula*).
vorax Harris, 1835: 596 (*Asilus*).
weidhausii Crafts *in* Hamilton, 1957: 92 (also *in* Porter, Spilker, and Walker, 1959: 59) (*Phytomyza*).
ziczac Harris, 1835: 595 (*Leia*).

SELECTED BIBLIOGRAPHY OF NORTH AMERICAN DIPTERA

By Jack R. Coulson, Curtis W. Sabrosky, and Irmgard Muller

This bibliography includes those references, nearly 4,800 in number, employed in the present catalog or in annotations within the bibliography itself. All references except one (Schrank, 1795) have been examined by us, or in a very few cases by others for us. In a few cases of duplicate publication (e.g., see Loew, 1850c), we have seen either separate or serial, but not both.

Under each author, or authors, references are arranged chronologically by year, but within each year the references are grouped by journal and the subletters do not show chronology except for each journal. A single reference is used for the two or more parts of a paper or a numbered series of papers, that appeared within one continuously paged volume within a single year, or over a number of years if no other reference intervenes (exception: Loew's Centuriae). No reference includes parts from two or more volumes even within a single year unless the volumes are paged continuously.

Where two or more parts are included in a single reference, the parts are separated in the title by semicolons, and the corresponding pages likewise. In continuously paged entries covering two or more years, semicolons are used to separate the pages of different dates of publication, each date appearing in italics at the end of its respective series of pages. Commas are used in the same manner within single-year references to indicate publication of a series of pages at different times within the year, e.g., in a later number of a journal, or in a separate fascicle.

If it was necessary to divide references to continued articles or works because of their appearance in different volumes and/or at different dates, they are marked continued. The abbreviation "cont.", when used after the title, indicates that the work is a continuation, and when used after the pages, that it is continued. The abbreviation may appear in both places, although preceding and following parts do not necessarily appear in this bibliography. The abbreviation "concl." marks the concluding portion.

Double citations. Many published works are reissued in some way, not counting author's "reprints" and "separates." Where

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both date and pagination of a reissued work are like the original, a double citation is usually not given in the catalog, although the information may appear in the bibliography. For other reissues, double citations such as the following are used in the catalog:

(1) Macquart, 1838b: 5 (1839: 121).
(2) Townsend, 1911a: 146 (also 1912b: 312).
(3) Loew, 1863a: 35 (Cent. 3, no. 67).
(4) Say, 1830: 188 (1859b: 371).

The first example signifies that the work was republished in its original form, in this instance with a different pagination. Information on this reissue is contained in an annotation under the original (i.e., first cited) reference, not in a separate bibliographic entry. In the second example, "also" indicates that the taxon or designation referred to can also be found in the second bibliographic entry. This type of double citation is usually employed when a genus or species is described as new in two different papers, or is redescribed in more detail. For Loew's Centuriae (example 3), the second or parenthetical reference consists of the Centuria number and the species number, which are the same for both original publication and reissue (although the actual pagination differs), and which have often been used in the literature as the sole references to Loew's species, as in Aldrich, 1905. In the fourth example, the second citation refers to the LeConte edition (1859a, b) of the "Complete Writings of Thomas Say," which is cited here because it is more widely available than many of Say's original papers.

Authors. Names of authors are boldfaced except where the reference is merely an explanation of one of the "series" referred to in the bibliography (see below). Where two or more spellings appear in the literature, the most commonly used is adopted here, but others are listed, and where necessary, cross-referenced. Minutes of meetings, etc., are attributed to the recording secretary, except in the case of the "Bulletin de la Société entomologique de France," where individual authorship is noted for portions of the minutes.

Reference to a small section by one author that appears as an integral part of a larger work by (or edited by) a different author is treated in one of two ways. Where an individual title is given to the smaller portion, we have cited that part with its author, as for example:

Adams, C. F.
1907 New species of *Mycetophila*. P. 37. *In* Banta, A. M., The fauna of Mayfield's Cave. Carnegie Inst. Wash., Pub. **67:** 1–114.

This is referred to in the body of the catalog as "Adams, 1907: 37." Had the smaller portion been untitled, only the main reference would have been listed in the bibliography, and the catalog citation would

read "Adams *in* Banta, 1907: 37." Cross-references are used in both methods.

Dates of Publication. Every effort has been made to determine the correct date of publication. The actual date, at the left hand margin, is enclosed in parentheses if given only in a later volume of the same work or journal, and in brackets if discovered in some other way. In the latter case, the reference is annotated to show the reason for adoption of the date. Where the work itself shows a date that is not the actual date of publication, the former is given in parentheses between the journal name and volume number, or, for books and "series," after the place of publication.

Titles. Titles are given as they appeared in the original, with errors indicated by "sic." Misnumbered parts are sometimes corrected in brackets following the "sic." Only German nouns and proper names in English are capitalized. Generic and specific names are italicized, whether or not they were so used in the original. Titles in Oriental and Cyrillic alphabets have been translated and placed in brackets, unless the original work also contained a translated title, in which case the translated title is given in parentheses.

Journals. Names of journals are abbreviated according to the system used by the U.S. Department of Agriculture Library, as shown in Whitlock (1939). For others, abbreviations using the same general system have been devised. At the end of the bibliography is a list of the abbreviations used herein, showing the full name of the journal, place and dates of publication, name changes, series, and other information that may be helpful in locating the periodical in libraries. Journal series numbers have been given, in front of the volume numbers. Where both the whole series number and a separate series number appear on the journal, both are given in the entry, e.g., "**ser. 2, 6** [=whole ser., 28]: 15–32." Numbers of parts within the journal volume are given only when they are separately paged, and appear in parentheses between volume number and pages, as **6 (3)**: 2–16. In a very few cases, two subdivisions are needed within the parentheses, but their meaning is then indicated. In some cases (e.g., Kansas University Science Bulletin), a journal forms part of another named journal, both with a separate system of volume numbers. For completeness and for assistance in case of confused references in the literature, the other name and volume number are given in parentheses at the end of the reference, and the alternate name is explained in the appended list of periodicals.

"Series." Several important series of publications, such as Wytsman's "Genera Insectorum" and Lindner's "Die Fliegen der palaearktischen Region," appeared under an overall title and editorship, but at irregular intervals. References within the "series"

appear under the separate authors, and are shown to be "*in*" the particular "series" involved. The notation "q.v." refers the reader to an information entry for the whole "series," inserted in the bibliography under its own editorship, which name is not boldfaced.

Books. Single-volume books are cited simply by title, pages, and place of publication. Multiple-volume works, if the volumes are separately paged, are divided into a number of references, one for each volume used. Complete information on the entire work is included with the first reference to it.

Illustrations. The number of figures and plates, if any, is placed at the end of a reference. Figures are listed first, unless only part of a plate refers to the particular article cited, in which case the plate number, followed by the relevant figure numbers, is given.

Aczél, M. L.

1939 Das System der Familie Dorylaidae. Dorylaiden-Studien I. Zool. Anz. **125:** 15–23, 3 figs.

1940 Vorarbeiten zu einer Monographie der Dorylaiden (Dipt.). Dorylaiden-Studien V. Zool. Anz. **132:** 149–169, 6 figs.

1948 Grundlagen einer Monographie der Dorilaiden (Diptera). Dorilaiden-Studien VI. Acta Zool. Lilloana **6:** 5–168, 13 figs.

1949 Notes on Tylidae. II. Argentine species of the subfamily Tylinae in the entomological collection of the Miguel Lillo Foundation. Acta Zool. Lilloana **8:** 219–280, 13 figs., 2 pls.

1950 Géneros y especies de la tribu "Trypetini." I. Dos géneros y tres especies nuevos de la Argentina (Tephritidae, Diptera). Acta Zool. Lilloana **9:** 307–323, 4 figs., 1 pl.

1951 Morfología externa y división sistemática de las "Tanypezidiformes" con sinópsis de las especies argentinas de "Tylidae" ("Micropezidae") y "Neriidae" (Dipt.). Acta Zool. Lilloana **11:** 483–589, 24 figs., 4 pls.

1955 Fruit flies of the genus *Tomoplagia* Coquillett (Diptera, Tephritidae). U.S. Natl. Mus. Proc. **104:** 321–411, 13 figs., 8 pls.

1956a Revisión parcial de las Pyrgotidae neotropicales y antárticas, con sinópsis de los géneros y especies (Diptera, Acalyptratae). Parte I. Rev. Brasil. de Ent. **4:** 161–184, fig. A.

1956b Revisión parcial de las Pyrgotidae neotropicales y antárticas, con sinópsis de los géneros y especies (Diptera, Acalyptratae). Parte II. Rev. Brasil. de Ent. **5:** 1–70, figs. 1–60, pls. 1–3.

Aczél, M. L.—Continued

1956c Revisión parcial de las Pyrgotidae neotropicales y antárticas, con sinópsis de los géneros y especies (Diptera, Acalyptratae). Parte III (Conclusão). Rev. Brasil. de Ent. **6:** 1–38, figs. 61–96, pls. 4–5.

Adachi, J. (See Matsumura and Adachi)

Adams, C. F.

1903a Dipterological contributions. Kans. Univ. Sci. Bul. **2** [=whole ser., 12]: 21–47. (=Kans. Univ. Bul. 4 (6).)

1903b Descriptions of six new species. Pp. 221–223. *In* Snow, F. H., A preliminary list of the Diptera of Kansas. Kans. Univ. Sci. Bul. **2** [=whole ser., 12]: 211–223. (=Kans. Univ. Bul. 4 (6).)

1904a Descriptions of new Oscinidae. Ent. News 15: 303–304.

1904b Notes on and descriptions of North American Diptera. Kans. Univ. Sci. Bul. **2** [=whole ser., 12]: 433-455. (=Kans. Univ. Bul. 4 (6).)

1904c On the North American species of *Siphonella*. Psyche **11:** 103–104.

1905a On the North American species of *Oscinis*. Ent. News **16:** 108–111.

1905b Diptera africana. I. Kans. Univ. Sci. Bul. **3** [=whole ser., 13]: 149–208. (=Kans. Univ. Bul. 6 (2).)

1907 New species of *Mycetophila*. P. 37. *In* Banta, A. M. The fauna of Mayfield's Cave. Carnegie Inst. Wash., Pub. **67:** 1–114.

1908 Notes on North American species of *Crassiseta* v. Ros. N.Y. Ent. Soc. Jour. **16:** 151–152.

Addis, C. J.

1945 *Phlebotomus* (*Dampfomyia*) *anthophorus*, n. sp., and *Phlebotomus diabolicus* Hall from Texas (Diptera: Psychodidae). Jour. Parasitol. **31:** 119–127, 2 pls.

Agassiz, L.

1842–1847 Nomenclator zoologicus, nomina systematica generum animalium tam viventium quam fossilium, secundem ordinem alphabeticum disposita, adjectis auctoribus, libris in quibus reperiuntur, anno editionis, etymologia et familiis, ad quas pertinent in variis classibus. 12 Fascs. Soloduri [=Solothurn, Switzerland].

The entire work consists of 12 fascicles, Soloduri, 1842–1847. Some fascicles are in several parts, and/or involve several authors. Fasc. 9/10, which includes the Diptera by Agassiz and H. Loew,

Agassiz, L.—Continued

consists of xlii pp. of introductory material, and 10 unnumbered, separately paged parts by different authors, a part for each taxon listed in its title, some of which are only 1 or 2 pages in length.

See Agassiz and Loew.

———, and Loew, H.

1846 Nomina systematica generum dipterorum. [Pt. 4], 42 pp. *In* Agassiz, L., Nomenclator zoologicus [q.v.]. Fasc. 9/10: Titulum et praefationem operis, Mollusca, Lepidoptera, Strepsiptera, Diptera, Myriapoda, Thysanura, Thysanoptera, Suctoria, Epizoa et Arachnidas. Soloduri [=Solothurn, Switzerland].

Ahlberg, O.

1939 *Diarthronomyia chrysanthemi* nom. nov. (=*hypogaea* Felt nec Löw). Ent. Tidskr. **60:** 274.

Aitken, T. H. G.

1939 The *Anopheles maculipennis* complex of western America (Diptera, Culicidae). Pan-Pacific Ent. **15:** 191–192.

1941 A new American subgenus and species of *Aedes* (Diptera, Culicidae). Pan-Pacific Ent. **17:** 81–84.

1945 Studies on the anopheline complex of western America. Calif. Univ., Pubs., Ent. **7:** 273–364, 39 figs.

Aldrich, J. M. (See also Brues, 1903; Van Duzee, Cole, and Aldrich)

1892a New species of *Phora*. Canad. Ent. **24:** 142–146, 5 figs.

1892b A new genus and species of Tabanidae. Psyche **6:** 236–237, 3 figs.

1893a Revision of the genera *Dolichopus* and *Hygroceleuthus*. Kans. Univ. Quart. **2:** 1–26, 1 pl.

1893b New genera and species of Psilopinae. Kans. Univ. Quart. **2:** 47–50.

1893c The dolichopodid genus *Liancalus* Loew. Psyche **6:** 569–571.

1894 New genera and species of Dolichopodidae. Kans. Univ. Quart. **2:** 151–157.

1895 The tipulid genera *Bittacomorpha* and *Pedicia*. Psyche **7:** 200–202, 1 fig.

1896a The dipterous genera *Tachytrechus* and *Macellocerus*. Amer. Ent. Soc. Trans. **23:** 81–84.

1896b Dolichopodidae; Phoridae. Pp. 309–345, pl. 12, figs. 108–119; pp. 435–438. *In* Williston, S. W., On the Diptera of St. Vincent (West Indies). Ent. Soc. London, Trans. **1896**: 253–446, pls. 8–14.

Aldrich, J. M.—Continued

1897 A collection of Diptera from Indiana caves. Pp. 186–190. *In* Blatchley, W. S., The fauna of Indiana caves. Ind. Dept. Geol. and Nat. Resources, Ann. Rpt. (1896) **21:** 175–212.

1901 Supplement. Dolichopodidae. Pp. 333–366, pl. 6, figs. 7–24. *In* Godman, F.D., and Salvin, O., eds., Biologia Centrali-Americana [q.v.]. Zoologia-Insecta-Diptera, Vol. 1, 378 pp., 6 pls. London.

1902 Dolichopodidae of Grenada, W. I. Kans. Univ. Sci. Bul. **1:** [=whole ser., 11]: 75–95, pl. 4. (=Kans. Univ. Bul. 2 (8).)

1904 A contribution to the study of American Dolichopodidae. Amer. Ent. Soc. Trans. **30:** 269–286.

1905 A catalogue of North American Diptera. Smithsn. Inst., Smithsn. Misc. Collect. **46** (**2** [=pub. 1444]): 1–680. For addendum, see Aldrich, 1907b.

1906 The dipterous genus *Calotarsa*, with one new species. Ent. News **17:** 123–127, 1 pl.

1907a The dipterous genus *Scellus*, with one new species. Ent. News **18:** 133–136.

1907b Additions to my catalogue of North American Diptera. N.Y. Ent. Soc. Jour. **15:** 2–9.

1909 The fruit-infesting forms of the dipterous genus *Rhagoletis*, with one new species. Canad. Ent. **41:** 69–73, 1 pl.

1911a A revision of the North American species of the dipterous genus *Hydrophorus*. Psyche **18:** 45–70, 1 pl.

1911b The dipterous genus *Diostracus* Loew. Psyche **18:** 70–73, 1 pl.

1912a The biology of some western species of the dipterous genus *Ephydra*. N.Y. Ent. Soc. Jour. **20:** 77–99, 3 pls.

1912b Two western species of *Ephydra*. N.Y. Ent. Soc. Jour. **20:** 99–102.

1913 The North American species of *Lispa* (Diptera: Anthomyidae). N.Y. Ent. Soc. Jour. **21:** 126–146.

1914a A new *Leucopis* with yellow antennae. Jour. Econ. Ent. **7:** 404–405.

1914b Description of *Sarcophaga kellyi*. Pp. 443–445, pl. 40. *In* Kelly, E. O. G., A new sarcophagid parasite of grasshoppers. Jour. Agr. Res. **2:** 435–445, pl. 40.

1915a A new *Sarcophaga* parasitic on *Allorhina nitida*. Jour. Econ. Ent. **8:** 151–152, 1 fig.

1915b The deer bot-flies (genus *Cephenomyia* Latr.). N.Y. Ent. Soc. Jour. **23:** 145–150, 1 pl.

Aldrich, J. M.—Continued

1915c New American species of *Asteia* and *Sigalsoësa* [sic]. Psyche **22:** 94–98, 2 figs.

Sigalsoësa is correct as *Sigaloëssa* in the Table of Contents and Index of Vol. 22 of the journal, and in the reprint.

1915d The dipterous genus *Symphoromyia* in North America. U.S. Natl. Mus. Proc. **49:** 113–142, 10 figs.

1916a *Sarcophaga* and allies in North America. [Vol. 1], 302 pp., 16 pls. *In* Entomological Society of America, Thomas Say Foundation [q.v.]. Lafayette, Ind.

1916b Two new Canadian Diptera. Canad. Ent. **48:** 20–22.

1918a The kelp flies of North America (genus *Fucellia*, family Anthomyidae). Calif. Acad. Sci. Proc. **ser. 4, 8:** 157–179, 10 figs.

1918b Two new *Hydrotaeas* (Diptera, Anthomyidae). Canad. Ent. **50:** 311–314.

1918c New and little-known Canadian Oscinidae. Canad. Ent. **50:** 336–343, 5 figs.

1918d The anthomyid genus *Pogonomyia* (Dip.). Ent. News **29:** 179–185, 1 fig.

1919a *Leiomyza* in North America (Dipt., Drosophilidae). Ent. News **30:** 137–141, 1 fig.

1919b Two new genera of Anthomyidae (Dipt.). Ent. Soc. Wash. Proc. **21:** 106–109, 1 fig.

1919c Description of a new species of *Hylemyia*. Pp. 380–381. *In* Plath, O. E., The prevalence of *Phormia azurea* Fallén (larva parasitic on nestling birds) in the Puget Sound region and data on two undescribed flies of similar habit. Ent. Soc. Amer. Ann. **12:** 373–381.

1921a The muscoid genera *Pseudeuantha* and *Uramyia* (Diptera). Insecutor Inscitiae Menstruus **9:** 83–92.

1921b The anthomyiid genus *Atherigona* in America (Diptera). Insecutor Inscitiae Menstruus **9:** 93–98, fig. 2.

1922a A new genus of Helomyzidae. Brooklyn Ent. Soc. Bul. **17:** 108–109.

1922b Two-winged flies of the genera *Dolichopus* and *Hydrophorus* collected in Alaska in 1921, with new species of *Dolichopus* from North America and Hawaii. U.S. Natl. Mus. Proc. **61** (**25**): 1–18.

1922c A new genus of two-winged fly with mandible-like labella. Ent. Soc. Wash. Proc. **24:** 145–152, 1 pl.

Aldrich, J. M.—Continued

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1938 A new *Neoitamus* from Utah (Diptera: Asilidae). Utah Acad. Sci., Arts and Letters, Proc. **15:** 61.

1940 New U.S.A. robber flies (Diptera: Asilidae). Brooklyn Ent. Soc. Bul. **35:** 13–21, 5 figs.

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1950b Records and descriptions of Asilidae in the collection of the University of Michigan Museum of Zoology. Mich. Univ. Mus. Zool. Occas. Papers **527:** 1–5.

1951 Asilid notes (Diptera) with descriptions of thirty-two new species. Amer. Mus. Nat. Hist., Amer. Mus. Novitates **1532:** 1–36, 7 figs.

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1897 Two new species of asilids from New Mexico. Kans. Univ. Quart. **ser. A, 6:** 103.

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1901b Two new myrmecophilous genera of aberrant Phoridae from Texas. Amer. Nat. **35:** 337–356, 11 figs.

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This was published originally in 192 parts, London, 1824–1839, each part containing at first five, and later four, plates, each plate with two unnumbered pages of text. One part was issued each month beginning January, 1824. These were then to be bound in 16 volumes, with the 769 plates arranged serially. A second printing was bound in 8 volumes, with plates systematically arranged. The plates on Diptera are scattered in the first printing, but in the second, are all bound in Volume 8: Diptera-Omaloptera. See Blackwelder, 1947: 1, for a discussion of the dates and editions of this work.

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[Cuvier, G. C. L. D.]—Continued

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[The so-called "disciples edition"], 17 vols. (in 20). Paris. Issued in 262 livraisons. The unnumbered volumes are arranged into 10 taxonomic groups. That of "Les Insectes," by Audouin, Blanchard, Doyère, and Edwards, includes 2 volumes of text, and an Atlas of 2 volumes (in 3).
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Entomological Society of America

1916–1959 Thomas Say Foundation. 6 vols. Lafayette, Ind., Washington, D.C.

This is a series of unrelated entomological works published by the Society's Thomas Say Foundation, first at Lafayette, and later at Washington. To date, 6 volumes have been published; serial numbering began with Volume 3.

See Aldrich, 1916a; Hall, 1948; Stone, Knight, and Starcke, 1959.

Entomologiska Foreningen i Stockholm

1903–1961 Svensk Insektfauna. 13 vols. Stockholm.

This series will consist of 13 volumes upon completion, each volume devoted to a particular numbered order of insects. The first portions, 1903–1915, were published in the periodical "Entomologisk Tidskrift," with one exception; separate publication of this series actually began in 1917. It is issued in "rekvisions" chronologically numbered (except that some earlier material was republished for inclusion in the series and assigned "rekvision" numbers out of order), and published whenever a portion is complete. There are 48 rekvisions published through 1962. The volumes [=Orders] are broken into subgroups which are continuously paged if not complete within one rekvision. Pagination begins in all volumes in consideration of the portions previously published in Ent. Tidskr. Diptera is Order 11, and is divided, and was issued, as shown below:

[Order] 11: Tvåvingar. Diptera.—Incomplete. 1905–1959.

Suborder I: Orthorapha.—Complete, all by E. Wahlgren. 1905–1922.

Group 1: Nemocera. 1905–1922.

Fams. 1–9. In Ent. Tidskr. 26: 91–154 [rekv. 5], 1905.

Fams. 10–11. Pp. 69–140 [rekv. 22], 1919.

Fams. 12–13. Pp. 141–204, 205–273 [rekvs. 24, 25], 1921–1922.

Group 2: Brachycera. 1907–1912.

Fams. 14–23. In Ent. Tidskr. 28: 129–192 [rekv. 9], 1907.

Fam. 24. In Ent. Tidskr. 31: 41–95 [rekv. 14]. 1910.

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Entomologiska Foreningen i Stockholm—Continued
Suborder II: Cyclorapha.—Incomplete. 1909–1959.
Group 1: Aschiza.—Complete, by E. Wahlgren. 1909–1910.
Fam. 1. In Ent. Tidskr. 30: 1–86 [rekv. 12], 1909.
Fams. 2–4. In Ent. Tidskr. 31: 209–235 [rekv. 15], 1910.
Group 2: Schizophora.—Incomplete. 1917–1959.
[Subgroup] Holometopa.—Complete, by E. Wahlgren. 1917–1927.
Fams. 5–12. Pp. 113–224 [rekv. 20], 1917.
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Fams. 21–26. Pp. 323–416 (rekv. 30), 1927. With index to Aschiza and Holometopa, pp. i–xii.
[Subgroup] Schizometopa.—Incomplete. 1954–1959.
Fam. 1. Pp. 1–92, 93–196, 197–334 (rekvs. 44, 45, 47), by O. Ringdahl, 1954–1959.
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Only 1 heft was ever issued.

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1820e Heteromyzides Sveciae. 10 pp. Lundae [=Lund].

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1821 Monographia Muscidum Sveciae [cont.]. Pp. 41–48 [cont.]. Lundae [=Lund].

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1935 Zur Kenntnis der polyneuren Nematoceren (Dipt.) des nördlichen Norwegens. Tromsø Mus. Årsh. (1930) **53** (**4** [=Naturhist. Avd. 8]): 3–27, 2 figs.

Laffoon, J. L.

1957 A revision of the nearctic species of *Fungivora* (Diptera, Mycetophilidae). Iowa State Col. Jour. Sci. (1956) **31:** 141–340, 12 pls.

Lahille, F.

1904 Notes sur la classification des moustiques. Pp. 71–95, 4 figs., 1 pl. *In* Araoz Alfaro, G., sec., Segundo Congreso Médico Latino-Americano [q.v.]. Vol. 2, 270 pp., 27 figs., 7 pls. Buenos Aires.

Lamb, C. G.

1914 The Percy Sladen Trust Expedition to the Indian Ocean in 1905, under the leadership of Mr. J. Stanley Gardiner, M.A. Vol. V. No. XV. Diptera: Heteroneuridae, Ortalidae, Trypetidae, Sepsidae, Micropezidae, Drosophilidae, Geomyzidae, Milichiidae. Linn. Soc. London, Trans. **ser. 2, Zool., 16:** 307–372, 48 figs., 3 pls.

Lamore, D. H.

1960 Cases of parasitism of the basilica spider, *Allepeira lemniscata* (Walckenaer), by the dipteran endoparasite, *Ogcodes dispar* (Macquart) (Araneida: Argiopidae and Diptera: Acroceridae). Ent. Soc. Wash. Proc. **62:** 65–85, 13 figs.

Landrock, K.

1918 Die Pilzmückengattung *Dynatosoma* Winn. Arch. f. Naturgesch., (*1916*) **Abt. A, 82 (12):** 38–51, 17 figs.

1923 Die Pilzmücken Mährens. 1. Nachtrag. Wien. Ent. Ztg. **40:** 163–171.

1925a Dipterologische Miszellen. Mycetophilidae. Wien. Ent. Ztg. **42:** 179–182.

1925b Neue Mycetophiliden. Natuurhist. Maandbl. **14:** 37–40, 15 figs.

1926–1927 Fungivoridae (Mycetophilidae). [Fam.] 8, pp. 1–48, figs. 1–14, pls. 1–3 (=lfg. 12), *1926;* pp. 49–96, figs. 15–21, pls. 4–6 (=lfg. 13), *1926;* pp. 97–144, figs. 22–24, pls. 7–9 (=lfg. 14), *1927;* pp. 145–196, figs. 25–26, pls. 10–13 (=lfg. 15), *1927*. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 2, Pt. 1. Stuttgart.

Lane, J. (See also Carrera, Lopes, and Lane)

1947 Espécies brasileiras de *Stilobezzia* (Dipt. Ceratopogonidae) e *Zygoneura stonei* nov. nom. (Dipt. Mycetophilidae). Rev. de Ent. **18:** 197–214, 9 figs.

Lane, J., and d'Andretta, C., Jr.

1958 Neotropical Anisopodidae (Diptera, Nematocera). Studia Ent. (Rio de Janeiro) **n. ser., 1:** 497–528, 29 figs.

Laporte, F. L. de (or La Porte) (Count de Castelnau)

1840 Histoire naturelle des animaux articulés. Annelides, Crustacés, Arachnides, Myriapodes et Insectes. 4 vols. Paris.

The first 2 volumes are by Laporte, the third by E. Blanchard, and the fourth by P. H. Lucas.
See Blanchard, 1840.

La Rivers, I. (See Usinger et al.)

Latreille, P. A. (See also Bory, 1829; Olivier, 1812; S.N.A., 1803, 1818)

[1796] Précis des caractères génériques des Insectes, disposés dans un ordre naturel. 179 pp. Paris, "An V".

An V=Sept. 22, 1796 to Sept. 21, 1797. This work was reviewed in the Soc. Philomath. de Paris, Bul. 1: 118–119, the issue for Dec. 21, 1796–Feb. 19, 1797. This fact indicates publication of Latreille's work in late 1796 or possibly very early 1797. Established practice dates it 1796. See Sherborn, 1902: xxxiii.

[1802] Histoire naturelle, générale et particulière, des Crustacés et des Insectes, Tome troisième [Vol. 3]. [Vol. 95], 468 pp. *In* Sonnini, C. S., ed., Histoire naturelle par Buffon [q.v.]. Paris, "An X".

Evidence points to the publication of this volume in An XI (=Sept. 22, 1802, to Sept. 21, 1803) (see Griffin, 1938: 157). The fact that the date on the title page was not corrected indicates publication early in An XI. Established usage dates this volume 1802.

1804 Tableau méthodique des Insectes. Pp. 129–200. *In* Société de Naturalistes et d'Agriculteurs, Nouveau dictionnaire d'histoire naturelle, appliqué aux arts, principalement à l'agriculture et à l'économie rurale et domestique. Vol. 24, [sect. 3]: Tableaux méthodiques d'histoire naturelle, 238 pp., 5 pls. Paris.

See S.N.A., 1803, for details of this work.

[1805] Histoire naturelle, générale et particulière, des Crustacés et des Insectes, Tome quatorzième [Vol. 14]. [Vol. 106], 432 pp., pls. 104–112. *In* Sonnini, C. S., ed., Histoire naturelle par Buffon [q.v.]. Paris, "An XIII".

An XIII=Sept. 22, 1804, to Sept. 21, 1805. Established usage dates this 1805. The use of this date also gives the clear indication of its publication later than Latreille, 1804. See Sabrosky, 1941b: 744, footnote 4.

Latreille, P. A.—Continued

1809 Genera crustaceorum et insectorum secundum ordinem naturalem in familias disposita, iconibus exemplisque plurimis explicata. Vol. 4, 399 pp., 4 pls. Parisiis et Argentorat [=Paris and Strasbourg].

The entire work consists of 4 volumes, Paris and Strasbourg, 1806–1809.

1810 Considérations générales sur l'ordre naturel des animaux. 444 pp. Paris.

1825 Familles naturelles du règne animal. 570 pp. Paris.

See Berthold, 1827, the German translation in which the names are first latinized.

1829 Les Crustacés, les Arachnides et les Insectes, Tome second [Vol. 2]. Vol. 5, 556 pp., 5 pls. *In* [Cuvier, G. C. L. D.], Le règne animal . . . Ed. 2 [q.v.]. Paris.

———, Lepeletier, A. L. M., Serville, J. G. A., and Guérin-Méneville, F. E.

1825–[1828] Entomologie, ou histoire naturelle des Crustacés, des Arachnides et des Insectes [pt. 2 (=Insectes [i.e., Arthropoda] pt. 7)]. Vol. 10, pp. 1–344 (=livr. 96), *1825;* pp. 345–833 (=livr. 100), [*1828*]. *In* Société de Gens de Lettres, de Savans et d'Artistes, Encyclopédie méthodique [q.v.]. Histoire naturelle. Paris.

For dating see Sherborn and Woodward, 1899: 595.

Latta, R. (See also Doucette et al.)

———, and Cole, F. R.

1933 A comparative study of the species of *Eumerus* known as the lesser bulb flies. Calif. Dept. Agr., Monthly Bul. **22:** 142–152, 16 figs.

Laurence, B. R.

1955 The ecology of some British Sphaeroceridae (Borboridae, Diptera). Jour. Anim. Ecol. **24:** 187–199, 5 figs.

Lavigne, R.

1962 Immature stages of the stalk-eyed fly, *Sphyracephala brevicornis* (Say) (Diptera: Diopsidae) with observations on its biology. Brooklyn Ent. Soc. Bul. **57:** 5–14, 1 fig., 1 pl.

Leach, W. E. (See also Brewster, 1817–1818)

1817 On the genera and species of eproboscideous insects. 20 pp., 3 pls. Edinburgh, Sept., 1817.

Also published in Wernerian Nat. Hist. Soc. Mem. **2:** 547–566, *1818.*

Leathers, A. L.

1922 *Chironomus braseniae,* new species (Dip., Chironomidae). Ent. News **33:** 8.

LeBaron, W.

1871 Insects injurious to the apple tree. Noxious [and Beneficial] Insects of State of Ill., [State Ent.] Rpt. [**2**]: 13–46, 4 figs.

In the first annual report of W. LeBaron.

1872 Insects injurious to the apple. Noxious [and Beneficial] Insects of State of Ill., [State Ent.] Rpt. [**3**]: 99–133, 3 figs.

In the second annual report of W. LeBaron.

LeConte, J. L., ed.

1859a The complete writings of Thomas Say on the entomology of North America. Vol. 1, 412 pp., 54 pls. New York.

The entire work consists of 2 volumes, New York, 1859. They were reprinted under the imprint Philadelphia, 1891, and also published under the title "American entomology: A description of the insects of North America, by Thomas Say, with illustrations drawn and colored after nature," Boston, undated.

1859b The complete writings of Thomas Say on the entomology of North America. Vol. 2, 814 pp. New York.

Lehmann, J. G. C.

1822 Observationes zoologicae praesertim in faunam hamburgensem. Pugillus primus. Indicem scholarum publice privatimque in Hamburgensium Gymnasio Academico. 55 pp. Hamburgi [=Hamburg].

The section on Diptera (pp. 38–46) was republished in K. Leopoldinisch-Carolinische Akad. d. Naturf., Verhandl. (Acad. C. Leopoldino-Carolinae Nat. Curio., Nova Acta Phys.-Med.) **12:** 239–248, *1824,* with the addition of a colored plate.

Lengersdorf, F.

1931 Neue *Sciara-(Lycoria)* Arten aus der Sammlung des Zoologischen Instituts der Universität Halle. Zool. Anz. **96:** 251–255, 3 figs.

Lenz, F. (See also Goetghebuer and Lenz)

1941 Die Jugenstadien der Sectio Chironomariae (Tendipedini) connectentes (Subf. Chironominae=Tendipedinae). Zusammenfassung und Revision. Arch. f. Hydrobiol. (1942) **n. ser., 38:** 1–69, 95 figs.

Leonard, M. D. (See also Alexander and Leonard; Curran, 1931f; Johannsen, 1928b)

1913 Additions to the New Jersey Tipulidae (Diptera), with the description of a new species. Ent. News **24:** 247–249, 1 fig.

1928 List of the insects of New York with a list of the spiders and certain other allied groups. N.Y. (Cornell) Agr. Expt. Sta. Mem. (1926) **101:** 1–1121.

1930 A revision of the dipterous family Rhagionidae (Leptidae) in the United States and Canada. Amer. Ent. Soc. Mem. **7:** 1–181, 3 figs., 3 pls.

1931 Two new species of *Symphoromyia* (Rhagionidae, Diptera) from the eastern United States. Amer. Mus. Nat. Hist., Amer. Mus. Novitates **497:** 1–2.

Lepeletier, A. L. M. (or Le Peletier) (Count de Saint-Fargeau) (See Latreille et al.)

———, **and Serville, J. G. A.** (See Latreille et al., 1828)

Lester, O. C. (See James, 1938d)

Leuckart, R., and Chun, C., eds.

1887–1921 Bibliotheca zoologica. Original-Abhandlungen aus dem Gesammtgebiete der Zoologie. 71 hefts. Cassel, Stuttgart.

This is a series of separately paged memoirs. The last issued, as far as known, was Heft 71, in 1921. Some are in 2 or more parts, sometimes separately paged, and some have a "Nachtrag". Heft 20 was issued in 4 continuously paged Lieferungen, Stuttgart, 1895–1898. The name of the series was changed to "Zoologica", etc., with the Nachtrag to Heft 21, in 1898 (Heft 11, 1892, also had this latter title). The early hefts were published in Cassel.

See Rübsaamen, 1898.

Levi-Castillo, R.

1951 Los mosquitos del género *Haemagogus*-Williston, 1896 en América del Sur. 77 pp., 28 figs. Cuenca, Ecuador.

Lewis, F. B.

1956 Two new species of Ceratopogonidae (Diptera). Psyche **63:** 46–49, 2 figs.

Lichtenstein, A. A. H.

1800 Beschreibung eines neu entdeckten Wasserinsekts. Arch. f. Zool. u. Zootomie **1** (**1**): 168–175, 1 pl.

Lichtwardt, B.

1909 Beitrag zur Kenntnis der Nemestriniden (Dipt.). Deut. Ent. Ztschr. **1909:** 113–123, 507–514, 643–651, 8 figs.

Lima, A. da Costa (See also Lutz, Neiva, and Lima)

1921 Sobre os streblideos americanos (Diptera-Pupipara). Arch. da Esc. Super. Agr. e Med. Vet. [Nictheroy, Rio de Janeiro] **5:** 17–34, 2 pls.

Lindner, E.

1925–1929 Handbuch. Pp. 1–32, figs. 1–17, pl. 1 (=lfg. 4), *1925;* pp. 33–48, figs. 18–48, pls. 2–3 (=lfg. 21), *1927;* pp. 49–64, figs. 49–66, pls. 4–5 (=lfg. 23), *1927;* pp. 65–80, figs. 67–80, pls. 6, 8 (=lfg. 25), *1928;* pp. 81–96, figs. 81–105, pls. 7, 9 (=lfg. 31), *1929* [cont.]. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 1, 422 pp., 481 figs., 28 pls. Stuttgart.

1930 Revision der amerikanischen Dipteren-Familie der Rhopalomeridae. Deut. Ent. Ztschr. **1930:** 122–137, 1 fig.

1931–1935 Handbuch [cont.]. Pp. 97–144, figs. 106–220, pl. 10 (=lfg. 57), *1931;* pp. 145–160, figs. 221–256, pls. 11–12 (=lfg. 60), *1932;* pp. 161–208, figs. 257–357, pl. 13 (=lfg. 74), *1933;* pp. 209–240, figs. 358–389, pls. 14–15 (=lfg. 95), 1935 [cont.]. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 1, 422 pp., 481 figs., 28 pls. Stuttgart.

1936a Handbuch [cont.]. Pp. 241–280, figs. 390–429, pls. 16–17 (=lfg. 102) [cont.]. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 1, 422 pp., 481 figs., 28 pls. Stuttgart.

1936b Stratiomyidae. [Fam.] 18, pp. 1–48, figs. 1–38 (=lfg. 104) [cont.]. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 4, Pt. 1. Stuttgart.

1937–1938 Stratiomyidae [concl.]. [Fam.] 18, pp. 49–96, figs. 39–55, pls. 1–4 (=lfg. 108), *1937;* pp. 97–144, figs. 56–81, pls. 5–6 (=lfg. 110), *1937;* pp. 145–176, figs. 82–103, pl. 7 (=lfg. 114), *1937;* pp. 177–218, figs. 104–136 (=lfg. 116), *1938*. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 4, Pt. 1. Stuttgart.

1940–1949 Handbuch [concl.]. Pp. 281–312, figs. 430–444, pls. 18–19 (=lfg. 134), *1940;* pp. 313–336, figs. 445–447, pls. 20–21 (=lfg. 136), *1940;* pp. 337–368, figs. 448–472, pls. 22–23 (=lfg. 146), *1943;* pp. 369–416, figs. 473–481, pls. 24–25 (=lfg. 156), *1948;* pp. 417–422, pls. 26–28 (=lfg. 158), *1949*. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region [q.v.]. Vol. 1, 422 pp., 481 figs., 28 pls. Stuttgart.

Lindner, E., ed.
1924–1963 Die Fliegen der palaearktischen Region. 8 vols. Stuttgart.

This series is issued in "Lieferungen", numbered chronologically as they appear, and continues to date. Each separately paged family is given a number and assigned to a volume, but a family is not necessarily composed of consecutive Lieferungen. Some of the volumes were later divided into parts. The arrangement of the work, with the dates for each volume and part, is given below:

Vol. 1. Complete, introductory material, no families. 1925–1949.
Vol. 2. Incomplete. 1926–1930.
Pt. 1. Complete, families 1–5, 7–8. 1926–1930.
Pt. 2. Not yet begun, family 6.
Vol. 3. Incomplete, families 9–17. 1929–1962.
Vol. 4. Incomplete. 1924–1958.
Pt. 1. Complete, families 18–23. 1924–1938.
Pt. 2. Complete, family 24. 1925–1930.
Pt. 3. Complete, families 25–27. 1925–1937.
Pt. 4. Complete, family 28. 1938–1956.
Pt. 5. Incomplete, families 29–30. 1930–1941.
Pt. 6. Complete, families 31–32. 1928–1935.
Pt. 7. Incomplete, families 33–35. 1925–1958.
Vol. 5. Complete, families 36–53. 1927–1949.
Vol. 6. Complete. 1926–1938.
Pt. 1. Complete, families 54–58, 60–61. 1926–1938.
Pt. 2. Complete, family 59. 1931–1936.
Vol. 7. Incomplete, families 62–63. 1937–1963.
Vol. 8. Incomplete, families 64–66. 1930–1963.

See Becker, 1926; Czerny, 1928b, 1930a, 1930b, 1934a, 1934b; Duda, 1928a, 1932–1933, 1934a, 1934b, 1935; Engel, 1925–1930, 1932–1937, 1938–1954; Frey, 1954–1956; Goetghebuer and Lenz, 1933–1934, 1936, 1937–1938, 1939a, 1939b, 1939c, 1940–1944, 1950a, 1950b, 1954–1960; Hendel, 1927a, 1931a, 1932a, 1933a, 1934a, 1935a, 1936a; Hennig, 1939, 1940, 1943, 1949, 1955–1957, 1958b, 1959–1963; Landrock, 1926–1927; Martini, 1929–1931; Mesnil, 1944, 1949b, 1950–1952, 1953b, 1954–1963; Sack, 1928–1932, 1937; Stackelberg, 1930–1941.

Lindroth, C. H. (See Goetghebuer and Lindroth)

Linnaeus, C. (or Linné, C. von)
1758 Systema naturae per regna tria naturae. Ed. 10, Vol. 1, 824 pp. Holmiae [=Stockholm].

The entire work consists of 2 volumes, Holmiae, 1758–1759.

1761 Fauna svecica sistens animalia Sveciae regni. Ed. 2, 578 pp., 2 pl. Stockholmiae [=Stockholm].

The first edition, published in 1746, is outside the scope of zoological nomenclature.

Linnaeus, C.—Continued

1762 Zweyter Theil, enthalt Beschreibungen verschiedener wichtiger Naturalien. Pp. 267–606. *In* Hasselquist, F., Reise nach Palästina in den Jahren von 1749 bis 1752. 606 pp. Rostock, Germany.

This is the German translation by T. H. Gadebusch of Hasselquist's "Iter Palaestinum, eller resa til Heliga Landet, foerrättad ifran år 1749 til 1752", 619 pp.., Holmiae, 1757.
Suppressed by I.C.Z.N., 1914: 131.

1763 Amoenitates Academicae, seu dissertationes variae physicae, medicae, botanicae, antehac seorsim editae, nunc collectae et auctae cum tabulis aeneis. Vol. 6, 486 pp., 5 pls. Holmiae [=Stockholm].

The entire work consists of 7 volumes, Holmiae and Lipsia. [=Leipzig], 1749–1769.

1767 Systema naturae per regna tria naturae. Ed. 12 (rev.), Vol. 1, Pt. 2, pp. 533–1327. Holmiae [=Stockholm].

The entire work consists of 3 volumes, Holmiae, 1766–1768e The first volume is in 2 continuously paged parts, 1766–1767, and consists of 1327 pp. and 36 unnumbered pages of index.

Linné, C. von (See Linnaeus, C.)

Lintner, J. A. (See also Felt, 1898a, 1898b)

1879a The clover-seed fly—a new insect pest. Canad. Ent. **11**: 44.

1879b On *Cecidomyia leguminicola*, n. sp. Canad. Ent. **11**: 121–124.

1883 Reports on the injurious and other insects of the State of New York. Rpt. 1: First annual report [for 1882], 381 pp., 84 figs. Albany, N.Y.

There were 13 such reports by Lintner, published in Albany, 1883–1899, only the first being marked "Annual report". The first 2 reports, for 1882 and 1885, were published only as separates, 1883 and 1886, respectively. There was another entirely different report by Lintner for 1885 published in the N.Y. State Mus. Ann. Rpt. in 1887. This was not counted in the numbering. Lintner's report for 1886 (published in 1888), later designated the "3rd report", and his succeeding numbered reports, were issued both in the N.Y. State Mus. Ann. Rept. and as separates with identical pagination (except for the 4th report). The 14th report and succeeding ones are by E. P. Felt, and were published only in publications of the N.Y. State Museum.

1888a Reports on the injurious and other insects of the State of New York. Rpt. 4: [for 1887], 237 pp., 68 figs. Albany, N.Y.

Also published as "Report of the State Entomologist", in N.Y. State Mus. Ann. Rpt. (1887) 41: 123–358, 68 figs., *1888*.

Lintner, J. A.—Continued

1888b The melon plant louse. Cult. and Country Gent. **53:** 725.

[1892] Reports on the injurious and other insects of the State of New York. Rpt. 7: [for 1890], pp. 197–405, 40 figs. Albany, N.Y., "1891."

Also published as "Report of the State Entomologist", in N.Y. State Mus. Ann. Rpt. (1890) **44:** 197–405, 40 figs., *1892*.
Dated by Felt, 1899: 374.

1895 Report of the State Entomologist for the year 1894. N.Y. State Mus. Ann. Rpt. (1894) **48(1):** 339–636, 24 figs., 4 pls.

Also published separately as his "Reports on the injurious and other insects of the State of New York", Rpt. 10, pp. 339–636, 24 figs., 4 pls., Albany, "1895" [=*1896*].
Separate dated by Felt, 1899: 392.

[1897] Reports on the injurious and other insects of the State of New York. Rpt. 11: for 1895, pp. 85–326, 25 figs., 16 pls. Albany, N.Y., "1896."

Also published as "Report of the State Entomologist", in N.Y. State Mus. Ann. Rpt. (1895) **49(1):** 85–326, 25 figs., 16 pls., *1897*.
Dated by Felt, 1899: 395.

[1898] Reports on the injurious and other insects of the State of New York. Rpt. 12: for 1896, pp. 161–399, 10 figs., 15 pls. Albany, N.Y., "1897."

Also published as "Report of the State Entomologist", in N.Y. State Mus. Ann. Rpt. (1896) **50(1):** 161–399, 10 figs., 15 pls., *1898*.
Dated by Felt, 1899: 398.

Lioy, P.

1863 I ditteri distribuiti secondo un nuovo metodo di classificazione naturale. I.R. Ist. Veneto di Sci., Let. ed Arti, Atti **ser. 3, 9:** 187–236 [cont.].

1864a I ditteri distribuiti secondo un nuovo metodo di classificazione naturale [cont.]. I.R. Ist. Veneto di Sci., Let. ed Arti, Atti **ser. 3, 9:** 499–518, 569–604, 719–771, 879–910, 989–1027, 1087–1126, 1311–1352 [cont.].

1864b I ditteri distribuiti secondo un nuovo metodo di classificazione naturale [concl.]. I.R. Ist. Veneto di Sci., Let. ed Arti, Atti **ser. 3, 10:** 59–84.

Lisney, A. A.

1960 A bibliography of British Lepidoptera 1608–1799. 315 pp., 39 pls. London.

Löw, F.

1874 Beiträge zur Kenntniss der Gallmücken. K.-k. Zool.-Bot. Gesell. Wien, Verhandl. **24** (**Abhandl.**): 143–162, 11 pls.

Loew, H. (or Löw, H.) (See also Agassiz and Loew; Osten Sacken, 1862b)

1840 Ueber die im Grosherzogthum Posen aufgefundenen Zweyflügler. Isis (Oken's) **1840:** 512–583, pl. 1 (part).

1844a Beschreibung einiger neuen Gattungen der europäischen Dipterenfauna. Stettin Ent. Ztg. **5:** 114–130, 154–173, 2 pls.

1844b Kritische Untersuchung der europäischen Arten des Genus *Trypeta*, Meig. Ztschr. f. die Ent. (Leipzig) **5:** 312–437, 2 pls.

[1845] (Dipterologischer Beitrag) [I]. K. Friedrich-Wilhelms-Gymnasiums zu Posen, Öffentl. Prüf. d. Schüler **1845:** 1–52, 1 pl.

Since this publication included a program of the examinations given Mar. 17, 1845, established practice assumes publication close to that date. It was also issued separately, titled "Dipterologische Beiträge," with the same pagination, under the imprint Posen, *1845*. This same information applies to the "Zweiter Theil", the program being for Mar. 26, 1847, and the separate dated Posen, 1847. The two articles which later were issued as the "Dritter Theil," Posen, 1847, were first published in Naturw. Ver. zu Posen, Jahresber. 1846: 1–24, 25–44, in 1847.

1846a *Helophilus*. Stettin Ent. Ztg. **7:** 116–127, 141–150, 164–169.

1846b Fragmente zur Kenntniss der europäischen Arten einiger Dipterengattungen. Linnaea Ent. **1:** 319–530, pl. 3.

1847a Ueber *Tetanocera stictica* und ihre nächsten Verwandten, nebst der Beschreibung zweier anderen neuen *Tetanocera*-Arten. Stettin Ent. Ztg. **8:** 114–124.

1847b Ueber *Tetanocera ferruginea* und die ihr verwandten Arten. Stettin Ent. Ztg. **8:** 194–202.

1847c Ueber die europäischen Raubfliegen (Diptera-Asilica). Linnaea Ent. **2:** 384–568, 587–591 [cont.].

1848 Ueber die europäischen Raubfliegen (Diptera-Asilica) [cont.]. Linnaea Ent. **3:** 386–495 [cont.].

1849 Ueber die europäischen Raubfliegen (Diptera-Asilica) [concl.]. Linnaea Ent. **4:** 1–155.

1850a *Meghyperus* und *Arthropeas*, zwei neue Dipterengattungen. Stettin Ent. Ztg. **11:** 302–308, 1 pl.

Loew, H.—Continued

[1850b] Dipterologische Beiträge. Vierter Theil. K. Friedrich-Wilhelms-Gymnasiums zu Posen, Öffentl. Prüf. d. Schüler **1850:** 1–40, 1 pl.

Since this publication included a program of the examinations given early in 1850 (actual dates not known), established practice assumes publication close to that date. This last Beitrag was also issued separately, with the same pagination, under the imprint Posen, *1850*. The "program" has not been seen by us.

1850c Ueber den Bernstein und die Bernsteinfauna. K. Realschule zu Meseritz, Programm **1850:** 1–44.

Also issued separately, with the same pagination, under the imprint Berlin, *1850*. The Programm has not been seen.

1851 Beschreibung einiger neuen Tipularia terricola. Linnaea Ent. **5:** 385–406, pl. 2.

1853 Neue Beiträge zur Kenntniss der Dipteren. Erster Beitrag. K. Realschule zu Meseritz, Programm **1853:** 1–38.

Also issued separately, with the same pagination, under the imprint Berlin, *1853*. The Programm has not been seen.

1854 Neue Beiträge zur Kenntniss der Dipteren. Zweiter Beitrag. K. Realschule zu Meseritz, Programm **1854:** 1–24.

Also issued separately, with the same pagination, under the imprint Berlin, *1854*. The Programm has not been seen.

1855a Einige Bemerkungen über die Gattung *Sargus*. Zool.-Bot. Ver. Wien, Verhandl. **5** (**Abhandl.**): 131–148, 4 figs.

1855b Neue Beiträge zur Kenntniss der Dipteren. Dritter Beitrag. K. Realschule zu Meseritz, Programm **1855:** 1–52.

Also issued separately, with the same pagination, under the imprint Berlin, *1855*. The Programm has not been seen.

1857a Neue Beiträge zur Kenntniss der Dipteren. Fünfter Beitrag. K. Realschule zu Meseritz, Programm **1857:** 1–56.

Also issued separately, with the same pagination, under the imprint Berlin, *1857*. The Programm has not been seen.

1857b Bidrag till kännedomen om Afrikas Diptera [cont.]. K. Svenska Vetensk. Akad. Öfversigt af . . . Förhandl. **14:** 337–383 [cont.].

1857c Dipterologische Mittheilungen. Wien. Ent. Monatschr. **1:** 33–56, 1 pl.

Loew, H.—Continued

1857d Die europäischen Arten der Gattung *Cheilosia*. Zool.-Bot. Ver. Wien, Verhandl. **7** (**Abhandl.**): 579–616.

Although "Schluss folgt" appears at the end of the article, a continuation never appeared.

1858a Ueber einige neue Fliegengattungen. Berlin. Ent. Ztschr. **2**: 101–122, 1 pl.

1858b Drei neue *Ortalis*-Arten. Berlin. Ent. Ztschr. **2**: 374–376.

1858c Zur Kenntniss der europäischen *Tabanus*-Arten. K.-k. Zool.-Bot. Gesell. Wien, Verhandl. 8 (**Abhandl.**): 573–612.

1858d Bidrag till kännedomen om Afrikas Diptera [cont.]. K. Svenska Vetensk. Akad. Öfversigt af . . . Förhandl. **15**: 335–341 [cont.].

1858e Zehn neue Diptern. Wien. Ent. Monatschr. **2**: 7–15.

1859a Neue Beiträge zur Kenntniss der Dipteren. Sechster Beitrag. K. Realschule zu Meseritz, Programm **1859**: 1–50.

Also issued separately, with the same pagination, under the imprint Berlin, *1859*.

1859b Die nordamerikanische Arten der Gattungen *Tetanocera* und *Sepedon*. Wien. Ent. Monatschr. **3**: 289–300.

1860a Neue Beiträge zur Kenntniss der Dipteren. Siebenter Beitrag. K. Realschule zu Meseritz, Programm **1860**: 1–46.

Also issued separately, with the same pagination, under the imprint Berlin, *1860*.

1860b Diptera Americana ab Osten-Sackenio collecta. Decas prima. Wien. Ent. Monatschr. **4**: 79–84.

This was the only such "Decas" published. Probably the forerunner of his Centuriae (see Loew, 1861b, etc.).

1860c Bidrag till kännedomen om Afrikas Diptera [cont.]. K. Svenska Vetensk. Akad. Öfversigt af . . . Förhandl. (1861) **17**: 81–97 [cont.].

The date on the title page of this volume for 1860 is 1861, but the part concerned here was issued in 1860.

1860d Die Dipteren-Fauna Südafrika's. Erste Abtheilung. Naturw. Ver. f. Sachsen u. Thüringen, Abhandl. (1858–1861) **2**: 57–402, 2 pls.

Also published separately, xi + 330 pp., 2 pls., Berlin, *1860*.

Loew, H.—Continued

1861a Neue Beiträge zur Kenntniss der Dipteren. Achter Beitrag [part]. K. Realschule zu Meseritz, Programm **1861:** 1–60 [cont.].

Also issued separately, with the same pagination, under the imprint Berlin, without a date, and later with its continuation under the imprint Berlin, *1861* (see Loew, 1861e).

1861b Diptera Americae septentrionalis indigena. Centuria prima. Berlin. Ent. Ztschr. **5:** 307–359.

This was apparently also issued separately, pp. 1–53, with a title page dated 1861, and in Loew, 1864d: 1–53.

1861c Diptera aliquot in insula Cuba collecta. Wien. Ent. Monatschr. **5:** 33–43.

1861d *Blaesoxipha grylloctona*, nov. genus et species. Wien. Ent. Monatschr. **5:** 384–387.

1861e Neue Beiträge zur Kenntniss der Dipteren. Beitrag 8, 100 pp. Berlin.

Also published in K. Realschule zu Meseritz, Programm **1861:** 1–60, *1861* (see Loew, 1861a), and **1862:** 61–100, *1862*. There were a total of 8 of these "Neue Beiträge" published in Berlin, 1853–1861, and also in K. Realschule zu Meseritz, Programm, 1853–1862.

1862a Die europäischen Bohrfliegen (Trypetidae). 128 pp., 26 pls. Wien.

1862b Diptera Americae septentrionalis indigena. Centuria secunda. Berlin. Ent. Ztschr. **6:** 185–232.

Also published in Loew, 1864d: 55–102.

1862c Monographs of the Diptera of North America. Part I. Smithsn. Inst., Smithsn. Misc. Collect. **6(1**[=pub. 141]): 1–221, figs. 1–3+1–12, 2 pls.

1862d Ueber einige bei Varna gefangene Dipteren. Wien. Ent. Monatschr. **6:** 161–175.

(1862e) Ueber die europäischen Helomyzidae und die in Schlesien vorkommenden Arten derselben. Ztschr. f. Ent. Breslau (1859) **13:** 1–80.

For date see Ztschr. f. Ent. Breslau n. ser., 30 (Vereinsnachr.): iii, footnote, 1905.

1863a Diptera Americae septentrionalis indigena. Centuria tertia. Berlin. Ent. Ztschr. **7:** 1–55.

Also published in Loew, 1864d: 103–157.

1863b Diptera Americae septentrionalis indigena. Centuria quarta. Berlin. Ent. Ztschr. **7:** 275–326.

Also published in Loew, 1864d: 159–210.

Loew, H.—Continued

1864a Diptera Americae septentrionalis indigena. Centuria quinta. Berlin. Ent. Ztschr. **8:** 49–104.

Also published in Loew, 1864d: 211–261.

1864b Die Arten der Gattung *Balioptera*. Berlin. Ent. Ztschr. **8:** 347–356.

1864c Ueber die europäischen Arten der Gattung *Diastata*. Berlin. Ent. Ztschr. **8:** 357–368.

1864d Diptera Americae septentrionalis indigena. Vol. 1: [Centuriae 1–5], 266 pp. Berolini [=Berlin], "1861."

A reissue of Loew, 1861b, 1862b, 1863a, 1863b, and 1864a. Centuria 1 was apparently also issued separately, its title page, date 1861, being used as the title page for this volume. We have no knowledge of separate publications of Centuriae 2–5 other than in the above volume, the date of which, therefore, was probably not before 1864.

The entire work consists of 2 volumes, Berlin, [1864?]–1872.

1864e Monographs of the Diptera of North America. Part II. Smithsn. Inst., Smithsn. Misc. Collect. **6** (**2** [=pub. 171]): 1–360, 5 pls.

1864f Acht neue *Cordylura*-Arten. Wien. Ent. Monatschr. **8:** 17–26.

(1864g) Ueber die schlesischen Arten der Gattung *Tachypeza* Meig. Ztschr. f. Ent. Breslau (1860) **14:** 3–32.

For date see Ztschr. f. Ent. Breslau n. ser., 30 (Vereinsnachr.): iii, footnote, 1905.

1866a Diptera Americae septentrionalis indigena. Centuria sexta. Berlin. Ent. Ztschr. (1865) **9:** 127–186.

Also published in Loew, 1872b: 1–60.

1866b Diptera Americae septentrionalis indigena. Centuria septima. Berlin. Ent. Ztschr. **10:** 1–54.

Also published in Loew, 1872b: 61–114.

(1866c) Ueber die bisher in Schlesien aufgefundenen Arten der Gattung *Chlorops* Macq. Ztschr. f. Ent. Breslau (1861) **15:** 3–96.

For date see Ztschr. f. Ent. Breslau n. ser., 30 (Vereinsnachr.): iii, footnote, 1905.

1868a Die amerikanischen Ulidina. Berlin. Ent. Ztschr. (1867) **11:** 283–326.

The pertinent plate is Pl. 2 of Volume 12.

1868b Die europäischen Ortalidae. Ztschr. f. die Gesam. Naturw. **32:** 1–11.

Loew, H.—Continued

1869a Beschreibung europäischer Dipteren. Systematische Beschreibung der bekannten europäischen zweiflügeligen Insecten, von Johann Wilhelm Meigen. Vol. 1: Achter Theil oder zweiter Supplementband, 310 pp. Halle.

The entire work, a continuation of Meigen, 1818–1838, consists of 3 volumes, Halle, 1869–1873.

1869b Diptera Americae septentrionalis indigena. Centuria octava. Berlin. Ent. Ztschr. **13:** 1–52.

Also published in Loew,, 1872b: 115–166.

1869c Diptera Americae septentrionalis indigena. Centuria nona. Berlin. Ent. Ztschr. **13:** 129–186.

Also published in Loew, 1872b: 167–224.

1869d Ueber Dypteren [sic] der Augsburger Umgegend. Naturhist. Ver. in Augsburg, Ber. **20:** 39–59.

1871 Beschreibung europäischer Dipteren. Systematische Beschreibung der bekannten europäischen zweiflügeligen Insecten, von Johann Wilhelm Meigen. Vol. 2: Neunter Theil oder dritter Supplementband, 319 pp. Halle.

1872a Diptera Americae septentrionalis indigena. Centuria decima. Berlin. Ent. Ztschr. **16:** 49–115.

Also published in Loew, 1872b: 225–291.

1872b Diptera Americae septentrionalis indigena. Vol. 2: [Centuriae 6–10], 300 pp. Berolini [=Berlin].

A reissue of Loew, 1866a, 1866b, 1869b, 1869c, and 1872a, apparently as a complete volume (see Vol. 1, Loew, 1864d).

1873a Diptera nova, in Pannoniâ inferiori et in confinibus Daciae regionibus a Ferd. Kowarzio capta. Berlin. Ent. Ztschr. **17:** 33–52.

1873b Monographs of the Diptera of North America. Part III. Smithsn. Inst., Smithsn. Misc. Collect. **11:** (**3** [=pub. 256]): 1–351, 4 pls.

1873c Beschreibung europäischer Dipteren. Systematische Beschreibung der bekannten europäischen zweiflügeligen Insecten, von Johann Wilhelm Meigen. Vol. 3: Zehnter Theil oder vierter Supplementband, 320 pp. Halle.

1874a Neue nordamerikanische Dasypogonina. Berlin. Ent. Ztschr. **18:** 353–377.

1874b Neue nordamerikanische Diptera. Berlin. Ent. Ztschr. **18:** 378–384.

1876 Beschreibung neuer amerikanischen Dipteren. Ztschr. f. die Gesam. Naturw. **48:** 317–340.

1878 Neue nordamerikanischen Ephydriden. Ztschr. f. die Gesam. Naturw. **51:** 192–203.

Long, W. H., Jr.

1902 New species of *Ceratopogon*. Biol. Bul. **3:** 3–14, 7 figs.

Lopes, H. de S. (See also Carrera, Lopes, and Lane)

1946 Sarcophagidae do México, capturados pelo professor A. Dampf (Diptera). Inst. Oswaldo Cruz, Mem. **44:** 119–146, 62 figs.

———, and Downs, W. G.

1951 Contribuição ao conhecimento das espécies do genero "*Acanthodotheca*" Townsend (Diptera-Sarcophagidae). Inst. Oswaldo Cruz, Mem. (1949) **47:** 571–603, 59 figs.

Lord, J. K.

1866 The naturalist in Vancouver Island and British Columbia. Vol. 2, 375 pp., 4 figs. London.

The entire work consists of 2 volumes, London, 1866.

Lovett, A. L. (See also Cole and Lovett)

1920 Two new species of Syrphidae (Diptera). Calif. Acad. Sci. Proc. **ser. 4, 10:** 51–52.

Lowe, H. (See Smith and Lowe)

Lucas, P. H. (See d'Orbigny, 1848)

Ludlow, C. S. (See also Dyar and Ludlow)

1904 Mosquito notes. [–No. 1]. Canad. Ent. **36:** 233–236.

1905a A new North American *Taeniorhynchus*. Canad. Ent. **37:** 231–232.

1905b Mosquito notes. –No. 4. Canad. Ent. **37:** 385–388 [cont.].

1906a Mosquito notes. –No. 4 [concl.]. Canad. Ent. **38:** 132–134.

1906b An Alaskan mosquito. Canad. Ent. **38:** 326–328.

1906c A new American mosquito. George Wash. Univ. Bul. **5** (**4**): 83–84.

Also published in George Wash. Univ. Pubs., Nat. and Phys. Sci. Ser. **1:** 85–86, *1907*.

1907 Mosquito notes. –No. 5 [cont.]. Canad. Ent. **39:** 129–131, 266–268 [cont.].

1911 A new Alaskan mosquito. Canad. Ent. **43:** 178–179.

Lugger, O.

[1897] Parasites of man and domesticated animals. Minn. State Expt. Sta., Ent. Ann. Rpt. (1896) **2:** 44–231, figs. 24–187 (includes parts of pls. 6–7, and all of pls. 9–13, and 16).

Appeared in 1897 as evidenced by the date of the letter of transmittal, i.e., Jan. 1, 1897.

Lundbeck, W. (See also Henriksen and Lundbeck; Kieffer and Lundbeck)

1898 Diptera groenlandica. Naturhist. For. Kjøbenhavn, Vidensk. Meddel. **1898** [=ser. 5, 10]: 236–314, 2 pls. [cont.].

1901 Diptera groenlandica [concl.]. Naturhist. For. Kjøbenhavn, Vidensk. Meddel. **1900** [=ser. 6, 2]: 281–316, 5 figs.

1910 Diptera Danica. Genera and species of flies hitherto found in Denmark. Vol. 3: Empididae, 329 pp., 141 figs. Copenhagen.

The entire work consists of 7 volumes, Copenhagen, 1907–1927, and was never completed.

1912 Diptera Danica. Genera and species of flies hitherto found in Denmark. Vol. 4: Dolichopodidae, 416 pp., 130 figs. Copenhagen.

1916 Diptera Danica. Genera and species of flies hitherto found in Denmark. Vol. 5: Lonchopteridae-Syrphidae, 603 pp., 202 figs. Copenhagen.

1922 Diptera Danica. Genera and species of flies hitherto found in Denmark. Vol. 6: Pipunculidae-Phoridae, 455 pp., 132 figs. Copenhagen.

1927 Diptera Danica. Genera and species of flies hitherto found in Denmark. Vol. 7: Platypezidae-Tachinidae, 571 pp., 116 figs. Copenhagen.

Lundström, C.

1906 Beiträge zur Kenntnis der Dipteren Finlands. I. Mycetophilidae. Soc. pro Fauna et Flora Fenn. Acta **29** (**1**): 1–50, 4 pls., 1 map.

1909 Beiträge zur Kenntnis der Dipteren Finlands. IV. Supplement Mycetophilidae. Soc. pro Fauna et Flora Fenn. Acta **32** (**2**): 1–67, 14 pls.

1910 Beiträge zur Kenntnis der Dipteren Finlands. V. Bibionidae. Soc. pro Fauna et Flora Fenn. Acta **33** (**1**): 1–16, 1 pl.

1911a Beiträge zur Kenntnis der Dipteren Finlands. VII. Melusinidae (Simuliidae). Soc. pro Fauna et Flora Fenn. Acta **34** (**12**): 1–23, 1 pl.

1911b Neue oder wenig bekannte europäische Mycetophiliden. Budapest Magyar Nemzeti Muz., Ann. Hist. Nat. **9**: 390–419, pls. 11–15.

1912 Beiträge zur Kenntnis der Dipteren Finlands. VIII. Supplement 2. Mycetophilidae, Tipulidae, Cylindrotomidae und Limnobiidae. Soc. pro Fauna et Flora Fenn. Acta **36** (**1**): 1–70, 7 pls.

Lundström, C.—Continued

1913 Neue oder wenig bekannte europäische Mycetophiliden. III. Budapest Magyar Nemzeti Muz., Ann. Hist. Nat. **11:** 305–322, pls. 15–16.

1915 Résultats scientifiques de l'Expédition Polaire Russe en 1900–1903, sous la direction du Baron E. Toll. Section E: Zoologie. Volume II, livr. 8. Diptera Nematocera aus den arctischen Gegenden Sibiriens. [Akad. Nauk S.S.S.R.] Imp. Akad. Nauk Petrograd, Zap., Fiz.-Mat. Otd. (Acad. Imp. des Sci. de Petrograd, Mém., Cl. Phys.-Math.) **ser. 8, 29** (8): 1–33, 2 pls.

Reprinted in 1918, and commonly cited as such.

———, and Frey, R.

1913 Beitrag zur Kenntnis der Dipterenfauna des nördl. europäischen Russlands. Soc. pro Fauna et Flora Fenn. Acta **37** (**10**): 3–20.

Lutz, A.

1909 Collecção de tabánidas. Pp. 28–30, 2 figs. *In* Instituto Oswaldo Cruz, Instituto Oswaldo Cruz, em Manguinos, Rio de Janeiro. 47 pp., 50 figs. Rio de Janeiro.

This publication, including the article by Lutz, was issued anonymously. See Fairchild, 1950: 118, for discussion of authorship.

1913a Sobre a systematica dos tabanideos, sub-familia Tabaninae. Brazil Med. **27:** 486–487.

1913b Contribuição para o estudo das Ceratopogoninas hematofagas encontradas no Brazil.—Beiträge zur Kenntniss der blutsaugenden Ceratopogoninen Brasiliens. Inst. Oswaldo Cruz, Mem. **5:** 45–73, 3 pls.

———, and Neiva, A.

1914 As Tabanidae do Estado do Rio de Janeiro.—Ueber die Tabaniden des Staates Rio de Janeiro. Inst. Oswaldo Cruz, Mem. **6:** 69–80.

———, Neiva, A., and Lima, A. da Costa

1915 Sobre "Pupipara" ou "Hippoboscidae" de aves brasileiras. Inst. Oswaldo Cruz, Mem. **7:** 173–199, 2 pls.

Lynch Arribálzaga, E.

1879 Asílides argentinos. Soc. Cient. Argentina, An. **8:** 145–153 [cont.].

1880 Asílides argentinos [cont.]. Soc. Cient. Argentina, An. **9:** 26–33, 49–57, 224–230, 252–265 [cont.].

Lynch Arribálzaga, F.

[1891a] Dipterología argentina. La Plata Mus. Rev. (1890–1891) **1:** 345–377 [cont.].

As evidenced by many 1891 dates in Vol. 1, this could not have appeared in 1890. The separate appeared in 1891, and most authorities give this as the correct date.

1891b Dipterología argentina [concl.]. La Plata Mus. Rev. **2:** 131–174, 5 pls.

Macfie, J. W. S. (See also Ingram and Macfie)

1932 Ceratopogonidae from the wings of dragonflies. Tijdschr. v. Ent. **75:** 266–283, 7 figs.

1934 Report on a collection of Ceratopogonidae from Malaya. Ann. Trop. Med. and Parasitol. **28:** 177–194, 279–293, 9 figs.

1937 Ceratopogonidae from Trinidad. Ann. and Mag. Nat. Hist. **ser. 10, 20:** 1–18, 6 figs.

1938 Notes on Ceratopogonidae (Diptera). Roy. Ent. Soc., London, Proc. Ser. B: Taxonomy **7:** 157–166, 9 figs.

1939 A report on a collection of Brazilian Ceratopogonidae (Dipt.). Rev. de Ent. **10:** 137–219, 24 figs.

1940a The genera of Ceratopogonidae. Ann. Trop. Med. and Parasitol. **34:** 13–30.

1940b Ceratopogonidae (Diptera) from British Guiana and Trinidad. Roy. Ent. Soc., London, Proc. Ser. B: Taxonomy **9:** 179–195, 5 figs.

1948 Some species of *Culicoides* (Diptera, Ceratopogonidae) from the State of Chiapas, Mexico. Ann. Trop. Med. and Parasitol. **42:** 67–87, 10 figs.

MacGillivray, A. D. (See Needham et al.)

Mackerras, I. M.

1954 The classification and distribution of Tabanidae (Diptera). I. General review. Austral. Jour. Zool. **2:** 431–454, 10 figs.

1955 The classification and distribution of Tabanidae (Diptera). II. History. Morphology. Classification. Subfamily Pangoniinae; III. Subfamilies Scepsidinae and Chrysopinae. Austral. Jour. Zool. **3:** 439–511, 39 figs.; 583–633, 26 figs.

Macleay, W. S.

1829 Notice of *Ceratitis citriperda*, an insect very destructive to oranges. Zool. Jour. (London) **4:** 475–482.

Macquart, J.

1823 Monographie des Insectes Diptères de la famille des Empides, observés dans le nord-ouest de la France. Soc. d'Amateurs des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav. **1819/1822:** 137–165.

See Macquart, 1827b.

1826a Insectes Diptères du nord de la France. Tipulaires. Soc. d'Amateurs des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav. **1823/1824:** 59–224, 4 pls.

Also published separately as his "Insectes Diptères du nord de la France", [Vol. 1], 175 pp., 4 pls., Lille, *1826*. Pages 167–175, not present in the journal article, contain index and explanation to figures.

1826b Insectes Diptères du nord de la France. Asiliques, Bombyliers, Xylotomes, Leptides, Stratiomydes, Xylophagites et Tabaniens. Soc. des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav. **1825:** 324–499, 3 pls.

Also published separately as his "Insectes Diptères du nord de la France", [Vol. 2], 178 pp., 3 pls., Lille, *1826*.

1827a Insectes Diptères du nord de la France. Platypézines, Dolichopodes, Empides, Hybotides. Soc. des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav. **1826/1827:** 213–291, 1 pl.

This includes only Platypezidae and Dolichopodidae. Also published in Macquart, 1827b, pp. 1–76.

1827b Insectes Diptères du nord de la France. [Vol. 3]: Platypézines, Dolichopodes, Empides, Hybotides, 159 pp., 4 pls. Lille.

Platypezidae and Dolichopodidae are reprinted from Macquart, 1827a. Empididae and Hybotidae are revised from Macquart, 1823.

The entire work consists of 5 volumes published at Lille, 1826–1834, and for the most part also in Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém.

1829 Insectes Diptères du nord de la France. Syrphies. Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1827/1828:** 149–371, 4 pls.

Also published separately as his "Insectes Diptères du nord de la France", [Vol. 4], 223 pp., 4 pls., Lille, *1829*.

1834a Histoire naturelle des Insectes.—Diptères, Tome premier. Diptera, Vol. 1, 578 pp., 12 pls. *In* [Roret, N. E., ed.], (Collection des suites à Buffon) [q.v.]. Paris.

Macquart, J.—Continued

1834b Insectes Diptères du nord de la France. Athéricères: Créophiles, Oestrides, Myopaires, Conopsaires, Scénopiniens, Céphalopsides. Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1833:** 137–368, 6 pls.

Also published separately as his "Insectes Diptères du nord de la France", [Vol. 5], 232 pp., 6 pls., Lille, *1834*.

1835 Histoire naturelle des Insectes. Diptères, Tome deuxième. Diptera, Vol. 2, 703 pp., 12 pls. *In* [Roret, N. E., ed.], (Collection des suites à Buffon) [q.v.]. Paris.

1836 Description d'un nouveau genre d'Insectes Diptères de la famille des Tanystomes. Soc. Ent. de France, Ann. [**ser. 1**], **5:** 517–520, 1 pl.

1838a Diptères exotiques nouveaux ou peu connus. Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1838 (2):** 9–225, 25 pls.

Also published separately as his "Diptères exotiques nouveaux ou peu connus", Vol. 1, Pt. 1, pp. 5–221, 25 pls., Paris, *1838*.

1838b Diptères exotiques nouveaux ou peu connus. Vol. 1, Pt. 2, pp. 5–207, 14 pls. Paris.

Also published in Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1838 (3):** 121–323, 14 pls., *1839*.

The entire work consists of 2 volumes (in 5) and 5 supplements, Paris, 1838–1855. Vol. 1 has 2 separately paged parts, Vol. 2 has 3. The work was also published in the periodical Soc. des Sci., de l'Agr. et des Arts, Lille, Mém. from 1838 through 1855.

[1839] Diptères. Pp. 97–119, pl. 4, figs. 2–11 (=livr. 44, part). *In* Webb, P. B., and Berthelot, S., eds., Histoire naturelle des Îles Canaries [q.v.]. Vol. 2, Pt. 2: Zoologie, [Sect. 6]: Entomologie, 119 pp., 7 pls. Paris, "1836–1844".

For dating see Stearn, 1937: 55.

1840 Diptères exotiques nouveaux ou peu connus. Vol. 2, Pt. 1, pp. 5–135, 21 pls. Paris.

Also published in Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1840:** 283–413, 21 pls., *1841*.

1842 Diptères exotiques nouveaux ou peu connus. Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1841 (1):** 65–200, 22 pls.

Also published separately as his "Diptères exotiques nouveaux ou peu connus", Vol. 2, Pt. 2, pp. 5–140, 22 pls., Paris, *1842*.

1843a Diptères exotiques nouveaux ou peu connus. Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém. **1842:** 162–460, 36 pls.

Also published separately as his "Diptères exotiques nouveaux ou peu connus", Vol. 2, Pt. 3, pp. 5–304, 36 pls., Paris, *1843*.

Macquart, J.—Continued

1843b Description d'un nouveau genre d'Insectes Diptères. Soc. Ent. de France, Ann. **ser. 2, 1:** 59–63, 1 pl.

1846 Diptères exotiques nouveaux ou peu connus. [Ier] Supplément. Soc. Roy. des Sci. de l'Agr. et des Arts, Lille, Mém. (1845) **1844:** 133–364, 20 pls.

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The date of issue stamped on the separates is Feb. 21, 1940.

1962 The taxonomy and biology of *Systoechus* and *Anastoechus* bombyliid (Diptera) predators in grasshopper egg pods. Kans. Ent. Soc. Jour. **35:** 255–269, 9 figs.

———, and Hall, J. C.

1960 A monograph of the genus *Poecilanthrax* (Diptera: Bombyliidae). Kans. Agr. Expt. Sta. Tech. Bul. **106:** 1–132, 31 maps, 34 photos, 8 pls.

Painter, R. H., and Painter, E. M.

1962 Notes on and redescriptions of types of North American Bombyliidae (Diptera) in European museums. Kans. Ent. Soc. Jour. **35:** 2–164, 20 figs.

Palacios, A. Martinez (See Martinez Palacios, A.)

Palisot de Beauvois, A. M. F. J.

1805–[1821] Insectes recueillis en Afrique et en Amérique dans les royaumes d'Oware et de Benin, à Saint-Domingue et dans les États-Unis, pendant les années 1786–1797. Pp. i–xvi+1–24, 6 pls. (=livr. 1), *1805;* pp. 25–40, 6 pls. (=livr. 2), [*1805*]; pp. 41–56, 6 pls. (=livr. 3), [*1806*]; pp. 57–72, 6 pls. (=livr. 4), [*1807*]; pp. 73–88, 6 pls. (=livr. 5), [*1807*]; pp. 89–100, 6 pls. (=livr. 6), [*1809*]; pp. 101–120, 6 pls. (=livr. 7), [*1811*]; pp. 121–136, 6 pls. (=livr. 8), [*1811*]; pp. 137–156, 6 pls. (=livr. 9), [*1817*]; pp. 157–172, 6 pls. (=livr. 10), [*1817*]; pp. 173–190, 6 pls. (=livr. 11), [*1818*]; pp. 191–208, 6 pls. (=livr. 12), [*1818*]; pp. 208–224, 6 pls. (=livr. 13), [*1819*]; pp. 225–240, 6 pls. (=livr. 14), [*1820*]; pp. 241–276, 6 pls. (=livr. 15, by J. G. A. Serville), [*1821*]. Paris, "1805."

For dating, see Griffin, 1937: 121. The plates are not numbered consecutively. The 3 plates for Diptera are in livraisons 3, 6, and 13.

Palmer, T. S. (See Sherborn and Palmer)

Pandellé, L.

1896 Études sur les Muscides de France. IIe partie [concl.]. Rev. d'Ent. (Caen) **15:** 1–219, 221–230.

1898 Études sur les Muscides de France. IIIe partie. Rev. d'Ent. (Caen) **17 (spec. pagination):** 1–80 [cont.].

1899 (Études sur les Muscides de France (IIIe partie)) [cont.]. Rev. d'Ent. (Caen) **18 (spec. pagination):** 81–120, 121–208, 209–220 [cont.].

1900 (Études sur les Muscides de France (IIIe partie)) [cont.]. Rev. d'Ent. (Caen) **19 (spec. pagination):** 221–244, 245–260, 261–276, 277–292, 293–308 [cont.].

Pantel, J.

1910 Recherches sur les Diptères à larves entomobies. I. Caractères parasitiques aux points de vue biologique, éthologique et histologique. Cellule **26:** 25–216, 26 figs., 5 pls.

1913 Recherches sur les Diptères à larves entomobies. II. Les enveloppes de l'oeuf avec les formations qui en dépendent, les dégâts indirects du parasitisme. Cellule **29:** 5–289, 26 figs., 7 pls.

Panzer, G. W. F.

[1798] Faunae insectorum germanicae initiae oder Deutschlands Insecten. H. 54, 24 pp., 24 pls. Nürnberg.

The entire work consists of 190 hefts, the first 109 by Panzer, published in Nürnberg, 1792–?1813. Heft 110 was by M. Geyer, published in ?, in Augsburg, and hefts 111–190 by G. A. W. Herrich-Schaeffer, in Regensburg, 1829–1844. For dating of the hefts, see Sherborn, 1923: 566. The date of heft 109 is given by Horn and Schenkling, 1928: 911, as "wohl 1810".

[1804] Faunae insectorum germanicae initiae oder Deutschlands Insecten. H. 86, 24 pp., 24 pls. Nürnberg.

For dating, see Sherborn, 1923: 566.

[1809a] Faunae insectorum germanicae initiae oder Deutschlands Insecten. H. 104, 24 pp., 24 pls. Nürnberg.

The date is uncertain. Hefts 101–107 were issued sometime between 1806 and 1809, and we have arbitrarily dated Hefts 104 and 105 as 1809. See Sherborn, 1923: 566.

[1809b] Faunae insectorum germanicae initiae oder Deutschlands Insecten. H. 105, 24 pp., 24 pls. Nürnberg. See Panzer, 1809a for note on date.

[1809c] Faunae insectorum germanicae initiae oder Deutschlands Insecten. H. 108, 24 pp., 24 pls. Nürnberg.

For dating, see Sherborn, 1923: 566.

[1813] Faunae insectorum germanicae initiae oder Deutschlands Insecten. H. 109, 24 pp., 24 pls. Nürnberg.

The date is uncertain. Sherborn, 1923: 566, gives 1813, but Horn and Schenkling, 1928: 911, say "wohl 1810".

Paramonov, S. J. (See also Waterhouse and Paramonov)

1930 Beiträge zur Monographie der Gattungen *Cytherea*, *Anastoechus* etc. Bombyliidae (Diptera). [Akad. Nauk U. R. S. R.] Vseukrains'ka Akad. Nauk, Fiz.-Mat. Vidd., Trudy (Acad. des Sci. de l'Ukraïne, Cl. des Sci. Phys. et Math., Mém.) **15:** 355–481. (=Zool. Muz., Z'irnik Prats' (Mus. Zool., Trav.) 9.)

1947 Zur Kenntnis der amerikanischen Bombyliiden-Gattung *Triploechus* Edw. (Diptera). Rev. de Ent. **18:** 183–192.

1949 Revision of the species of *Lepidophora* Westw. (Bombyliidae, Diptera). Rev. de Ent. **20:** 631–643.

Parent, O.

1928 Étude sur les Diptères Dolichopodides exotiques conservés au Zoologisches Staatsinstitut und Zoologisches Museum de Hambourg. Zool. Staatsinst. u. Zool. Mus. Hamburg. Mitt. **43:** 155–198, 85 figs.

Parent, O.—Continued

1929a Étude sur les Dolichopodides exotiques de la collection von Roder. Soc. Sci. de Bruxelles, Ann. **ser. B, 49:** 169–246, 124 figs.

1929b Études sur les Dolichopodides. Encyclopédie Ent., Sér. B, [Div.] II: Diptera **5:** 1–18, 22 figs.

1933 Contribution à la faune diptérologique de l'Amérique centrale et méridionale (Diptères Dolichopodides). Soc. Ent. de Belg. Bul. et Ann. **73:** 163–186, 36 figs.

1934a Étude sur les types de Dolichopodides exotiques de Francis Walker, conservés au British Museum. Ann. and Mag. Nat. Hist. **ser. 10, 13:** 1–38, 70 figs.

[1934b] Diptères Dolichopodides exotiques. Soc. Natl. des Sci. Nat. et Math. de Cherbourg, Mém. (1929–1933) **41:** 257–308, pls. 67–79.

Parent dates this 1934 in his own bibliography (see Parent 1935: 4).

[1935] Vingt ans d'activité diptérologique. 4 pp. Aire, France.

The last publications listed in this bibliography are those published early in 1935. It is therefore assumed the bibliography was issued sometime in 1935.

1938 Diptères Dolichopodidae. Vol. 35, 720 pp., 1002 figs. *In* Office Central de Faunistique de la Federation Française des Sociétés de Sciences Naturelles, Faune de France [q.v.]. Paris.

Parker, J. R., and Wakeland, C.

1957 Grasshopper egg pods destroyed by larvae of bee flies, blister beetles and ground beetles. U.S. Dept. Agr. Tech. Bul. **1165:** 1–29, 3 figs.

Parker, R. R.

1914a Sarcophagidae of New England: Males of the genera *Ravinia* and *Boettcheria*. Boston Soc. Nat. Hist. Proc. **35:** 1–77, 8 pls.

1914b A new sarcophagid scavenger from Montana. Canad. Ent. **46:** 417–423, 1 pl.

1916a New species of New England Sarcophagidae. Canad. Ent. **48:** 359–364, 422–427, 2 figs.

1916b Sarcophagidae of New England: Genus *Sarcophaga*. Jour. Econ. Ent. **9:** 438–441, 1 fig.

1916c Sarcophagidae of New England: Genus *Sarcophaga*. N.Y. Ent. Soc. Jour. **24:** 171–175.

1916d Sarcophagidae of New England. III. *Sarcofahrtia ravinia*, new genus and new species. Psyche **23:** 131–139, 1 fig.

Parker, R. R.—Continued

1917 A new *Sarcophaga* from New York. Canad. Ent. **49:** 157–161, 1 fig.

1918a A new species of *Sarcophaga* from British Columbia. Canad. Ent. **50:** 122–124, 1 fig.

1918b A new species of *Sarcophaga* from California. Jour. Ent. and Zool. **10:** 32–33, 1 fig.

1918c A new species of *Sarcophaga* from Niagara Falls. N.Y. Ent. Soc. Jour. **26:** 28–30, 1 fig.

1919a North American Sarcophagidae: Flies of the genus *Metoposarcophaga* Townsend. Canad. Ent. **51:** 154–158, 1 fig.

1919b North American Sarcophagidae: New species of the genus *Sarcofahrtia* R. Parker (Dip.). Ent. News **30:** 201–203, 6 figs.

1920a Another new species of *Sarcophaga* from Niagara Falls. N.Y. Ent. Soc. Jour. (1919) **27:** 265–267, 1 fig.

1920b North American Sarcophagidae: New species from British Columbia and Alaska. Brooklyn Ent. Soc. Bul. **15:** 105–110, 3 figs.

1921 North American Sarcophagidae: A new genus and several new species from the south-west United States. Brooklyn Ent. Soc. Bul. **16:** 112–115, 14 figs.

1923 New Sarcophagidae from Asia, with data relating to the *dux* group. Ann. and Mag. Nat. Hist. **ser. 9, 11:** 123–129, 4 figs.

Parrot, L. (See França and Parrot)

Parrott, P. J., and Schoene, W. J.

1912 The apple and cherry ermine moths. N.Y. (Geneva) Agr. Expt. Sta. Tech. Bul. **24:** 1–40, 10 figs., 9 pls.

Parry, W. E. (See Kirby, 1824)

Parsons, C. T.

1940 The Conopidae of the West Indies and Bermuda (Diptera). Psyche **47:** 27–37, 1 pl.

1948 A classification of North American Conopidae. Ent. Soc. Amer. Ann. **41:** 223–246, 1 fig.

Paterson, H. E. (See Zumpt and Paterson)

Patterson, J. T. (See also Stone, Griffen, and Patterson; Sturtevant and Novitski, 1941; Wheeler, 1949a, 1949b, 1952b, 1954a, 1957)

1919 Polyembryony and sex. Jour. Hered. **10:** 344–352, figs. 4–5.

1941 The *virilis* group of *Drosophila* in Texas. Amer. Nat. **75:** 523–539.

Patterson, J. T.—Continued

1942 I. Interspecific hybridization in the genus *Drosophila*. Pp. 7–15. *In his* Studies in the genetics of *Drosophila*. II. Gene variation and evolution. Tex. Univ. Pub. **4228:** 1–200, 31 figs., 8 pls.

1943 I. The Drosophilidae of the Southwest. Pp. 7–216, 66 figs., pls. 1–10. *In his* Studies in the genetics of *Drosophila*. III. The Drosophilidae of the Southwest. Tex. Univ. Pub. **4313:** 1–327, 66 figs., 25 pls.

1944 A new member of the *virilis* group. Pp. 102–103. *In his* Studies in the genetics of *Drosophila*. IV. Papers dealing with the taxonomy, nutrition, cytology and interspecific hybridization in *Drosophila*. Tex. Univ. Pub. **4445:** 1–223, 8 figs., 23 pls.

1952 Revision of the *montana* complex of the *virilis* species group. Pp. 20–34, 1 fig. *In his* Studies in the genetics of *Drosophila*. VII. Further articles on genetics, cytology and taxonomy. Tex. Univ. Pub. **5204:** 1–251, 64 figs.

———, and Alexander, M. L.

1952 *Drosophila wheeleri*, a new member of the *mulleri* subgroup. Pp. 129–136, 1 fig. *In* Patterson, J. T., Studies in the genetics of *Drosophila*. VII. Further articles on genetics, cytology and taxonomy. Tex. Univ. Pub. **5204:** 1–251, 64 figs.

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1940 XII. Hybridization in the *mulleri* group of *Drosophila*. Pp. 251–256. *In* Patterson, J. T., Studies in the genetics of *Drosophila*. [I]. Tex. Univ. Pub. **4032:** 1–256, 18 figs., 4 pls.

———, and Mainland, G. B.

1944 The Drosophilidae of Mexico. Pp. 9–101, 16 pls. *In* Patterson, J. T., Studies in the genetics of *Drosophila*. IV. Papers dealing with the taxonomy, nutrition, cytology and interspecific hybridization in *Drosophila*. Tex. Univ. Pub. **4445:** 1–223, 8 figs., 23 pls.

———, and Stone, W. S.

1952 Evolution in the genus *Drosophila*. 610 pp., 68 figs. New York.

———, Stone, W. S., and Griffen, A. B.

1940 XI. Evolution of the *virilis* group in *Drosophila*. Pp. 218–250, 1 fig., 1 pl. *In* Patterson, J. T., Studies in the genetics of *Drosophila*. [I]. Tex. Univ. Pub. **4032**: 1–256, 18 figs., 4 pls.

Patterson, J. T., and Ward, C. L.

1952 *Drosophila euronotus*, a new member of the *melanica* species group. Pp. 158–161, 1 fig. *In* Patterson, J. T., Studies in the genetics of *Drosophila*. VII. Further articles on genetics, cytology and taxonomy. Tex. Univ. Pub. **5204:** 1–251, 64 figs.

———, and Wheeler, M. R.

1942 Description of new species of the subgenera *Hirtodrosophila* and *Drosophila*. Tex. Univ. Pub. **4213:** 67–109.

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1897 A principle to observe in naming galls: Two new gall-making Diptera. Canad. Ent. **29:** 247–248.

Patton, W. S. (See also Cushing and Patton)

1936 Studies on the higher Diptera of medical and veterinary importance. The warble flies of the genus *Hypoderma*. Ann. Trop. Med. and Parasitol. **30:** 453–468, 12 figs.

Pechuman, L. L.

1938a A synopsis of the New World species of *Vermileo* (Diptera-Rhagionidae). Brooklyn Ent. Soc. Bul. **33:** 84–89.

1938b Two new nearctic *Silvius* (Diptera). Canad. Ent. **70:** 165–171, 1 fig.

1945 A new species of *Glutops* (Diptera, Coenomyiidae). Canad. Ent. **77:** 134–135.

1949 Some notes on Tabanidae (Diptera) and the description of two new *Chrysops*. Canad. Ent. **81:** 77–84.

1956 An unusual new *Tabanus* from Arizona (Diptera: Tabanidae). Pan-Pacific Ent. **32:** 39–42, 8 figs.

1960 Some new and little-known North American Tabanidae (Diptera). Canad. Ent. **92:** 793–799, 11 figs.

1962 A new nearctic *Tabanus* of the *fulvulus* group. Brooklyn Ent. Soc. Bul. **57:** 66–70.

Pennak, R. W.

1945 Notes on mountain midges (Deuterophlebiidae) with a description of the immature stages of a new species from Colorado. Amer. Mus. Nat. Hist., Amer. Mus. Novitates **1276:** 1–10, 3 figs.

Perez, T. De Stefani (See De Stefani Perez, T.)

Pergande, T.

1901 The ant-decapitating fly. Ent. Soc. Wash. Proc. **4:** 497–501, figs. 20–21.

Perkins, R. C. L.

1905 Leafhoppers and their natural enemies. (Pt. IV. Pipunculidae). Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. **1:** 123–157, pls. 5–7.

Perris, É.

1847 Lettre de M. Édouard Perris à M. M sur une excursion dans les Grandes Landes. Acad. Roy. des Sci., Belles-Let. et Arts de Lyon, Mém., Sect. des Sci. **2:** 433–506.

1849 Notes pour servir à l'histoire des métamorphoses de diverses espèces de Diptères (Première partie). 1. Notice sur une larve de *Mycetophila* qui se couvre de ses excréments. Soc. Ent. de France, Ann. **ser. 2, 7:** 51–61, pl. 3 (I).

1852 Seconde excursion dans les Grandes-Landes. Soc. Linn. de Lyon, Ann. **1850/1852:** 145–216.

1870 Histoire des Insectes du pin maritime. Diptères. Soc. Ent. de France, Ann. **ser. 4, 10:** 135–232, 321–366, pls. 1–5.

Perty, M.

[1830–1833] Insecta brasiliensia. Pp. 1–60, pls. 1–12, [*1830*]; pp. 61–124, pls. 13–24, [*1832*]; pp. 125–224, pls. 25–40, [*1833*]. *In his* Delectus animalium articulatorum quae in itinere per Brasiliam annis MDCCCXVII–MDCCCXX jussu et auspiciis Maximiliani Josephi I. Bavariae regis augustissimi peracto collegerunt Dr. J. B. de Sphix et Dr. C. F. Ph. de Martius. 44 + 224 pp., 40 pls. Monachii [=Munich], "1830–1834".

For dating, see Horn and Schenkling, 1928: 932.

Petch, C. E., and Maltais, J. B.

1932 A preliminary list of the insects of the Province of Quebec. Part II, Diptera, by A. F. Winn and G. Beaulieu. Revised and supplemented. Quebec Soc. Protect. Plants, Ann. Rpt. **23/24 (Sup. to 24):** 1–100.

Peterson, A.

1916 The head-capsule and mouth-parts of Diptera. Ill. Biol. Monog. **3 (2):** 3–112, 25 pls.

1951 Larvae of insects. An introduction to nearctic species. Vol. 2, 416 pp., 104 figs. Columbus, Ohio.

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The entire work consists of 2 volumes, Columbus, 1948–1951.

Peterson, B. V. (See also Davies, Peterson, and Wood; DeFoliart and Peterson; Stone and Peterson)

Peterson, B. V.—Continued

1960a New distribution and host records for bat flies, and a key to the North American species of *Basilia* Ribeiro (Diptera: Nycteribiidae). Ent. Soc. Ontario, Proc. [=Ann. Rpt.] (1959) **90:** 30–37, 16 figs.

1960b The Simuliidae (Diptera) of Utah, Part I. Keys, original citations, types and distribution. Great Basin Nat. **20:** 81–104.

1962 *Cnephia abdita*, a new black fly (Diptera: Simuliidae) from eastern North America. Canad. Ent. **94:** 96–102, 23 figs.

———, and DeFoliart, G. R.

1960 Four new species of *Prosimulium* from western United States. Canad. Ent. **92:** 85–102, 34 figs.

Pettey, F. W.

1918a A revision of the genus *Sciara* of the family Mycetophilidae (Diptera). Ent. Soc. Amer. Ann. **11:** 319–343, 2 pls.

1918b A new species of *Sciara* from red clover crowns. Jour. Econ. Ent. **11:** 420, 1 fig., 1 pl.

Peus, F.

1934 Dixiden und Culiciden aus Lettland. Notulae Ent. **14:** 69–78, 3 figs.

Philip, C. B.

1931 The Tabanidae (horseflies) of Minnesota. With special reference to their biologies and taxonomy. Minn. Agr. Expt. Sta. Tech. Bul. **80:** 1–132, 3 figs., 4 pls.

1936a *Tabanus rhombicus* and related western horseflies. Canad. Ent. **68:** 148–160.

1936b An interesting new horsefly from North Carolina (Diptera: Tabanidae). Ent. News **47:** 229–231, 1 fig.

1936c A new horsefly from the southeastern United States. Kans. Ent. Soc. Jour. **9:** 100–101.

1936d New Tabanidae (horseflies) with notes on certain species of the *longus* group of *Tabanus*. Ohio Jour. Sci. **36:** 149–156.

1936e The *furcatus* group of western North American flies of the genus *Chrysops* (Diptera: Tabanidae). Ent. Soc. Wash. Proc. (1935) **37:** 153–161.

1937a Notes on certain males of North American horseflies (Tabanidae). II. The *affinis* or "red-sided" group of *Tabanus* sens. lat., with a key to the females. Canad. Ent. **69:** 35–40, 49–58.

Philip, C. B.—Continued

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1941a Notes on three western genera of flies (Diptera, Tabanidae). Brooklyn Ent. Soc. Bul. **36:** 185–199.

1941b Comments on the supra-specific categories of nearctic Tabanidae (Diptera). Canad. Ent. **73:** 2–14.

1941c Notes on nearctic Tabaninae (Diptera). Part I. *Stenotabanus*, *Atylotus*, and *Tabanus* s. str.; Part II. *Tabanus* s. lat. and *Hybomitra*. Canad. Ent. **73:** 105–110; 142–153.

1941d Notes on nearctic Pangoniinae (Diptera, Tabanidae). Ent. Soc. Wash. Proc. **43:** 113–130, 1 pl.

1942a Further notes on nearctic Tabanidae (Diptera). New England Zool. Club, Proc. **21:** 55–68.

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1947 A catalog of the blood-sucking fly family Tabanidae (horseflies and deerflies) of the Nearctic Region north of Mexico. Amer. Midland Nat. **37:** 257–324.

1950a New North American Tabanidae (Diptera). Part I. Pangoniinae. Ent. Soc. Amer. Ann. (1949) **42:** 451–460, 2 figs.

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1950c Corrections and addenda to a catalog of nearctic Tabanidae. Amer. Midland Nat. **43:** 430–437.

1953 The genus *Chrysozona* Meigen in North America (Diptera, Tabanidae). Ent. Soc. Wash. Proc. **55:** 247–251.

1954a New North American Tabanidae (Diptera). VI. Descriptions of Tabaninae and new distributional data. Ent. Soc. Amer. Ann. **47:** 25–33.

1954b New North American Tabanidae. VIII. Notes on and keys to the genera and species of Pangoniinae exclusive of *Chrysops*. Rev. Brasil. de Ent. **2:** 13–60, 10 figs.

1955 New North American Tabanidae. IX. Notes on and keys to the genus *Chrysops* Meigen. Rev. Brasil. de Ent. **3:** 47–128, 7 figs.

1957 New records of Tabanidae (Diptera) in the Antilles. Amer. Mus. Nat. Hist., Amer. Mus. Novitates **1858:** 1–16, 4 figs.

Philip, C. B.—Continued

1959 New North American Tabanidae. X. Notes on synonymy, and description of a new species of *Chrysops*. Amer. Ent. Soc. Trans. **85:** 193–217.

1960a New North American Tabanidae. XI. Supplemental notes pertinent to a catalog of nearctic species. Ent. Soc. Amer. Ann. **53:** 364–369.

1960b New North American Tabanidae. XII. A new variety of *Tabanus imitans* Walker. Fla. Ent. **43:** 171–174, 1 fig.

1961a New North American Tabanidae. XIII. Change of name for a well-known species of *Chrysops*. Ent. News **72:** 160–162.

1961b Notes on palaeartic [sic] *Nemorius* (Diptera: Tabanidae) with description of one new species. Soc. Roy. d'Ent. de Belg. Bul. et Ann. **97:** 225–236, 9 figs.

1962 New North American Tabanidae. XVI. A new species from the South Texas Gulf Coast (Diptera). Ent. Soc. Wash. Proc. **64:** 171–174, 3 figs.

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1956 American biting flies of the genera *Chlorotabanus* Lutz and *Cryptotylus* Lutz (Diptera, Tabanidae). Ent. Soc. Amer. Ann. **49:** 313–324, 1 fig., 1 pl.

———, and Jones, C. M.

1962 New North American Tabanidae. XV. Additions to records of *Chrysops* in Florida. Fla. Ent. **45:** 67–69, 1 fig.

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1962 New North American Tabanidae. XIV. An undescribed *Apatolestes* from the California coast (Diptera). Pan-Pacific Ent. **38:** 41–43, 1 fig.

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1925 The bee-louse, *Braula coeca*, in the United States. U.S. Dept. Agr., Dept. Cir. **334:** 1–11.

Phillips, V. T.

1923 A revision of the Trypetidae of northeastern America. N.Y. Ent. Soc. Jour. **31:** 119–155, 2 pls.

1946 The biology and identification of trypetid larvae (Diptera: Trypetidae). Amer. Ent. Soc. Mem. **12:** 1–161, 3 figs., 16 pls.

Pickett, A. D.

1937 Studies on the genus *Rhagoletis* (Trypetidae) with special reference to *Rhagoletis pomonella* (Walsh). Canad. Jour. Res., Sect. D, Zool. Sci. **15:** 53–75, 25 figs.

Pidgeon, E. (See Griffith and Pidgeon)

Pipkin, S. B.

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Plath, O. E. (See Aldrich, 1919c; Townsend, 1919a)

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1922 Revue critique des genres, espèces, et sousespèces paléarctiques des sousfamilles des Stratiomyiinae et des Pachygastrinae (Diptères). [Akad. Nauk S.S.S.R.] Ross. Akad. Nauk Petrograd, Zool. Muz. Ezheg. (Acad. des Sci. de Russie, Zool. Mus. Ann.) **23:** 325–338.

Poey, F.

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Pokorny, E.

1887a (III.) Beitrag zur Dipterenfauna Tirols. K.-k. Zool.-Bot. Gesell. Wien, Verhandl. **37 (Abhandl.):** 381–420, pl. 7.

1887b Neue Tipuliden aus den österreichischen Hochalpen. Wien. Ent. Ztg. **6:** 50–60, pl. 1.

1889 (IV.) Beitrag zur Dipterenfauna Tirols. K.-k. Zool.-Bot. Gesell. Wien, Verhandl. **39 (Abhandl.):** 543–574.

1893a Eine alte und einige neue Gattungen der Anthomyiden. Wien. Ent. Ztg. **12:** 53–64.

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Ringdahl, O.—Continued

1937 Neue schwedische Hylemyiinen. Opusc. Ent. (Soc. Ent. Lund.) **2:** 124–129, 21 figs.

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1951 Dipterologische Notizen 8. Neue Musciden aus schwedisch Lappland und Jämtland. Opusc. Ent. (Soc. Ent. Lund.) **16:** 33–36.

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1940 Kentucky white grubs. Ky. Agr. Expt. Sta. Bul. **401:** 73–157, 40 figs., 6 pls.

Also bound in Ky. Agr. Expt. Sta. Ann. Rpt. **53:** 73–157.

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1952 New species of Sarcophagini (Diptera: Sarcophagidae). Wash. Acad. Sci. Jour. **42:** 45–49, 6 figs.

1953 New records of *Symbiocladius equitans* (Claassen) with some notes on the genus (Diptera: Tendipedidae). Acad. Nat. Sci. Phila. Notulae Nat. **251:** 1–2.

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Robineau-Desvoidy, J. B.

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1830 Essai sur les Myodaires. [Paris] Inst. de France, [Cl. des] Sci. Math. et Phys., Acad. Roy. des Sci., Mém. présentés par divers Savans [**ser. 2**], **2:** 1–813.

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1847 Myodaires des environs de Paris [cont.]. Soc. Ent. de France, Ann. **ser. 2, 5:** 255–287, 591–617 [cont.].

1848 Myodaires des environs de Paris [cont.]. Soc. Ent. de France, Ann. **ser. 2, 6:** 429–477 [cont.].

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1885 Dipteren von der Insel Portorico. Stettin Ent. Ztg. **46:** 337–349.

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1890 Zwei neue nordamerikanischen Dipteren. Wien. Ent. Ztg. **9:** 230–232.

Rogers, J. S.

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1927a Notes on the life history, distribution and ecology of *Diotrepha mirabilis* Osten Sacken. Ent. Soc. Amer. Ann. **20:** 23–36, pl. 3.

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1930 The summer crane-fly fauna of the Cumberland Plateau in Tennessee. Mich. Univ. Mus. Zool. Occas. Papers **215:** 1–50, 5 pls.

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1956 The ecological distribution, life history, and immature stages of *Lipsothrix sylvia* (Diptera: Tipulidae). Mich. Univ. Mus. Zool. Occas. Papers **572:** 1–14, 7 figs.

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1928 [Flies of the family Sarcophagidae, parasitic on grasshoppers.] Tashkent, Uzbek. Opytn. Sta. Zashch. Rast. [Trudy] **14:** 1–64+i–ii, 5 pls.

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1931 Calliphorinen-Studien IV (Dipt.). Eine neue Calliphorinen-Gattung aus Ostsibirien. Zool. Anz. **95:** 175–177, 1 fig.

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Rondani, C.

1840a Memoria per servir alla ditterologia italiana. No. 1: Sopra una specie di insetto dittero, 16 pp., 1 pl. Parma.

There were 20 numbered (with the exception of a No. 15) and individually titled papers in this series by Rondani, 1840–1862. The first 2 were issued only as separates, Parma, 1840. Of the remainder, 13 appeared in one of 3 Italian journals and also as separates; 5 were published in one of 2 French journals without separates as far as is known. A No. 15 was never published as such, but one of several revisions of earlier numbers is usually considered to be No. 15 of the series. The title of the series was given in Latin, "Fragmentum ad inserviendum dipterologiae italicae," in the French journals, and in the last 4 papers as "Commentarium pro dipterologia italica." In some other cases it was abbreviated.

1840b Memoria per servir alla ditterologia italiana. No. 2: Sopra alcuni nuovi generi di insetti ditteri, 28 pp., 1 pl. Parma.

1843 Quattro specie di insetti ditteri proposti come tipi di genere nuovi. Memoria sesta per servir alla ditterologia italiana. [Accad. delle Sci. dell' Ist. Bologna], Nuovi Ann. delle Sci. Nat. **10:** 32–46, 1 pl.

A separate of 15 pp. was issued according to Osten Sacken, 1885: 151; it has not been seen and its place of publication and date is unknown to us.

1844a Proposta della formazione di un genere nuovo per due specie di insetti ditteri. Memoria nona per servir alla ditterologia italiana. Soc. Agr. e Accad. delle Sci. dell' Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend. **ser. 2,** 1 [sic] [=**2**]**:** 193–202, pl. 2.

A separate of 12 pp. was issued according to Osten Sacken, 1885: 151; it has not been seen and its place of publication and date is unknown to us.

1844b Ordinis dipterorum. Stirps II. Muscidae Rndn. Athericera Lat. Mac. Zett. West. Soc. Agr. e Accad. delle Sci. dell' Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend. **ser. 2,** 1 [sic] [=**2**]**:** 447–459 [cont.].

1845a Sulle differenze sessuali delle Conopinae e Myopinae negli insetti ditteri. Memoria undecima per servir alla ditterologia italiana. Soc. Agr. e Accad. delle Sci. dell' Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend. **ser. 2, 3:** 5–16.

A separate of 16 pp. was issued according to Osten Sacken, 1885: 152; it has not been seen and its place of publication and date is unknown to us.

Rondani, C.—Continued

1845b Descrizione di due generi nuovi di insetti ditteri. Memoria duodecima per servire alla ditterologia italiana. R. Accad. delle Sci. dell' Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend. **ser. 2, 3:** 25–36, pl. 1.

A separate of 16 pp. was issued according to Osten Sacken, 1885: 152; it has not been seen and its place of publication and date is unknown to us.

1846 Compendio della seconda memoria ditterologia (publicata 1840) con algune aggiunte et correzioni. Soc. Agr. e Accad. delle Sci. dell' Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend. **ser. 2, 6:** 363–376, 1 pl.

A separate of 14 pp. was issued according to Osten Sacken, 1885: 153; it has not been seen and its place of publication and date is unknown to us. This is one of the revisions of earlier numbers and considered by some to be No. 15 of Rondani's series "Memoria per servir alla ditterologia italiana". This article would fit chronologically as No. 15.

1848 Esame di varie specie d'insetti ditteri brasiliani. Studi Ent. (Turin) **1:** 63–112.

1850a Osservazioni sopra alquante specie di esapodi ditteri del Museo Torinese. Accad. delle Sci. dell' Ist. e Soc. Agr. Bologna, Nuovi Ann. delle Sci. Nat. e Rend. **ser. 3, 2:** 165–197, pl. 4.

1850b Nota sexta pro dipterologia italica de nova specie generis *Ceriae* Fabricii. Soc. Ent. de France, Ann. **ser. 2, 8:** 211–214, pl. 7, fig. 1.

1856* Dipterologiae Italicae prodromus. Vol. 1: Genera Italica ordinis dipterorum ordinatim disposita et distincta et in familias et stirpes aggregata, 228 pp. Parmae [= Parma].

The entire work was to have consisted of 84 stirps distributed among 32 families. Only stirps 1–25 (families 1–5, and part of 6) were completed in 8 volumes, published at Parma, Milano, and Firenze, 1856–1880. The first 5 volumes were published only as separate works, each with continuous pagination. Volumes 6–8 were published in portions of various size both as separates and in one of 3 Italian journals. The composition, pagination, dates, etc. of the completed volumes are given below. No mention of the journals is made here, as information on them is given later under the individual references used in this bibliography. A Facsimile Edition of Rondani's work was published by W. Junk in Berlin, 1914. However, it is incomplete and also is taken partly from the journal articles and partly from the separate works. Those references in this bibliography which do *not* appear in the facsimile edition are so noted; all others, marked with an asterisk (*), can be found there. The

Rondani, C.—Continued

composition of the facsimile edition, the dates of the various parts of the entire original work and its publication in the various journals, are discussed in detail by Sabrosky, 1961c.

Vol. 1: Genera Italica . . . 228 pp.
Parmae, 1856.
[A general outline]

Vol. 2: Species Italicae . . . Pars 1. 264 pp.
Parmae, 1857.
[Families 1–3=Stirps 1–10]

Vol. 3: Species Italicae . . . Pars 2. 243 pp.
Parmae, 1859.
[Family 4 (part)=Stirps 11–12 (part)]

Vol. 4: Species Italicae . . . Pars 3. 174 pp.
Parmae, 1861.
[Family 4 (part)=Stirps 12 (end)]

Vol. 5: Species Italicae . . . Pars 4. 239 pp.
Parmae, 1862.
[Family 4 (end)=Stirps 13–16]

Vol. 6: Species Italicae . . . Pars 5. 151 pp. + Sup., 94 pp. + 24 pp.
Milano, [?Firenze], "1865"[?1866]–[?1871].
[Family 5 (part)=Stirps 17; and supplement to families 1–4]
(Vol. is called "Pars 6" in some of its portions.)

[Stirps 17]: Anthomyinae. 151 pp. Milano, "1865"[1866].
(Revised and enlarged, 304 pp., Parma, 1877.)

Supplemento. 4 fascs., 94 pp. + 24 pp. Milano, "1865" [?1866]–[?1871].
Fasc. 1. pp. 1–20. Milano, "1865"[?1866].
Fasc. 2. pp. 21–59. Milano, "1865"[?1866].
Fasc. 3. pp. 61–94. Milano, [?1868].
Fasc. 4. 24 pp. [?Firenze], [?1870 or 1871].
(Material in fasc. 4 later included in above revision of Anthomyinae, 1877.)

Vol. 7: Species Italicae . . . Pars 6. 4 fascs. [in 5 parts].
"Mediolani, Modenae, Florentiae" [Milano, Firenze], 1866–1871.
[Family 5 (part)=Stirps 18–20]
(Vol. is called" Pars 7" in some of its portions.)
Fasc. 1 [Stirps 18]. 51 pp. Milano, 1866.
Fasc. 2 [Stirps 19]. 60 pp. Milano, 1868.
(Revised and enlarged, 78 pp., Modenae, 1877.)
Fasc. 3 [Stirps 20 (part)]. 37 pp. [?Firenze], 1869.
Fasc. 4 [Stirps 20 (end)]. [2 pts.] Firenze, 1870–1871.
[Pt. 1]. 59 pp. Firenze, 1870.
[Pt. 2]. 53 pp. Firenze, 1871.

Rondani, C.—Continued

Vol. 8: Species Italicae . . . Pars 7. [5 pts.].
"Florentiae" [=Firenze], 1874–1880.
[Family 5 (end) and Family 6 (part)=Stirps 21–25]

[Pt. 1] Stirps 21. 16 pp. Firenze, 1874.
[Pt. 2] Stirps 22. 32 pp. Firenze, 1874.
[Pt. 3] Stirps 23. 23 pp. Firenze, 1875.
[Pt. 4] Stirps 24. 12 pp. Firenze, 1876.
[Pt. 5] Stirps 25. 43 pp. Firenze, 1880.

See Rondani, 1856, 1857, 1859, 1861a, 1862 (Vols. 1–5); 1866b, 1868b (Vol. 7, part). Also journal articles for Vol. 6, Rondani, 1865, 1866a, 1868a, 1871a; for rest of Vol. 7, Rondani, 1869, 1870a, 1871b; and for part of Vol. 8, Rondani, 1874, 1875a, 1880. Also revision, Rondani, 1877.

1857* Dipterologiae Italicae prodromus. Vol. 2: Species Italicae ordinis dipterorum in genera characteribus definita, ordinatim collectae, methodo analitica distinctae, et novis vel minus cognitis descriptis, Pars prima: Oestridae, Syrpfhidae [sic], Conopidae, 264 pp., 1 fig. Parmae [=Parma].

*See discussion under Rondani, 1856.

1859* Dipterologiae Italicae prodromus. Vol. 3: Species Italicae ordinis dipterorum in genera characteribus definita, ordinatim collectae, methodo analitica distinctae, et novis vel minus cognitis descriptis, Pars secunda: Muscidae, Siphoninae et (partim) Tachininae, 243 pp., 1 pl. Parmae [=Parma].

*See discussion under Rondani, 1856.

1860 Stirpis cecidomyarum. Genera revisa. Nota undecima, pro dipterologia italica. Soc. Ital. di Sci. Nat. Atti (1859–1860) **2:** 286–294, 1 pl.

1861a* Dipterologiae Italicae prodromus. Vol. 4: Species Italicae ordinis dipterorum in genera characteribus definita, ordinatim collectae, methodo analatica [sic] distinctae, et novis vel minus cognitis descriptis, Pars tertia: Muscidae, Tachininarum complementum, 174 pp. Parmae [=Parma].

*See discussion under Rondani, 1856.

1861b Species europeae generis *Phasiae* Latreillei observatae et distinctae. Soc. Ital. di Sci. Nat. Atti **3:** 205–220, 1 pl.

Rondani, C.—Continued

1862* Dipterologiae Italicae prodromus. Vol. 5: Species Italicae ordinis dipterorum in genera characteribus definita, ordinatim collectae, methodo analitica distinctae, et novis vel minus cognitis descriptis, Pars quarta: Muscidae, Phasiinae-Dexinae-Muscinae-Stomoxidinae, 239 pp. Parmae [=Parma].

*See discussion under Rondani, 1856.

1863 Diptera exotica revisa et annotata. 99 pp., 1 pl. Modena.

Also published under the title "Dipterorum species et genera aliqua exotica", in Arch. per Zool. l'Anat. e Fis. (Modena (1863) **3 (1)**: 1–99, pl. 5, **1864.**

1865 Diptera Italica non vel minus cognita descripta vel annotata observationibus nonnullis additis. Fasc. I. Oestridae-Syrphidae-Conopidae; Fasc. II. Muscidae. Soc. Ital. di Sci. Nat. Atti **8**: 127–146; 193–231.

These fascicles were also published separately under the same titles, pp. 1–20, and 21–59, Milano, *"1865"* [?1866]. They are the first parts of the supplement to Vols. 1–5, and form part of Vol. 6, of "Dipterologiae Italicae prodromus". Although both have the imprint date 1865, it is not known whether they were issued separately or together with the separate of Rondani, 1866a [q.v.]. Neither appear in the Facsimile Edition.

1866a Anthomyinae Italicae collectae distinctae et in ordinem dispositae. Soc. Ital. di Sci. Nat. Atti **9**: 68–217.

Also published separately under the same title, 151 pp., Milano, *1866*. A title page issued with it is titled "Species Italicae ordinis dipterorum a Prof. Camillo Rondani collectae, distinctae, et in ordinem dispositae novis, vel minus cognitis descriptis. Pars quinta. Anthomyinae. Dipter: Ital: Prodromi cum supplemento. Pars [=Vol.] 6", and is dated 1865. It is not known whether the 2 parts of Rondani, 1865, were issued together with this as the "supplemento", or separately. This portion on Anthomyinae was revised, expanded, and incorporated with Rondani, 1871a, to form Rondani, 1877 [q.v.]. It is not in the Facsimile Edition.

1866b* Scatophaginae Italicae collectae distinctae et in ordinem dispositae. Dipterol. Ital. prodomi Pars [=Vol.] VII, Fasc. I. Fasc. 1, 51 pp. *In his* Dipterologiae Italicae prodromus. Vol. 7: Species Italicae ordinis dipterorum a Prof. Camillo Rondani collectae, distinctae, et in ordinem dispositae novis, vel minus cognitis descriptis, Pars sexta: Scatophaginae Sciomyzinae Ortalidinae. Milano.

Also published under the same title in Soc. Ital. di Sci. Nat. Atti **10**: 85–135, *1867*.

*See discussion under Rondani, 1856.

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1868a Diptera Italica non vel minus cognita descripta vel annotata observationibus nonnullis additis. Fasc. III. Soc. Ital. di Sci. Nat. Atti **11:** 21–54.

Also published separately under the same title, pp. 61–94, Milano, [?*1868*]. It is part of the supplement to Vols. 1–5, and forms part of Vol. 6, of "Dipterologiae Italicae prodromus". The date of the separate is not known but is presumably not before 1868. This does not appear in the Facsimile Edition.

1868b Sciomizinae [sic] Italicae collectae, distinctae et in ordinem dispositae. Dipterol. Ital. prodromi Pars [=Vol.] VII, Fasc. II. Fasc. 2, 60 pp. *In his* Dipterologiae Italicae prodromus. Vol. 7: Species Italicae ordinis dipterorum a Prof. Camillo Rondani collectae, distinctae, et in ordinem dispositae novis, vel minus cognitis descriptis, Pars sexta: Scatophaginae Sciomyzinae Ortalidinae. Milano.

Also published under the same title, corrected, in Soc. Ital. di Sci. Nat. Atti **11:** 199–256, *1868*. This is not in the Facsimile Edition. A revised edition of this fascicle was published separately, 78 pp., Modenae, 1877, and reprinted in Soc. Nat. di Modena Ann. 11: 7–79, 1877, which edition does appear in the Facsimile.

1868c Specierum italicarum ordinis dipterorum catalogus notis geographicus. Soc. Ital. di Sci. Nat. Atti **11:** 559–603.

1869* Ortalidinae Italicae collectae, distinctae et in ordinem dispositae. Dipterologiae Italicae prodromi Pars [=Vol.] VII—Fasc. 3. Linea A. Ortaloidi. Soc. Ent. Ital. Bul. **1:** 5–37.

Also published separately under the same title, 37 pp. [?Firenze], *1869*, as fascicle 3 of his "Dipterologiae Italicae prodromus," Vol. 7. Our copy of the separate lacks an imprint with place of publication.

*See discussion under Rondani, 1856.

1870 Sull' insetto Ugi. Soc. Ent. Ital. Bul. **2:** 134–137.

1871a Diptera Italica non vel minus cognita descripta aut annotata. Fasc. IV. Addenda Anthomyinis Prodr. Vol. VI. Soc. Ent. Ital. Bul. (1870) **2:** 317–338.

A separate of 24 pp. was published according to Osten Sacken, 1885: 159; it has not been seen and its place of publication [?Firenze] and date [?1870 or 1871] is unknown to us. This work concludes the supplement in Vol. 6 of "Dipterologiae Italicae prodromus." It does not appear in the Facsimile Edition. The work was incorporated with Rondani, 1866a, to form Rondani, 1877 [q.v.].

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1871b* Ortalidinae Italicae collectae, distinctae et in ordinem dispositae. Dipterologiae Italicae prodromi Pars [=Vol.] VII. -Fasc. 4 [concl.]. Soc. Ent. Ital. Bul. **3:** 3–24, 161–188.

Also published separately under the same title, 53 pp., Firenze, *1871*, as fascicle 4, [pt. 2] of his "Dipterologiae Italicae prodromus," Vol. 7.
*See discussion under Rondani, 1856.

1874* Species Italicae ordinis dipterorum (Muscaria Rndn.). Stirps XXI. -Tanipezinae Rndn. collectae et observatae. Soc. Ent. Ital. Bul. **6:** 167–182.

Also published separately as "Dipterologiae Italicae prodromus," Vol. 8, Stirps 21 [=Pt. 1], 16 pp., Firenze, *1874*.
*See discussion under Rondani, 1856.

1875a* Species Italicae ordinis dipterorum (Muscaria Rndn.) collectae et observatae. Stirps XXIII. Agromyzinae. Soc. Ent. Ital. Bul. **7:** 166–191.

Also published separately as "Dipterologiae Italicae prodromus," Vol. 8, Stirps 23 [=Pt. 3], 26 pp., Firenze, *1875*.
*See discussion under Rondani, 1856.

1875b Muscaria exotica musei civici januensis. Fragmentum III. Species in insula Bonae Fortunae (Borneo), Provincia Sarawak, annis 1865–1868 lectae a March. J. Doria et Doct. O. Beccari. Genoa Mus. Civico di Storia Nat. Ann. **7:** 421–464, 5 figs.

1877* Species Italicae ordinis dipterorum ordinatim dispositae, methodo analitica distinctae, et novis vel minus cognitis descriptis. Pars quinta. Stirps XVII—Anthomyinae. 304 pp. Parmae [=Parma].

A revision and expansion of Rondani, 1866a, and including his 1871a.
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The entire work is divided into 2 sections: 1. Parasite host catalogue; 2. Host parasite catalogue. The sections were issued in parts, each taxonomic grouping being separately paged. Section 1 consists of 11 parts (7 separately paged groups), Belleville, 1943–1950. Section 2 consists of 5 parts (2 separately paged groups), Ottawa, 1951–1958. The work as originally proposed was to consist of 4 sections. It is not known whether this will be continued.

See Thompson, 1943a, 1943b, 1944a, 1944b, 1944c, 1945–1947, 1950a, 1950b, 1951, 1953b, 1955–1958.

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[1869] 6. Diptera. Species nova descripsit. Pp. 443–614, pl. 9 (=h. 12, no. 2). *In* K. Svenska Vetenskaps-Akademien, Kongliga svenska fregatten Eugenies resa omkring jorden [q.v.]. Pt. 2: Zoologie, [Sec.] 1: Insekter, 617 pp., 9 pls. Stockholm, "1868."

Although the title page for Diptera is dated 1868, contemporary evidence, such as reviews and receipts by societies, indicates that it was published early in 1869. For example, it was listed as received in the library of the Kgl. Danske Videnskaberne Selskabs at the June 18th, 1869, meeting of that society (see K. Danske Vidensk. Selsk., Oversigt over . . . Forhandl. 1869: 14). Woodward, 1915: 2057, dates the work 1869, and it does not appear in "Zoological Record" until the volume for 1870, although "1868" is quoted there as its date.

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1820b Munus rectoris in Academia Christiano-Albertina iterum aditurus nova dipterorum genera offert iconibusque illustrat. 23 pp., 1 pl. Kiliae Holsatorum [=Kiel].

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Wirth, W. W. (See also Jamnback and Wirth; Jones and Wirth; Quate and Wirth; Schmitz and Wirth; Stone and Wirth; Usinger et al.; Vargas and Wirth)

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Wirth, W. W.—Continued

1951b The genus *Culicoides* in Alaska (Diptera, Heleidae). Ent. Soc. Amer. Ann. **44:** 75–86, 2 pls.

1951c A new mountain midge from California (Diptera: Deuterophlebiidae). Pan-Pacific Ent. **27:** 49–57, 2 figs.

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1952b The genus *Alluaudomyia* Kieffer in North America (Diptera, Heleidae). Ent. Soc. Amer. Ann. **45:** 423–434, 11 figs.

1952c The status of the genus *Parabezzia* Malloch (Diptera, Heleidae). Ent. Soc. Wash. Proc. **54:** 22–26, 1 fig.

1952d Three new nearctic species of *Systenus* with a description of the immature stages from tree cavities (Diptera, Dolichopodidae). Ent. Soc. Wash. Proc. **54:** 236–244, 8 figs.

1952e The immature stages of two species of Florida salt marsh sand flies (Diptera, Heleidae). Fla. Ent. **35:** 91–100, 2 pls.

1953a Biting midges of the heleid genus *Stilobezzia* in North America. U.S. Natl. Mus. Proc. **103:** 57–85, 2 figs.

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1954a A new intertidal fly from California, with notes on the genus *Nocticanace* Malloch (Diptera: Canaceidae). Pan-Pacific Ent. **30:** 59–62, 1 fig.

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1954c A new genus and species of Ephydridae (Diptera) from a California sulphur spring. Wasmann Jour. Biol. **12:** 195–202, 2 figs.

1955 Three new species of *Culicoides* from Texas (Diptera: Heleidae). Wash. Acad. Sci. Jour. **45:** 355–359, 3 figs.

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1956b The biting midges ectoparasitic on blister beetles (Diptera, Heleidae). Ent. Soc. Wash. Proc. **58:** 15–23, 5 figs.

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1956c The heleid midges involved in the pollination of rubber trees in America (Diptera, Heleidae). Ent. Soc. Wash. Proc. **58:** 241–250, 1 pl.

1956d The Ephydridae (Diptera) of the Bahama Islands. Amer. Mus. Nat. Hist., Amer. Mus. Novitates **1817:** 1–20, 2 figs.

1957 The species of *Cricotopus* midges living in the blue-green alga *Nostoc* in California (Diptera: Tendipedidae). Pan-Pacific Ent. **33:** 121–126, 3 figs.

1958 A review of the genus *Gastrops* Williston, with descriptions of two new species (Diptera, Ephydridae). Ent. Soc. Wash. Proc. **60:**. 247–250.

1959 *Pachyhelea*, a new genus of American Ceratopogonidae related to *Palpomyia* (Diptera). Brooklyn Ent. Soc. Bul. **54:** 50–52.

1962a The North American species of the biting midge genus *Jenkinshelea* Macfie (Diptera: Ceratopogonidae). Brooklyn Ent. Soc. Bul. **57:** 1–4, 6 figs.

1962b A reclassification of the *Palpomyia-Bezzia-Macropeza* groups, and a revision of the North American Sphaeromiini (Diptera, Ceratopogonidae). Ent. Soc. Amer. Ann. **55:** 272–287, 14 figs.

———, **and Blanton, F. S.**

1956 A new species of salt-marsh sand fly from Florida, the Bahamas, Panama and Ecuador: Its distribution, and taxonomic differentiation from *Culicoides furens* (Poey) (Diptera, Heleidae). Fla. Ent. **39:** 157–162, 2 figs.

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1956 A population study of the *Culicoides* midges of the Edwards Plateau region of Texas. Mosquito News **16:** 256–266, 10 figs.

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1960a Ceratopogonidae (Diptera) reared from cacti, with a review of the *copiosus* group of *Culicoides*. Ent. Soc. Amer. Ann. **53:** 639–658, pls. 1–4.

1960b Philippine Zoological Expedition 1946–1947. *Camptopterohelea*, a new genus of Ceratopogonidae from the Philippines (Diptera). Chicago Nat. Hist. Mus., Fieldiana, Zool. **42:** 89–91, fig. 25.

1962 The species of *Culicoides* related to *piliferus* Root and Hoffman in eastern North America (Diptera, Ceratopogonidae). Ent. Soc. Amer. Ann. **55:** 182–195, 10 figs., 1 pl.

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1956 Three new North American species of tree-hole *Culicoides* (Diptera, Heleidae). Ent. Soc. Wash. Proc. **58:** 161–168, 3 figs.

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———, and Stone, A.

1956 Chapter 14. Aquatic Diptera. Pp. 372–482, 64 figs. *In* Usinger, R. L., ed., Aquatic insects of California, with keys to North American genera and California species. 508 pp., 501 figs. Berkeley, Calif.

———, and Williams, R. W.

1957 The biting midges of the Bermuda Islands, with descriptions of five new species (Diptera, Heleidae). Ent. Soc. Wash. Proc. **59:** 5–14, 2 figs.

Wollaston, T. V.

1858 Brief diagnostic characters of undescribed Madeiran insects. Ann. and Mag. Nat. Hist. **ser. 3, 1:** 18–28, 113–125, 2 pls.

Wood, D. M. (See Davies, Peterson, and Wood)

Wood, E. W., Stetson, S. S., Avery, J. G., Pratt, A., Sargent, F. W., and Sessions, W. R. (See Burgess, 1897)

Wood, J. H.

1909 On the British species of *Phora* (Part II) [cont.]. Ent. Monthly Mag. **45** [=ser. 2, 20]: 24–29, 59–63, 113–120, 143–149, 191–195, 240–244, 6 figs. [cont.].

1910 On the British species of *Phora* (Part II) [concl.]. Ent. Monthly Mag. **46** [=ser. 2, 21]: 149–154, 195–202, 243–249.

Woods, W. C.

1916 Blueberry insects in Maine. Maine Agr. Expt. Sta. Bul. (1915) **[ser. 2], 244:** 249–288, 62 figs.

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Woodward, B. B. (See also Sherborn and Woodward)

1903–1915 Catalogue of the books, manuscripts, maps and drawings in the British Museum (Natural History). Vol. 1, pp. 1–500, **1903**; Vol. 2, pp. 501–1038, **1904**; Vol. 3, pp. 1039–1494, **1910**; Vol. 4, pp. 1495–1956, **1913**; Vol. 5, pp. 1957–2403, **1915**. London.

The entire work consists of 8 volumes, London, 1903–1940. Volumes 1–5 are continuously paged as above; volumes 6–8, the supplement, London, 1922–1940, are continuously paged 1–1480.

Wray, D. L.

1950 Insects of North Carolina. Second supplement. 59 pp. N.C. Dept. Agr., Raleigh, N.C.

The main work and first supplement are by C. S. Brimley, 1938 and 1942, respectively.

Wright, C. W. (See Stoll et al.)

[Wüllerstorf-Urbair, B. von, In Charge]

1861–1875 Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859, unter den Befehlen des Commodore B. von Wüllerstorf-Urbair. 9 pts. Wien.

This work, by many authors, consists of 15 volumes, some of which are further subdivided into separately paged Abtheilungen, and which are grouped into 9 Theile according to subject matter. Some of the Theile have an individual overall editorship; the Zoologischer Theil does not. This latter part consists of 2 volumes (in 6), 1864–1875. Volume 2, 1864–1875, consists of 3 Abtheilungen and an Atlas. Abtheilung 1 is further divided into separately bound sections A and B. The articles within the Zoologischer Theile were issued separately and with separate pagination. [Section] B, Wien, "1868" [1866–1868], contains 2 articles, including that on Diptera.

See Schiner, 1868.

Wulp, F. M. van der

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1867 Eenige Noord-Americaansche Diptera. Tijdschr. v. Ent. **10** [=ser. 2, 2]: 125–164, pls. 3–5.

1869 Nog iets over Noord-Americaansche Diptera. Tijdschr. v. Ent. **12** [=ser. 2, 4]: 80–86.

1870 Opmerkingen omtrent uitlandsche asiliden. Tijdschr. v. Ent. **13** [=ser. 2, 5]: 207–217, 1 pl.

1874 Dipterologische aanteekeningen. Tijdschr. v. Ent. **17:** 109–148, 1 pl.

1876 Verslag van de dertigste zomervergadering der Nederlandsche Entomologische Vereeniging gehouden te Amsterdam op Zaturdag 24 Julij 1875. Tijdschr. v. Ent. **19** (**spec. pagination**): i-liv, 2 figs.

Wulp was the Secretary of the Vereeniging.

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Wulp, F. M. van der—Continued

1882a Remarks on certain American Diptera in the Leyden Museum and descriptions of nine new species. Leyden Mus. Notes **4:** 73–92.

1882b Amerikaansche Diptera [cont.]. Tijdschr. v. Ent. (1881–1882) **25:** 77–136, pls. 9–10 [cont.].

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1884 Quelques Diptères exotiques. Soc. Ent. de Belg. Ann. **28** (**Bul.**): cclxxxviii–ccxcvii, 3 figs.

1885 Langwerpige dexinen-vormen. Tijdschr. v. Ent. **28:** 189–200, 1 pl.

1887 *Sarcophagula*, een nieuw geslacht der Sarcophaginae. Tijdschr. v. Ent. **30:** 173–174.

1888–1890 Fam. Muscidae. Pp. 2–40, pls. 1–2, *1888*; pp. 41–56, 57–88, 89–112, 113–144, 145–176, 177–200, 201–208, pls. 3–4, *1890* [cont.]. *In* Godman, F. D., and Salvin, O., eds., Biologia Centrali-Americana [q.v.]. Zoologia-Insecta-Diptera, Vol. 2, 489 pp., 11 figs., 13 pls. London.

1891a Eenige uitlandsche Diptera. Tijdschr. v. Ent. **34:** 193–218, 1 pl.

1891b Fam. Muscidae [cont.]. Pp. 209–224, 225–248, 249–264, pls. 5–6 [cont.]. *In* Godman, F. D., and Salvin, O., eds., Biologia Centrali-Americana [q.v.]. Zoologia-Insecta-Diptera, Vol. 2, 489 pp., 11 figs., 13 pls. London.

1892 Diagnoses of new Mexican Muscidae. Tijdschr. v. Ent. **35:** 183–195.

1895–1900 Fam. Muscidae [concl.]. Pp. 265–272, *1895*; pp. 273–280, 281–288, 289–304, 305–312, 313–320, 321–344, pls. 7–8, *1896*; pp. 345–360, 361–368, 369–376, pl. 9, *1897*; pp. 377–384, *1898*; pp. 385–392, 393–408, 409–416, pls. 10–11, *1899*; pp. 417–428, 11 figs., pl. 12, *1900*. *In* Godman, F. D., and Salvin, O., eds., Biologia Centrali-Americana [q.v.]. Zoologia-Insecta-Diptera, Vol. 2, 489 pp., 11 figs., 13 pls. London.

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Wyatt, I. J.

1959 A new genus and species of Cecidomyiidae (Diptera) infesting mushrooms. Roy. Ent. Soc., London, Proc. Ser. B: Taxonomy **28:** 175–179, 11 figs.

Wytsman, P., ed.

1902–1959 Genera insectorum. 213 vols. Bruxelles.

Each volume [=fascicle] involves a major group of insects, and is by a separate author. To date, 213 fascicles have been published.

See Alexander, 1927c; Brues, 1906a; Edwards, 1928a, 1932a; Hendel, 1908a, 1910a, 1914a; Johannsen, 1909; Kieffer, 1906a, 1913a; Kröber, 1913b; Melander, 1927; Séguy, 1937, 1952.

Yates, W. W. (See Stage, Gjullin, and Yates)

Yothers, W. W. (See Knab and Yothers)

Young, D. B. (See Felt and Young)

Zavrěl, J., and Thienemann, A.

1921 Die Metamorphose der Tanypinen (II. Teil). Pp. 655–784, 76 figs. *In* Thienemann, A., Vorarbeiten für eine Monographie der Chironomiden-Metamorphose [concl.]. Arch. f. Hydrobiol., Sup.-Band **2:** 655–850, 127 figs.

Zeller, P. C.

1842 Dipterologische Beyträge. Zweyte Abtheilung. Isis (Oken's) **1842:** 807–847, 1 pl.

Zenker, J. C.

1833 Miscellen. Not. aus dem Geb. der Natur- u. Heilk. [Froriep's] **35:** 344.

Zetterstedt, J. W.

1833 Resa genom Umeå Lappmarker i Vesterbottens Län, förrättad år 1832. 398 pp., 3 pls. Örebro, Sweden.

1837 Conspectus familiarum, generum et specierum dipterorum, in fauna insectorum Lapponica descriptorum. Isis (Oken's) **1837:** 28–67.

1838 Dipterologis Scandinaviae. Sect. 3: Diptera, pp. 477–868. *In his* Insecta Lapponica. vi + 1,140 (pp.) Lipsiae [=Leipzig].

The pages are double-columned, each column numbered; a total of 1,140 columns. The work was issued in 6 hefts, Lipsiae, 1838–1840, as follows: 1–256, 257–476, 477–868, 1838; 869–1014, 1839; 1015–1036, 1037–1140 + i–vi + title page dated 1840, 1840.

Zetterstedt, J. W.—Continued

1842–1860 Diptera Scandinaviae. Disposita et descripta. Vol. 1, pp. iii–xvi+1–440, *1842;* vol. 2, pp. 441–894, *1843;* vol. 3, pp. 895–1280, *1844;* vol. 4, pp. 1281–1738, *1845;* vol. 5, pp. 1739–2162, *1846;* vol. 6, pp. 2163–2580, *1847;* vol. 7, pp. 2581–2934, *1848;* vol. 8, pp. 2935–3366, *1849;* vol. 9, pp. 3367–3710, *1850;* vol. 10, pp. 3711–4090, *1851;* vol. 11, pp. v–xii+4091–4546, *1852;* vol. 12: Sup. 3, pp. v–xx+4547–4942, *1855;* vol. 13: Sup. 4, pp. v–xvi+4943–6190, *1859;* vol. 14, pp. 6191–6609, *1860.* Lundae [=Lund.].

This work is complete here. It is sometimes bound in 7 volumes.

Zimin, L. S.

1951 [Fam. Muscidae (Tribes Muscini, Stomoxydini).] No. 4, 285 pp., 472 figs. (=n. ser., 45). *In* [Zoologicheskii Institut Akademii Nauk SSSR], [Fauna SSSR, Novaia Seriia] [q.v.]. Diptera, Vol. 18. Moscow, Leningrad.

In Russian.

Zimmerman, E. C., ed.

1948–1960 Insects of Hawaii. 9 vols. Honolulu, Hawaii.

This series of volumes by different authors continues to date; it consists of Volumes 1–8, and 10, as of 1960.
See Hardy, 1960b.

Zimmerman, S. K. (See Rockwood, Zimmerman, and Chamberlin)

Zoological Society of London

1865–1961 The zoological record. 96 vols. London.

Volumes 1–6 were edited by A. C. L. G. Günther as "The record of zoological literature" [q.v.]. Volumes 7–22 were published by the Zoological Record Association, 1871–1886. The Zoological Society of London began publishing the series with Volume 23, 1887, and publication continues. (Volumes 43–52, 1908–1917, were published by the Royal Society of London as Volumes 6–15 of their "International Catalogue of Scientific Literature, Section K".) Volumes 1–22 were continuously paged, but beginning with Volume 13, the volumes have been divided into separately paged taxonomic sections, issued separately (e.g., Vol. 23 has 19 such sections).
See Sharp, 1887.

[Zoologicheskii Institut Akademii Nauk SSSR]

1935–1961 [Fauna SSSR. Novaia Seriia.] 79 nos. Moscow, Leningrad.

This work in Russian is a continuation of ["Fauna Rossii"] which began publication in St. Petersburg [=Petrograd, Leningrad] in 1911. Each major taxonomic group is assigned an inpendent system of volume numbering, and the various parts of that taxon are issued, upon completion by different authors, in separately paged numbers. There was no overall system of numbering until the beginning of the "new series" in 1935, in which the numbers are chronologically numbered, and which continues to date. We have no complete record of the number of issues in the old series. Early volumes had an additional French title. Upon completion, the portion covering Diptera is to consist of 20 volumes, of which the following 11 numbers (all in the present series) have been issued through 1961:

Vol. 2, no. 3 (Tipulidae, part), 1961 (n. ser., 79).

Vol. 3, no. 2 (Psychodidae), 1937 (n. ser., 10).
no. 4 (Culicidae, part), 1937 (n. ser., 11).

Vol. 6, no. 6 (Simuliidae), 1940 (n. ser., 23). [Revised, 1956 (n. ser., 64)]

Vol. 7, no. 2 (Tabanidae), 1937 (n. ser., 9).

Vol. 9, no. 2 (Bombyliidae), 1940 (n. ser., 25).

Vol. 17, no. 1 (Gastrophilidae), 1955 (n. ser., 60).

Vol. 18, no. 4 (Muscidae, part), 1951 (n. ser., 45).

Vol. 19, no. 1 (Sarcophagidae, part), 1937 (n. ser., 12).
no. 3 (Oestridae), 1957 (n. ser., 68).

See Rubzov, 1940a; Savtshenko, 1961; Zimin, 1951.

Zumpt, F.

1957 Some remarks on the classification of the Oestridae s. lat. (Diptera). Ent. Soc. South. Africa, Jour. **20:** 154–161, 1 pl.

———, and Paterson, H. E.

1953 Studies on the family Gasterophilidae, with keys to the adults and maggots. Ent. Soc. South. Africa, Jour. **16:** 59–72, 17 figs.

Periodicals Cited, with Explanations

This list is arranged alphabetically by the abbreviations used in the bibliography. The abbreviations follow the systems of the U.S. Department of Agriculture Library and the "Union list of serials in libraries of the United States and Canada". As far as possible, complete information is given on changes of name (which are cross referenced), series numbers, and other details helpful in locating a desired periodical in libraries. A plus sign (+) following a year indicates continuation to date.

Acad. Nat. Sci. Phila. Jour.=Journal of the Academy of Natural Sciences of Philadelphia. Philadelphia. 1–8, 1817–1842; Ser. 2, 1–16, 1847–1918.

Acad. Nat. Sci. Phila. Monog.=Monographs of the Academy of Natural Sciences of Philadelphia. Philadelphia. 1, 1935+

Acad. Nat. Sci. Phila. Notulae Nat.=Notulae Naturae. The Academy of Natural Sciences, Philadelphia. 1, 1939+

Acad. Nat. Sci. Phila. Proc.=Proceedings of the Academy of Natural Sciences of Philadelphia. Philadelphia. 1, 1841+

Numbering of the volumes ceased with vol. 8, 1856, and was resumed with vol. 53, 1901.

Acad. Roy. des Sci., Belles-Let. et Arts de Lyon, Mém., Sect. des Sci.=Mémoires de l'Académie Royale des Sciences, Belles-Lettres et Arts de Lyon. Section des Sciences. Lyon. 1–2, 1845–1849. (N. ser., 1, 1851, as "Mémoires de l'Académie Nationale des Sciences, . . . de Lyon. Classe des Sciences"; N. ser., 2–17, 1852–1870, as "Mémoires de l'Académie Impériale des Sciences, . . . de Lyon. Classe des Sciences"; N. ser., 18–31, 1870–1892, as "Mémoires de l'Académie des Sciences, . . . de Lyon. Classe des Sciences"; United with "Classe des Lettres" to form Ser. 3, 1, 1893+as Mémoires de l'Académie des Sciences, . . . de Lyon. Classe des Sciences et Lettres.")

Acad. Sci. St. Louis, Trans.=Transactions of the Academy of Science of St. Louis. St. Louis, Mo. 1, 1856+

[Accad. delle Sci. dell'Ist. Bologna], Nuovi Ann. delle Sci. Nat. =Nuovi Annali delle Scienze Naturali. See **Accad. delle Sci. dell'Ist. e Soc. Agr. Bologna, Nuovi Ann. delle Sci. Nat. e Rend.**

Accad. delle Sci. dell'Ist. e Soc. Agr. Bologna, Nuovi Ann. delle Sci. Nat. e Rend.=Nuovi Annali delle Scienze Naturali e Rendiconto

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dei Lavori dell'Accademia delle Scienze dell'Istituto e della Società Agragria di Bologna. Bologna. Ser. 3, 1–2, 1850. (1–10, 1838–1843, as [**Accad. delle Sci. dell'Ist. Bologna**], **Nuovi Ann. delle Sci. Nat.** [q.v.]; Ser. 2, 1–10, 1844–1848, as **Soc. Agr. e Accad. delle Sci. dell'Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend.** [q.v.]; Ser. 3, 3–10, 1851–1854, as "Nuovi Annali delle Scienze Naturali e Rendiconto dei Lavori dell'Accademia delle Scienze dell'Istituto di Bologna con Appendica Agraria.")

Supersedes "Annali di Storia Naturale."

Accad. delle Sci. Fis. e Mat., Atti=Atti dell'Accademia delle Scienze Fisiche e Mathematiche. Società Reale di Napoli, Naples. 1–5, 1861–1873. (6–9, 1875–1882, as "Atti della R. Accademia . . . Matematiche"; Ser. 2, 1–20, 1888–1935, as "Atti della Reale Accademia . . . Matematiche.")

Supersedes "Atti della Reale Accademia delle Scienze sezione della Reale Società Borbonica." Suspended between 1917–1926. Issued in separately paged numbers.

Acta Zool. Fenn.=Acta Zoologica Fennica. Helsinki. 1, 1926+

Acta Zool. Lilloana=Acta Zoologica Lilloana. Universidad Nacional de Tucumán, Instituto "Miguel Lillo", Tucumán, Argentina. 1, 1943+

Adv. in Genet.=Advances in Genetics. New York. 1, 1947+

Agr. Gaz. N.S. Wales=Agricultural Gazette of New South Wales. Sydney. 1, 1890+

[**Akad. Nauk S.S.S.R.**] **Imp. Akad. Nauk St. Petersburg (or Petrograd), Zap., Fiz.-Mat. Otd. (Acad. Imp. des Sci. de St.-Petérsbourg, Mém., Cl. Phys.-Math.)**=Zapiski Imperatorskoi Akademii Nauk (Mémoires de l'Académie Impériale des Sciences de St.-Pétersbourg [or Petrograd]). Fiziko-Matematicheskomu Otd'leniiu (Classe Physico-Mathématique). St. Petersburg [=Petrograd, Leningrad]. Ser. 8, 1–32, 1894–1914 (St. Petersburg) and 33–34, 1914–1916 (Petrograd). (Ser. 8, 35–36, 1918–1923, (Petrograd) and 37 (1) (Leningrad) as [**Akad. Nauk S.S.S.R.**] **Ross. Akad. Nauk Petrograd, Zap., Fiz.-Mat. Otd.** [q.v.]; Ser. 8, 37 (end), 1926–1930, as "Zapiski Akademii Nauk Soyuza S.S.R. (Mémoires de l'Académie des Sciences de l'U.R.S.S.). Fiziko- . . . (Classe . . .)".)

The numbers of vols. 28–34 of ser. 8 were issued irregularly. Up to 1914 their titles were the same as that on the title pages of vols. 1–32; during 1914–1915 their titles became like that of the title pages of vols. 33–34; during 1915–1916, their titles varied from that of the title pages of vols. 33–34 and that of vols. 35–36.

[Ser. 1], 1–14, 1726–1746, as "Commentarii Academiae Scientiarum Imperialis Petropolitanae"; [Ser. 2], 1–120, 1747–1775, as "Novi Commentarii

Academiae . . . "; [Ser. 3], 1–6, 1777–1782, as "Acta Academia . . . "; [Ser. 4], 1–15, 1788–1802, as "Nova Acta Academiae . . . "; [Ser. 5], 1–11, 1803–1822, as "Mémoires de la Académie. Avec l'Histoire de l'Académie"; Ser. 6, as "Mémoires de l'Académie Impériale des Sciences de St.-Pétersbourg," in 2 sections: "Sciences Politique, Histoire et Philologie," 1–9, 1830–1859, and "Sciences Mathématiques, Physiques et Naturelles," 1–10, 1831–1859 (vols. 3–10 of latter further divided into "Sciences Mathématiques et Physiques" and "Sciences Naturelles"); Ser. 7, 1–42, 1859–1897, as "Mémoires de l'Académie . . . de St.-Pétersbourg"; Ser. 8, in 2 classes: "Fiziko-Matematicheskomu Otd'liniiu" as outlined above, and "Istoricheskomu Nauk i Filologii Otd'leniiu (Classe Historico-Philologique)," 1–13, 1895–1922.

Russian spelling and French titles vary slightly. The volumes of ser. 7 and 8 were usually issued in separately paged numbers.

[**Akad. Nauk S.S.S.R.**] **Imp. Akad. Nauk St. Petersburg, Zool. Muz. Ezheg.** (**Acad. Imp. des Sci. de St.-Pétersbourg, Zool. Mus. Ann.**) =Ezhegodnik Zoologicheskogo Muzeia Imperatorskoi Akademii Nauk (Annuaire du Musée Zoologique de l'Académie Impériale des Sciences de St.-Pétersbourg). See [**Akad. Nauk S.S.S.R.**] **Ross. Akad. Nauk Petrograd, Zool. Muz. Ezheg.**

[**Akad. Nauk S.S.S.R.**] **Ross. Akad. Nauk Petrograd, Zap., Fiz.-Mat. Otd.** (**Acad. des Sci. de Russie, Mém., Cl. Phys.-Math.**]=Zapiski Rossiiskoi Akademii Nauk (Mémoires de l'Académie des Sciences de Russie). Fiziko-Matematicheskomu Otd'leniiu (Classe Physico-Mathématique). See [**Akad. Nauk S.S.S.R.**] **Imp. Akad. Nauk St. Petersburg, Zap., Fiz.-Mat. Otd.**

[**Akad. Nauk S.S.S.R.**] **Ross. Akad. Nauk Petrograd, Zool. Muz. Ezheg.** (**Acad. des Sci. de Russie, Zool. Mus. Ann.**)=Ezhegodnik Zoologicheskogo Muzeia Rossiiskoi Akademii Nauk (Annuaire du Musée Zoologique de l'Académie des Sciences de Russie). Petrograd [=St. Petersburg, Leningrad]. 22–24, 1917–1923. (1–18, 1896–1914 (St. Petersburg) and 19–20, 1914–1915 (Petrograd) as [**Akad. Nauk S.S.R.**] **Imp. Akad. Nauk St. Petersburg, Zool. Muz. Ezheg.** [q.v.]; 21, 1916, as "Ezhegodnik Zoologicheskogo Muzeia Akademii Nauk (Annuaire . . . l'Académie des Sciences)"; 25–32, 1924–1931, as "Ezhegodnik Zoologicheskogo Muzeia Akademii Nauk S.S.S.R. (Annuaire . . . l'Académie des Sciences de l'U.R.S.S.).")

Superseded by **Akad. Nauk S. S. S. R., Zool. Inst., Trudy** [q.v.].

Akad. Nauk S.S.S.R., Zool. Inst., Parazitol. Sborn. (**Acad. des Sci. de l'U.R.S.S., Inst. Zool., Mag. de Parasitol.**)=Parazitologicheskii Sbornik Zoologicheskogo Instituta Akademii Nauk S.S.S.R. (Magasin de Parasitologie de l'Institut Zoologique de l'Académie des Sciences de l'U.R.S.S.). Leningrad. 1, 1930+

The French title was included up to vol. 8, 1940.

Akad. Nauk S.S.S.R., Zool. Inst., Trudy=Trudy Zoologicheskogo Instituta Akademii Nauk S.S.S.R. Leningrad. 1, 1932+

Supersedes [**Akad. Nauk S.S.S.R.**] **Ross. Akad. Nauk Petrograd, Zool. Muz. Ezheg.** [q.v.].

[**Akad. Nauk U.R.S.R.**] **Vseukrains'ka Akad. Nauk, Fiz.-Mat. Vidd., Trudy (Acad. des Sci. de l'Ukraïne, Cl. des Sci. Phys. et Math., Mém.)**=Trudy Fizichno Matematichnii Viddil. Vseukrains'ka Akademiia Nauk (Mémoires de la Classe des Sciences Physiques et Mathématiques. Académie des Sciences de l'Ukraïne). Kiev. 1–15, 1923–1930.

Superseded by "Prirodnicho-takhnichnii Viddil." Spelling of this periodical varies slightly. Some of its volumes also form part of other series, separately numbered, e.g., the "Z'irnik Prats' Zoologicheskii Muzeia (Travaux du Musée Zoologique)."

Amer. Ent.=The American Entomologist: An Illustrated Magazine of Popular and Practical Entomology. New York. 1–3, 1868–1880.

The April-December numbers of vol. 2 were called **Amer. Ent. and Bot.** [q.v.]. Vol. 3, 1880, also called ser. 2, vol. 1.

Amer. Ent. and Bot.=The American Entomologist and Botanist. See **Amer. Ent.**

Amer. Ent. Soc. Mem.=Memoirs of the American Entomological Society. Philadelphia. 1, 1916+

Amer. Ent. Soc. Trans.=Transactions of the American Entomological Society. Philadelphia. 1–6, 1867–1877, and 17, 1890+ (7–16, 1878–1889, as **Amer. Ent. Soc. Trans. and Acad. Nat. Sci. Phila., Ent. Sect. Proc.** [q.v.].

Amer. Ent. Soc. Trans. and Acad. Nat. Sci. Phila., Ent. Sect. Proc. =Transactions of the American Entomological Society and Proceedings of the Entomological Section of the Academy of Natural Sciences. See **Amer. Ent. Soc. Trans.**

Amer. Jour. Agr. and Sci.=American Journal of Agriculture and Science. Albany, N.Y. 5–7, 1847–1848. (1–4, 1845–1846, as **Amer. Quart. Jour. Agr. and Sci.** [q.v.].

Amer. Jour. Hort. and Florist's Companion=The American Journal of Horticulture and Florist's Companion. Boston. 1–5, 1867–1869. (6–8, 1869–1870, as "Tilton's Journal of Horticulture and Floral Magazine"; 9, 1871, as "Tilton's Journal of Horticulture and Florist's Companion.")

Amer. Jour. Hyg.=American Journal of Hygiene. Baltimore, Md. 1, 1921+

Amer. Jour. Sci. and Arts=American Journal of Science and Arts. New Haven, Conn.; New York. 2–50, 1820–1845; Ser. 2, 1–50, 1846–1870; Ser. 3, 1–19, 1871–1879. (1, 1818–1819, and Ser. 3,

20–50, 1880–1895, Ser. 4, 1–50, 1896–1920, and Ser. 5, 1–36, 1921–1938, and 237, 1939+ as "American Journal of Science.")

Volumes are also numbered in whole series, 1–236, 1818–1938. This periodical also known as "Silliman's Journal."

Amer. Jour. Trop. Med.=The American Journal of Tropical Medicine. Baltimore, Md. 1–31, 1921–1951.

Superseded by "The American Journal of Tropical Medicine and Hygiene" with the absorption of "The Journal of the National Malaria Society."

Amer. Micros. Soc. Trans.=Transactions of the American Microscopical Society. Indianapolis, Ind.; Menasha, Wis. 17, 1895+ ([1], 1878, as "Proceedings of the National Microscopical Congress"; [2]–13, 1879–1891, as "Proceedings of the American Society of Microscopists"; 14–16, 1892–1894, as "Proceedings of the American Microscopical Society.")

Volume numbering began with vol. 10, 1888.

Amer. Midland Nat.=American Midland Naturalist. Notre Dame, Ind. 1, 1909+ Vol. 1, nos. 1–4, as "Midland Naturalist."

Amer. Mus. Nat. Hist., Amer. Mus. Novitates=American Museum Novitates. American Museum of Natural History, New York. 1, 1921+

Amer. Mus. Nat. Hist. Bul.=Bulletin of the American Museum of Natural History. New York. 1, 1881+

Amer. Nat.=The American Naturalist. Philadelphia, Boston, New York. 1, 1867+

Amer. Phil. Soc. Proc.=Proceedings of the American Philosophical Society. Philadelphia. 1, 1838+

Amer. Quart. Jour. Agr. and Sci.=American Quarterly Journal of Agriculture and Science. See **Amer. Jour. Agr. and Sci.**

Ann. and Mag. Nat. Hist.=Annals and Magazine of Natural History. London. 6–20, 1841–1847; Ser. 2, 1–20, 1848–1857; Ser. 3, 1–20, 1858–1867; Ser. 4, 1–20, 1868–1877; Ser. 5, 1–20, 1878–1887; Ser. 6, 1–20, 1888–1897; Ser. 7, 1–20, 1898–1907; Ser. 8, 1–20, 1908–1917; Ser. 9, 1–20, 1918–1927; Ser. 10, 1–20, 1928–1937; Ser. 11, 1–14, 1938–1947; Ser. 12, 1–10, 1948–1957; Ser. 13, 1, 1958+ (1–5, 1838–1840, as **Ann. Hist. Nat.** [q.v.].)

Ann. de Biol. Lacustre=Annales de Biologie Lacustre. Brussels. 1–15, 1906–1926.

Ann. des Sci. Nat., Zool.=Annales des Sciences Naturelles. Série Zoologie. Paris. Ser. 2, 1–20, 1834–1843; Ser. 3, 1–20, 1844–1853; Ser. 4, 1–20, 1854–1863; Ser. 5, 1–20, 1864–1874; Ser. 9, 1–20, 1905–1915; Ser. 10, 1–20, 1916–1937. (Ser. 6, 1–20, 1875–1885, Ser. 7, 1–20, 1886–1895, and Ser. 8, 1–20, 1896–1904, as "Annales . . . Série Zoologie et Paléontologie," with incorporation of

"Annales des Sciences Géologiques"; Ser. 11, 1, 1938+ as "Annales des Sciences Naturelles. Zoologie et Biologie Animale.")

[Ser. 1], 1–30, 1824–1833, as "Annales des Sciences Naturelles," [combined Zoologie and Botanique]; then split into 2 series: Zoologie, as above, and Série Botanique, Ser. 2–10, vols. 1–20 each, 1834–1938, and Ser. 11, 1, 1939+

Ann. Ent. Fenn.=Annales Entomologici Fennicae. Suomen Hyönteistieteellinem Aikakauskirja (Entomological Society of Finland), Helsinki. 1, 1935+

Ann. Nat. Hist.=Annals of Natural History. See **Ann. and Mag. Nat. Hist.**

Ann. Rev. Ent.=Annual Review of Entomology. Stanford, Calif. 1, 1956+

Ann. Scot. Nat. Hist.=Annals of Scottish Natural History. See **Scot. Nat.**

Ann. Trop. Med. and Parasitol.=Annals of Tropical Medicine and Parasitology. Liverpool School of Tropical Medicine, Liverpool, England. 1, 1907+

Supersedes "Memoirs of the Liverpool School of Tropical Medicine."

Arb. über Morph. u. Taxonom. Ent.=Arbeiten über Morphologische und Taxonomische Entomologie aus Berlin-Dahlem. Berlin-Dahlem. 1–11, 1934–1944.

Arch. da Esc. Super. Agr. e Med. Vet. [Nichtheroy, Rio de Janeiro]=Archivos da Escola Superior de Agricultura e Medicina Veterinaria. Nichtheroy, Brazil. 1–10, 1917–1933.

Arch. de Méd. Nav.=Archives de Médicine Navale. Paris. 1–53, 1864–?, and 67–94, ?–?. (54–66, ?–1910, as "Archives de Médicine Navale et Coloniale"; 95–130, 1911–1942, as "Archives de Médicine et de Pharmacie Navale".)

Superseded by "Revue de Médicine Navale Métropole et Outremer."

Arch. f. Hydrobiol.=Archiv für Hydrobiologie. Berlin, Stuttgart. N. ser., 12, 1918+ (1–12, 1893–1905, as "Forschungsberichte aus der Biologische Station zu Plön"; N. ser., 1–11, 1905–1917, as "Archiv für Hydrobiologie und Planktonkunde.")

A supplement volume began in 1911, see **Arch. f. Hydrobiol., Sup.-Band.**

Arch. f. Hydrobiol., Sup.-Band=Archiv für Hydrobiologie. Supplement-Band. Berlin, Stuttgart. 2 (4), 1921+ (1–2 (3), 1911–1916, as **Arch. f. Hydrobiol. u. Planktonkunde, Sup.-Band.** [q.v.].)

Arch. f. Hydrobiol. u. Planktonkunde, Sup.-Band=Archiv für Hydrobiologie und Planktonkunde. Supplement-Band. See **Arch. f. Hydrobiol., Sup.-Band.**

Arch. f. Klassifikatorische u. Phylogenetische Ent.=Archiv für Klassifikatorische und Phylogenetische Entomologie. Vienna. 1, 1928–1930.

Arch. f. Naturgesch.=Archiv für Naturgeschichte. Berlin. 1–77, 1835–1911; continued in 2 sections: "Abteilung A. Original-Arbeiten," 78–92, 1912–1926, and "Abteilung B. Jahres-Berichte," 78–89, 1912–1926. (N. ser., 1 1932+ as "Zeitschrift für Wissenschaftliche Zoologie. Abteilung B. Archiv für Naturgeschichte."

The volumes were issued in separately paged hefts.

Arch. f. Schiffs- u. Tropen-Hyg.=Archiv für Schiffs- und Tropenhygiene, Leipzig. 1–44, 1897–1940. (45–48, 1941–1944, as "Deutsche Tropenmedizinische Zeitschrift.")

Arch. f. Zool. u. Zootomie=Archiv für Zoologie und Zootomie. Berlin, Brunswick. 1–5, 1800–1806.

This was issued in separately paged numbers. Superseded by "Neues Archiv für Zoologie und Zootomie." The periodical is sometimes known as "Wiedemann's Archiv."

Arch. Zool. Budapest=Archivum Zoologicum. Budapest. 1, 1909–1910.

Arkiv för Zool.=Arkiv för Zoologi. K. Svenska Vetenskapsakademien, Stockholm, Uppsala. 1, 1903+

This is issued in separately paged numbers, and beginning with Vol. 17, 1925, in 2 sections, A and B, each with their own separately paged numbers (although still bound as a single volume).

Arq. de Zool. de Estado de São Paulo=Arquivos de Zoologia do Estado de São Paulo. São Paulo. 1, 1940+

Supersedes [**São Paulo**] **Mus. Paulista, Rev.** [q.v.], vols. 1–3, 1940–1942, also being numbered 24–26, in continuation of that periodical.

Austral. Jour. Sci. Res., Ser. B: Biol. Sci.=Australian Journal of Scientific Research. Series B: Biological Sciences. Melbourne. 1–5, 1948–1952. (6, 1953+ as "Australian Journal of Biological Sciences.")

Austral. Jour. Zool.=Australian Journal of Zoology. Melbourne. 1, 1953+

Beitr. z. Ent. (Berlin)=Beiträge zur Entomologie. Berlin. 1, 1951+

Beitr. z. Ent., Besonders in Bezug auf Schles. Fauna (Breslau)=Beiträge zur Entomologie, Besonders in Bezug auf Schlesische Fauna. Breslau. 1, 1829.

A periodical with the title "Beiträge zur Entomologie, Besonders in Bezug auf Schlesien," was also issued at Breslau, 1–3, 1832–1833.

Berlin Zool. Mus. Mitt.=Mitteilungen aus dem Zoologischen Museum in Berlin. Berlin. 1, 1898+

This was sometimes issued in separately paged numbers. It was suspended 1942–1948.

Berlin. Ent. Ztschr.=Berliner Entomologische Zeitschrift. Berlin. 1–18, 1857–1874, and 25–28, 1881–1914. (19–24, 1875–1880, as **Deut. Ent. Ztschr.** [=**Berlin, Ent. Ztschr.**] [q.v.].)

Bernice P. Bishop Mus. Bul.=Bernice P. Bishop Museum. Bulletin. Honolulu, Hawaii. 1, 1922+

Bernice P. Bishop Mus. Occas. Papers=Occasional Papers of Bernice P. Bishop Museum. Honolulu, Hawaii. 1, 1898+

Suspended 1924–1929.

Berwickshire Nat. Club. Hist.=History of the Berwickshire Naturalist's Club. Edinburgh; Alnwick; Berwick; London. 1, 1831+

Running title is "Proceedings of the . . . Club."

Biol. Bul.=Biological Bulletin of the Marine Biological Laboratory Woods Hole, Mass. Boston; Woods Hole. 1, 1899+

Supersedes **Zool. Bull.** [q.v.].

Biol. Centbl.=Biologisches Centralblatt. Leipzig. 1–36, 1881–1916. (37, 1917+ as "Biologisches Zentralblatt.")

Biol. Hungarica=Biologica Hungarica. Budapest. 1, 1923–1926.

This has 7 separately paged numbers.

Biol. Rev. Ontario=Biological Review of Ontario. Toronto. 1, 1894.

Biol. Soc. Wash. Proc.=Proceedings of the Biological Society of Washington. Washington, D.C. 1, 1880+

Bol. Biol.=Boletim Biologica. São Paulo. 1–21, 1926–1932; N. ser., 1, 1933+

Boston Soc. Nat. Hist. Mem.=Memoirs of the Boston Society of Natural History. Boston. 1–9, 1862–1936.

Supersedes "Boston Journal of Natural History."

Boston Soc. Nat. Hist. Occas. Papers=Occasional Papers of the Boston Society of Natural History. Boston. 1–8, 1869–1941.

Vol. 7 is separately paged.

Boston Soc. Nat. Hist. Proc.=Proceedings of the Boston Society of Natural History. Boston. 1–42, 1841–1942.

Prior to 1841, the Proceedings of the Society were published in "American Journal of Science."

Brazil Med.=Brazil Medico. Rio de Janeiro. 1–46, 1887–1926. (47, 1927+ as "Brasil Medico."

Bremen, Deut. Kolon.- u. Uebersee-Mus., Veröffentl.=Veröffentlichungen aus dem Deutschen Kolonial- und Uebersee-Museum in Bremen. Bremen. 1–3, 1935–1942.

Superseded by "Veröffentlichungen aus dem Museum für Natur-, Völker- und Handelskunde," N. ser., 1, 1949+

Brit. Mus. (Nat. Hist.) Bul., Ent.=Bulletin of the British Museum (Natural History), Entomology. London. 1, 1950+

There are also series for Botany, Geology and Palaeontology, History, Mineralogy, and Zoology.

Brooklyn Ent. Soc. Bul.=Bulletin of the Brooklyn Entomological Society. Brooklyn, N.Y. 1, 1878+

Vols. 1–7 were published 1878–1885. A "new series" was begun in 1912, with vol. 8, and volume numbering is continuous.

Brotéria=Brotéria. Revista de Sciéncias Naturae. Lisboa. 1–5, 1902–1906; continued in 3 "series": "Série Botanico," 6–25, 1907–1931, "Série Zoológica", 6–27, 1907–1931, and "Série de Vulgar Sciencias," 6–22, 1907–1924; the first two "series" then united to form "Série Trimestral: Ciéncias Naturaes," 1, 1932+, and the third then became "Série Mensal: Fé Sciencias-letras," 1, 1925+

Brussels Inst. Roy. des Sci. Nat. de Belg. Bul.=Institut Royal des Sciences Naturelles de Belgique. Bulletin. Brussels. 25, 1949+ (1–24, 1882–1948, as **Brussels Mus. Roy. d'Hist. de Belg. Bul.** [q.v.].)

Suspended 1889–1930. Separately paged numbers were issued from vol. 6, 1930+. Title also given in Dutch.

Brussels Mus. Roy. d'Hist. Nat. de Belg. Bul.=Bulletin du Musée Royal d'Histoire Naturelle de Belgique. See **Brussels Inst. Roy. des Sci. Nat. de Belg. Bul.**

Brussels Mus. Roy. d'Hist. Nat. de Belg. Mém.=Mémoires du Musée Royal d'Histoire Naturelle de Belgique. Brussels. [1–30], 1900–1920; 31–110, 1921-1948. (111, 1949+ as "Institut Royal des Sciences Naturelles de Belgique. Mémoires."

Nos. 1–31, 1900–1921, are assigned to "Volumes" 1–8, without their own independent numbering (except No. 31). The title of the journal is also given in Dutch. A "Ser. 2," 1, 1935+, runs concurrently with the above periodical.

Budapest Magyar Nemzeti Muz., Ann. Hist. Nat.=Annales Historico-Naturales Musei Nationales Hungarici. Magyar Nemzeti Muzeum, Budapest. 1, 1903+

Vols. 29–41, 1935–1948, are in 3 separately paged parts: "Pars Zoologica," "Pars Botanica," and "Pars Mineralogica, Geologica, Palaeontologica." Vols. [42–49], 1951–1957, are called N. ser., 1–8; vol. 50, 1958, also as N. ser., 9. The periodical supersedes **Természet. Füzetek** [q.v.]. The title

is also given in Hungarian: "Természetrajzi Osztályainak Folyóirata" (1–31, 1903–1938), "Országos Magyar Természettudományi Muzeum Folyóirata" (32–41, 1939–1948), and "Országos Természettudományi Múzeum Evikönve ([42], 1951+).

Buenos Aires Mus. Nac. An.=Anales del Museo Nacional de Buenos Aires. Buenos Aires. 4–20, 1895–1911. (1–3, 1864–1894, as "Anales del Museo Público de Buenos Aires"; 21–31, 1912–1923, as "Anales del Museo Nacional de Historia Natural de Buenos Aires"; 32–36, 1923–1931, as "Anales del Museo Nacional de Historia Natural Bernardino Rivadavia Buenos Aires"; 37–42, 1931–1947, as "Anales del Museo Argentino de Ciencias Naturales 'Bernardino Rivadavia'.")

Also numbered in series: Vols. 4–7, 1895–1902, as Ser. 2, 1–4; vols. 8–22, 1902–1913, as Ser. 3, 1–15; vols. 23–42, with no additional series numbers. Beginning in 1948, all publications of the Museum were issued by the Instituto Nacional de Investigación de las Ciencias Naturales.

Buenos Aires Mus. Nac. Comun.=Comunicaciones del Museo Nacional de Buenos Aires. Buenos Aires. 1, 1898–1901. (2, 1921–1925, as "Comunicaciones del Museo Nacional de Historia Natural Bernardino Rivadavia Buenos Aires.")

Suspended 1902–1920. A new series was begun in 1947–1948, as "Comunicaciones del Instituto Nacional de Investigación de las Ciencias Naturales," in 3 sections: "Ciencias Zoológicas," 1 (9), 1948+ (nos. 1–8, 1947–1948, as "Comunicaciones del Museo Argentino de Ciencias Naturales 'Bernardino Rivadavia'," and were without a volume designation); "Ciencias Botánicas," 1, 1948+; and "Ciencias Geológicas," 1, 1948+. The numbers of these series are separately paged, and up to 1955, also have the Museum's name in their titles.

Buffalo Soc. Nat. Sci. Bul.=Bulletin of the Buffalo Society of Natural Sciences. Buffalo, N.Y. 1, 1873+

This is issued in separately paged numbers from vol. 11, 1914+

Bul. Ent. Res.=Bulletin of Entomological Research. London. 1, 1910+

Calif. Acad. Sci. Occas. Papers=Occasional Papers of the California Academy of Sciences. San Francisco. 1, 1890+

Suspended 1906–1921, 1932–1939.

Calif. Acad. Sci. Proc.=Proceedings of the California Academy of Sciences. San Francisco. 1–7, 1854–1876; Ser. 2, 1–6, 1888–1896; Ser. 3, in 4 parts: Zoology, 1–4, 1897–1906, Botany, 1–2, 1897–1904, Geology, 1–2, 1897–1905, and Mathematics-Physics, 1, 1897–1903; Ser. 4, 1, 1907+

Calif. Dept. Agr., Monthly Bul.=Monthly Bulletin of the Department of Agriculture. State of California. Sacramento. 9–24, 1919–1934. (1–8, 1911–1919, as "The Monthly Bulletin of the State

Commission of Horticulture, State of California"; 25–29, 1935–1940, as "Bulletin of the Department of Agriculture, State of California"; 30, 1941+ as "State of California, Department of Agriculture, Bulletin.")

Supersedes "Bulletin of the State Board of Horticulture." Some individual numbers have the title "Annual Report."

Calif. Insect Survey, Bul.=Bulletin of the California Insect Survey. Berkeley, Los Angeles. 1, 1950+

Calif. Univ., Pubs., Ent.=University of California. Publications in Entomology. Berkeley. 1, 1906+

Calif. Univ. Syllabus Ser.=University of California Syllabus Series. Berkeley, Los Angeles. 1, 1905+

These are irregularly published study manuals, etc., usually classed as separates by libraries. Some issues are given arbitrary letter designations in place of regular numbers in sequence.

Canad. Ent.=The Canadian Entomologist. London, Ont. 1, 1868+ A consecutively numbered supplement began with vol. 88, 1, 1956+ (Supplement 4, 1957, is called 1.)

Canad. Jour. Res., Sec. D, Zool. Sci.=Canadian Journal of Research. Section D, Zoological Sciences. See **Canad. Jour. Zool.**

Canad. Jour. Zool.=Canadian Journal of Zoology. Ottawa, Ont. 29, 1951+ (13–28, 1935–1950, as **Canad. Jour. Res., Sec. D, Zool. Sci.** [q.v.].)

The latter journal was continuously paged without sections, vols. 1–12, 1929–1934; vols. 13–21, 1935–1943, were issued in 2 parts, Secs. A–B, and C–D, each section separately paged; vols. 22–28, 1944–1950, were issued in 6 parts, Sections A–F, each of which became a separate journal with vol. 29, 1951. The other sections were: A. Physical Sciences; B. Chemical Sciences; C. Botanical Sciences; E. Medical Sciences; and F. Technology.

[**Canada**] **Commonwealth Inst. Biol. Control, Tech. Commun.**= Technical Communication. Commonwealth Institute of Biological Control. Commonwealth Agricultural Bureaux, Ottawa, Canada; Trinidad. 1, 1960+

Canada Dept. Agr. Bul.=Dominion of Canada. Department of Agriculture. Bulletin. New Series. Ottawa, Ont. 1–181, 1922–1935.

This combines the bulletins of various branches of the Department of Agriculture previously published separately into one serially numbered series, the "New Series." The bulletin number in the series of the particular Branch involved is often included. The title of the Bulletin is sometimes given in French. This was superseded by "Farmer's Bulletin," a subseries of the Department of Agriculture, Publications, beginning with Pub. 475, 1935.

One of the Branches whose bulletins were combined in the above "New Series" was the Entomological Branch, beginning with its Bulletin 19, 1922. Nos. 10–18, 1915–1920, were published separately as "Dominion of Canada,

Department of Agriculture, Entomological Branch, Bulletin"; previously its bulletins were published in "Dominion of Canada, Department of Agriculture, Experimental Farms, Bulletin" (1–98, 1887–1922; Ser. 2, 1–49, 1898–1921), which was also later included in the above "New Series." The early Entomological Branch Bulletins were published in the Experimental Farms Bulletins as follows: Nos. 1–4, 1911–1912, as "Division of Entomology, Bulletin," in Expt. Farms Bul. Ser. 2, 7; [old ser.], 69, 70; Ser. 2, 9, respectively. Nos. 5–8, 1912–1914, as "Entomological Bulletin," in Expt. Farms Bul. Ser. 2, 9–10, 12, 17–18, respectively; No. 9, 1915, was issued separately as "Entomological Bulletin."

(**Canterbury Col., Christchurch**) **Canterbury Mus. Rec.**=Records of the Canterbury Museum. Canterbury College, Christchurch, New Zealand. 1, 1907+

Carnegie Inst. Wash., Pub.=Carnegie Institution of Washington. Publications. Washington, D.C. 1, 1902+

Cellule=La Cellule. Louvain, France. 1, 1884+

Centbl. f. Bakt., Parasitenk. u. Infektionskrank., Abt. II=Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten. Zweite Abteilung. Jena. 2–77, 1896–1929. (1, 1895, as "Centralblatt für Bakteriologie und Parasitenkunde. Zweite Abteilung"; 78–106, 1929–1945, as "Zentralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten. Zweite Abteilung"; 107, 1952+ as "Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene. Zweite Abteilung.")

Abt. I, 17, 1895+, continues the volume numbering of "Centralblatt für Bakteriologie und Parasitenkunde" (1–16, 1887–1894) upon its split into the 2 Abteilungen.

Chicago Nat. Hist. Mus., Fieldiana, Zool.=Fieldiana: Zoology. Chicago Natural History Museum, Chicago. 31, 1945+ (1–8, 1895–1907, as "Publications of Field Columbian Museum. Zoological Series"; 9–30, 1908–1944, as "Publications of Field Museum of Natural History. Zoological Series.")

There were also series for Botany, Anthropology, History, Technique, Ornithology (which joined with Zoology) and a Report Series. Early volumes are sometimes divided into separately paged parts.

Coleopt. Bul.=The Coleopterist's Bulletin. Washington, D.C. 1, 1947+

Colo., Agr. Expt. Sta. Bul.=Bulletin. Agricultural Experiment Station. State Agricultural College of Colorado (1886–1887); State Agricultural College (1888–1899); Agricultural College of Colorado (1900–1905); Colorado Agricultural College (1905–1934); Colorado State College (1935–1944); Colorado Agricultural and Mechanical College (1944–1957); Colorado State University (1958+). Fort Collins, Colo. 6–52, 53–96, 97–282, 1889–1923; 496S, 1957. (1–3, 1886–1887, as "Bulletin. State Agricultural College of Colorado";

4–5, 1888, and 497S, 1958+, as "Bulletin. Experiment Station"; 283–461, 1923–1940, as "Bulletin. Colorado Experiment Station"; 462–493, 1940–1946, and 494S–495S, 1956, as "Bulletin. Colorado Agricultural Experiment Station.")

Suspended 1947–1955; upon resumption of publication the letter "S" was added to bulletin numbers.

Colo. Biol. Assoc. Rpt.=Report of the Colorado Biological Association. ?Place. 1–12, 1888–1889.

No. 12, 1889, was the last seen by us. Some of these reports also appeared in the "Custer County Courant," a newspaper.

Colo. Univ., Studies=The University of Colorado Studies. Boulder, Colo. 1–29, 1902–1957.

(Vols. 1–25, 1902–1937, are not marked in any series; vols. 26–29, 1938–1957, have separately paged numbers, and are marked "General series (A)" (Ser. B [humanities] and Ser. C [social studies] began in 1939, and Ser. D [physical and biological sciences] began in 1940); there was a reorganization into 10 separate series in 1948–1950, each beginning with a new volume numbering. Beginning with vol. 11, 1925, of [Ser. A], the numbers are also marked as "University of Colorado Bulletins," with its series number.

Conn. Acad. Arts and Sci., Trans.=Transactions of the Connecticut Academy of Arts and Sciences. New Haven, Conn. 1, 1866+

Volume numbering is irregular.

Conn. State Geol. and Nat. Hist. Survey, Bul.=State of Connecticut. State Geological and Natural History Survey. Bulletin. Hartford, Conn. 1, 1904+

Cornell Univ., Abs. Theses=Abstracts of Theses accepted in partial satisfaction of the requirements for the Doctor's Degree. Cornell University. Ithaca, N.Y. 1937+

No volume numbers used. The last volume we have seen is for 1947.

Country Gent.=The Country Gentleman. Albany, N.Y.; Philadelphia, Pa. 1–26, 1853–1865; 63, 1898+ (27–62, 1866–1897, as **Cult. and Country Gent.** [q.v.].)

Cult. and Country Gent.=Cultivator and Country Gentleman. See **Country Gent.**

Dansk Naturhist. For. København, Vidensk. Meddel.=Viddenskabelige Meddelelser fra Dansk Naturhistoriske Forening i København. 70, 1919+ (1–10, 1849–1859, Ser. 2, 1–10, 1860–1868, and Ser. 3, 1–7, 1869–1874, as "Videnskabelige Meddelelser fra den Naturhistoriske Forening i Köbenhavn"; Ser. 3, 8–10, 1875–1878, Ser. 4, 1–10, 1879–1888, Ser. 5, 1–10, 1890–1898, Ser. 6, 1–10, 1899–1908, and Ser. 7, 1–2, 1909–1910, and 63, 1911, as "Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn"; 64–

69, 1912–1918, as "Videnskabelige Meddelelser fra Dansk Naturhistoriske i Kjøbenhavn.")

Vols. 63–70, 1911–1919, are also called Ser. 7, 3–10; vols. 71–86, 1920–1928, also as Ser. 8, 1–9 (some of the volumes of Ser. 8 are in 2 separately paged parts, although each part is assigned a consecutive whole series number); 87, 1929+ without additional series numbers.

Davenport Acad. Nat. Sci. Proc.=Proceedings of the Davenport Academy of Natural Sciences. Davenport, Iowa. 1–7, 1867–1898. (8–13, 1899–1914, as "Proceedings of the Davenport Academy of Sciences.")

Deut. Ent. Gesell. Mitt.=Mitteilungen der Deutschen Entomologischen Gesellschaft. Berlin. 1, 1930+

Deut. Ent. Ztschr.=Deutsche Entomologische Zeitschrift. Berlin. 25–31, 1881–1887; 1888–?; N. ser., 1, 1954+

Vols. 19–24, 1875–1880, of the **Berlin. Ent. Ztschr.** were called **Deut. Ent. Ztschr.** [=**Berlin. Ent. Ztschr.**] [q.v.]. In 1881, **Deut. Ent. Ztschr.** became a separate periodical but the volume numbering of the **Berlin. Ent. Ztschr.** was continued up through 1887, after which no volume numbers were given (until the N. ser.). At times, separately paged "Beihefte" have been published with individual volumes.

Deut. Ent. Ztschr. [=**Berlin. Ent. Ztschr.**]=Deutsche Entomologische Zeitschrift [=Berliner Entomologische Zietschrift]. See **Berlin. Ent. Ztschr.**

Deut. Tierärztl. Wchnschr.=Deutsche Tierärztliche Wochenschrift. Karlsruhe, Hannover. 1–50, 1893–1942, and 53?, 1946+ (51–52, 1943–1944, absorbed "Tierärztliche Rundschau", both titles being given, and the volume numbers of the latter also given, i.e., its vols. 49–50; 1944–1945, combined with 2 other journals to form "Tierärztliche Zeitschrift," which then was discontinued, splitting again into the 4 journals.)

Vols. 53–54, ?1946–1947, have not been seen by us.

Dresden K. Zool. u. Anthrop.-Ethnog. Mus. Abhandl. u. Ber.=Abhandlungen und Berichte des Königlichen Zoologischen und Anthropologische-Ethnographischen Museums zu Dresden. Berlin. 1–15, 1886–1922. (15–20, 1924–1939, as "Abhandlungen und Berichte der Staatliches Museen für Tierkunde und Völkerkunde zu Dresden"; two Museums were formed in 1952, 1 for zoology and 1 for ethnology, and the above periodical continued in part 21, 1953, as "Abhandlungen und Berichte aus dem Staatlichen Museum für Tierkunde—Forschungsinstitut-Dresden"; 22–23 (1), 1954–1956, as "Abhandlungen und Berichte aus dem Staatlichen Museum für Tierkunde—Forschungsstelle-Dresden"; 23 (2) 1957+, as

"Abhandlungen und Berichte aus dem Staatlichen Museum für Tierkunde in Dresden.")

Vols. 1–20, 1886–1939, have separately paged numbers, and sometimes separate "Beihefte."

Dusenia=Dusenia. Publicatio Periodica de Scientia Naturali. Curitiba, Brazil. 1, 1950+

Ecol. Monog.=Ecological Monographs. Ecological Society of America, Durham, N.C. 1, 1931+

Ecology=Ecology. Brooklyn Botanical Gardens, Brooklyn, N.Y. 1, 1920+

Supersedes "Plant World."

Elisha Mitchell Sci. Soc. Jour.=Journal of the Elisha Mitchell Scientific Society. Chapel Hill, N.C. 1, 1883+

Vols. 12–18, 1895–1903, have some separately paged numbers [="parts"]. Vol. 18, 1902–1903, is also included in the series "The University of North Carolina, The University's Bulletins."

Emory Univ. (Ga.) Mus. Bul.=Emory University Museum Bulletin. Atlanta, Ga. 1, 1943+

Encyclopédie Ent., Sér. A.=Encyclopédie Entomologique. Série A. Travaux Généraux. Paris. 1, 1924+

Encyclopédie Ent., Sér. B, [Div.] II: Diptera=Encyclopédie Entomologique. Série B. Mémoires et Notes. II. Diptera. Paris. 1, 1924+

[Division] I covers Coleoptera, and III, Lepidoptera.

Ent. Amer.=Entomologica Americana. Lancaster, Pa. 1, 1885+

Suspended 1891–1926; vol. 7, 1926+, are marked N. ser.

Ent. Ber.=Entomologische Berichten. Den Haag. 1, 1901+

Ent. Mag. [Japan]=Entomological Magazine. Kyoto, Japan. 1–3, 1915–1919.

Ent. Mag. (London)=The Entomological Magazine. London. 1–5, 1832–1838.

Superseded by **Entomologist (Newman's)** [q.v.]

Ent. Meddel.=Entomologiske Meddelelser. Copenhagen. 1, 1887+

Vols. 6–14, 1897–1925, also called Ser. 2, 1–9. Vol. 15 began publication in 1921.

Ent. Mitt.=Entomologische Mitteilungen. Berlin-Dahlem. 1–17, 1912–1928.

Supersedes "Deutsche Entomologische National-Bibliothek."

Ent. Monthly Mag.=The Entomologist's Monthly Magazine. London. 1, 1864+

Vols. 26–50, 1890–1914, also called Ser. 2, 1–25; vols. 51–75, 1915–1939, also as Ser. 3, 1–25; vols. 76, 1940+, also as Ser. 4, 1+

Ent. Nachr.=Entomologisches Nachrichten. Berlin. 1–26, 1875–1900.

Ent. News=Entomological News. Philadelphia. 6, 1896+ (1–5, 1890–1895, as **Ent. News and Acad. Nat. Sci. Phila., Ent. Sect. Proc.** [q.v.].)

Ent. News and Acad. Nat. Sci. Phila., Ent. Sect. Proc.=Entomological News and Proceedings of the Entomological Section of the Academy of Natural Sciences of Philadelphia. See **Ent. News.**

Ent. Obozr.=Entomologicheskoe Obozrenie. Leningrad. 25, 1931+ (1–24, 1901–1930, as "Russkoe Entomologicheskoe Obozrenie".)

Suspended 1939–1944.

Ent. Soc. Amer. Ann.=Annals of the Entomological Society of America. Columbus, Ohio; Washington, D.C. 1, 1908+

Ent. Soc. Amer. Misc. Pub.=Miscellaneous Publications of the Entomological Society of America. Washington, D.C. 1, 1959+

Ent. Soc. Brit. Columbia, Proc.=Proceedings of the Entomological Society of British Columbia. Victoria, Vancouver, Vernon, B. C. 3, 1913+ (1–2, 1911–1912, as "Proceedings of the British Columbia Entomological Society.")

Vols. 8–20, 1916–1922, alternate as an Economic Series, and a Systematic Series. Vols. 1–7, 1911–1915, called New Series (superseding "Bulletin of the British Columbia Entomological Society").

Ent. Soc. London, Trans.=The Transactions of the Entomological Society of London. See **Roy. Ent. Soc., London, Trans.**

Ent. Soc. Ontario, Ann. Rpt.=Annual Report of the Entomological Society of Ontario. See **Ent. Soc. Ontario, Proc.**

Ent. Soc. Ontario, Proc.=Proceedings of the Entomological Society of Ontario. Toronto, Ont. 90, 1959+ (1, 1869–1870, as "First Annual Report of the Noxious Insects of the Province of Ontario"; [2–6], 1871–1875, and [8–12], 1877–1881, as "Annual Report of the Entomological Society of the Province of Ontario"; [7], 1876, and 15–89, 1884–1958, as **Ent. Soc. Ontario, Ann. Rpt.** [q.v.]; [13–14], 1882–1883, as "Report of the Entomological Society of Ontario."

Vols. [11–14] are unnumbered, although [11–14] are numbered on the first page of the reports. Vol. 90, 1959, is also called "Annual Report." Some of the earlier reports were also published with different pagination in the various reports of the Ontario Department of Agriculture.

Ent. Soc. Phila. Proc.=Proceedings of the Entomological Society of Philadelphia. Philadelphia. 1–6, 1861–1867.

Superseded by **Amer. Ent. Soc. Trans.** [q.v.].

Ent. Soc. So. England, Trans.=Transactions of the Entomological Society of the South of England. Southampton, England. 6–8, 1930–1933. (1–4, 1924–1928, as "Transactions of the Hampshire Entomological Society"; 5, 1929, as "Transactions of the Entomological Society of Hampshire and the South of England.")

Superseded by **Soc. Brit. Ent. Trans.** [q.v.].

Ent. Soc. South. Africa, Jour.=The Journal of the Entomological Society of Southern Africa. Pretoria. 1, 1939+

Ent. Soc. Wash. Proc.=Proceedings of the Entomological Society of Washington. Washington, D.C. 1, 1884+

Ent. Tidskr.=Entomologisk Tidskrift. Uppsala, Sweden. 1, 1880+

Ent. Wchnbl.=Entomologisches Wochenblatt. Leipzig, Stuttgart. 24–25, 1907–1908. (1–23, 1884–1906, as **Insekten-Börse** [q.v.]; 26–27, 1909–1910, as "Entomologische Rundschau," which included a separately paged "Insektenbörse"; then split into a textual portion called "Entomologische Rundschau," 28–56, 1911–1939, and an advertising sheet (Anzeigenblatt) called "Insektenbörse," a Beilage, 28, 1911+).

"Entomologische Rundschau" absorbed "Societas Entomologica" in 1931, and vols. 48–49, 1931–1932, carry in addition, volume numbers 46–47 of the latter journal. "Entomologische Rundschau" merged into "Entomologische Zeitschrift" in 1939, and vol. 53, 1939–1940, of the latter is also called vol. 56 of "Entomologische Rundschau" (although merger did not take place until the 36th number of the volume).

Volumes 43–52, 1926–1935, of "Insektenbörse" were issued as an advertising sheet to both "Entomologische Rundschau" (vols. 43–52) and "Entomologische Zeitschrift" (vols. 40–49), and thereafter continued (with vol. 53, 1936) as a Beilage to the latter (vol. 50).

Entomologist=The Entomologist. London. 10, 1876+ ([1]–9 1840–1875, as **Entomologist (Newman's)** [q.v.], with a half-title, page reading "Newman's Entomologist.")

Vol. 1, 1840–1842, is unnumbered. Suspended 1843–1863. The subtitle of vols. 10–85, 1876–1952, varies, and from vol. 86, 1953+, it is absent.

Entomologist (Newman's)=The Entomologist. (Newman's Entomologist). See **Entomologist.**

Essex Inst. Proc.=Proceedings of the Essex Institute. Salem, Mass. 1–6,1848/1856–1867/1871.

Vols. 4–6, 1864–1871, include separately paged "Communications." The covers of the numbers of vol. 6, 1867–1871, read "Proceedings and Communications of the Essex Institute," but the title page of the volume reads only as Proceedings.

Estudio, Semenario de Cien. Méd. (Inst. Méd. Nac. de Mex.)=El Estudio. Semenario de Ciencias Médicas. Instituto Médico Nacional de Mexico, Mexico City. 1–4, 1889–1893.

Superseded by "Analcs del Instituto Médico Nacional."

Evolution (Lancaster, Pa.)=Evolution. Society for the Study of Evolution, Lancaster, Pa. 1, 1947+

Feuille des Jeunes Nat.=Feuille des Jeunes Naturalistes. Paris. 1–44, 1870–1914. (45–47, 1924–26, and N. ser., 1–7, 1946–1952, as "Feuille des Naturalistes"; N. ser., 8, 1953+, as "Cahiers des Naturalistes.")

Vols. 24–30, 1894–1900, also called Ser. 3, 24–30; vols. 31–40, 1900–1910, also as Ser. 4, 1–10; 41–44, 1911–1914, also as Ser. 5, 1–4.

The issues are numbered serially, 1–518, 1870–1914, and N. ser., 1–34, 1924–1926.

Finska Vetensk. Soc., Acta Soc. Sci. Fenn.=Acta Societatis Scientiarum Fennicae. Finska Vetenskaps-Societeten, Helsingfors. 3–50, 1846–1926. (1–2, 1842–1845, as "Commentationes Societatis Scientiarum Fennicae"; continues as "Acta Societatis Scientiarum," "N. ser. A: Opera Physico-Mathematica," 1, 1926+ and "N. ser. B: Opera Biologica," 1, 1938+)

Finska Vetensk. Soc., Comm. Biol.=Commentationes Biologicae. Finska Vetenskaps-Societeten, Helsingfors. 1, 1924+

Finska Vetensk. Soc., Öfversigt af . . . Förhandl., Afd. A: Mat. och Naturvetensk.=Öfversigt af Finska Vetenskaps-Societetens Förhandlingar. Afd. A. Matematik och Naturvetenskaper. Helsingfors. 51–64, 1909–1922.

The "Öfversigt . . . Förhandlingar" began as a single journal, 1–50, 1838–1908; with vol. 51, 1909, it split into 3 separate series: A, as above; B, Humanistika Vetenskaper; and C, Redogörelser och Förhandlingar. It was superseded by the various Commentationes of the Society (e.g., see **Finska Vetensk. Soc., Comm. Biol.**). The 3 sections may be bound by libraries together as volumes of the "Öfversigt" or separately, and each was issued in separately paged numbers.

Fla. Ent.=The Florida Entomologist. Gainesville, Fla. 4, 1920+ (1–3, 1917–1920, as "The Florida Buggist.").

Folia Zool. et Hydrobiol.=Folia Zoologica et Hydrobiologica. Latvijas (Lettländischen) Universität, Riga. 1, 1929+

[France] Min. de l'Agr., [Cent. Natl. de Rech. Agron., Versailles], Monog.=Monographies publiées par les Stations et Laboratoires de Recherches Agronomiques. Ministère de l'Agriculture, Direction de l'Agriculture [Centre National de Recherches Agronomiques, Versailles], Paris. [5], 1938–? [there are at least 8, through 1939]. ([1–2], 1933–1935, as "Collection de Monographies publiées par les Stations et Laboratoires de Recherches Agronomiques de

Versailles"; [3], 1935, not titled in series; [4], 1936, as "Monographies publiées par le Centre National de Recherches Agronomiques No. 3 [sic]."')

These are usually classed as separates by libraries. No serial numbers appear on most; they are assigned from lists at the end of the later monographs.

Gard. Chron. and Agr. Gaz.=Gardeners' Chronicle and Agricultural Gazette. London. 1844–1873. (1841–1843, and Ser. 2, 1–26, 1874–1886, and Ser. 3, 1, 1887+, as "Gardeners' Chronicle.")

No volume numbers were used in the first series.

Genet. Soc. Amer. Rec.=Records of the Genetics Society of America. Lancaster, Pa.; Menasha, Wis.; Cold Spring Harbor, N.Y.; Columbus, Ohio; Madison, Wis., etc. 2, 1933+ ([1], 1932, as "The Genetics Society of America. Program of the first Annual Meeting" [preprinted from **Amer. Nat.,** vol. 67].)

Genetics=Genetics. Princeton, N.J.; Menasha, Wis. 1, 1916+

George Wash. Univ. Bul.=George Washington University Bulletin. Washington, D.C., 1, 1902+

Early volumes issued in separately paged numbers.

Genoa Mus. Civico di Storia Nat. Ann.=Annali del Museo Civico di Storia Naturale di Genova. Genoa, Italy. 1–46, 1870–1915. (47, 1916+, as "Annali del Museo Civico di Storia Naturale Giacomo Doria.")

Subtitle varies. Vols. 21–40, 1884–1901, also called Ser. 2, 1–20; vols. 41–50, 1904–1926, also called Ser. 3, 1–10.

Gessell. Naturf. Freunde, Berlin, Sitzber.=Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin. Berlin. 1839/1859+

Volume numbers are not used. Material for the years 1839–1859 was issued in a single volume, in 1912.

Giambattista Vico, Gior. Sci. (Naples)=Il Giambattista Vico. Giornale Scientifico. Naples. 1–4, 1857.

Glasgow Nat.=The Glasgow Naturalist. Glasgow. 1, 1908+

Suspended 1922–1925, 1927–1929.

Great Basin Nat.=The Great Basin Naturalist. Provo, Utah. 1, 1939+

Harvard Univ., Inst. Trop. Biol. and Med. Contrib.=Contributions from the Institute for Tropical Biology and Medicine. Harvard University, Cambridge, Mass. 1–4, 1925–1926. (5–6, 1930–1934, as "Contributions from the Department of Tropical Medicine and the Institute for Tropical Biology and Medicine.")

Harvard Univ., Mus. Compar. Zool. Bul.=Bulletin of the Museum of Comparative Zoology at Harvard College. Harvard University, Cambridge, Mass. 1, 1863+

Hawaii. Ent. Soc. Proc.=Proceedings of the Hawaiian Entomological Society. Honolulu. 1, 1905+

Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul.=Bulletin. Division of Entomology. Report of the Work of the Experiment Station of the Hawaiian Sugar Planters' Association. Honolulu. 1–8, 1905–1909. (9–14, 1910–1919, as "Bulletin. Entomological Series. Report . . . Association"; 15–21, 1924–1936, and 22, 1942, as "Bulletin of the Experiment Station of the Hawaiian Sugar Planters' Association. Entomological Series.")

Bul. 1, 1905, has 10 continuously paged parts. Buls. 2–5, 1906–1907, are in a "Volume 2," separately paged. There are several other series of Bulletins.

Hilgardia=Hilgardia. Agricultural Experiment Station, Berkeley. Calif. 1, 1925+

Hokkaido Imp. Univ., Faculty Agr., Jour.=Journal of the Faculty of Agriculture. Hokkaido Imperial University. Sapporo, Sendai, Japan. 20–48, 1929–1949. (1–2, 1876–1907, as "Journal of the Sapporo Agricultural College"; 3–7, 1908–1917, as **Tohôku Imp. Univ., Col. Agr., Jour.** [q.v.]; 8–19, 1918–1928, as "Journal of the College of Agriculture. Hokkaido Imperial University"; 47, 1950+, as "Journal of the Faculty of Agriculture. Hokkaido University.")

The word "Imperial" was dropped after 1950, with the latter numbers of vols. 47 and 48. Volumes were occasionally issued in separately paged numbers.

Hyogo Univ. Agr. (Sasayama), Sci. Rpts., Ser. Nat. Sci.=The Science Reports of the Hyogo University of Agriculture. Series Natural Science. Sasayama, Japan. 1, 1953+

I.R. Ist. Veneto di Sci., Let. ed Arti, Atti=Atti dell' I.R. Istituto Veneto di Scienze, Lettere ed Arti. Venice. Ser. 3, 1–11, 1856–1865. (1–7, 1840–1848, and Ser. 2, 1–6, 1850–1855, as "Atti delle Adunanze dell' I.R. Istituto Veneto di . . . Arti"; Ser. 3, 12–16, 1866–1871, and Ser. 4, 1–3, 1871–1874, as "Atti dell' Regio Istituto Veneto di . . . Arti"; Ser. 5, 1–8, 1874–1882, Ser. 6, 1–7, 1883–1889, Ser. 7, 1–10, 1890–1898, Ser. 8, 1–18, 1898–1916, Ser. 9, 1–10, 1917–1926, and 86–102, 1926–1943, as "Atti del Reale Istituto Veneto di . . . Arti"; 103, 1943+, as "Atti dell' Istituto Veneto di . . . Arti.")

Volume and series numbers appeared only on the signatures and not volume title pages of Series 1 and 2, and Ser. 3, vol. 1, 1840–1856. (Ser. 2, vol. 6, 1854/1855, is erroneously called "Ser. 3, vol. 1.") Volumes of series 7–9, 1890–1926, are also called vols. 48–85 (of the whole series). Volumes of series 8–9, 1898–1926, and volumes 86–93, 1926–1934, are in 2 separately paged sections: "Parte I," and "Parte II"; 94, 1934+, are in 3 separately paged Sections: "Parte I," "Parte II: Scienze Morali e Lettere" ("Classe

di Scienze . . . Lettere," 97, 1937+), and "Parte II: Scienze Matematiche e Naturali" ("Classe di Scienze . . . Naturali," 97, 1937+).

Ill. Biol. Monog.=Illinois Biological Monographs. Urbana, Ill. 1, 1914+

Volumes 1–24, 1914–1954, have separately paged parts, and thereafter each monograph is a volume in itself. Volumes 1–17 (1), 1914–1938, also form part of the "University of Illinois Bulletin" series.

Ill. Nat. Hist. Survey, Bul.=Bulletin of the Illinois Natural History Survey. Bloomington, Peoria, Urbana, Ill. 22–26, 1941–1955. ([1] (1), 1876, as "Illinois Museum of Natural History. Bulletin"; [1] (2–6), 1878–1883, as "Illinois State Laboratory of Natural History. Bulletin"; 2–12, 1884–1917, as **Ill. State Lab. Nat. Hist. Bul.** [q.v.]; 13–19, 1918–1932, as **Ill. State Nat. Hist. Survey, Bul.** [q.v.]; 20–21, 1932–1941, and 27, 1957+, as "Illinois Natural History Survey Bulletin.")

Volume 1, 1876–1883, is unnumbered, and consists of 6 separately paged numbers. Volumes 13–21, 1918–1941, are as shown above only on the title page of the volumes; title on individual numbers reads "State of Illinois. Department of Registration and Education. Division of the Natural History Survey. Bulletin."

Ill. State Agr. Soc. Trans.=Transactions of the Illinois State Agricultural Society. Springfield, Ill. 1–8, 1853–1870. (9–56, 1871–1918, as "Transactions of the Department of Agriculture of the State of Illinois.")

Superseded by "Annual Report of the Department of Agriculture. State of Illinois." Volumes 9–56, 1871–1918, are also called N. ser., 1–48. Volume 19, 1881, is called "Annual Report."

Ill. State Lab. Nat. Hist. Bul.=Bulletin of the Illinois State Laboratory of Natural History. See **Ill. Nat. Hist. Survey, Bul.**

Ill. State Nat. Hist. Survey, Bul.=Bulletin of the Illinois State Natural History Survey. See **Ill. Nat. Hist. Survey, Bul.**

Illus. Wchnschr. f. Ent.=Illustrierte Wochenschrift für Entomologie. See **Ztschr. f. Wiss. Insektenbiol.**

Ind. Dept. Geol. and Nat. Resources, Ann. Rpt.=Annual Report. Department of Geology and Natural Resources, Indiana. Indianapolis. 17–35, 1891–1911. (1–8/10, 1869–1879, as "Annual Report of the Geological Survey of Indiana"; 11–16, 1881–1889, as "Annual Report. Department of Geology and Natural History. Indiana"; 36–41, 1911–1919, as "Annual Report of Department of Geology and Natural History. Indiana.")

Superseded by the Annual Report of the Indiana Department of Conservation. No reports were issued for 1887, 1890, and 1892.

Indian Jour. Ent.=The Indian Journal of Entomology. New Delhi. 1, 1939+

Indian Mus. Rec.=Records of the Indian Museum. Calcutta. 1, 1907+

Insect Life (U.S. Dept. Agr., Div. Ent., Period. Bul.)=Insect Life. U.S. Department of Agriculture. Division of Entomology. Periodical Bulletin. Washington, D.C. 1–7, 1888–1895.

Insecta Matsumurana=Insecta Matsumurana. Sapporo, Japan. 1, 1926+

Insecutor Inscitiae Menstruus=Insecutor Inscitiae Menstruus. Washington, D.C. 1–14, 1913–1926.

Insekten-Börse=Insekten-Börse. See **Ent. Wchnbl.**

Inst. Biol. de Defesa Agr. e Anim. [São Paulo] Arch.=Archivos do Instituto Biológico de Defesa Agricola e Animal. São Paulo. 1–4, 1928–1931. (5–8, 1934–1937, as "Archivos do Instituto Biológico"; 9–12, 1939–1941, as "Arquivos do Instituto Biológico"; 13, 1942+, as "Arquivos do Instituto Biológico, Departamento da Defesa, Sanitaria da Agricultura.")

Inst. Jamaica, Jour.=Journal of the Institute of Jamaica. Kingston. 1–2, 1891–1899.

Inst. Oswaldo Cruz, Mem.=Memorias do Instituto Oswaldo Cruz. Rio de Janeiro. 1, 1909+

Inst. Pasteur d'Algérie, Arch.=Archives des Institut Pasteur d'Algérie. Algiers. 1, 1923+

Vol. 1, no. 1, 1923, is also called vol. 3, no. 2, of **Inst. Pasteur de l' Afrique du Nord, Arch.** [q.v.].

Inst. Pasteur de l'Afrique du Nord, Arch.=Archives des Instituts Pasteur de l'Afrique du Nord. Algiers. 1–2, 1921–1922.

Replaces "Archives des Instituts Pasteur de Tunis" during 1921–1922, which resumed with vol. 12, no. 1, in 1923 (also called vol. 3, no. 1, of the above series). Superseded by **Inst. Pasteur d'Algérie, Arch.** [q.v.], vol. 1, no. 1, 1923, of which is also called vol. 3, no. 2, of the above series.

Internatl. Comn. Zool. Nomencl., Bul. Zool. Nomencl.=The Bulletin of Zoological Nomenclature. International Commission on Zoological Nomenclature, London. 1, 1943+

Internatl. Rev. Gesam. Hydrobiol. u. Hydrog.=International Revue der Gesamten Hydrobiologie und Hydrographie. Leipzig. 1–43, 1908–1943.

Invertebrata Pacifica=Invertebrata Pacifica. Claremont, Calif. 1, 1903–1907.

Iowa Acad. Sci. Proc.=Proceedings of the Iowa Academy of Science. Des Moines. [1], 1887/1893+

Volumes 1–12, 1887–1904, read "Proceedings . . . Sciences"; vol. 1 is unnumbered. There was also a "Proceedings of the Iowa Academy of Sciences" published at Iowa City, 1875–1880.

Iowa State Col. Jour. Sci.=Iowa State College Journal of Science. Ames, Iowa. 1–33, 1926–1959. (34, 1959+ as "Iowa State Journal of Science.")

Isis (Oken's)=Isis. Jena, Leipzig. 1–41, 1817–1848.

Sometimes cited as "Isis von Oken," which appears on half-title page to the volumes.

Jahrb. der Hamburg. Wiss. Anst.=Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten. Hamburg. 1–34, 1883–1917.

One or more Beihefts accompany many of the volumes. Contains [vols. 1–10] of **Zool. Staatsinst. u. Zool. Mus. Hamburg, Mitt.** [q.v.], 1884–1892, and vols. 11–38 of the same journal appear as Beihefts, 1893–1922.

Jahresber. über die Fortschr. der Forstw. u. Forstl. Naturk.=Jahresberichtes über die Fortschritte der Forstwissenschafte und der Forstlichen Naturkunden. Berlin. 1, 1836–1839.

Jamaica Dept. Agr. Ent. Bul.=Department of Agriculture, Jamaica. Entomological Bulletin. Kingston. 1–5, 1921–1930. (6, 1932, as "Department of Science and Agriculture, Jamaica. Entomological Bulletin.")

Bul. 4 is in 2 separately paged parts, Pt. 1/2, 1926, as above; Pt. 3, 1928, as in Bul. 6.

Jour. Agr. Res.=Journal of Agricultural Research. Washington, D.C. 1–78, 1913–1949.

Suspended 1921–1922.

Jour. Anim. Ecol.=The Journal of Animal Ecology. London. 1, 1932+

Jour. de Phys., de Chim., d'Hist. Nat. et des Arts=Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts. Paris. 44–96, 1794–1823. (1, 1773, as "Observations et Mémoires sur la Physique, sur l'Histoire Naturelle et sur les Arts et Metiers"; 2–43, 1773–1793, as "Observations sur la Physique, sur l'Histoire Naturelle et sur les Arts.")

Supersedes "Introduction aux Observations sur la Physique."

Jour. Econ. Biol.=The Journal of Economic Biology. London. 1–10, 1905–1915.

Superseded by "The Journal of Zoological Research."

Jour. Econ. Ent.=Journal of Economic Entomology. Concord, N.H.; Geneva, N.Y.; Menasha, Wis.; Baltimore, Md. 1, 1908+

Jour. Ent. and Zool.=Journal of Entomology and Zoology. Claremont, Calif. 5–42, 1913–1951. (1, 1909, as "Pomona Journal of Entomology"; 2–4, 1910–1912, as **Pomona Col. Jour. Ent.** [q.v.].)

Jour. Hered.=The Journal of Heredity. Washington, D.C. 5, 1914+ (1–4, 1910–1913, as "American Breeder's Magazine".)

Jour. Parasitol.=The Journal of Parasitology. Lancaster, Pa. 1, 1914+

Jour. Trop. Med.=The Journal of Tropical Medicine. London. 1–9, 1898–1906. (10, 1907+, as "The Journal of Tropical Medicine and Hygiene.")

K. Akad. der Wiss. Wien, Math.-Nat. Cl. Denkschr.=Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe. Wien. 1–70, 1850–1901. (71–92, 1907–1916, as "Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse"; 93–95, 1917–1918, as "Kaiserliche Akademie der Wissenschaften in Wien. Mathematisch-Naturwissenschaftliche Klasse. Denkschriften"; 96–105, 1919–1943, as "Akademie der Wissenschaften in Wien. Mathematisch-Naturwissenschaftliche Klasse. Denkschriften" [vol. 105 is the last seen by us].)

Vols. 1–56, 1850–1889, are in 2 separately paged parts (except 35, 40, and 52); vols. 57, 1890+, are not in parts (except 66 which is in 3 continuously paged parts).

The other Class of the Denkschriften is "Philosophisch-Historische Klasse"; there is also a "Denkschriften der Gesamtakademie," 1, 1947+

K. Akad. der Wiss. Wien, Math.-Nat. Cl. Sitzber. Abt. I=Sitzungsberichte der Mathematisch-Naturwissenschaftlichen Classe der Kaiserlichen Akademie der Wissenschaften. Abteilung I. Wien. 43–111, 1861–1902. (112–123, 1903–1914, as "Sitzungsberichte der Mathematisch-Naturwissenschaftlichen Klasse der . . . Wissenschaften. Abteilung I."; 124–126, 1915–1917, as "Kaiserliche Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. Abteilung I."; 127–155, 1918–1946, as "Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. Abteilung I"; 156, 1947+, as "Österreichische Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. Abteilung I.")

Volumes 1–42, 1848–1860, of the Sitzungsberichte were without a breakdown into Abteilungen; 43–64, 1861–1871, and 163, 1954+, were with the separate Abteilungen I and II; 65–96, 1872–1887, and 132–162, 1923–1953, were with 3 separate Abteilungen, I, II, and III; 97–131, 1888–1922, were with 4, Abteilungen I, IIA, IIB, and III.

Volumes 1–123, 1848–1914, also as "Sitzungsberichte der Kaiserliche Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe [=Klasse]."

K. Danske Vidensk. Selsk., Biol. Meddel.=Det Kgl. Danske Videnskabernes Selskab. Biologiske Meddelelser. Copenhagen. 1, 1917+

This is issued in separately paged numbers.

K. Friedrich-Wilhelms-Gymnasiums zu Posen, Öffentl. Prüf. d. Schüler=Zu der Öffentlichen Prüfung der Schüler des Königlichen Friedrich-Wilhelms-Gymnasiums zu Posen. Posen. Dates unknown, include 1845 and 1850.

An annual "school program."

K.-k. Zool.-Bot. Gesell. Wien, Abhandl.=Abhandlungen der K.-k. Zool. Botan. Gesellschaft in Wien. See **Zool.-Bot. Gesell. Wien, Abhandl.**

K.-k. Zool.-Bot. Gesell. Wien, Verhandl.=Verhandlungen der Kaiserlich-königlichen Zoologisch-Botanischen Gesellschaft in Wien. See **Zool.-Bot. Gesell. Wien, Verhandl.**

K. Leopoldinisch-Carolinisch. Akad. d. Naturf., Verhandl. (Acad. C. Leopoldino-Carolinae Nat. Curio., Nova Acta Phys.-Med.)=Verhandlungen der Kaiserlichen Leopoldinisch-Carolinischen Akademie der Naturforscher (Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum). See **K. Leopoldinisch-Carolinisch. Deut. Akad. d. Naturf., Abhandl.**

K. Leopoldinisch-Carolinisch. Deut. Akad. d. Naturf., Abhandl. (Acad. C. Leopoldino-Carolinae Germ. Nat. Curio., Nova Acta)=Abhandlungen der Kaiserlichen Leopoldinisch-Carolinischen Deutschen Akademie der Naturforscher (Nova Acta. Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum). Nürnberg, Erlangen, Bonn, Breslau, Jena, Dresden, Halle. 64–103, 1895–1918. (1–8, 1757–1791, as "Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum"; 9, 1818, as "Verhandlungen der Leopoldinisch-Carolinischen Academie der Naturforscher (Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum)"; 10–19, 1821–1842, as **K. Leopoldinisch-Carolinisch. Akad. d. Naturf., Verhandl.** [q.v.]; 20–26, 1843–1858, as "Verhandlungen der Kaiserlichen Leopoldinisch-Carolinischen Akademie der Naturforscher (Novorum Actorum Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum)"; 27–35, 1860–1869, as "Verhandlungen der Kaiserlichen Leopoldinisch-Carolinischen Deutschen Akademie der Naturforscher (Novorum Actorum Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum)"; 36–63, 1873–1895, as "Verhandlungen . . . Naturforscher (Nova Acta. Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum)"; 104–110, 1919–1928, as "Abhandlungen der Leopoldinisch-Carolinischen Deutschen Akademie der Naturforscher (Nova Acta. Academiae Leopoldino-Carolinae Germanicae Naturae Curiosorum)"; N. ser., 1–14, 1932–1945, as "Nova Acta Leopoldina (Abhandlungen der Kaiserlich Leopoldinisch-Carolinisch Deutschen Akademie der Naturforscher)"; N. ser., 15, 1952+, as "Nova Acta

Leopoldina (Abhandlungen der Deutschen Akademie der Naturforscher [Leopoldina] zu Halle/Saale".)

Supersedes "Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum."

The "Verhandlungen" 9–26, 1818–1858, are also numbered 1–18, and in addition vols. 11–19, 1823–1842, are also called Ser. 2, 1–10, vols. 20–29, 1843–1861, also as Ser. 3, 1–10, and vols. 30–35, 1862–1869, also as Ser. 4, 1–6. Some early volumes are accompanied by 1 or more supplements. Some volumes are in parts, sometimes separately paged, and later the individual numbers were both continuously and separately paged. The volumes of the new series are continuously paged.

K. Realschule zu Meseritz, Programm=Programm der Königlichen Realschule zu Meseritz. Meseritz [=Miedzyrzecz, Poland]. 1840–1868.

The 29 separately paged, unnumbered, issues were annual "school programs."

K. Svenska Vetensk. Akad. Handl.=Kongliga Svenska Vetenskaps-Akademiens Handlingar. Stockholm. N. ser., 1–63, 1855–1923. (1813–1842, as **K. Vetensk. Acad. Handl.** [q.v.]; 1843–1854, as **K. Vetensk. Akad. Handl.** [q.v.]; Ser. 3, 1–25, 1924–1948, and Ser. 4, 1, 1949+, as "Kungliga Svenska Vetenskapsakademiens Handlingar."

Supersedes **K. Vetensk. Acad. Nya Handl.** [q.v.], which in turn supersedes an earlier "Handlingar." Libraries often count the first series, 1813–1854 (in which no volume numbers were used) as "Ser. 3," and the N. ser., 1855–1923, as "Ser. 4," Ser. 3, 1924–1948, as "Ser. 5," and Ser. 4, 1949+ as "Ser. 6." The Handlingar is issued in separately paged numbers from N. ser., vol. 2, 1856+

K. Svenska Vetensk. Akad. Öfversigt af . . . Förhandl.=Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar. Stockholm. 1–63, 1844–1921.

Volumes 29–63, 1872–1921, consist of separately paged numbers.

K. Vetensk. Acad. Handl.=Kongl. Vetenskaps-Academiens Handlingar. See **K. Svenska Vetensk. Akad. Handl.**

K. Vetensk. Acad. Nya Handl.=Kongl. Vetenskaps Academiens Nya Handlingar. Stockholm. 1–33, 1780–1812.

Supersedes "Kongl. Svenska Vetenskaps Academiens Handlingar" (1–40, 1739–1779 [1–7, 1739–1746, as "Kongl. Swenska Wetenskaps Academiens Handlingar"]). Superseded by **K. Vetensk. Acad. Handl.** [q.v.]. Libraries often count these "Nya Handlingar" as Ser. 2 of the whole series.

K. Vetensk. Akad. Handl.=Kongl. Vetenskaps-Akademiens Handlingar. See **K. Svenska Vetensk. Akad. Handl.**

K. Württemb. Landw. Ver., Stuttgart, Correspondenzbl.=Corres-

pondenzblatt des Königlich Württembergischen Landwirthschaftlichen Vereins. Stuttgart, Tübingen. 1–54, 1822–1848.

Vols. 21–54, ?–1848, also called N. ser., 1–34. It is not known if this was issued in separately paged numbers.

Kans. Acad. Sci. Trans.=Transactions of the Kansas Academy of Science. Topeka. 18, 1901+ (1–17, 1868–1900, as **Kans. Acad. Sci. Trans. Ann. Mtgs.** [q.v.].)

Kans. Acad. Sci. Trans. Ann. Mtgs.=Transactions of the Annual Meetings of the Kansas Academy of Science. See **Kans. Acad. Sci. Trans.**

Kans. Agr. Expt. Sta. Tech. Bul.=Technical Bulletin. Agricultural Experiment Station. Kansas State Agricultural College (1916–1930); Kansas State College of Agriculture and Applied Science (1931–1958); Kansas State University of Agriculture and Applied Science (1959+). Topeka; Manhattan. 1, 1916+

Kans. Ent. Soc. Jour.=Journal of the Kansas Entomological Society. McPherson; Manhattan. 1, 1928+

Kans. Univ. Quart.=The Kansas University Quarterly. Lawrence, Kans. 1–10, 1892–1901.

Superseded by **Kans. Univ. Sci. Bul.** [q.v.]. Beginning with vol. 6, 2 separate series appeared: Series A. Science and Mathematics, 6–10, 1897–1901, and Series B. Philology and History, 6–8, 1897–1899.

Kans. Univ. Sci. Bul.=The Kansas University Science Bulletin, Lawrence, Kans. 1, 1902+

Supersedes **Kans. Univ. Quart.** [q.v.]; vols. 1–26, 1902–1940, are also numbered in continuation of that periodical, 11–36. Those volumes are also included in the series "Bulletin of the University of Kansas."

Kiïv. Derzhavnii Univ. im. T. G. Shevchenka, Nauk. Zap.=Kiïvskii Derzhavnii Universitet imeni T. G. Shevchenka. Naukovi Zapiski. Kiev. 4, 1938+ (1–3, 1935–1937, as "Kiïvskii Derzhavnii Universitet (Universitet d'État de Kiev), Naukovi Zapiski (Bulletin Scientifique) N. Ser. "[of the University's "Universitetskiia Izvyestiia"].)

Each separately paged number ("Vid") is also numbered serially as one of many separate series, e.g., "Biologichnii Z'irnik," "Khemichinii Z'irnik", "Matematichnii Z'irnik," or "Z'irnik Zoomuzeiu" (=Sbornik Zoomuzeia; =Zool. Muz. Trudy).

Konowia=Konowia. Zeitschrift für Systematische Insektenkunde. Wien. 1–17, 1922–1939.

Ky. Agr. Expt. Sta. Bul.=Bulletin. Kentucky Agricultural Experiment Station. State College of Kentucky (1885–1908); State University (1908+). Lexington. 1–7, 1885–1886 and 9–15, 16–

134, 135–180, 181–673, 1887–1961. (8, 1886, as "Bulletin. Kentucky Experiment Station"; 674, 1961+, as "Bulletin. Agricultural Experiment Station.")

Nos. 48–419, 1894–1941, are continuously paged within each year and later bound and indexed in the Station's Annual Report. Many Bulletins are also called "Research Bulletins".

La Plata Mus. Rev.=Revista del Museo de La Plata. Universidad Nacional de La Plata [after 1905], Buenos Aires. 1–34, 1890–1934; N. ser., in 6 secciones: Antropología, 1, 1936+; Botánica, 1, 1936+; Geología, 1, 1936+; Oficial, 1, 1935+; Paleontología, 1, 1936+; and Zoología, 1, 1937+.

Vols. 14–24, 1907–1919, of old series, are also called Ser. 2, 1–11 [last as Vol. "12"]; vols. 25–34, 1922–1934, also as Ser. 3, 1–10. Vols. 23–24, 1916–1919, are in 2 separately paged parts.

[**Leningrad**] **Gosud. Inst. Opytn. Agron.** (**State Inst. Expt. Agron.**) **Otd. Prikl. Ent.** (**Bur. Appl. Ent.**) **Isv. Prikl. Ent.**=Izvestia Otdela Prikladnoi Entomologii. Gosudarstvennyi Institut Opytnoi Agronomii (State Institute of Experimental Agronomy). Otdel Prikladoi Entomologii (Bureau of Applied Entomology). Petrograd (1921–1922) (=Leningrad [1927–1930]). 3–4 (1), 1927–1929. (1, 1921, as "Izvestia Otdela Prikladoi Entomologii. Sel'sko-Khoziaistvennia Uchen'l Komitet (Agricultural Scientific Committee)"; 2, 1922, as "Izvestia . . . Entomologii. Sel'sko- . . . Komitet. Gosudarstvennyi Institut Opytnoi Agronomii"; 4(2), 1930, as "Izvestia . . . Entomologii. Vsesioznaia Akademiia C.-Kh. Nauk im Lenina (Lenin Academy of Agricultural Sciences in U.S.S.R.). Institut Zashchity Rastenii (Institute for Plant Protection). Otdel Prikladnoi Entomologii i Zoologii (Bureau of Applied Entomology and Zoology)".)

The "Izvestia" have the additional English title as follows: vols. 1–2, "Reports of the Bureau of Applied Entomology of the Agricultural Scientific Committee"; vol. 3, "Reports of the Bureau of Applied Entomology"; vol. 4, "Reports on Applied Entomology."

Superseded by the entomological series of "Trudy po Zashchity Rastenii."

Leyden Mus. Notes=Notes from the Leyden Museum. Rijks Museum van Natuurlijke Historie, Leiden. 1–36, 1879–1914.

Superseded by "Zoologische Mededeelingen uitg. vanwege's Rijks Museum van Natuurlijke Historie te Leiden."

Limnol. and Oceanog.=Limnology and Oceanography. Baltimore Md. 1, 1956+

Linn. Soc. (**London**), **Jour., Zool.**=The Journal of the Linnean Society. Zoology. London 8–35, 1865–1924 (and on individual numbers through Vol. 38, 1934.) (1–7, 1857–1864, as **Linn.**

Soc. (London), Jour. of Proc., Zool. [q.v.]; 36, 1924+, as "The Journal of the Linnean Society of London. Zoology.")

There is also a series for Botany.

Linn. Soc. (London), Jour. of Proc., Zool.=Journal of the Proceedings of the Linnean Society. Zoology. See **Linn. Soc. (London), Jour.**

Linn. Soc. London, Trans.=The Transactions of the Linnean Society of London. London. 7–30, 1804–1875; Ser. 2, in 2 sections: Zoology, 1–19, 1875–1936 and Botany, 1–9, 1875–1922; Ser. 3, 1, 1939+ (1–6, 1791–1802, as **Linn. Soc. (London), Trans.** [q.v.]).

Linn. Soc. (London), Trans.=Transactions of the Linnean Society. See **Linn. Soc. London, Trans.**

Linn. Soc. N. S. Wales, Proc.=Proceedings of the Linnean Society of New South Wales. Sydney. 1, 1875+

Vols. 11–20, 1886–1895, are called Ser. 2, 1–10, with the addition of the whole series volume number. Supplements accompany some volumes.

Linnaea Ent.=Linnaea Entomologica. Berlin. 1–16, 1846–1858.

Supersedes Ztschr. f. die Ent. (Leipzig) [q.v.].

London and Edinb. Phil. Mag. and Jour. Sci.=The London and Edinburgh Philosophical Magazine and Journal of Science. London. Ser. 3, 1–16, 1832–1840. (1–42, 1798–1813, and N. ser., 1–11, 1827–1832, Ser. 7, 36–40, 1945–1955, and Ser. 8, 1, 1956+, as "The Philosophical Magazine"; 43–68, 1814–1826, as "The Philosophical Magazine and Journal"; Ser. 3, 17–37, 1841–1850, Ser. 4, 1–50, 1851–1875, Ser. 5, 1–50, 1876–1900, Ser. 6, 1–50, 1901–1925, and Ser. 7, 1–35, 1926–1944, as "The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science" [and as volume title pages of vols. 36–39, 1945–1948].)

Supplements accompany some volumes.

Märkische Tierwelt=Märkische Tierwelt. Berlin. 1–4, 1934–1941.

Mag. d. Ent. (Halle)=Magazin der Entomologie, Herausgegeben von Dr. Ernst Friedrich Germar. Halle. 1–4, 1813–1821.

Also known as "Germar's Magazin."

Mag. f. Insektenkunde=Magazin für Insektenkunde, herausgegeben von Karl Illiger. Braunschweig. 1–6, 1801–1807.

Also known as "Illiger's Magazin."

Mag. Zool. and Bot.=Magazine of Zoology and Botany. Edinburgh; London. 1–2, 1837–1838.

United with "Companion to the Botanical Magazine" to form **Ann. Nat. Hist.** [q.v.].

Maine Agr. Expt. Sta. Bul.=Bulletin. Maine Agricultural Experiment Station. Maine State College (1885–1897); University of Maine (1897+). Augusta; Orono. Ser. 2, 1, 1889+ ([Ser. 1], 1–20, 1885–1886, as "Bulletin. Maine Experiment Station"; [Ser. 1], 21–26, 1887–1888, as "Bulletin. Agricultural Experiment Station.")

Buls. 1–20 of the old series were published in the newspaper "Whig and Courier". Nos. 1–5, 1885, were later reprinted. Of the second series, Buls. 1–52, 1889–1899, and 459, 1948+, are separately paged (6–52, 1894–1899, were later also published as continuously paged appendices to the annual Part 2 [="Report of the Director of the Agricultural Experiment Station"] of the "Annual Report of the Maine State College" (later University of Maine). Buls. 53–449, 1899–1947, were published continuously paged within each year and later bound and indexed as part of the annual reports of the Maine Agricultural Experiment Station; Buls. 450–458, 1947–1948, were also continuously paged but not indexed in the annual reports. The words "second series" appear only up through Bul. 25, 1896.

Marcellia=Marcellia; Rivista Internazionale de Cecidologia. Padova, Avellino, Portici, Italy. 1, 1902+

Mass. State Bd. Agr. Ann. Rpt. Sec.=Annual Report of the Secretary of the Massachusetts State Board of Agriculture. Boston. 2–62, 1854–1914. (1, 1853, as "Annual Report of the Secretary of the Board of Agriculture"; 63–65, 1915–1917 (1918), as "Annual Report of the Massachusetts Board of Agriculture.")

Superseded by "Annual Report of the Massachusetts State Department of Agriculture." Vols. 63–65, 1915–1917, are in 2 separately paged parts each.

Meddel. om Grønland (Copenhagen)=Meddelelser om Grønland. Copenhagen. 1, 1879+

Vol. 72, 1934+, are issued in separately paged numbers, although many volumes are issued as single volumes.

Medecina, Rev. Mex.=Medecina; Revista Mexicana. Escuela Nacional de Medecino, Mexico City. 1, 1920+

[Mex.] Esc. Nac. de Cien. Biol., An.=Anales de la Escuela Nacional de Ciencias Biológicas. Mexico City. 1, 1938+

[Mex.] Inst. de Salubridad y Enferm. Trop. Rev.=Revista del Instituto de Salubridad y Enfermedades Tropicales. Mexico City. 1, 1939+

Mich. Acad. Sci., Arts, and Letters, Papers=Papers of the Academy of Science, Arts, and Letters. Ann Arbor, Mich. 1, 1921+

Vol. 24, 1938, is in 4 separately paged parts.

Mich. State Bd. Agr. Ann. Rpt. Sec.=Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan. Lansing, Mich. 1–87, 1862–1949. (88, 1950,+ as "Annual Re-

port. Secretary of the State Board of Agriculture. State of Michigan.")

Mich. State Univ., Mus., Pubs., Biol. Ser.=Publications of the Museum. Michigan State University. Biological Series. East Lansing, Mich. 1, 1957+

Mich. Univ. Mus. Zool. Misc. Pub.=Miscellaneous Publications. Museum of Zoology, University of Michigan. Ann Arbor, Mich. 1, 1916+

Mich. Univ. Mus. Zool. Occas. Papers=Occasional Papers of the Museum of Zoology. University of Michigan, Ann Arbor. 1, 1913+

Microentomology=Microentomology. Stanford University, Palo Alto, Calif. 1, 1936+

Milwaukee Publ. Mus. Bul.=Bulletin of the Public Museum of the City of Milwaukee. Milwaukee, Wis. 1, 1910+

Minn. Acad. Sci. Proc.=Proceedings of the Minnesota Academy of Science. Northfield; Minneapolis. 4, 1936+ (1–4, 1932–1936, as "Program of the Annual Meeting of the Minnesota Academy of Science.")

Two "volumes" were issued in 1936.

Minn. Agr. Expt. Sta. Bul.=Bulletin. Agricultural Experiment Station. University of Minnesota. St. Anthony Park; St. Paul; Minneapolis. 8–415, 1889–1952. (1–7, 1888–1889, as "Bulletin. Experiment Station of the College of Agriculture"; 416, 1953+ as "Station Bulletin. Agricultural Experiment Station.")

Buls. 1–7, 1888–1889, and 129, 1913+, are separately paged. Buls. 8–128, 1889–1912, are continuously paged within each year; nos. 26–128, 1893–1912, are then bound as part of the annual reports of the Agricultural Experiment Station.

Minn. Agr. Expt. Sta. Tech. Bul.=Technical Bulletin. Agricultural Experiment Station. University of Minnesota. St. Paul; Minneapolis. 1, 1921+

Minn. Geol. and Nat. Hist. Survey, Ann. Rpt.=The Geological and Natural History Survey of Minnesota. Annual Report. Minneapolis. 1–24, 1872–1899.

Some reports have special separately paged portions.

Minn. State Expt. Sta., Ent. Ann. Rpt.=Annual Report of the Entomologist of the State Experiment Station of the University of Minnesota to the Governor. Minneapolis; St. Paul; St. Anthony Park. 1–7, 1895–1902. (8–11, 1903–1906, as "Annual Report of the State Entomologist of Minnesota to the Governor"; 12–19,

1907–1922, as "Report of the State Entomologist of Minnesota to the Governor.")

Nos. 3 (1897) and 7 (1902) were published also as **Minn. Agr. Expt. Sta. Bul.** 55 and 77, respectively.

Minn. Univ., Grad. Sch., Sums. Ph. D. Theses=Summaries of Ph. D. Theses. University of Minnesota. Minneapolis. 1, 1939+

Misc. Ent.=Miscellanea Entomologica. Narbonne; Séte; Toulouse; Paris. 1, 1892+

Suspended 1940–1943.

Mo. State Bd. Agr. Ann. Rpt.=Annual Report of the State Board of Agriculture of the State of Missouri. Jefferson City, Mo. 10–25, 1874–1892. (1–2, 1865–1866, and 26–46, 1893–1913, as "Annual Report of the Missouri State Board of Agriculture"; 3–8, 1867–1872, as **Mo., State Bd. Agr. Ann. Rpt.** [q.v.]; 9, 1873, as "Proceedings of the State Board of Agriculture and of the State Horticultural Society"; [47–54, 1914–1922, as "The Missouri Yearbook of Agriculture. Annual Report. Missouri State Board of Agriculture"; 55, 1923, as "Yearbook Bulletin. Annual Report. Missouri State Board of Agriculture"; 1929/1930, as "The Biennial Agricultural Report. Missouri State Board of Agriculture"]; 1931–1932, as "Report of the Missouri State Board of Agriculture.")

Superseded and continued by "Biennial Report of the Missouri State Department of Agriculture."

Nos. 55–56, 1923–1924, were published in "The Monthly Bulletin. Missouri State Board of Agriculture," vols. 21 and 22. No reports issued between 1924 and 1929/1930. The report for 1929/1930 was published in "The Bulletin of the Missouri State Board of Agriculture," vol. 28.

Mo., State Bd. Agr. Ann. Rpt.=Annual Report of the State Board of Agriculture. Missouri. See **Mo. State Bd. Agr. Ann. Rpt.**

Monog. Z. Angew. Ent.=Monographien zur Angewandten Entomologie. Berlin. 1, 1917+

A supplement to **Ztschr. f. Angew. Ent.** [q.v.].

Moskva Selsk. Khoz. Inst. Izv.=Izvestiia Moskovskago Sel'skokhoziaistvennago Instituta (Annales de l'Institut Agronomique de Moscou). Moscow. 1–22, 1895–1917.

Supersedes and is superseded by "Izvestiia Petrovskoi Sel'skokhoziaistvennago Akademii" (later "Izvestia Sel'skokhoziaistvennoi Akademii imeni K. A. Tmiriazeva").

Mosquito News=Mosquito News. New Brunswick, N.J.; Albany, N.Y. 1, 1941+

Mushi=Mushi. Fukuoka, Japan. 1, 1928+

N.J. Agr. Expt. Sta. Spec. Bul.=Special Bulletin. New Jersey.

Agricultural Experiment Station. New Brunswick, N.J. A–T, 1882–1902.

N.J., State Bd. Agr. Ann. Rpt.=Annual Report of the State Board of Agriculture. Trenton, N.J. 15–44, 1887–1916 (1917). (1–14, 1874–1886, as "Annual Report of the New Jersey State Board of Agriculture.")

Some volumes are accompanied by separate supplements.

N.J. State Mus. Ann. Rpt.=Annual Report of the New Jersey State Museum. Trenton, N.J. 1902–1914 (13 vols.). (1901, as "Report of the New Jersey State Museum.")

No volume numbers used, the volume for each year being published the following year. Superseded by "New Jersey. Department of Conservation and Development. Annual Report."

N.Y. (Cornell) Agr. Expt. Sta. Bul.=Bulletin. Agricultural Experiment Station of the College of Agriculture. Cornell University. Albany; Ithaca, N.Y. 216–361, 1904–1915. (1–25, 1888–1890, as "Bulletin of the Agricultural Experiment Station"; 26–211, 1891–1903, and 378, 1916+, as "Bulletin. Cornell University Agricultural Experiment Station"; 212–215, 1903–1904, as "Bulletin. Experiment Station of the College of Agriculture"; 362–377, 1915–1916, as "Bulletin. Experiment Station of the New York State College of Agriculture.")

Nos. 1–410, 1888–1922, are continuously paged within each year and later bound in the annual reports of the Agricultural Experiment Station. Nos. 411, 1922+, are separately paged.

N.Y. (Cornell) Agr. Expt. Sta. Mem.=Memoir. Agricultural Experiment Station. Cornell University. Ithaca, N.Y. 1, 1913+

Nos. 1–60, 1913–1922, are paged continuously within each year and later bound with the annual reports of the Agricultural Experiment Station. 61, 1922+, are separately paged.

N.Y. Ent. Soc. Jour.=Journal of the New York Entomological Society. New York. 1, 1893+

N.Y. (Geneva) Agr. Expt. Sta. Tech. Bul.=Technical Bulletin. New York Agricultural Experiment Station. Geneva, N.Y. 1–93, 1906–1924. (94–288, 1923–1949, as "Technical Bulletin. New York State Agricultural Experiment Station.")

N.Y. State Agr. Soc. Trans.=Transactions of the New York State Agricultural Society. Albany. 1–34, 1842–1886 (1889).

The Transactions for 1890–1900 appeared in the "Annual Report of the New York State Agricultural Society," 50–59. This was continued in 1910, as "Proceedings of the Annual Meetings of the New York State Agricultural Society," 70–76, 1910–1916, and 85–88, 1917–1920, which were published in the "Department of Agriculture Bulletin" (later "Agricultural Bulletin").

Prior to 1890, the "Annual Report" was somewhat irregular in publication, and at times was included in the early "Transactions." There was no printed report 60–69, 1900–1909, or 77–84.

N.Y. State Mus. Ann. Rpt.=New York State Museum. Annual Report. Albany. 43–72, 1889–1918 (1920). (1–5, 1847–1851, as "Annual Report of the Regents of the University, on the Condition of the State Cabinet of Natural History"; 6–23, 1852–1870, as "Annual Report of the Regents of the University of the State of New York, on the Condition . . . History"; 24–38, 1872–1884, as "Annual Report on the New York State Museum of Natural History"; 39–42, 1885–1888, as "Annual Report of the Trustees of the State Museum of Natural History.")

Rpt. 1, 1847 (1848) has separately paged sections. Rpts. 48, 1894 (1895)+, usually consist of 2 or more separately paged volumes, sometimes with a further subdivision, and include the "Memoirs" and the **N.Y. State Mus. Bul.** [q.v.] (nos. 12–208) as a number of variously paged appendices. From Rpt. 61, 1907 (1908)+, the "Annual Report" is made up entirely of these Memoirs and Bulletins. The University of the State of New York published all reports except nos. 58–66, 1906–1912 which were published by the New York State Education Department.

N.Y. State Mus. Bul.=New York State Museum Bulletin. Albany. 47–118, 1901–1908, and 181–351, 1916–1956. (1, 1892, and 8–46, 1889–1901, as **N.Y. State Mus., Bul.** [q.v.]; 2–7, 1887–1889, as "Bulletin of the New York State Museum of Natural History"; 119–180, 1908–1916, as **N.Y. State Mus., Mus. Bul.** [q.v.]; 352, 1956+, as "New York State Museum and Science Service Bulletin.")

Publication began with No. 2 in 1887; No. 1 was published in 1892. Nos. 1–54, 1887–1902, were assigned to "volumes" numbered 1–10, the bulletins within each volume being continuously paged (on nos. 3–7 and 47–54, the volume number is not shown). Nos. 55–57, 1912, are separately paged. Beginning with No. 52, 1902, each bulletin is also numbered in a series according to subject matter, e.g., Botany, Paleontology, Zoology, Entomology, etc. Previous bulletins were retroactively included in this numbering, which system continued through No. 266, 1925 (although only nos. 52–118, 1902–1908, were so marked on covers).

Nos. 12–208, 1895–1918, were published for later inclusion in volumes of **N.Y. State Mus. Ann. Rpt.** [q.v.], as one of the appendices, and were variously paged accordingly. (Generally, nos. 58–208, 1912–1918, were grouped according to subject, each subject being a separately paged appendix, the bulletins of that appendix usually being continuously paged.) Some Bulletins were published as double issues, e.g., 207/208, 1918.

Nos. 52–180, 1902–1916, were also included in the separate series "University of the State of New York Bulletin" (nos. 52–79, 1902–1904, and 165–180, 1913–1916), and "New York State Education Department Bulletin" (nos. 80–164, 1905–1913 [as "New York State University, Education De-

partment Bulletin" for nos. 119–164, 1908–1913]), and were given additional bulletin numbers within those series.

N.Y. State Mus., Bul.=Bulletin of the New York State Museum. See **N.Y. State Mus. Bul.**

N.Y. State Mus., Mus. Bul.=New York State Museum. Museum Bulletin. See **N.Y. State Mus. Bul.**

Nat. Canad.=Le Naturaliste Canadien. Quebec. 1, 1868+ Vols. 21–56, 1894–1929, also called Ser. 2, 1–36; vol. 57, 1930+, also as Ser. 3, 1+. Vol. 6, nos. 4 and 6, 1874, were omitted in numbering.

Nat. Hist. Rev.=Natural History Review. Dublin; London. 1–7, 1854–1860; [N. ser.], 1–5, 1861–1865.

Vols. 2–7, 1856–1860, have separately paged "Proceedings" and other separately paged sections. Subtitle of the first series varies; that of the new series is "A Quarterly Journal of Biological Science."

Natal Mus. Ann.=Annals of the Natal Museum. London; Dorking, England. 1, 1906+

Natl. Acad. Sci. Proc.=Proceedings of the National Academy of Sciences of the United States of America. Washington, D.C. 1, 1915+

An earlier Proceedings was published in 1 volume, in 3 parts, 1877–1895.

Natl. Geog. Mag.=The National Geographic Magazine. Washington, D.C. 1, 1889+

Natl. Hort. Mag.=National Horticultural Magazine. Baltimore, Md. 1, 1922+

Naturf. Gesell. in Danzig, Schr.=Schriften der Naturforschenden Gesellschaft in Danzig. Danzig. N. ser., 1–20, 1863–1938. (1–6, 1820–1862, as "Neueste Schriften der Naturforschenden Gesellschaft zu Danzig.")

Naturf. Gesell. zu Leipzig, Schr.=Schriften der Naturforschenden Gesellschaft zu Leipzig. Leipzig. 1, 1822.

Naturhist. For. Kjøbenhavn, Vidensk. Meddel.=Videnskabelige Meddelelser fra den Naturhistorisk Forening i Kjøbenhavn. See **Dansk Naturhist. For. København, Vidensk. Meddel.**

Naturhist. Tidsskr.=Naturhistorisk Tidsskrift. Copenhagen. 1–4, 1837–1843; Ser. 2, 1–2, 1844–1849; Ser. 3, 1–14, 1861–1884.

Naturhist. Ver. der Preuss. Rheinlande u. Westfalen, Verhandl.=Verhandlungen des Naturhistorischen Vereines der Preussischen Rheinlande und Westfalens. Bonn. 6–41, 1849–1884, and 63–90, 1906–1933. (1–5, 1844–1848, as "Verhandlungen des Naturhistorischen Vereines der Preussischen Rheinlande"; 42–62, 1885–1905, as "Verhandlungen des Naturhistorischen Vereins der Preussischen Rheinlande, Westfalens und des Reg.-Bezirks Osna-

brück"; 91, 1935+, as "Decheniana. Verhandlungen des Naturhistorischen Vereins der Rheinlande und Westfalens.")

Vols. 11–20, 1854–1863, also called N. ser., 1–10; vols. 21–30, 1864–1873, also as Ser. 3, 1–10; vols. 31–40, 1874–1883, also as Ser. 4, 1–10; vols. 41–50, 1884–1893, also as Ser. 5, 1–10.

Vols. 95–100, 1937–1941, were issued in 2 separately paged sections: A. Geologische Abteilung; and B. Biologische Abteilung.

Naturhist. Ver. in Augsburg, Ber.=Bericht des Naturhistorischen Vereins in Augsburg. Augsburg. 1–29, 1848–1885. (29–50, 1887–1933, as "Bericht des Naturwissenschaftlichen Vereins für Schwaben und Neuburg.")

Superseded by "Die Schwäbische Naturkunde."

Naturw. Abhandl. aus Dorpat=Naturwissenschaftliche Abhandlungen aus Dorpat. Dorpat [=Tartu, Estonia]. 1, 1823.

Naturw. Ver. f. Sachsen u. Thüringen, Abhandl.=Abhandlungen des Naturwissenschaftlichen Vereins für Sachsen und Thüringen. Berlin. 1–2, 1856–1861.

Naturw. Ver. f. Steiermark, Mitt.=Mitteilungen des Naturwissenschaftlichen Vereins für Steiermark. Graz. 1, 1862+

Natuurhist. Genootsch. in Limburg, Jaarb.=Jaarboek van het Natuurhistorisch Genootschap in Limburg. See **Natuurhist. Maandbl.**

Natuurhist. Maandbl.=Natuurhistorisch Maandblad. Limburg. 13, 1924+ (1911, as "Mededeelingen van het Natuurhistorisch Genootschap in Limburg"; 1912–1923, as **Natuurhist. Genootschap in Limburg, Jaarb.** [q.v.].)

No volume numbers used 1911–1923. The volume for 1912 is subtitled "Mededeelingen . . . "

Natuurk. Tijdschr. v. Nederland. Indië=Natuurkundig Tijdschrift voor Nederlandsch-Indië. Bogor, Bandung; Jakarta; The Hague, etc. 1–100, 1850–1940. (101–102, 1941–1946, as "Natuurwetenschappelijk Tijdschrift voor Nederlandsch-Indië"; 103–106, 1947–1950, as "Chronica Naturae" [with an additional Indonesian title]; 107, 1951+ as "Madjalak ilmu alam untuk Indonesia (Indonesian Journal for Natural Science)".)

Vols. 4–10, 1853–1856, also called N. ser. 1–7; 11–14, 1856–1857, also as Ser. 3, 1–4; 15–20, 1858–1860, also as Ser. 4, 1–6; 21–25, 1860–1863, also as Ser. 5, 1–5; 26–30, 1864–1868, also as Ser. 6, 1–5; 31–39, 1870–1880, also as Ser. 7, 1–9; 40–51, 1881–1892, also as Ser. 8, 1–12; 52–56, 1893–1897, also as Ser. 9, 1–5; 57–66, 1898–1907, also as Ser. 10, 1–10; 67, 1908+, with no additional series numbers.

Nebr. Univ., Univ. Studies=The University Studies of the University

of Nebraska. Lincoln. 1–40, 1888–1940. (41, 1941–1945, and N. ser., 1, 1946+, as "University of Nebraska Studies.")

Old series was superseded by 3 separate series: "Studies in the Humanities," "Studies in Science and Technology," and "Studies in Social Science." These 3 then united with "Studies in language, literature, and criticism" to form the New Series above in 1946.

Vols. 1–40 were issued in separately paged numbers, but with continuous pagination also given [except in vol. 40].

Neue Beitr. z. System. Insektenkunde=Neue Beiträge zur Systematische Insektenkunde. Berlin. 1–5, 1915–1932.

A supplement to **Ztschr. f. Wiss. Insektenbiol.** [q.v.].

New England Zool. Club, Proc.=Proceedings of the New England Zoölogical Club. Cambridge, Mass. 1–24, 1899–1947.

New Zealand Inst. Trans. and Proc.=Transactions and Proceedings of the New Zealand Institute. Wellington. 1–63, 1868–1933. (64–79, 1935–1952, as "Transactions and Proceedings of the Royal Society of New Zealand"; 80–84, 1952–1958, as "Transactions of the Royal Society of New Zealand" [which includes the Proceedings]; 85, 1958+, split into "Transactions . . . New Zealand," and "Royal Society of New Zealand. Proceedings" [85–88, 1958–1960; "Proceedings of the Royal Society of New Zealand," 89, 1961+].)

Norges Svalbard- og Ishavs-Undersøk., Skr. om Svalbard og Ishavet=Skrifter om Svalbard og Ishavet. Norges Svalbard- og Ishavs-Undersøkelser, Oslo. 13–81, 1928–1940. (1–11, 1922–1929, as "Resultater av de Norske Statsunderstottede Spitsbergenekspeditioner [Skrifter om Svalbard og Ishavet]"; 12, 1927, as "Skrifter om Svalbard og Nordishavet"; 82–89, 1941–1947, as "Norges Svalbard- og Ishavs-Undersøkelser. Skrifter"; 90, 1948+, as "Norsk Polarinstitut. Skrifter.")

Nos. 1–11 were published nonchronologically to form 1 volume with title indicated above.

Norsk Ent. Tidsskr.=Norsk Entomologisk Tidsskrift. Kristiania (later Oslo). 1, 1920+

North Amer. Fauna=North American Fauna. Washington, D.C. 1, 1889+

Nos. 1–56, 1889–1938, were issued by the U.S. Department of Agriculture, Bureau of Biological Survey (early issues by Division of Ornithology and Mammalogy); 57, 1941+, are issued by U.S. Department of the Interior, Fish and Wildlife Service. Nos. 6 and 9 were never published.

Not. aus dem Geb. der Natur- u. Heilk. [Froriep's]=Notizen aus dem Gebiete der Natur- und Heilkunde. Erfurt; Weimar. 1–50, 1821–

1836; Ser. 3, 1–11, 1847–1849. (Ser. 2, 1–40, 1837–1846, as "Neue Notizen . . . Heilkunde.")

Superseded by "Tagsberichte über die Fortschritte der Natur- und Heilkunde." Sometimes known as "Froriep's Notizen."

Notulae Ent.=Notulae Entomologicae. Helsingfors. 1, 1921+

Noxious and Beneficial Insects of State of Ill., State Ent. Rpt.= Report of the State Entomologist on the Noxious and Beneficial Insects of the State of Illinois. Springfield; Champaign; Chicago. 6–29, 1876/1877–1916. ([1], 1867/1868, as "First Annual Report on the Noxious Insects of the State of Illinois"; [2–4], 1871–1873, as "First (-Third) Annual Report on the Noxious Insects of the State of Illinois"; [5], 1874, as "Fourth Annual Report on the Noxious and Beneficial Insects of the State of Illinois.")

The first Report was by Walsh; Reports 2–5, were by LeBaron (his Reports 1–4); Reports 6–11, by Thomas; and Reports 12–29, were by Forbes.

Nyt Mag. for Naturvidensk.=Nyt Magazin for Naturvidenskaberne. Oslo. 1–74, 1836–1934. (75, 1936+, as "Nytt Magazin for Naturvidenskapens.")

Vols. 21–26, 1875–1881, also called Ser. 2, 1–6; Vols. 27–32, 1882–1892, also as Ser. 3, 1–6.

Ohio Acad. Sci. Spec. Paper=Ohio Academy of Science. Special Paper. Columbus. 1–7, 1899–1903.

Superseded by and continued in "Proceedings of the Ohio Academy of Science".

Ohio Agr. Expt. Sta. Tech. Ser. Bul.=Bulletin of the Ohio Agricultural Experiment Station. Technical Series. Wooster; Norwalk. 1–10, 1889–1932.

Buls. 1–4, 1889–1896, are continuously paged and bound into "Volume 1." The rest of the numbers are separately paged.

Ohio Biol. Survey, Bul.=Ohio Biological Survey. Bulletin. Columbus. 1–8, 1913–1954 (=Buls. 1–43). (N. ser., 1, 1959+, as "Bulletin of the Ohio Biological Survey.")

The old series has continuously paged volumes, made up of a number of Bulletins, numbered consecutively 1–43, which are also assigned numbers within each volume. Bulletins 1–31 (=vol. 6, no. 2), 1913–1935, are also included and assigned numbers in the series "The Ohio State University Bulletin"; Buls. 32–43, 1936–1954, are included in the series "Ohio State University Studies Series." The volumes of the New Series are issued in separately paged numbers, and the numbers are only numbered consecutively within each volume.

Ohio Jour. Sci.=The Ohio Journal of Science. Columbus. 16, 1916+ (1 (1–2), 1900, as "O. S. U. Naturalist"; 1 (3)–15, 1900–1915, as **Ohio Nat.** [q.v.].)

Ohio Nat.=The Ohio Naturalist. Columbus. See **Ohio Jour. Sci.**

Ohio State Bd. Agr., Ann. Rpt.=Annual Report of the Ohio State Board of Agriculture. Columbus. 1–68, 1846–1913.

Superseded and continued in various Ohio Department of Agriculture publications.

Ohio State Univ., Abs. Doctors' Diss.=Abstracts of Doctors' Dissertations. Ohio State University, Columbus. 1–25, 1929–1937. (26, 1938+, as "Abstracts of Doctoral Dissertations.")

Okla. Univ. Biol. Survey, Pubs.=Publications of the University of Oklahoma, Biological Survey. Norman, Okla. 1–5, 1929–1933.

Vol. 1, nos. 1–3, 1929, are also numbered in the series "University of Oklahoma Bulletin."

Opusc. Ent. (Soc. Ent. Lund.)=Opuscula Entomologica. Societas Entomologica Lundensis, Lund. 1, 1936+

Opusc. Ent. (Soc. Ent. Lund.), Sup.=Opuscula Entomologica. Supplementum. Societas Entomologica Lundensis, Lund. 1, 1938+

Ottawa Nat.=The Ottawa Naturalist. Ottawa, Ont. 1–32, 1887–1919. (33, 1919/1920+, as "The Canadian Field-Naturalist.")

Supersedes "Ottawa Field-Naturalists' Club, Transactions," and Vols. 1–33, 1887–1919/1920, are also subtitled "Transactions of the Ottawa Field-Naturalists' Club," vols. 3–35.

Pacific Insects=Pacific Insects. Honolulu. 1, 1959+

Pamiet. Fizyiograficzny=Pamietnik Fizyiograficzny. Warsaw. 1–27, 1881–1922.

The numbers are separately paged from Vol. 5+

Pan Amer. Sanit. Bur., Bol. de la Ofic. Sanit. Panamer.=Boletín de la Oficina Sanitaria Panamericana. Pan American Sanitary Bureau, Washington, D.C. 3, 1923+ (1–2, 1922–1923, as "Boletín Pan-americano de Sanidad de la Oficina Sanitaria Internacional.")

Pan-Pacific Ent.=The Pan-Pacific Entomologist. San Francisco. 1, 1924+

Pará, Mus. Goeldi (Mus. Paraense) de Hist. Nat. e Ethnog., Mem.=Memorias do Museu Goeldi (Museu Paraense) de Historia Natural e Ethnographie. Pará, Brazil. 3–4, 1902–1905. (1–2, 1900, as "Memorias do Museu Paraense de Historia Natural e Ethnographie.")

Parasitology=Parasitology. London. 1, 1908+

[Paris] Acad. des Sci. Compt. Rend.=Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Paris. 1, 1835+

Earlier the Comptes Rendus were in the Academy's "Procès-Verbaux des Séances de l'Académie tenus depuis la fondation de l'Institut jusqu'à mois d'Août 1835."

[Paris] Acad. Roy. des Sci., Hist. avec Mém. Math. et Phys.=Histoire de l'Académie Royale des Sciences. Avec les Mémoires de Mathématique et Physique. Paris. 1699–1788 (1732–1791). (1789 [1793], as "Histoire de l'Académie des Sciences. Avec les Mémoires . . ."; 1790 [1797], as "Mémoires de l'Académie des Sciences.")

The Histoire and the Mémoires are separately paged. No volume numbers were used.

Supersedes "Mémoires de l'Académie Royale des Sciences, depuis 1666 jusqu'à 1699" (earlier "Histoire de l'Académie Royale des Sciences"). Superseded by "Mémoires de l'Institut National des Sciences et Arts. Sciences Mathématiques et Physiques" (later "Mémoires de l'Institut des Sciences, Lettres et Arts").

[Paris] Inst. de France, [Cl. des] Sci. Math. et Phys., Acad. Roy. des Sci., Mém. présentés par divers Savans=Mémoires présentés par divers Savans à l'Académie Royale des Sciences de l'Institut de France. Sciences Mathématiques et Physiques. Paris. [Ser. 2], 1–9, 1827–1846. ([Ser. 1], 1–2, 1806–1811, as "Mémoires présentés à l'Institut des Sciences, Lettres et Arts, par divers Savans et lus dans ses Assemblés. Sciences Mathématiques et Physiques"; [Ser. 2], 10–11, 1848–1851, as "Mémoires présentés par divers Savants à l'Académie des Sciences de l'Institut National de France. Sciences . . ."; [Ser. 2], 12–19, 1854–1865 (1868), as "Mémoires présentés . . . de l'Institut Impérial de France. Sciences . . ."; [Ser. 2], 20–35, 1872–1914, as "Mémoires présentés . . . de l'Institut de France. Sciences . . .")

"Series 2" does not appear on the volumes until Vol. 22, 1876+, at which time the volumes began to be issued in separately paged numbers.

Paris, Mus. Natl. d'Hist. Nat. Bul.=Bulletin du Muséum National d'Histoire Naturelle. Paris. 13–34, 1907–1928; Ser. 2, 1, 1929+ (1–12, 1895–1906, as "Bulletin du Muséum d'Histoire Naturelle.")

Paris, Mus. Natl. d'Hist. Nat. Mém.=Mémoires du Muséum National d'Histoire Naturelle. Paris. N. ser., 1–30, 1935–1951; N. ser. [=Ser. 3], in 3 series: A. Zoologie, 1, 1950+, B. Botanique, 1, 1950+, and C. Sciences de la Terre, 1, 1950+ ([Ser. 1], 1–20, 1815–1832, as "Mémoires du Muséum d'Histoire Naturelle.")

The first series supersedes "Annales du Muséum d'Histoire Naturelle," and is superseded by "Nouvelles Annales . . . "

Philippine Jour. Sci.=The Philippine Journal of Science. Manila. 1, 1906+

Vols. 2–4, 1907–1909, were published in 3 separately paged sections; vols. 5–13, 1910–1918, issued in 4 separately paged sections.

Phys. Ökonom. Gesell. Königsberg, Schr.=Schriften der Physikalisch-Ökonomischen Gesellschaft zu Königsberg in Pr. Königsberg. 1–72, 1860–1941.

Pittsburgh, Carnegie Inst., Carnegie Mus. Mem.=Memoirs of the Carnegie Museum. Carnegie Institute, Pittsburgh, Pa. 1–12, 1901–1936.

Vol. 12, 1932–1936, was issued in separately paged parts, with a further breakdown into sections. Each number of the Memoirs is also assigned a Carnegie Institute publication number.

Pomona Col. Jour. Ent.=Pomona College Journal of Entomology. See Jour. Ent. and Zool.

Pomona Col., Laguna Mar. Lab., Ann. Rpt.=Annual Report of the Laguna Marine Laboratory at Laguna Beach, Orange County, California. Pomona College, Claremont, Calif. 1–6, 1912–1918.

Portici, R. Ist. Super. Agr., Lab. Zool. Gen. e Agr. Bol.=Bollettino del Laboratorio di Zoologia Generale e Agraria della R. Istituto Superiore Agrario in Portici. Portici. 21–30, 1928–1938. (1–20, 1907–1927, as **Portici, R. Scuola Super. d'Agr., Lab. Zool. Gen. e Agr. Bol.** [q.v.]; 31, 1939+, as "Bollettino de Laboratorio di Zoologia Generale e Agraria della Facoltà Agraria in Portici.")

Suspended in 1944–1955.

Portici, R. Scuola Super. d'Agr., Lab. Zool. Gen. e Agr. Bol.=Bollettino del Laboratorio di Zoologia Generale e Agraria della R. Scuola Superiore d'Agricoltura in Portici. See **Portici, R. Ist. Super. Agr., Lab. Zool. Gen. e Agr. Bol.**

Prairie Farmer=(The) Prairie Farmer. Chicago; Indianapolis; New York. 3–17, 1843–1857, and 19, 1859+ (1–2, 1841–1842, as "The Union Agriculturist and Western Prairie Farmer"; 18, 1858, as "Emery's Journal of Agriculture and the Prairie Farmer.")

Vols. 18–37, 1858–1868, also called N. ser., 2–21, continuing the volume numbers of "Emery's Journal of Agriculture" absorbed in 1858. Vol. 38 is omitted in numbering. Nos. 1–6 of vol. 54, 1882, are called "Peoples' Illustrated Weekly and the Prairie Farmer." Beginning with Vol. 98, 1926, an Indiana edition was also published; with Vol. 103, 1931, an Illinois edition; and with Vol. 117, 1945, a Michigan edition began publication; the main edition is called "General edition."

Psyche=Psyche. A Journal of Entomology. Cambridge, Mass. 1, 1874+

Puerto Rico Dept. Agr. Jour.=The Journal of the Department of Agriculture of Puerto Rico. See **Puerto Rico Univ. Jour. Agr.**

Puerto Rico Jour. Publ. Health and Trop. Med.=The Puerto Rico Journal of Public Health and Tropical Medicine. San Juan. 8–26, 1933–1950. (1–2, 1925–1927, as "The Porto Rico Health Re-

view"; 3–4, 1927–1929, as "The Porto Rico Review of Public Health and Tropical Medicine"; 5–7, 1929–1932, as "The Porto Rico Journal of Public Health and Tropical Medicine.")

Puerto Rico Univ. Jour. Agr.=The Journal of Agriculture of the University of Puerto Rico. Rio Piedras. 18, 1934+ (1 (1), 1917, as "The Journal of the Board of Commissioners of Agriculture. Porto Rico"; 1 (2)–17, 1917–1933, as **Puerto Rico Dept. Agr. Jour.** [q.v.].)

Quebec Soc. Protect. Plants, Ann. Rpt.=Annual Report of the Quebec Society for the Protection of Plants. Quebec, Que. 13–27, 1920/1921–1934/1935. (1–12, 1908/1909–1919/1920, as "Annual Report of the Quebec Society for the Protection of Plants from Insects and Fungous Diseases"; 28, 1936/1943+, as "Report of the Quebec Society for the Protection of Plants.")

Nos. 7–17, 1914/1915–1924/1925, were issued as supplements of the "Report of the Department of Agriculture, Province of Quebec." The numbers are sometimes accompanied by separately paged supplements.

Queensland Mus. Mem.=Members of the Queensland Museum. Brisbane. 1, 1912+

R. Accad. delle Sci. (Soc. R. Borbonica) Napoli, Rend.=Rendiconto della Reale Accademia delle Scienze. Società Reale Borbonica, Naples. N. Ser., 5–6, 1856–1857. (1, 1842, as "Rendiconto delle Adunanze e de' Lavori dell' Accademia delle Scienze sezione della Società Reale Borbonica di Napoli"; 2–5, 1843–1846, as "Rendiconto delle Adunanze e de' Lavori dell' Accademia . . . di Napoli"; 6–9, 1847–1849, as "Rendiconto delle Adunanze e de' Lavori dell' Accademia Napolitana della Scienze sezione della Società Reale Borbonica"; N. ser., 1, 1852, as "Rendiconto della Reale Accademia delle Scienze sezione della Società Reale Borbonica"; N. ser., 2–4, 1853–1855, as "Rendiconto della Società Reale Borbonica.")

Superseded by "Rendiconto della Reale Accademia delle Scienze Fisiche e Matematische."

Rev. Brasil. de Biol.=Revista Brasileira de Biologia. Rio de Janeiro. 1, 1941+

Rev. Brasil. de Ent.=Revista Brasileira de Entomologia. São Paulo. 1, 1954+

Rev. Chilena de Hist. Nat. Pura y Apl.=Revista Chilena de Historia Natural Pura y Aplicada. Valparaiso. 28, 1924+ (1–27, 1897–1923, as "Revista Chilena de Historia Natural.")

Vols. 16, 18, and 26 were never published.

Rev. d'Ent. (Caen)=Revue d'Entomologie. Caen. 1–28, 1882–1910.

Rev. de Biol. Trop.=Revista de Biologia Tropical. San José, Costa Rica. 1, 1953+

Rev. de Ent.=Revista de Entomologia. São Paulo; Rio de Janeiro. 1–22, 1931–1951.

Rev. de Sanid. y Asistencia Social (Caracas)=Revista de Sanidad y Asistencia Social. Caracas. 5, 1940+ (1–4, 1936–1939, as "Boletín. Ministerio de Sanidad y Asistencia Social, Caracas, Venezuela.")

Rev. de Zool. et Bot. Africaines=Revue de Zoologie et de Botanique Africaines. Brussels. 16, 1929+ (1–15, 1911–1928, as **Rev. Zool. Africaine** [q.v.].)

Rev. et Mag. de Zool.=Revue et Magasin de Zoologie Pure et Appliquée. Paris. Ser. 2, 1–23, 1849–1872; Ser. 3, 1–7, 1873–1879. (1–11, 1838–1848, as "Revue Zoologique, par la Société Cuvierienne".)

Supersedes "Bulletin Zoologique." "Revue Zoologique" united with "Magasin de Zoologie" to form Ser. 2 above. Ser. 3 is also numbered as whole series vols. 36–[42] (except last 2 volumes).

Rev. Franç. d'Ent.=Revue Française d'Entomologie. Paris. 1, 1934+

Rev. Zool. Africaine=Revue Zoologique Africaine. See **Rev. de Zool. et Bot. Africaines.**

[Rio de Janeiro] Mus. Nac. do Rio de Janeiro, Arch.=Archivos do Museu Nacional do Rio de Janeiro. Rio de Janeiro. 1–28, 1876–1926. (29–36, 1927–1934, as "Archivos do Museu Nacional"; 37, 1943+, as "Arquivos do Museu Nacional.")

Vol. 9, 1896, as "Revista do Museu Nacional do Rio de Janeiro."

[Rio de Janeiro] Mus. Nac. do Rio de Janeiro, Bol.=Boletim do Museu Nacional do Rio de Janeiro. Rio de Janeiro. 1–3, 1923–1927. (4–14/17, 1928–1938/1941, as "Boletim do Museu Nacional"; N. ser., as "Boletim do Museu Nacional" in 4 sections: Antropologia, 1, 1942+; Botanica, 1, 1942+; Geologia, 1, 1943+; and Zoologia, 1, 1942+).

Vols. 2–5, 1925–1929, and the N. ser. are issued in separately paged numbers.

Rockefeller Inst. Med. Res. Monog.=Monographs of the Rockefeller Institute for Medical Research. New York. 1–23, 1910–1930.

Roy. Agr. Soc. England, Jour.=(The) Journal of the Royal Agricultural Society of England. London. 1–25, 1839–1864; Ser. 2, 1–25, 1865–1889; Ser. 3, 1–11, 1890–1900; 62, 1901+

Roy. Canad. Inst. Trans.=Transactions of the Royal Canadian Institute. Toronto. 11, 1915+ (1–10, 1889–1915, as "Transactions of the Canadian Institute.")

Supersedes "Proceedings of the Canadian Institute."

Roy. Ent. Soc., London, Proc. Ser. A: Gen. Ent.=Proceedings of the Royal Entomological Society of London. Series A. General Entomology. London. 11, 1936+

The Proceedings were not broken into series until 1936. Vols. 1–7, 1926–1932, as "Proceedings of the Entomological Society of London"; vols. 8–10, 1933–1936, as "Proceedings of the Royal . . .," which then continued in the 3 series, A (as above), B, and C. Previous to 1926, the Proceedings appeared in the Society's Transactions.

Roy. Ent. Soc., London, Proc. Ser. B: Taxonomy=Proceedings of the Royal Entomological Society of London. Series B. Taxonomy. London. 5, 1936+ (1–4, 1932–1935, as **Stylops** [q.v.].)

Roy. Ent. Soc. London, Trans.=Transactions of the Royal Entomological Society of London. London. 81, 1933+ (1–5, 1833–1849, and N. ser., 1–5, 1850–1861, and Ser. 3, 1–5, 1862–1867, and 1868–1925 [without volume numbers], and 74–80, 1926–1932, as **Ent. Soc. London, Trans.** [q.v.].)

Roy. Soc. Canada, Proc. and Trans.=Proceedings and Transactions of the Royal Society of Canada. Ottawa; Montreal. 1–12, 1882–1894; Ser. 2, 1–12, 1895–1906; Ser. 3, 1, 1907+

From Ser. 2+, the journal is issued in 5 separately paged sections: 1. Littérature Française; 2. English Literature; 3. Mathematical, Physical and Chemical Sciences; 4. Geological Sciences; and 5. Biological Sciences.

Roy. Soc. London, Phil. Trans., Ser. B=Philosophical Transactions of the Royal Society of London. B. Containing papers of a biological character. London. 178, 1887+

The "Philosophical Transactions" did not split into sections A and B until 1887. Vols. 1–65, 1665–1775, as "Philosophical Transactions" (with subtitle); 66–81, 1776–1791, and 1792–1852 (without volume numbers), and 143, 1853+, as "Philosophical Transactions of the Royal Society of London." From vol. 178, 1887+, it appeared in 2 sections: A. Containing papers of a mathematical or physical character; and B. as above.

No volume numbers were used 1792–1852. Vols. 1–17, 21–25, 29–30, and 34–35, were issued as continuously paged volumes. Vols. 41–186, 1739–1895, were issued in 2 or more parts. There was an interruption in publication between vol. 12, 1679, and 13, 1682, during which time a periodical, "Philosophical Collections" (nos. 1–7, 1679–1682) was published.

Russ. Ent. Obshch. Trudy (**Soc. Ent. Ross. Horae**)=Trudy Russkago Entomologicheskago Obshchestva v' S.-Peterburg'. Horae Societatis Entomologicae Rossicae Variis Sermonibus in Rossia Usitatis Editae. St. Petersburg [=Petrograd, Leningrad]. 1–2, 1861–1863 (in 2 editions) and 17–42, 1882–1932. (3–16, 1865–1881, as "Horae Societatis Entomologicae Rossicae.")

The "Trudy" appeared as a separate publication during 1865–1882 (vols. 3–13), the 2 periodicals recombining in 1882 as above. Russian spelling varies slightly. Suspended 1917–1931. A supplement appeared irregularly with some of the volumes.

Saikyo Univ. (Kyoto), Sci. Rpt., Agr.=The Scientific Reports of the Saikyo University. Agriculture. Kyoto, Japan. 1, 1951+

There is also a series on "Natural Science."

[**São Paulo**] **Mus. Paulista, Rev.**=Revista do Museu Paulista. São Paulo. 1–23, 1895–1938; N. ser., 1, 1947+

The old series was superseded by **Arq. de Zool. de Estado de São Paulo** [q.v.].

(**Sarajevo**), **Zemaljsk. Muz. u Bosni i Hercegovini, Glasnik**=Glasnik Zemaljskog Muzeja u Bosni i Hercegovini. Sarajevo, Yugoslavia. 1–49, 1889–1937. [50–52], as 1–3, 1938–1940, as "Glasnik Zemalskog Muzeja Kraljevine Jugoslavije"; N. ser., 1, 1946, as "Glasnik Drzhavnog Muzeja u Sarajevu"; N. ser., 2, 1947+, as "Glasnik Zemaljskog Muzeja u Sarajevu.")

Vols. 39–52, 1927–1940, in 2 sections: "I. Sveska za Prirodne Nauk," and "II. Sveska za Historiju i Ethnografiju," separately paged from vol. 40, 1928+; N. ser. 9–12, 1954–1957, in 2 separate sections: "Arheologija" and "Istorija," and "Ethnografija." N. ser., 13, 1958+, in 3 separate sections: "Arheologija," "Istorija," and "Ethnografija." Titles also given in Russian. Spellings vary slightly.

Schles. Gesell. f. Vaterländ. Cult., Uebers. d. Arb. u. Veränderungen=Uebersicht der Arbeiten und Veränderungen der Schlesischen Gesellschaft für Vaterländische Cultur. Breslau. 1824–1949. (28–116, 1850–1943, as "Jahresbericht der Schlesischen Gesellschaft für Vaterländische Cultur.")

No volume numbers used 1824–1849. Vols. 109–116, 1937–1943, are in 2 separate sections: "Naturwissenschaftliche-Medizinische Reihe," 1–8, 1937–1939, and "Geistwissenschaftliche Reihe," 1–6, 1937–1940.

Supersedes "Correspondenzblatt der Schlesischen Gesellschaft . . ." The words "Cultur" and "Jahresbericht" are sometimes spelled "Kultur" and "Jahres-Bericht."

Sci. Agr.=Scientific Agriculture. La Revue Agronomique Canadienne. Ottawa. 1, 1921+

Science=Science. New York. 1–23, 1883–1894; N. ser., 1, 1895+

Scot. Nat.=The Scottish Naturalist. Edinburgh. 1912–1938, and 60, 1948+ (1892–1911, as **Ann. Scot. Nat. Hist.** [q.v.].)

Volume numbering began with Vol. 60, 1948; suspended 1940–1947. Supersedes "The Scottish Naturalist and Journal of the Perthshire Society of Natural Science."

Senckenb. Naturf. Gesell. Abhandl.=Abhandlungen herausgegeben von der Senckenbergischen Naturforschenden Gesellschaft. Frankfurt a. M. 1–43, 1854–1933 (=Nos. 1–427). (428, 1934+

as "Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft.")

Nos. 1–427, 1854–1933, are continuously paged within each volume, although consecutively numbered. Nos. 428, 1934+ are each separately paged and are not assigned to a volume.

Senckenbergiana=Senckenbergiana. Wissenschaftliche Mitteilungen herausgegeben von der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt a. M. Frankfurt. 1–34, 1918–1953. (Continues in 2 separate series: "Senckenbergiana Biologica," 35, 1954+, and "Senckenbergiana Lethaea," 35, 1954+).

[Shanghai] Mus. Heude, Notes d'Ent. Chin.=Notes d'Entomologie Chinoise. Musée Heude, Université l'Aurore, Shanghai. 1, 1929+

One of a series of "Notes." Vol. 12, 1948, is the last volume seen by us.

Siruna Seva=Siruna Seva. Blätter für Fruchtfliegen-Kunde. Berlin. 1, 1940+

Smithsn. Inst. Ann. Rpt.=Annual Report of the Board of Regents of the Smithsonian Institution. Washington, D.C. 3–10, 1849–1855, and 1856+ (1847, as "Report of the Board of Regents"; 1848, as "Report of the Board of Regents of the Smithsonian Institution.")

No volume numbers used in first 2 reports or from the 11th on. From 1884–1950, the report was in 2 annual volumes, the second volume being subtitled "Report of the United States National Museum," 1884–1906 (called "Part 2" 1884–1887), and "Report on the Progress and Condition of the United States National Museum," 1907–1950; this continues separately as "The United States National Museum, Annual Report," 1951+

Smithsn. Inst. Pub.=Smithsonian Institution Publication. Washington, D.C. 1, 1848+

Most publications are included in one of the other series of the Smithsonian Institution, but a few were issued irregularly as separates and not included in any other series.

Smithsn. Inst., Smithsn. Misc. Collect.=Smithsonian Miscellaneous Collections. Smithsonian Institution, Washington. D.C. 1, 1862 (1852)+

Most volumes consist of a number of separately paged (except as shown below) miscellaneous publications which are issued previously as separates, each assigned an overall **Smithsn. Inst. Pub.** [q.v.] number. Many volumes, however, are issued as whole volumes, and a few in two parts. All volumes are also assigned publication numbers when completed. Vols. 1–4, all dated 1862, consist of previously published separates dating as far back as 1852. Publication numbering began with vol. 5, 1864, in which previous Miscellaneous Collections were numbered retroactively. There is no indication on the separate numbers of vols. 1–43, 1862–1901, as to which volume they belong. The separate numbers of vols. 44–55, 1904–1910, have the indication "Part of

vol.—"; thereafter (vol. 56, 1912+) each separate upon its publication is assigned a specific number within a volume.

Vols. 45 (1903), 47–48 (1905), 50 and 52 (both 1908) make up vols. 1–5 of a "Quarterly Issue," which contain continuously paged material, each article of which is issued first as a separate, and then combined into quarterly numbers, and finally into volumes; all 3 forms (i.e., separates, numbers, and volumes) are also assigned Publication numbers. Vol. 67 (1924) and 75 (1928) also consist of continuously paged numbers, but are not called "Quarterly Issue."

So. African Mus. Ann.=Annals of the South African Museum. London; Edinburgh; Cape Town. 1, 1898+

Soc. Agr. e Accad. delle Sci. dell' Ist. Bologna, Nuovi Ann. delle Sci. Nat. e Rend.=Nuovi Annali delle Scienze Naturali e Rendiconto delle Sessioni della Società Agragria, e dell' Accademia delle Scienze dell' Istituto di Bologna. See **Accad. delle Sci. dell' Ist. e Soc. Agr. Bologna, Nuovi Ann. delle Sci. Nat. e Rend.**

Soc. Bibliog. Nat. Hist. Jour.=The Journal of the Society for the Bibliography of Natural History. London. 1, 1936+

Soc. Brit. Ent. Jour.=The Journal of the Society for British Entomology. Southampton. 1, 1934+

Supersedes "Journal of the Entomological Society of the South of England."

Soc. Brit. Ent. Trans.=Transactions of the Society for British Entomology. Southampton. 1, 1934+

Supersedes **Ent. Soc. So. England, Trans.** [q.v.].

Soc. Cient. Argentina, An.=Anales de la Sociedad Cientifica Argentina. Buenos Aires. 1, 1876+

Soc. d'Agr. du Dépt. de la Seine, Mém. d'Agr. d'Écon. Rurale et Dom.=Mémoires d'Agriculture, d'Économie Rurale et Domestique, publiés par la Société d'Agriculture du Départment de la Seine. Paris. 1–16 [=whole ser., 29–44], 1801–1813. [1], 1761, as "Recueil contenant les déliberations de la Société Royale d'Agriculture de la généralité de Paris"; [2], 1762–1784, as [Renfermant divers Mémoires publiés par la Société Royale d'Agriculture de Paris de 1762 à 1784]; [3–27], 1785–1791, as "Mémoires d'Agriculture, d'Économie Rurale et Domestique publiés par la Société Royal d'Agriculture de Paris"; [28], 1799, as "Compte Rendu à la Société Royal d'Agriculture de Paris"; [45–87], 1814–1847, as "Mémoires d'Agriculture publiés par la Société Royale et Centrale d'Agriculture du Départment de la Seine"; [88–93], 1848–1852, as "Mémoires d'Agriculture publiés par la Société Nationale et Centrale d'Agriculture du Départment de la Seine"; [94–115], 1853–1869, as "Mémoires d'Agriculture publiés par la Société Imperiale et Centrale d'Agriculture de France"; [116–117], 1870–1872, as "Mémoires d'Agriculture publiés par la Société Centrale

d'Agriculture de France"; [118–124], 1873–1876, as "Mémoires publiés par la Société Centrale d'Agriculture de France"; [125]–144, 1877–1916, as "Mémoires publiés par la Société Nationale d'Agriculture de France.")

Volume numbers were not given until Vol. 126, 1881 (except 1801–1813). Superseded by "Travaux et Notices publiés par l'Académie d'Agriculture de France."

Soc. d'Amateurs des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav.=Recueil des Travaux de la Société d'Amateurs des Sciences, de l'Agriculture et des Arts à Lille. See **Soc. des Sci., de l'Agr. et des Arts, Lille, Mém.**

Soc. d'Hist. Nat. de la Moselle, Bul.=Bulletin de la Société d' Histoire Naturelle de la Moselle. Metz. 29, 1921+ (1, 1843, as "Mémoires de la Société d'Histoire Naturelle de la Départmente de la Moselle"; 2–12, 1844–1870, as "Bulletin de la Société d' Histoire Naturelle du Départmente de la Moselle"; 13–28, 1871–1913, as **Soc. d'Hist. Nat. de Metz, Bul.** [q.v.].)

Vols. 13–24, 1874–1905, also called Ser. 2, 1–12; 25–35, 1908–1938, also as Ser. 3, 1–11. Suspended 1914–1920 and 1939–1949.

Soc. d'Hist. Nat. de Metz, Bul.=Bulletin de la Société d'Histoire Naturelle de Metz. See **Soc. d'Hist. Nat. de la Moselle, Bul.**

Soc. d'Hist. Nat. de Paris, Actes=Actes de la Société d'Histoire Naturelle de Paris. Paris. 1, 1792.

Soc. d'Hist. Nat. de Paris, Mém.=Mémoires de la Société d'Histoire Naturelle de Paris. Paris. 1–5, 1823–1834.

There was an earlier journal of the same name, 1, 1799.

Soc. de Biol. [Paris] Compt. Rend.=Comptes Rendus Hebdomadaires des Séances et Mémoires de la Société de Biologie. Paris. 36–135, 1888–1941. (Ser. 1, 1–5, 1849–1853, Ser. 2, 1–5, 1854–1858, and Ser. 3, 1–5, 1859–1863, and 16–35, 1864–1884, as "Comptes Rendus des Séances et Mémoires de la Société de Biologie"; 136, 1942+, as "Comptes Rendus Hebdomadaires des Séances de la Société de Biologie.")

Vols. 16–20, 1864–1868, also called Ser. 4, 1–5; vols 21–25, 1869–1873, also as Ser. 5, 1–5; vols. 26–30, 1874–1878, also as Ser. 6, 1–5; vols. 31–35, 1879–1884, also as Ser. 7, 1–5; 36–40, 1884–1888, also as Ser. 8, 1–5; vols. 41–45, 1889–1893, also as Ser. 9, 1–5; 46–50, 1894–1898, also as Ser. 10, 1–5; vol. 51, 1899, also as Ser. 11, 1; vols. 52, 1900+, without additional series numbers.

The Comptes Rendus and the Mémoires formed 2 separately paged sections in vols. 1–46, 1849–1894, and the volumes thereafter were continuously paged.

The volumes for 1904–1940 (vols. 56–134) were also assigned Année numbers (An. 56–92), sometimes more than 1 volume (with same Année number) being issued per year. Thereafter (Vol. 135, 1941+) the Année numbers were dropped and there was but 1 volume issued per year, continuously paged, although sometimes in 2 parts.

Soc. des Sci., de l'Agr. et des Arts, Lille, Mém.=Mémoires de la Société des Sciences, de l'Agriculture et des Arts de Lille. Lille. 1848–1849, and Ser. 3, 8–14, 1870–1874, Ser. 4, 1–22, 1876–1895, and Ser. 5, 1895+ (1806–1819, as "Séances publiques de la Société d'Amateurs des Sciences et Arts de la Ville de Lille"; 1819–1824, as **Soc. d'Amateurs des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav.** [q.v.]; 1825–1827, as **Soc. des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav.** [q.v.]; 1827–1847, as **Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém.** [q.v.]; 1850–1851, as **Soc. Natl. des Sci., de l'Agr. et des Arts, Lille, Mém.** [q.v.]; 1852–1853, and Ser. 2, 1–10, 1854–1863, and Ser. 3, 1–7, 1864–1869, as **Soc. Imp. des Sci., de l'Agr. et des Arts, Lille, Mém.** [q. v.].)

The first series consists of 34 volumes, the 5 separately paged parts of the "Séances . . . ," 1806–1819, being considered as Vol. 1, with 4 volumes of the "Recueil des Travaux," 1819–1827, and 29 volumes of the "Mémoires," 1827–1853. (The volumes [=Années] of the old series were without volume numbers, and often covered more than a single year.) Some of the volumes were issued in separately paged parts. Beginning with Ser. 5, the Mémoires were issued in the form of monographs, with special title page and a half title for the series name.

Soc. des Sci., de l'Agr. et des Arts, Lille, Rec. des Trav.=Recueil des Travaux de la Société des Sciences, de l'Agriculture et des Arts de Lille. See **Soc. des Sci., de l'Agr. et des Arts, Lille, Mém.**

Soc. des Sci. Hist. et Nat. de l'Yonne, Bul.=Bulletin de la Société des Sciences Historiques et Naturelles de l'Yonne. Auxerre. 1, 1847+

Vols. 21–32, 1868–1878, also called Ser. 2, 1–12; vols. 33–50, 1879–1896, also as Ser. 3, 1–20 (irregularly numbered); vols. 51–70, 1897–1916, also as Ser. 4, 1–20; vols. 71–90, 1917–1936, also as Ser. 5, 1–20; Vols. 91, 1937+, without additional series numbers. Vols. 89 (1935) and 92 (1938) consist of 2 separately paged volumes each (the second one of vol. 89 is erroneously called vol. 90).

Soc. Ent. Argentina, Rev.=Revista de la Sociedad Entomológica Argentina. Buenos Aires. 1, 1926+

Soc. Ent. de Belg. Ann.=Annales de la Société Entomologique de Belgique. See **Soc. Roy. d'Ent. de Belg. Bul. et Ann.**

Soc. Ent. de Belg. Bul.=Bulletin de la Société Entomologique de Belgique. Bruxelles. 1–6, 1919–1924.

Previously in **Soc. Ent. de Belg. Ann.** [q.v.] and recombined with it to form **Soc. Ent. de Belg. Bul. et Ann.** [q. v.].

Soc. Ent. de Belg. et Ann.=Bulletin & Annales de la Société Entomologique de Belgique. See **Soc. Roy. d'Ent. de Belg. Bul. et Ann.**

Soc. Ent. de France, Ann.=Annales de la Société Entomologique de France. Paris. 1–11, 1832–1842; Ser. 2, 1–10, 1843–1852; Ser. 3,

1–8, 1853–1860; Ser. 4, 1–10, 1861–1870; Ser. 5, 1–10, 1871–1880; Ser. 6, 1–10, 1881–1890; 60, 1891+

Volumes 1–64, 1832–1895, include a separately paged "Bulletin Entomologique" (vol. 1—Ser. 2, vol. 7, 1832–1849, and Ser. 4, vol. 1—Ser. 5, vol. 2, 1861–1872), "Bulletins Trimestriels" (Ser. 2, vol. 8—Ser. 4, vol. 10, 1850–1860), and "Bulletin des Séances (Ser. 5, vol. 3—vol. 64, 1873–1895). This portion began separate publications in 1896 as **Soc. Ent. de France, Bul.** [q.v.].

Soc. Ent. de France, Bul.=Bulletin de la Société Entomologique de France. Paris. 1896–1931 (without volume numbers) and 37, 1932+

Previous to 1896, the Bulletin was a separately paged section of **Soc. Ent. de France, Ann.** [q.v.].

Soc. Ent. Ital. Bul.=Bullettino della Società Entomologica Italiana. Firenze. 1–54, 1869–1922. (55, 1923+, as "Bollettino della Società Entomologica Italiana.")

Soc. Fouad 1er d'Ent. Bul.=Bulletin de la Société Fouad 1er d'Entomologie. Cairo. 22–38, 1939–1954. (1–6, 1907–1922, and 39, 1955+, as "Bulletin de la Société Entomologique d'Egypte"; 7–21, 1923–1937, as **Soc. Roy. Ent. d'Egypte, Bul.** [q. v.].)

A "new series" was begun with vol. 11, 1927, but volume numbers are continuous.

Soc. Imp. des Sci., de l'Agr. et des Arts, Lille, Mém.=Mémoires de la Société Impériale des Sciences, de l'Agriculture et des Arts de Lille. See **Soc. des Sci., de l'Agr. et des Arts, Lille, Mém.**

Soc. Ital. di Sci. Nat. Atti=Atti della Società Italiana di Scienze Naturali. Milano. 1, 1855+

Soc. Linn. de Lyon, Ann.=Annales de la Société Linnéenne de Lyon. Lyon. [1–4], 1826–1852; Ser. 2, 1–80, 1852–1936.

No volume numbers were used in the first series.

Soc. Linn. de Lyon, Bul. Bi-Mens.=Bulletin Bi-Mensuel de la Société Linnéenne de Lyon. Lyon. 1–10, 1922–1931.

Superseded by "Bulletin Mensuel de la Société . . ."

Soc. Mex. de Hist. Nat. Rev.=Revista de la Sociedad Mexicana de Historia Natural. Mexico City. 1, 1939+

Soc. Natl. des Sci., de l'Agr. et des Arts, Lille, Mém.=Mémoires de la Société Nationale des Sciences, de l'Agriculture et des Arts de Lille. See **Soc. des Sci., de l'Agr. et des Arts, Lille, Mém.**

Soc. Natl. des Sci. Nat. et Math. de Cherbourg, Mém.=Mémoires de la Société Nationale des Sciences Naturelles et Mathématiques de Cherbourg. Paris; Cherbourg; St. Lo. 22, 1879+ (1–2, 1852–1854, as "Mémoires de la Société de Sciences Naturelles de Cherbourg"; 3–15, 1855–1870, as "Mémoires de la Société Impériale

des Sciences Naturelles de Cherbourg"; 16–21, 1871–1878, as "Mémoires de la Société Nationale des Sciences Naturelles de Cherbourg.")

Vols. 11–20, 1865–1876, also called Ser. 2, 1–10; vols. 21–30, 1877–1897, also as Ser. 3, 1–10; vols. 31–40, 1897–1928, also as Ser. 4, 1–10; 41, 1929+, also as Ser. 5, 1+ Vol. 42, 1933/1936, is the last seen by us. Continues?

Soc. pro Fauna et Flora Fenn. Acta=Acta Societas pro Fauna et Flora Fennica. Helsingfors. 1, 1875+

Issued in separately paged numbers.

Soc. pro Fauna et Flora Fenn., Meddel.=Meddelanden af Societas pro Fauna et Flora Fennica. Helsingfors. 1–50, 1873–1924.

Superseded by "Memoranda Societatis pro Fauna . . . "

Soc. Roy. d'Ent. de Belg. Bul. et Ann.=Bulletin & Annales de la Société Royale d'Entomologique de Belgique. Bruxelles. 91, 1955+ (1–7, 1857–1863, as "Annales de la Société Entomologique Belge"; 8–64, 1864–1924, as **Soc. Ent. de Belg. Ann.** [q.v.]; 65–90, 1925–1954, as **Soc. Ent. de Belg. Bul. et Ann.** [q.v.].)

Vols. 10–22, 1866–1879, have a separately paged "Comptes-Rendus de Séances", and vols. 28–35, 1884–1891, a separately paged "Bulletin"; the material involved in these sections is continuously paged in the other volumes and later was issued in a separate publication. **Soc. Ent. de Belg. Bul.** [q.v.], which later recombined with the present periodical.

Soc. Roy. des Sci., de l'Agr. et des Arts, Lille, Mém.=Mémoires de la Société Royale des Sciences, de l'Agriculture et des Arts de Lille. See **Soc. des Sci., de l'Agr. et des Arts, Lille, Mém.**

Soc. Roy. Ent. d'Egypte, Bul.=Bulletin de la Société Royale Entomologique d'Egypte. Cairo. 7–21, 1923–1937. (1–6, 1907–1922, and 39, 1955+, as "Bulletin de la Société Entomologique d'Egypte"; 22–38, 1939–1954, as "Bulletin de la Société Fouad 1er d'Entomologie.")

A "new series" was begun with vol. 11, 1927, but volume numbers are continuous.

Soc. Sci. de Bruxelles, Ann.=Annales de la Société Scientifique de Bruxelles. Bruxelles. 1, 1875+

Vols. 1–46, 1875–1926, without series; vols. 47–56, 1926–1936, in 4 series: A. Sciences Mathématiques; B. Sciences Physiques et Naturelles; C. Sciences Médicales; and D. Sciences Agronomiques et Techniques; vols. 57, 1937+, in 3 series: 1. Sciences Mathématiques et Physiques; 2. Sciences Naturelles et Médicales; and 3. Sciences Économiques. Vols. 1–46 consist of separately paged "Mémoires" and "Documents et Comptes Rendus."

Soc. Zool. de France, Bul.=Bulletin de la Société Zoologique de France. Paris. 1, 1876+

Soc. Zool. de France, Mém.=Mémoires de la Société Zoologique de France. Paris. 1–29, 1888–1932.

South. Calif. Acad. Sci. Bul.=Bulletin of the Southern California Academy of Sciences. Los Angeles. 1, 1902+

Southwest. Nat.=The Southwestern Naturalist. Dallas, Tex. 1, 1956+

Spolia Zeylanica=Spolia Zeylanica. Colombo, Ceylon. 1–12, 1903–1924, and 23, 1944+ (13–22, 1924–1940, as "Spolia Zeylanica. The Ceylon Journal of Science. Section B. Zoology and Geology.")

The "Ceylon Journal of Science," Sections A–G, was formed of a number of independent journals in 1924. All sections continue. However, "Spolia Zeylanica" which joined in 1924, as Section B, broke away in 1944.

Springfield [Mass.] Mus. Nat. Hist. Bul.=Springfield Museum of Natural History. Bulletin. Springfield, Mass. 1–2, 1904–1910. (3, 1924+ as "Museum of Natural History. Springfield, Massachusetts. Bulletin.")

Issued irregularly, No. 3 being the last known to us.

Stettin Ent. Ztg.=Entomologische Zeitung. See **Stettin. Ent. Ztg.**

Stettin. Ent. Ztg.=Stettiner Entomologische Zeitung. Stettin. 55, 1894+ (1–54, 1840–1893, as **Stettin Ent. Ztg.** [q.v.] [vols. 55–75, 1894–1914, under both titles].)

Studi Ent. (Turin)=Studi Entomologici. Turin. 1, 1848.

Published by Baudi and Truqui, whose names are sometimes used in referring to this periodical.

Studia Ent. (Rio de Janeiro)=Studia Entomologica. Rio de Janeiro. 1–3, 1952–1955; N. ser., 1, 1958+

Stylops=Stylops. A Journal of Taxonomic Entomology. See **Roy. Ent. Soc., London, Proc. Ser. B: Taxonomy.**

Suom. Eläin-ja Kasvitiet. Seura Vanamo, Eläintiet. Julkaisu. (Soc. Zool. Bot. Fenn. Vanamo, Ann. Zool.)=Suomalaisen Eläin-ja Kasvitieteellisen Seuran Vanamon Eläintieteellisiä Julkaisuja (Annales Zoologici Societatis Zoolog.-Botanicae Fennicae Vanamo). Helsinki. 1, 1932+

Supersedes "Suomalaisen . . . Seuran Vanamon Julkaisuja (Annales Societatis . . . Vanamo)," and runs concurrently with "Suomalaisen . . . Seuran Vanamon Kasvitieteellisiä Julkaisuja (Annales Botanici Societatis . . . Vanamo)." These journals are issued in separately paged numbers.

Sup. Ent.=Supplementa Entomologica. Berlin. 1–17, 1912–1929.

Sweden, Fishery Bd., Inst. Freshwater Res. (Drottningholm), Rpt.=Institute of Freshwater Research. Drottningholm. Report. Fishery Board of Sweden. Stockholm; Lund. 29, 1949+ (1–28, 1933–1947, as "Meddelanden från Statens Undersöknings-och Försöksanstalt för Sötvattensfisket (Mitteilungen der Anstalt für Binnenfischerei bei Drottningholm)".)

System. Zool.=Systematic Zoology. Washington D.C. 1, 1952+

[**Tartu, Ülikooli (Dorpat Univ.)**] **Naturf. Gesell. bei der Univ. Dorpat, Sitzber.**=Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat. Tartu, Estonia. 5-10 (1), 1881-1893. ([1]-4, 1853/1860-1878, as "Sitzungsberichte der Naturforscher-Gesellschaft zu Dorpat"; 10 (2)-12, 1894-1900, as "Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Jurjeff (Dorpat) (Protokoly Obshchestvo Estestvoispytatelei pri Imperatorskomu Yur'evskomu Universitet)"; 13-23, 1901-1914, as "Sitzungsberichte . . . Universität Jurjew (Dorpat) (Protokoly . . .)"; 24-40, 1915-1933, as "Tartu Ülikooli juures oleva Loodusuurijate Seltsi Aruanded (Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat)"; 41-46, 1934-1940, as "Tartu . . . Aruanded (Annales Societatis rebus Naturae Investigandis in Universitate Dorpatiensi Constitutae)"; [Vol. 47 not seen]; 48, 1955+, as "Loodusuurijate Seltsi Aastaraamat.")

Vol. 1, 1853-1860, is not numbered. The numbers of Vols. 1-4 are called "Sitzungsberichte der Dorpater Naturforscher-Gesellschaft." The spelling of the Universität Dorpat of the German subtitle of vols. 24-40, changes to "Tartu" for vols. 32-40, 1925-1933.

Tashkent, Uzbek. Opytn. Sta. Zashch. Rast. [**Trudy**]=Uzbekstanskai Opytnaia Stantsia Zashchity Rastenii [Publications]. Tashkent. [2]-20, 1925-1930. ([1], 1925, as "Sredne-Aziatskaia Opytnaia Stantsia Zashchity Rastenii [Trudy]"; 21-24, 1931, as "Sredne-Aziatskii Institut Zashchity Rastenii [Trudy]"; 25, 1931, as "Sredne-Aziatskii Issledovatel'ski Institut Zashchity Rastenii [Trudy]".)

Nos. 1-9, 1925-1927, were not numbered; numbers were assigned them on cover of No. 11. Nos. 1-11 are usually classed as separates by libraries.

Természet. Füzetek=Természetrajzi Füzetek. Budapest. 1-25, 1877-1902.

Superseded by **Budapest Magyar Nemzeti Muz., Ann. Hist. Nat.** [q.v.].

Tex. Univ. Pub.=The University of Texas Publications. Austin, Tex. 3801, 1938+ (1-379, 1901-1914, and 1-72, 1915, as "Bulletin of the University of Texas"; 1-72, 1916, and 1701-3772, 1917-1937, as "University of Texas Bulletin.")

Many Bulletins and Publications also form part of other series of journals of the University of Texas, but many were also issued as separates. For 1901-1914, the Bulletins were numbered consecutively; 1915-1916, they were numbered consecutively within each year; for 1917+, the first 2 digits of the Bulletin or Publication numbers indicate the year of issue and the last 2 digits show the position in the yearly series. (Since the numbers are assigned to various branches and departments of the University at the beginning of each year, they are not chronological and some numbers may be missing in the yearly series.)

Tijdschr. v. Ent.=Tijdschrift voor Entomologie. Amsterdam; The Hague. 1 (2), 1857+ (1 (1), 1857, as "Mémoires d'Entomologie.")

Vols. 9–16, 1865–1873, also called Ser. 2, 1–8. A separately paged supplement sometimes accompanies a volume.

Tohôku Imp. Univ., Col. Agr., Jour.=Journal of the College of Agriculture. Tohôku Imperial University. See **Hokkaido Imp. Univ., Faculty Agr., Jour.**

Toronto Univ. Studies, Biol. Ser.=University of Toronto Studies. Biological Series. Toronto. 1–58, 1898–1948. (59, 1951+, as "University of Toronto. Biological Series.")

This is one of many series of the "Studies;" it supersedes the "University of Toronto, Department of Biology, Publications from the Biological Laboratory." The series "Publications of the Ontario Fisheries Research Laboratory," 1, 1922+, is contained in the "Biological Series."

Torrey Bot. Club, Bul.=Bulletin of the Torrey Botanical Club. New York; Menasha, Wis. 1, 1870+

Towar. Nauk. Warszawsk., Arch. Nauk Biol.=Archiwum Nauk Biologicznych Towarzystiva Naukowego Warszawskiego. Lwów; Warsaw. 1, 1921+

The volumes consist of separately paged numbers. Vol. 1 has an additional Latin title "Disciplinarum Biologicarum Archivum Societatis Scientiarum Varsaviensis"; in Vols. 2, 1929+, the additional title is in French as "Archives de Biologie de la Société des Sciences et des Lettres de Varsovie." Vol. 8, no. 2, 1938, is the last seen by us. Continues?

Towar. Nauk. Warszawsk., Sprawozd., Wyzd. 4=Sprawozdania z Posiedzeń Towarzystwa Naukowego Warszawskiego. Wyzdiał IV. Nauk Biologiczynch. Lwów; Warsaw. 22, 1929+

Beginning with the 1950 volume, Wyzdiał 4 also includes the separately issued "Nauk Technicznych," 1, 1950+

Vols. 1–5, 1908–1912, of the "Sprawozdania" were without class breakdown; vols. 6–11, 1913–1918, and 19–21, 1926–1928, appeared in 3 classes: Wyzdiał I, II, and III; vol. 12/18, 1918–1925, was a synoptic issue for the years 1918–1925 published in 1927; vols. 22, 1929+ are issued in 4 classes: Wyzdiał I, II, III, and IV (the latter, as above, previously combined with Wyzd. 3). The volumes also have the French title "Comptes Rendus des Séances de la Société et des Lettres de Varsovie" (Wyzdiał="Classe").

Tromsø Mus. Årsh.=Tromsø Museums Årshefter. Tromsø, Norway. 41–70, 1918–1947 (1950). (1–40, 1878–1917, as "Tromsø Museums Aarshefter.")

Superseded by "Acta Borealia" in 2 series. Vols. 40, 1917+, were issued in separately paged numbers; from Vol. 51, 1928+, the numbers were also numbered consecutively in 2 series: Humanistisk Avd. (No. 4 called Kulturhistorisk Avd.) and Naturhistorisk Avd.

[Turin Univ.] Mus. Zool. ed Anat. Comp., Bol.=Bollettino dei Musei

di Zoologia ed Anatomia Comparata della R. Università di Torino. Turin University, Turin. 1–49, 1886–1942.

Superseded by "Bolletino dell'Istituto e Museo di Zoologia della Università di Torino." Vols. 1–27, 1886–1922, were issued in separately paged numbers, numbered serially 1–746; vols. 38–40, 1923–1925, were issued in separately paged numbers, numbered N. ser., 1–38; vols. 41–48, 1926–1940, were issued in continuously paged numbers, numbered Ser. 3, 1–115; and vol. 49, 1941/1942, was issued in continuously paged numbers, Ser. 4, 116–130.

U.S. Comn. Fish and Fisheries, Rpt. of Comnr.=Report of the Commissioner. United States Commission of Fish and Fisheries (1871–1903); Dept. of Commerce and Labor (1904–1921); Dept. of Commerce (1922–1927); U.S. Dept. of Commerce (1928–1939); U.S. Dept. of the Interior (1940). Washington, D.C. 2–29, 1872–1903. ([1], 1871/1872, as "Report on the conditions of the sea fisheries of the south coast of New England for 1871 and 1872"; 1904, as "Report of the Bureau of Fisheries"; 1905–1912, as "Report of the Commissioner of Fisheries. Bureau of Fisheries"; 1913–1940 (1950), as "Report of the United States Commissioner of Fisheries. Bureau of Fisheries.")

Reports for 1872–1903 are called "Parts" 2–29; other reports are not numbered. Reports for 1905–1923 contain separately paged "special papers" and appendices. Ceases with the 1940 report?

U.S. Dept. Agr., Agr. Handb.=Agriculture Handbook. United States Department of Agriculture, Washington, D.C. 1, 1950+

U.S. Dept. Agr., Bur. Ent., Bul.=Bulletin. United States Department of Agriculture. Bureau of Entomology. Washington, D.C. N. ser., 49–127, 1904–1915. (1–33, 1883–1895, and N. ser. 1–48, 1895–1904, as **U.S. Dept. Agr., Div. Ent., Bul.** [q.v.].)

From No. 41, 1903+, the term "new series" no longer appears on the numbers.

U.S. Dept. Agr., Bur. Ent., Cir.=Circular. United States Department of Agriculture. Bureau of Entomology. Washington, D.C. [Ser. 2], 56–173, 1904–1913. ([Ser. 1], 1–8, 1885, as "Silk Culture Circular. U.S. Department of Agriculture"; [Ser. 1], 9–25, 1885–1886, as "Circular. U.S. Department of Agriculture. Division of Entomology"; [Ser. 1], 26–49, 1886–1894, as "Div. Ent. No. (or Ent. No.) U.S. Department of Agriculture"; Ser. 2, 1–55, 1891–1903, as "Circular. U.S. Department of Agriculture. Division of Entomology.")

Series 1 consists of miscellaneous sheets printed by the Division of Entomology. The words "Second series" appear only up through No. 52, 1903.

U.S. Dept. Agr., Bur. Ent., Tech. Ser.=Technical Series. United States Department of Agriculture. Bureau of Entomology.

Washington, D.C. 10–27, 1905–1915. (1–9, 1895–1901, as **U.S. Dept. Agr., Div. Ent., Tech. Ser.** [q.v.].)

[**U.S. Dept. Agr.**] **Comnr. Agr. Rpt.**=Report of the Commissioner of Agriculture. U.S. Department of Agriculture, Washington, D.C. 1862–1888 (26 vols.). (1849–1861 [13 vols.] as "Report of the Commissioner of Patents. Agriculture"; 1889–1896, and 1924+, as "Report of the Secretary of Agriculture"; 1897–1923, as "Annual Reports of the Department of Agriculture" [which includes the "Report of the Secretary of Agriculture" and continuously paged Departmental reports].)

Prior to 1849, the reports were embodied in the annual reports of the Commissioner of Patents. From 1894–1937, the reports of the Secretary were also published in "Yearbook of Agriculture." The reports for 1924+ are usually bound with the separately paged reports of the various Bureau Chiefs of the Department of Agriculture.

U.S. Dept. Agr., Dept. Bul.=Department Bulletin. United States Department of Agriculture. Washington, D.C. 1126–1500, 1923–1927. (1–242, 1913–1915, as "Bulletin of the U.S. Department of Agriculture"; 243–1125, 1915–1923, as "Bulletin. U.S. Department of Agriculture.")

Superseded by **U.S. Dept. Agr. Tech. Bul.** [q.v.].

U.S. Dept. Agr., Dept. Cir.=Department Circular. United States Department of Agriculture. Washington, D.C. 1–425, 1919–1927.

Nos. 10–12, and 21–24, were never published. Superseded by "Circular. U.S. Department of Agriculture."

U.S. Dept. Agr., Div. Ent., Bul.=Bulletin. United States Department of Agriculture. Division of Entomology. See **U.S. Dept. Agr., Bur. Ent., Bul.**

U.S. Dept. Agr., Div. Ent., Tech. Ser.=Technical Series. United States Department of Agriculture. Division of Entomology. See **U.S. Dept. Agr., Bur. Ent., Tech. Ser.**

U.S. Dept. Agr. Misc. Pub.=United States Department of Agriculture. Miscellaneous Publications. Washington, D.C. 1, 1929+

U.S. Dept. Agr. Rpt.=Report. United States Department of Agriculture. Washington, D.C. 59–117, 1899–1918. ([1–58], 1862–1898, were miscellaneous papers published by the Department; a list of them and their assigned numbers is printed on the cover pages of No. 59.)

U.S. Dept. Agr. Tech. Bul.=Technical Bulletin. United States Department of Agriculture, Washington, D.C. 1, 1927+

Supersedes **U.S. Dept. Agr., Dept. Bul.** [q.v.].

U.S. Dept. Health, Educ., Welfare, U.S. Publ. Health Serv., Publ. Health Monog.=Public Health Monograph. United States Department of Health, Education, and Welfare. Public Health Service. Washington, D.C. 8, 1953+ (1–2, 1950, as "Public Health Technical Monograph. Federal Security Agency. Public Health Service"; 3–7, 1951–1952, as "Public Health Monograph. Federal Security Agency. Public Health Service.")

Published concurrently with and indexed in "Public Health Reports." Usually classed as separates by libraries.

[**U.S. Dept. Int.**], **U.S. Geol. and Geog. Survey of the Ter., Ann. Rpt.**= Annual Report of the United States Geological and Geographical Survey of the Territories. [U.S. Department of the Interior], Washington, D.C. [7]–12, 1874–1883. ([1–2], 1867–1868, were included in the reports of the Commissioner of the General Land-Office for those years; [3], 1869, as "Preliminary Field Report of the United States Geological Survey of Colorado and New Mexico"; [4], 1871, as "Preliminary Report of the United States Geological Survey of Wyoming and portions of Contiguous Territories (being a fifth Annual Report of Progress)"; 6, 1873, as "Annual Report of the United States Geological Survey of the Territories.")

Superseded by "Annual Report of the United States Geological Survey." Vols. 1–4 and 7–8 (1874–1875) are unnumbered. A reprint of the first 3 reports titled "First, second and third annual reports of the United States Geological Survey of the Territories for the years 1867, 1868, and 1869, under the Department of the Interior," was published in Washington, in 1873.

[**U.S. Dept. Int.**] **U.S. Geol. and Geog. Survey of the Ter., Bul.**= Bulletin of the United States Geological and Geographical Survey of the Territories. [U.S.] Department of the Interior, Washington, D.C. 1–6, 1875–1882.

Superseded by "Bulletin of the United States Geological Survey." Vol. 1 has 2 series of Bulletins, the first consisting of 2 separately paged numbers, and the second series consisting of continuously paged numbers, as in Vols. 2–6.

U.S. Natl. Mus. Bul.=United States National Museum. Bulletin. Washington, D.C. 1, 1875+

Nos. 1–16, 1875-1882, are also bound in **Smithsn. Inst., Smithsn. Misc. Collect.** [q.v.] vols. 13 (1878) and 23–24 (1882–1883), as "Bulletins of the United States National Museum," Vols. 1–3, respectively. Some of the later volumes are in parts which are sometimes separately paged.

U.S. Natl. Mus. Proc.=Proceedings of the United States National Museum. Washington, D.C. 1, 1878+

Vols. 1–4, 1878–1881, are also bound in **Smithsn. Inst., Smithsn. Misc. Collect.** [q.v.] vols. 19 and 22. Each number of the Proceedings is also assigned a **Smithsn. Inst. Pub.** [q.v.] number. Vols. 60–82, 1921–1933, were issued in separately paged numbers.

Uppsala Univ. Zool. Bidr.=Zoologiska Bidrag från Uppsala. Uppsala University, Uppsala; Stockholm; Göteborg. 1, 1911+

Utah Acad. Sci., Arts and Letters, Proc.=Proceedings of the Utah Academy of Sciences, Arts and Letters. Provo; Salt Lake City. 11–27/28, 1934–1949/1951. (1–2, 1918–1921, as "Transactions of the Utah Academy of Sciences"; [3], 1926, as "Utah Academy of Sciences. Nineteenth Annual Convention"; [4–5], 1927–1928, as "Utah Academy of Sciences. Abstracts of Papers"; 6–8, 1929–1931, as "Proceedings. Utah Academy of Sciences"; 9–10, 1932–1933, as "Proceedings of the Utah Academy of Sciences"; 29, 1951/1952+, as "Utah Academy of Sciences, Arts and Letters. Proceedings.")

Some volumes are continuously paged double volumes. Vols. 3–9 were later bound together with a cover title "Proceedings. Utah Academy of Sciences, Arts and Letters. Vols. 3–9, inclusive." Vols. 3–5 are unnumbered.

Wash. Acad. Sci. Jour.=Journal of the Washington Academy of Sciences. Washington, D.C. 1, 1911+

Supersedes **Wash. Acad. Sci. Proc.** [q.v.].

Wash. Acad. Sci. Proc.=Proceedings of the Washington Academy of Sciences. Washington, D.C. 1–13, 1899–1911.

Superseded by **Wash. Acad. Sci. Jour.** [q.v.].

Wash. Agr. Expt. Sta. Bul.=Bulletin. Agricultural Experiment Station. Washington Agricultural College and School of Science (1891–1892); State Agricultural College and School of Science (1892–1894); Washington State Agricultural College and School of Science (1894–1905); State College of Washington (1906–1959); Washington State University (1959+). Pullman, Wash. 73–470, 1906–1945. (1–72, 1891–1905, as "Bulletin. Experiment Station"; 471–519, 1946–1950, as "Bulletin. Agricultural Experiment Stations. Institute of Agricultural Sciences"; 520, 1950+, as "Bulletin. Washington Agricultural Experimental Stations. Institute of Agricultural Sciences.")

Nos. 1–8, 1891–1893, were continuously paged; nos. 9–11, 1894, were also continuously paged. From no. 12, 1894+, the bulletins are separately paged.

Wash. Univ. [St. Louis] Studies=Washington University Studies. St. Louis, Mo. 1–13, 1913–1926; N. ser., in 3 separate series: Language and Literature, 1, 1927+; Sciences and Technology, 1, 1928+; and Social and Philosophical Sciences, 1, 1927+ (and for a while an "Annual Bibliography," 1923/1925+).

Vols. 1–4, 1913–1916, of the old series were issued in 2 separately paged "Parts" corresponding to the 2 later "Series," beginning with vol. 5: Humanistic Series, 5–13, 1917–1926; and Scientific Series, 5–13, 1917–1926. (Part 1 of vols. 1–4 became "Scientific Series," Part 2 the Humanistic Series.)

Wasmann Collect.=The Wasmann Collector. See **Wasmann Jour. Biol.**

Wasmann Jour. Biol.=Wasmann Journal of Biology. San Francisco. 8, 1950+ (1–2, 1937–1938, as "Wasmann Club Collector"; 3–7, 1938–1949, as **Wasmann Collect.** [q.v.].)

West Amer. Sci.=The West American Scientist. San Diego, Calif. 1–21, 1884–1919.

Wien, K. Naturhist. Hof-Mus. Ann.=Annalen des K. k. Naturhistorischen Hof-Museums. See **Wien, Naturhist. Mus. Ann.**

Wien. Ent. Montaschr.=Wiener Entomologische Monatschrift. Wien. 1–8, 1857–1864.

Wien. Ent. Ztg.=Wiener Entomologische Zeitung. Wien. 1–50, 1882–1933.

Merged into "Koleopterologische Rundschau."

(Wien) K.k. Akad. Gymnasium, Jahresber.=Jahresberichte des Kais. kön. Akademische Gymnasium. Wien. 1858–?

An annual school "program." Dates not known, but includes one for 1894 (as "Jahres-Bericht über das K. k. Akademische Gymnasium in Wien").

Wien, Naturhist. Mus. Ann.=Annalen des Naturhistorischen Museums in Wien. Wien. 33, 1920+ (1–31, 1886–1917, as **Wien, K. Naturhist. Hof-Mus. Ann.** [q.v.]; 32, 1918, as "Annalen des Naturhistorischen Hofmuseums.")

Wis. Acad. Sci., Arts, Letters, Trans.=Transactions of the Wisconsin Academy of Sciences, Arts, and Letters. Madison. 1, 1870+

Some volumes are in 2 continuously paged parts.

Wis. Agr. Expt. Sta. Res. Bul.=Research Bulletin. Agricultural Experiment Station. University of Wisconsin. Madison. 1, 1909+

Nos. 1–35, 1909–1915, were continuously paged within each year and later bound as part of the "Annual Report of the Agricultural Experiment Station of the University of Wisconsin"; from No. 36, 1915+, the Research Bulletins are separately paged.

Wis. Nat. Hist. Soc. Bul.=Bulletin of the Wisconsin Natural History Society. Milwaukee. 1–13, 1900–1915.

Called "N. ser." throughout.

Wiss. Mitt. aus Bosnien u. Herzegowina=Wissenschaftliche Mitteilungen aus Bosnien und der Herzegowina. Wien. 1–13, 1893–1916.

Wyo. Univ. Pubs.=University of Wyoming Publications. Laramie, Wyo. 2, 1935+ (1, 1922–1934, as "University of Wyoming Publications in Science" in 2 separately paged series: Botany, and Geology.)

Zool. Anz.=Zoologischer Anzeiger. Leipzig. 1, 1878+

Suspended 1944–1950.

Zool.-Bot. Gesell. Wien, Abhandl.=Abhandlungen der Zoologisch-Botanischen Gesellschaft in Wien. Wien. 10, 1918+ (1–9, 1901–1917, as **K.-k. Zool.-Bot. Gesell. Wien, Abhandl.** [q.v.].)

Issued in separately paged numbers through vol. 16, 1936.

Zool.-Bot. Gesell. Wien, Verhandl.=Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien. Wien. 68, 1918+ (1–7, 1851–1857, as **Zool.-Bot. Ver., Wien, Verhandl.** [q.v.]; 8–67, 1858–1917, as **K.-k. Zool.-Bot. Gesell. Wien, Verhandl.** [q.v.].)

Vols. 1–44, 1851–1894, have the separately paged sections "Abhandlungen" and "Sitzungsberichte." The "Kaiserlich-königlichen" appears as "K.-k." on the individual numbers.

Zool.-Bot. Ver. Wien, Verhandl.=Verhandlungen des Zoologisch-Botanischen Vereins in Wien. See **Zool.-Bot. Gesell. Wien, Verhandl.**

Zool. Bul.=Zoölogical Bulletin. Boston. 1–2, 1897–1899.

Superseded by **Biol. Bul.** [q.v.].

Zool. Jahrb., Abt. f. System., Geog. u. Biol. Tiere=Zoologische Jahrbücher. Abteilung für Systematik, Geographie und Biologie der Tiere. Jena. 3–51, 1888–1925. (52, 1926+, as "Zoologische Jahrbücher. Abteilung für Systematik, Ökologie und Geographie der Tiere.")

The first 2 volumes of "Zoologische Jahrbücher" (1886–1887) were not divided into separate Abteilungen. In 1888, it was published in 3 separate sections: one, as above, and the other 2 as "Abteilung für Allgemeine Zoologie und Physiologie der Tiere," and "Abteilung für Anatomie und Ontogenie der Tiere," and also a Supplement. The old spellings of "Abteilung" and "Tiere" were "Abtheilung" and "Thiere."

Zool. Jour. (London)=The Zoological Journal. London. 1–5, 1824–1834.

Zool. Mag. (Wiedemann's)=Zoologisches Magazin. Kiel; Altona. 1–2, 1817–1823.

Published by C. R. W. Wiedemann, and sometimes known as "Wiedemann's Magazin." Issued in separately paged numbers; Vol. 2 consists of only No. 1.

Zool. Soc. London, Proc.=Proceedings of the Zoological Society of London. London. 1–28, 1833–1860, and 107, 1937+ (1861–1890, as **Zool. Soc. London, Proc. Sci. Mtg.** [q.v.]; 1891–1936, as **Zool. Soc. London, Proc. Gen. Mtg.** [q.v.].)

Supersedes "Proceedings of the Committee of Science and Correspondence of the Zoological Society of London"; however, upon resumption of volume numbering in 1937, the 2 volumes of this journal (1831–1832) were included in the reckoning.

Vols. 107–108, 1937–1939, were issued in 3 separately paged series: A. General and Experimental; B. Systematic and Morphological; and C. Abstracts of Papers to be communicated. Vols. 109–113, 1939–1945, were issued only in the 2 series, A and B. Volumes for 1900–1905 were issued in 2 separately paged "Volumes"; those volumes for 1906–1936, though bound in 2 parts, are continuously paged.

Zool. Soc. London, Proc. Gen. Mtg.=Proceedings of the General Meetings for Scientific Business of the Zoological Society of London. See **Zool. Soc. London, Proc.**

Zool. Soc. London, Proc. Sci. Mtg.=Proceedings of the Scientific Meetings of the Zoological Society of London. See **Zool. Soc. London, Proc.**

Zool. Soc. London, Trans.=Transactions of the Zoological Society of London. London. 1, 1835+

Suspended 1917–1925.

Zool. Staatsinst. u. Zool. Mus. Hamburg, Mitt.=Mitteilungen aus dem Zoologischen Staatsinstitut und Zoologischen Museum in Hamburg. Hamburg. 39–46, 1922–1936. ([1–10], 1884–1892, are counted as material included in **Jahrb. der Hamburg. Wiss. Anst.** [q.v.] only [10] being a special section titled "Mitteilung aus dem Naturhistorischen Museum"; 11–38, 1893–1922, were published as Beihefts of **Jahrb. der Hamburg. Wiss. Anst.** [q.v.] [11–31, 1893–1914, as "Mitteilungen aus dem Naturhistorischen Museum in Hamburg"; 32, 1915, as "Mitteilungen aus dem Naturhistorischen (Zoologischen) Museum in Hamburg"; 33–37, 1916–1919, as "Mitteilungen aus dem Zoologischen Museum in Hamburg"; and 38, 1922, as "Mitteilungen aus dem Zoologischen Staatsinstitut und Zoologischen Museum in Hamburg"]; 47, 1938+ as "Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut.")

Ztschr. f. Angew. Ent.=Zeitschrift für Angewandte Entomologie. Berlin. 1, 1914+

Suspended 1944–1949. For supplement, see **Monog. z. Angew. Ent.**

Ztschr. f. die Ent. (Leipzig)=Zeitschrift für Entomologie. Leipzig. 1–5, 1839–1844.

Published by E. F. Germar, and sometimes known as "Germar's Magazin". Superseded by **Linn. Ent.** (q.v.].

Ztschr. f. die Gesam. Naturw.=Zeitschrift für die Gesammten Naturwissenschaften. Berlin; Leipzig; Stuttgart; Halle. 1–54, 1853–1881. (55, 1882+, as "Zeitschrift für Naturwissenschaften.")

Supersedes "Jahresberichte des Naturwissenschaftlichen Vereines in Halle." Vol. 92, 1938, is the last volume seen by us. Continues?

Vols. 35–48, 1869–1876, also called N. ser., 1–14; vols. 49–54, 1877–1881, also as Ser. 3, 1–6; vols. 55–62, 1882–1889, also as Ser. 4, 1–8; vols. 63–86,

1890–1918, also as Ser. 5, 1–24 (last vol. erroneously called "Ser. 6"); 87, 1925+, without additional series numbers.

Another separate journal titled "Zeitschrift für die Gesamte Naturwissenschaft" began publication at Brunswick and Berlin in 1935.

Ztschr. f. Breslau=Zeitschrift für Entomologie. Breslau. 1–15, 1847–1861; N. ser. 1–32, 1870–1907; N. ser. [=ser. 3], 15–18, 1927–1937. ([Ser. 3], 1–14, 1908–1924, as "Jahresheft des Vereins für Schlesische Insektenkunde zu Breslau.")

[Ser. 1], vol. 7, was never published. [Ser. 3], 1, 1908, is also called N. ser. [=ser. 2], vol. 33. Some of the volumes (=hefts) are double volumes.

Ztschr. f. Induktiv Abstam. u. Vererbungslehre=Zeitschrift für Induktiv Abstammungs- und Vererbungslehre. Berlin. 1–88, 1908–1957. (89, 1958+, as "Zeitschrift für Vererbungslehre.")

Suspended 1944–1947.

Ztschr. f. Pflanzenbau u. Pflanzenschutz=Zeitschrift für Pflanzenbau und Pflanzenschutz. Stuttgart; Munich. 45–50, 1950–1955. (1–5, 1898–1902, as "Praktische Blätter für Pflanzenschutz"; 6–22, 1903–1919, and 24–44, 1925–1945, and 51, 1956+, as "Praktische Blätter für Pflanzenbau und Pflanzenschutz"; 23, 1924, as "Praktische Blätter der Bayer.Landesanstalt für Pflanzenbau und Pflanzenschutz.")

Vols. 6–22, 1903–1919, are also called [n. ser.], vols. 1–27; vols. 23–44, 1924–1945, also as [n. ser.], 1–22; vols. 45–50, 1950–1955, also as n. ser., 1–6.

Ztschr. f. Pflanzenkrank. (Pflanzenpath.) u. Pflanzenschutz=Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz. Stuttgart. 39, 1929+ (1–31, 1891–1921, as "Zeitschrift für Pflanzenkrankheiten"; 32–35, 1922–1925, as "Zeitschrift für Pflanzenkrankheiten und Gallenkunde"; 36–38, 1926–1928, as "Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz.")

Suspended 1944–1948.

Ztschr. f. System. Hymenopt. u. Dipt.=Zeitschrift für Systematische Hymenopterologie und Dipterologie. Mecklenberg. 1–8, 1901–1908.

Merged with **Deut. Ent. Ztschr.** [q.v.]

Ztschr. f. Wiss. Insektenbiol.=Zeitschrift für Wissenschaftliche Insektenbiologie. Neudamm; Husum; Berlin, etc. (10–36), 1905–1937, =N. ser., 1–27. (1–2, 1896–1897, as **Illus. Wchnschr. f. Ent.** [q.v.]; 3–5, 1898–1900, as "Illustrierte Zeitschrift für Entomologie"; 6–9, 1901–1904, as "Allgemeine Zeitschrift für Entomologie.")

"Illustrierte" is sometimes spelled with an initial 'J'.

Ztschr. f. Wiss. Zool. (Abt. A)=Zeitschrift für Wissenschaftliche Zoologie. Abteilung A. Leipzig. 141, 1932+

Vols. 1–140, 1848–1932, were without division into Abteilungen, simply as "Zeitschrift für Wissenschaftliche Zoologie". For Abteilung B of this series, beginning in 1932, see **Arch. f. Naturgesch.**

Ztschr. f. Zellforsch. u. Mikros. Anat.=Zeitschrift für Zellforschung und Mikroskopische Anatomie. Berlin. 2–28, 1925–1938, and 34, 1947+ (1, 1924, as "Zeitschrift für Zellen- und Gewebelehre"; 29–33, 1939–1944, as "Zeitschrift . . . Anatomie. Abteilung A: Allgemeine Zellforschung und Mikroskopische Anatomie" [Abt. B: "Chromosoma," 1–2, 1939–1944, continued with vol. 3, 1947+, as an independent journal].

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Names are indexed as follows:

CAPITALS: All names, whether valid or synonymous, for taxa above the generic level;

Boldface: Valid generic and subgeneric names;

Roman: Valid specific, subspecific, and varietal names;

Italics: All synonyms, nomina nuda, and names of extra-limital taxa even though valid.

Parentheses around a generic name indicate the original genus for a species of uncertain position. A † before a page number refers to a misidentification. Synonyms of species-group names are listed in their original spelling, and thus do not necessarily agree in gender with the genus to which they are presently referred. For the purposes of the index, emendations and errors are assigned the authorship of the correct names, as they are usually cited in the literature.

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