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A CATALOG OF THE COLEOPTERA OF AMERICA NORTH OF MEXICO

FAMILY: NEMONYCHIDAE

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FAMILIES OF COLEOPTERA IN AMERICA NORTH OF MEXICO

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¹Missing numbers are those assigned in the computer program to families not found in the United States and Canada.

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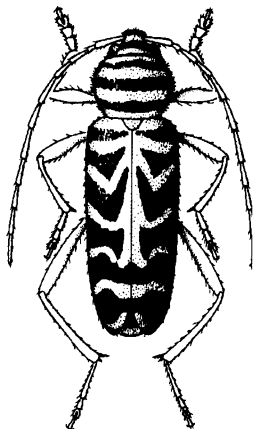
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A CATALOG OF THE COLEOPTERA OF AMERICA NORTH OF MEXICO

FAMILY: NEMONYCHIDAE

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FOREWORD

Many species of beetles are important pests of agricultural crops, stored food products, forests, wood products and structures, and fabrics. Many other species, in contrast, are beneficial in the biological suppression of pest arthropods and weeds, as well as in the decomposition of plant detritus, animal carcasses, and dung. Part of our national responsibility to American agriculture is to provide correct identification of species of American beetles so that appropriate controls can be applied.

Most information about animal species, whether agricultural, biological, or experimental, is filed under the species' scientific names. These names are therefore the keys to retrieval of such information. Because some species have been known by several names, a complete listing of these names for each species is necessary.

For the user of scientific names, an up-to-date taxonomic catalog providing currently accepted names and pertinent bibliographic and distributional data is an indispensable tool. Although taxonomic literature is constantly changing to reflect current work, the traditional published taxonomic catalog remains static with updating left to the individual user until it is revised. Production of catalogs in the past has been laborious with long printing delays resulting in data that are obsolete before being published. However, the computer now provides the capability of storing, updating, and retrieving taxonomic data; rapid publication through computer-driven typesetting machinery; and a greater degree of currentness and flexibility.

All the fascicles in this catalog of the beetles of America north of Mexico are produced by an original group of computer programs, designed and written during a pilot project by personnel of the Systematic Entomology Laboratory and the Communication and Data Services Division, Agricultural Research Service.



R. D. Plowman
Administrator
Agricultural Research Service

PREFACE

The Coleoptera, or beetles, are represented in the world by about 220,000 described species, of which about 24,000 occur in the United States and Canada. A comprehensive taxonomic catalog of beetles for this area has not been available except the series of world-based "Coleopterorum Catalogus" volumes (1909-present, Junk, Berlin). The Leng "Catalogue of the Coleoptera of America North of Mexico" (J.D. Sherman, Jr., Mt. Vernon, NY), which was published in 1920 with supplements to the end of 1947, is a checklist. However, it has served professional and amateur alike for nearly 60 years as the principal source of scientific names of beetles. Since 1947, many new taxa have been described and many changes in status and nomenclature have appeared in numerous scattered publications, but little effort has been made to summarize these changes.

This catalog will supplant the Leng catalog and supply additional essential information. It is produced by an original suite of storage, retrieval, and printing programs written especially for automated taxonomic catalogs.

The catalog for each family is published as a separate fascicle with its introductory text, bibliography, and sequence. The publishing of separate fascicles makes data available shortly after they are assembled. Computer tapes for each fascicle are maintained for updating and necessary reprinting.

The information on each family is the responsibility of the respective author or authors. The editors modify it only to correct obvious errors and to make it conform to the requirements of the computer programs.

No original proposal for a new name, taxon, status, or classification is given, such data having been previously published, but new host and distributional data are often listed. The rules of "The International Code of Zoological Nomenclature" are followed.

The geographic scope of this catalog includes the continental United States, Canada, Greenland, and the associated continental islands. Names of taxa found only in other regions are excluded. If the range of a species extends outside these geographic limits, this fact is indicated. On (or inside of) the back cover is a map of the 12 faunal regions based on historical and faunal criteria to simplify distribution recordings. Two-letter Postal Service style abbreviations are used for States and Provinces, and faunal regions are indicated in each distribution record by a diagonal line between groups of abbreviations.

It is not the purpose of this catalog to present a complete scheme of higher classification within the order. The familial makeup is somewhat intermediate between that of R.H. Arnett in "The Beetles of the United States" (1960-62, Catholic University Press, Washington, DC) and that of R.A. Crowson in "The Natural Classification of the Families of Coleoptera" (1967, Biddles Ltd., Guildford, England). Modifications of these two systems are largely those advocated by J.F. Lawrence based in part on suggestions by taxonomic specialists for certain families.

Generic groups and higher categories within the family are arranged phylogenetically as indicated by the author of the particular fascicle, and species group names with their respective synonyms are arranged alphabetically.

Names referable to *incertae sedis* and *nomen dubium* are listed separately at the end of the nearest applicable taxon with notations as to their status.

Each available name is followed by its author, date proposed, and page number referring to the complete bibliographic citation containing the original description. Following each generic name are the type-species and method of its designation, necessary explanatory notes, and pertinent references on immature stages, taxonomy, redescription, ecology, and keys. After the specific name entry are the original genus (if different from the

present placement), type-locality, geographical distribution by State, Province, and broad extralimital units, explanatory notes, pertinent references to immature stages, taxonomy, redescription, and ecology, depository of type-specimen and its sex, and hosts.

In addition to the list under the map (on or inside of the back cover) of faunal regions, the following abbreviations are used in this catalog:

ABBREVIATIONS, GENERAL

| | |
|-------------------------------------|------------------------------------|
| Amer. Bor.—America Borealis | Mus.—Museum |
| Amer. Sept.—America Septentrionalis | N. Amer.—North America |
| Automat.—Automatic | Orig. des.—Original designation |
| C. Amer.—Central America | Preocc.—Preoccupied |
| Co.—County | S. Amer.—South America |
| Cosmop.—Cosmopolitan | Sp.—Species |
| Design.—Designated | Subseq. monot.—Subsequent monotypy |
| F.—Female | Subsp.—Subspecies |
| Holarc.—Holarctic | Taut.—Tautonymy |
| Isl.—Island | Univ.—University |
| M.—Male | USA—United States of America |
| Mex.—Mexico | Var.—Variety |
| Monot.—Monotypy | W. Ind.—West Indies |

MUSEUMS IN THE UNITED STATES AND CANADA¹

| | |
|---|--|
| AMNH—American Museum of Natural History, New York | FSCA—Florida State Collection, Gainesville |
| ANSP—Academy of Natural Sciences, Phila- delphia, PA | HAHC—H. & A. Howden Collection, Ottawa, Canada |
| BPBM—Bernice P. Bishop Museum, Honolulu | ICCM—Carnegie Museum, Pittsburgh, PA |
| BYUC—Brigham Young University, Provo, UT | INHS—Illinois Natural History Survey, Urbana |
| CASC—California Academy of Sciences, San Francisco | JGEC—J. G. Edwards Collection, San Jose, CA |
| CISC—University of California, Berkely | KMFC—K. M. Fender Collection, McMinnville, OR |
| CNCI—Canadian National Collections, Ottawa | KSUC—Kansas State University, Manhattan |
| CUIC—Cornell University, Ithaca, NY | LACM—Los Angeles County Museum, CA |
| CWOB—C. W. O'Brien Collection, Tallahassee, FL | LSUC—Louisiana State University, Baton Rouge |
| DHKC—D. H. Kistner Collection, Chico State College, CA | MCZC—Museum of Comparative Zoology, Harvard University, Cambridge, MA |
| ELSC—E. L. Sleeper Collection, Long Beach, CA | MSUC—Michigan State University, East Lansing |
| FMNH—Field Museum of Natural History, Chicago, IL | NCSM—North Carolina State University, Raleigh |
| | NYSM—New York State Museum, Albany |
| | OSEC—Oklahoma State University, Stillwater |
| | OSUC—Ohio State University, Columbus |
| | OSUO—Oregon State University, Corvallis |

¹Abbreviations for U. S. and Canadian museums abridged from Arnett, R. H., Jr., and Samuelson, G. A., 1969, "Directory of Coleoptera Collections of North America (Canada Through Panama)," Cushing-Malloy, Ann Arbor, MI, 123 pp.

PMNH—Peabody Museum, Yale University,
New Haven, CT
PSUC—Pennsylvania State Museum, University
Park
PURC—Purdue University, West Lafayette, IN
RUIC—Rutgers University, New Brunswick, NJ
SEMC—Snow Museum, University of Kansas,
Lawrence
SJSC—San Jose State College, CA
SLWC—S. L. Wood Collection, Provo, UT

SMSH—Stovall Collection, University of
Oklahoma, Norman
TAMU—Texas A. & M. University, College
Station
UCDC—University of California, Davis
UICM—University of Idaho, Moscow
UMMZ—University of Michigan, Ann Arbor
UMRM—University of Missouri, Columbia
USNM—U.S. National Museum of Natural
History, Washington, DC
WSUC—Washington State University, Pullman

MUSEUMS IN FOREIGN COUNTRIES

BMNH—British Museum (Natural History),
London
GUHC—Glasgow University, Hunterian
College, Scotland
HMOX—Hope Museum, Oxford, England
IPZE—Institut Pflanzenschutzforschung
Zweigstelle, Eberswald, East Germany
IRSB—Institut Royal Sciences Belgique,
Brussels
MFNB—Museum für Naturkunde (Humboldt),
Berlin
MGFT—Museum G. Frey, Tutzing, Munich,
West Germany
MHNL—Museum d'Histoire Naturelle, Lyon,
France
MNHP—Museum National d'Histoire Naturelle,
Paris
MNSL—Museum of Natural Sciences, Leipzig,
East Germany
MZBS—Museum Zoologia, Barcelona, Spain
NHRS—Naturhistoriske Riksmuseet, Stockholm

NMPC—Narodni Museum, Prague,
Czechoslovakia
SCUT—Spinola College, University of Turin,
Italy
SMTD—Staatliches Museum für Tierkunde,
Dresden, East Germany
UNAM—Universidad Nacional Autonoma,
Mexico City
UZMC—University Zoological Museum,
Copenhagen, Denmark
UZMH—University Zoological Museum,
Helsinki, Finland
ZMAS—Zoological Museum, Academy of
Sciences, Leningrad
ZMPA—Zoological Museum, Polish Academy of
Sciences, Warsaw
ZMUL—Zoological Museum, University of
Lund, Sweden
ZMUM—Zoological Museum, University of
Moscow
ZSBS—Zoologische S a m m l u n g Bayerischen
Staates, Munich, West Germany

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We wish to acknowledge the extensive computer-programming and editing-system support provided by members of the former Communications and Data Services Division of ARS during the early years of this project. We also thank Elaine Jamison for the data entry necessary for each fascicle.

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Family NEMONYCHIDAE

By Robert W. Hamilton

The name Rhinomaceridae was used initially by Leach (1817) for this group of weevils. Bedel (1888) was the first to use the name Nemonychidae. The change from Rhinomaceridae to Nemonychidae was based on the history of the genus *Rhinomacer*. *Rhinomacer* was first used by Geoffroy (1762), who created this new genus for 11 species that were in the genus *Curculio* Linnaeus, 1758, and that had straight antennae; however, Geoffroy's work is considered invalid because of his inconsistent use of binomials.

Fabricius caused more confusion when he used the name *Rhinomacer* for the new species *curculioides* in 1781 and for the new species *attelaboides* in 1787. However, the species *curculioides* is now placed in the pythid genus *Mycterus* Schellenberg, 1798; therefore, *Rhinomacer* Fabricius, 1781, must be transferred to the Pythidae (Anderson, 1947, and Hatch, 1971).

The name *Rhinomacer* Fabricius, 1787, based on *attelaboides*, gained popular usage, and des Gozis (1881) pointed out that *Rhinomacer* Geoffroy and *Rhinomacer* Fabricius, 1787, were based on entirely different concepts. He proposed the name *Cimberis* to replace *Rhinomacer* Fabricius, 1787, and set the type as *Rhinomacer attelaboides* Fabricius.

The name *Cimberis* was widely accepted because of its use by Crowson (1955), Arnett (1962), Kissinger (1964), Hatch (1971), and others. However, O'Brien and Wibmer (1982) pointed out that *Rhinomacer* Fabricius, 1787, and its replacement name *Cimberis* des Gozis, 1881, also must be transferred to the Pythidae. They proposed the new name *Neocimberis* for this group of weevils and set the type as *attelaboides* Fabricius. Unfortunately, their name is a *nomen nudum*, as "of authors" is not a bibliographic reference.

Kuschel (1989) stated that the name *Cimberis* is available and valid for the nemonychid genus because *Cimberis* was proposed to replace *Rhinomacer* Fabricius, 1787 (not *Rhinomacer* Fabricius, 1781). The family name Nemonychidae, now in usage, is based on the genus *Nemonyx* Redtenbacher, 1845. There are, however, no North American members of *Nemonyx*.

Kuschel (1989) significantly revised the Nearctic Nemonychidae and provided a phylogenetic analysis. The Nearctic nemonychids are now placed in two subfamilies, Rhinorhynchinae and Doydirhynchinae, which have a combined total of 5 genera and 17 species. However, only 15 of these species occur north of Mexico (two species of *Atopomacer* Kuschel have been found only in northeastern Mexico). Previously, members of the nemonychid subfamily, Rhinorhynchinae, were found only on Podocarpaceae hosts in New Zealand, Chile, and Argentina (Kuschel, 1989). The genus *Atopomacer* Kuschel, which has three new species, is a significant addition to the Nearctic nemonychids. In addition, the species *byturooides* LeConte and *slevini* Martin, previously placed in the genus *Doydirhynchus* Dejean, are now placed in *Lecontellus* Kuschel (transfer based mainly on mouthpart characters). *Doydirhynchus* Dejean (1821) now applies only to the palearctic species, *D. austriacus* Olivier and *D. bicolor* pic. Kuschel also removed *bombifrons* LeConte from the genus *Cimberis* (mainly due to mandibular characters) and placed the species in his new genus *Acromacer*.

The adult members of the family are described as follows: having the rostrum rather elongated, flattened, and widened apically; antennal scrobes shallow, longitudinal, and not well defined; gular sutures short and widely separated; labrum present, clypeolabral suture distinct; mandibles flat, somewhat elongated, and pincer-shaped; all maxillary parts distinct, palpi four-segmented, flexible or rigid; antennae straight, inserted laterally beyond middle, club three-segmented and loosely united; elytra elongated, epipleurae present, scutellary striae absent, costal flange on undersurface absent; mesocoxal cavities open, bordered laterally by mesepimera, mesosterna, and metasterna; ventral abdominal sutures distinct, flexible; tibial apices armed with two small articulated spurs, tarsal claws simple, widely separated; proventriculus poorly developed or absent. Larvae (based on *Cimberis* larvae) are described as follows: legs small, conical; body weakly C-shaped, slender, elongated, abundantly setose; head not retracted; ocellus present; frontal sutures distinct throughout length but not obviously complete anteriorly; hypopharyngeal sclerite well developed; antenna distinctly one-segmented and with an apical sensory cone; labrum with two basal sensilla; labrum-epipharynx with two anteromedian and two anterolateral setae; prementum and mentum separate; maxillary palpus three-segmented; thoracic spiracle in mesothorax; abdominal segments with sparse ventral asperites and with two dorsal folds per segment, prodorsal and postdorsal folds subequal in convexity.

This family is relatively small, with three subfamilies, 23 genera, and only about 70 species in the entire world (Kuschel, 1983). These weevils have long been considered the most primitive group of the Curculionoidea and on that basis alone merit further study.

Work is needed on the biology of the North American species of this family. Life history data are available for only one North American nemomychid, *Cimberis elongatus* LeConte. Rearing studies associating adults, larvae, and hosts will be necessary in order to place the North American species accurately (Kuschel, 1989). Most published information pertains to taxonomy and distribution. All North American species are apparently associated with *Pinus* spp. The family, due to the frequent association of the species with the staminate cones of pine, has been referred to as the "pine flower snout beetles" (Blatchley and Leng, 1916). It is likely that adults and larvae feed mainly on pine pollen, although Thomas and Herdy (1961) reported that newly hatched larvae of *C. elongatus* fed on the needles within the fascicle sheath of dead or drying shoots of *Pinus banksiana* Lamb. They also reported that older larvae then bored into the stem and fed internally. Emden (1938) compared the larvae of *Cimberis pilosus* LeConte to anthribid larvae and considered the nemomychids (based mainly on larval characteristics) to belong to the family Anthribidae. Valentine (1960) clearly pointed out that these weevils were not anthribids. Anderson (1947) stated that larvae of *Cimberis pilosus* LeConte were taken from male cones of *Pinus virginiana* Mill. and that pupation took place in "ground trash." Kissinger (1964) stated that the larvae develop in the male strobili of conifers.

The adult weevils are never found in large numbers and are probably not of economic importance. The impact on pine reproduction by larval feeding, although not studied, is probably insignificant.

This manuscript was received January 1983 and modified November 1993.

Subfamily RHINORHYNCHINAE

Tribe RHINORHYNCHINI

Genus ATOPOMACER Kuschel

Atopomacer Kuschel, 1989: 126. Type-species: *Atopomacer ites* Kuschel (orig. des.).

KEYS: Kuschel, 1989: 126.

ites Kuschel, 1989: 127. CO: Estes Park; CO/ AZ. This is the first record of a nearctic Rhinorhynchinae member; the genus also includes two Mexican species.

TYPE DEPOSITORY: CNCI.

SEX OF TYPE: M.

TAXONOMY: Kuschel, 1989: 127.

HOST: Unknown, presumably *Pinus* sp.

Subfamily DOYDIRHYNCHINAE

Tribe CIMBERINDINI

Genus CIMBERIS Gozis

Cimberis Gozis, 1881: 112 (proposed solely and expressly for *Rhinomacer attelaboides* Fabricius, 1787). Type-species: *Rhinomacer attelaboides* Fabricius (orig. des.). *Cimberis*, from Greek, is feminine (Kuschel, 1989: 130).

Neocimberis O'Brien and Wibmer, 1982: 3. Type-species: *Rhinomacer attelaboides* Fabricius (orig. des.). *Nomen nudum*; published after 1930 without a description or bibliographic reference to one.

Rhinomacer (of authors, not Fabricius, 1781).

IMMATURE STAGES: Emden, 1938: 5 (larvae); Anderson, 1947: 515 (larvae).

TAXONOMY: Hatch, 1971: 335; O'Brien and Wibmer, 1982: 18; Kuschel, 1989: 132.

REDESCRIPTION: Hatch, 1971: 335; Kuschel, 1989: 132.

ECOLOGY: Thomas and Herdy, 1961: 406 (life history of *C. elongatus* LeConte).

KEYS: LeConte, 1876: 2; Pierce, 1909: 325; Blatchley and Leng, 1916: 50; Voss, 1922: 9, and 1931: 164; Arnett, 1962: 976; Hatch, 1971: 335; Kuschel, 1989: 133.

bihirsuta Hatch, 1971: 336. OR: Wasco Co., Bear Springs; BC WA OR ID/ MT/ CA/ WY.

TYPE DEPOSITORY: USNM (holotype).

SEX OF TYPE: F.

TAXONOMY: Kuschel, 1989: 144.

REDESCRIPTION: Kuschel, 1989: 143.

compta LeConte, 1876: 2 (*Rhinomacer*). CA: Lake Tahoe; BC WA OR ID/ MT/ CA/ CO/ AZ NM.

TYPE DEPOSITORY: MCZC (holotype).

SEX OF TYPE: F.

parvulus Hatch, 1971: 336 (new synonymy, Kuschel, 1989). WA: Chelan Co., Swauk Pass.

TYPE DEPOSITORY: USNM (holotype).

TAXONOMY: Pierce, 1909: 326 (key characters); Ting, 1936: 94 (adult mouth parts); Hatch, 1971: 336 (key characters). Kuschel, 1989: 141.

REDESCRIPTION: Kuschel, 1989: 141.

ECOLOGY: Pierce, 1909: 326 (distribution); Linsley and Usinger, 1936: 52; Hatch, 1971: 336 (distribution).

HOST: *Pinus ponderosa* Laws., *P. contorta* Loud., *P. sabiniana* Doug., *P. jeffreyi* Vasey, *P. murrayana* Engelm., *Pseudotsuga mucronata* (Rafinesque), *Cypress* sp.

decipiens Kuschel, 1989: 137. CA: Mariposa Co.; BC WA/ CA/ CO.

TYPE DEPOSITORY: USNM (holotype).

SEX OF TYPE: M.

HOST: *Pinus monticola* (single adult) (Kuschel, 1989).

elongata LeConte, 1876: 2 (*Rhinomacer*) (Lectotype not designated). PA; BC/ MN WI MI ON PQ/ KS IL IN OH KY/ NY PA NJ MD DC WV VA/ ME NH MA CT/ TX/ MS AL TN GA SC NC FL. The lectotype was designated by Kuschel, 1989: 136.

TYPE DEPOSITORY: MCZC (cotypes).

TAXONOMY: Pierce, 1909: 325; Blatchley and Leng, 1916: 51; Voss, 1922: 9, and 1932: 14; Kuschel, 1989: 136.

REDESCRIPTION: Blatchley and Leng, 1916: 51; Kuschel, 1989: 134.

ECOLOGY: Pierce, 1909: 326; Blatchley and Leng, 1916: 51; Thomas and Herdy, 1961: 406; Hatch, 1971: 336.

HOST: *Pinus strobus* Linn., *P. virginiana* Mill., *P. banksiana* Lamb. *P. contorta* Loud., *Pinus* sp., plum and peach trees in GA (Blatchley and Leng, 1916).

pallipennis Blatchley, 1916: 51 (*Rhinomacer*) (resurrected name, Kuschel, 1989). NH: Mt. Washington; AB/ MI PQ/ PA NJ/ ME NH MA/ NM/ TN NC. The lectotype was designated by Blatchley, 1930: 39.

TYPE DEPOSITORY: PURC.

SEX OF TYPE: F.

TAXONOMY: Kuschel, 1989: 136.

REDESCRIPTION: Kuschel, 1989: 136.

ECOLOGY: Kuschel, 1989: 136 (distribution outside of type locality).

HOST: Unknown.

pilosa LeConte, 1876: 2 (*Rhinomacer*). VA; AB/ MN MI ON PQ/ NB/ CO/ IL OH/ NY PA NJ MD DC VA/ ME NH MA/ TX/ LA MS AL GA NC FL. The lectotype was designated by Hamilton, 1983: 20.

TYPE DEPOSITORY: MCZC (cotypes).

SEX OF TYPE: F.

IMMATURE STAGES: Emden, 1938: 5 (larvae); Anderson, 1947: 516 (larvae).

TAXONOMY: Pierce, 1909: 326; Blatchley and Leng, 1916: 50; Voss, 1922: 12, and 1932: 17; Kuschel, 1989: 141.

REDESCRIPTION: Blatchley and Leng, 1916: 50; Kuschel, 1989: 139.

ECOLOGY: Pierce, 1909: 326 (distribution); Blatchley and Leng, 1916: 51 (distribution).

HOST: *Pinus palustris* Mill., *P. virginiana* Mill., *P. silvestris* Linn.

turbans Kuschel, 1989: 145. CA: Wolverton, Sequoia Natl. Pk.; OR/ CA NV.

TYPE DEPOSITORY: CASC.

SEX OF TYPE: M.

HOST: *Pinus contorta* var. *latifolia* (all specimens from Cisco, Placer Co., CA. Kuschel, 1989).

Genus PITYOMACER Kuschel

Pityomacer Kuschel, 1989: 146. Type-species: *Pityomacer carmelites* Kuschel (orig. des.).

KEYS: Kuschel, 1989: 147.

carmelites Kuschel, 1989: 147. CA: Carmel, Monterey Co.; CA.

TYPE DEPOSITORY: CASC.

SEX OF TYPE: M.

HOST: Unknown.

nugax Kuschel, 1989: 149. CA: Tulare Co., Giant Forest; CA.

TYPE DEPOSITORY: CASC.

SEX OF TYPE: M.

HOST: Adults on *Pinus* sp.

pix Kuschel, 1989: 147. BC: Vernon; BC WA OR/ AB MT.

TYPE DEPOSITORY: UBCZ (Spencer Ent. Mus.).

SEX OF TYPE: M.

HOST: Unknown.

Genus ACROMACER Kuschel

Acromacer Kuschel, 1989: 152. Type-species: *Rhinomacer bombifrons* LeConte (orig. des.).

bombifrons LeConte, 1876: 412 (*Rhinomacer*) (transferred to *Acromacer* [Kuschel, 1989]). BC; BC WA OR ID/ AB MT SD/ CA NV/ CO.

TAXONOMY: Pierce, 1909: 325 (key characters); Kuschel, 1989: 153 (new combination).

REDESCRIPTION: Kuschel, 1989: 153.

HOST: Adults on *Pinus contorta* and *Pinus jeffreyi* (Kuschel, 1989).

Tribe DOYDIRHYNCHINI

Genus LECONTELLUS Kuschel

Leconteillus Kuschel, 1989: 153. Type-species: *Doydirhynchus byturoides* LeConte (orig. des.).

byturoides LeConte, 1880: 215 (*Diodyrhynchus*) (transferred to *Leconteillus* [Kuschel, 1989]). CA: Sierra Nevada; WA OR/ CA NV. The lectotype was designated by Hamilton, 1983: 20; there are four cotypes (no. 266).

TYPE DEPOSITORY: MCZC.

SEX OF TYPE: F.

TAXONOMY: Voss, 1932: 68; Ting, 1936: 94; Kuschel, 1989: 156.

REDESCRIPTION: Voss, 1932: 69; Kuschel, 1989: 156.

ECOLOGY: Pierce, 1909: 326 (locality and host).

HOST: *Pinus sabiniana* Doug., *P. radita* Coleman, *P. ponderosa*.

pinicolus Kuschel, 1989: 158. CA: Kern Co., Woffard Heights; CA.

TYPE DEPOSITORY: CASC.

SEX OF TYPE: M.

HOST: *Pinus sabiniana* (adults).

slevini Martin, 1930: 130 (*Diodyrhynchus*). CA: Monterrey Co., Carmel. The holotype is no. 2625, and the allotype is no. 2626.

TYPE DEPOSITORY: CASC.

SEX OF TYPE: M.

TAXONOMY: Kuschel, 1989: 166 (new combination).

REDESCRIPTION: Kuschel, 1989: 166.

HOST: Unknown.

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Names are indexed as follows:

CAPITALS: All names for taxa above the generic level;

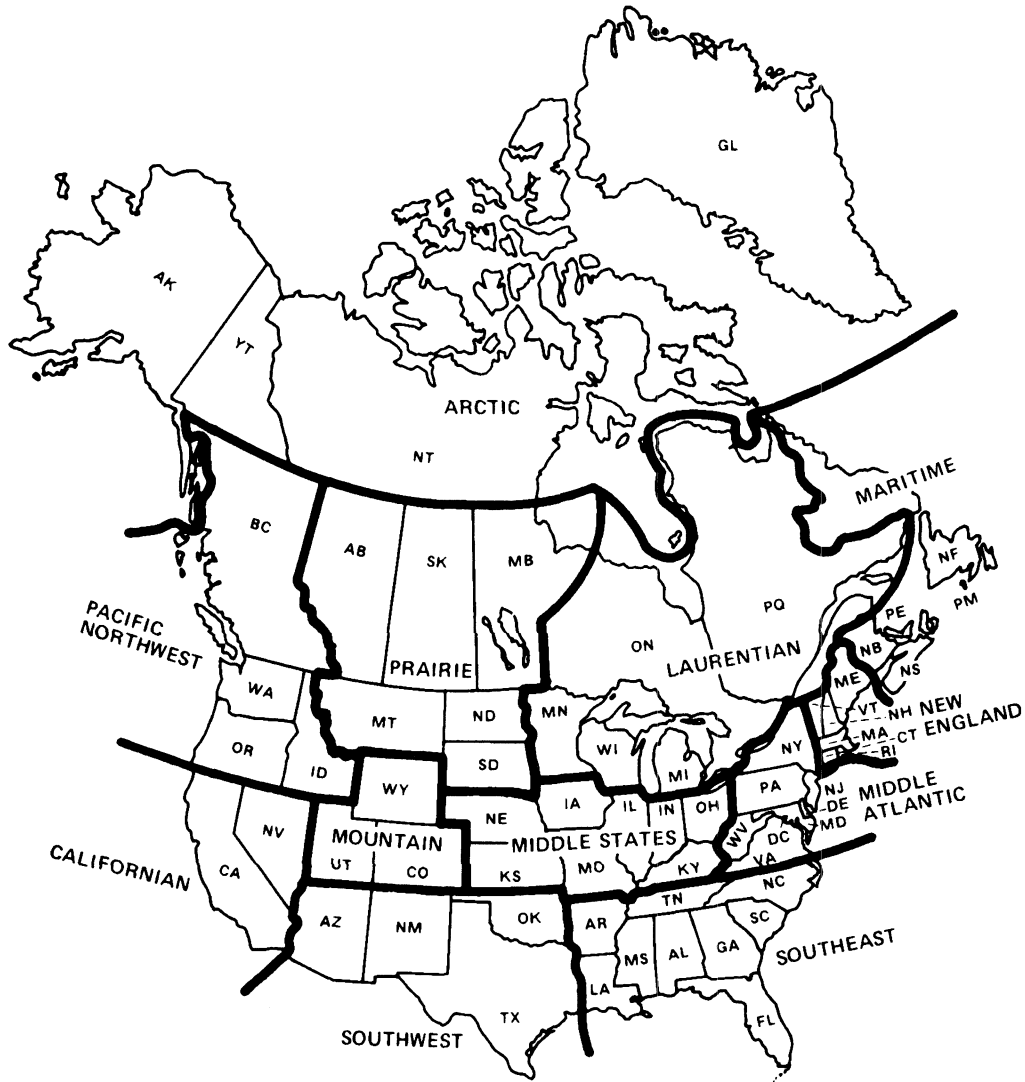
Boldface: Valid generic and subgeneric names;

Roman: Valid specific and subspecific names;

Italics: All invalid names such as synonyms, nomina nuda, and extra-limital taxa even though valid.

The generic name following the author's name indicates the present placement of the species. Synonyms of species-group names are listed with the original spelling.

| | | | |
|---|---|---|---|
| Acromacer Kuschel..... | 4 | <i>decipiens</i> Kuschel, <i>Cimberis</i> | 3 |
| Atopomacer Kuschel..... | 2 | DOYDIRHYNCHINAE | 2 |
| <i>bihirsuta</i> Hatch, <i>Cimberis</i> | 3 | DOYDIRHYNCHINI | 4 |
| <i>bombifrons</i> LeConte, <i>Acromacer</i> | 4 | <i>elongata</i> LeConte, <i>Cimberis</i> | 3 |
| <i>byturoides</i> LeConte, <i>Lecontellus</i> | 4 | <i>ites</i> Kuschel, <i>Atopomacer</i> | 2 |
| <i>carmelites</i> Kuschel, <i>Pityomacer</i> | 4 | Lecontellus Kuschel..... | 4 |
| CIMBERINDINI | 2 | NEMONYCHIDAE | 1 |
| Cimberis Gozis..... | 2 | <i>Neocimberis</i> O'Brien and Wibmer | 2 |
| <i>compta</i> LeConte, <i>Cimberis</i> | 3 | <i>nugax</i> Kuschel, <i>Pityomacer</i> | 4 |
| | | <i>pallipennis</i> Blatchley, <i>Cimberis</i> | 3 |
| | | <i>parvulus</i> Hatch, <i>Cimberis</i> | 3 |
| | | <i>pilosa</i> LeConte, <i>Cimberis</i> | 3 |
| | | <i>pinicolus</i> Kuschel, <i>Lecontellus</i> | 4 |
| | | Pityomacer Kuschel..... | 3 |
| | | <i>pix</i> Kuschel, <i>Pityomacer</i> | 4 |
| | | <i>Rhinomacer</i> , error | 2 |
| | | RHINORHYNCHINAE | 2 |
| | | RHINORHYNCHINI | 2 |
| | | <i>slevini</i> Martin, <i>Lecontellus</i> | 4 |
| | | <i>turbans</i> Kuschel, <i>Cimberis</i> | 3 |



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|----|----------------------|----|----------------|----|----------------------|
| AB | Alberta | MB | Manitoba | ON | Ontario |
| AK | Alaska | MD | Maryland | OR | Oregon |
| AL | Alabama | ME | Maine | PA | Pennsylvania |
| AR | Arkansas | MI | Michigan | PE | Prince Edward Island |
| AZ | Arizona | MN | Minnesota | PM | St. Pierre-Miquelon |
| BC | British Columbia | MO | Missouri | PQ | Quebec |
| CA | California | MS | Mississippi | RI | Rhode Island |
| CO | Colorado | NC | North Carolina | SC | South Carolina |
| CT | Connecticut | ND | North Dakota | SD | South Dakota |
| DC | District of Columbia | NE | Nebraska | SK | Saskatchewan |
| DE | Delaware | NH | New Hampshire | TN | Tennessee |
| FL | Florida | NJ | New Jersey | TX | Texas |
| GA | Georgia | NM | New Mexico | UT | Utah |
| GL | Greenland | NS | Nova Scotia | VA | Virginia |
| IA | Iowa | NB | New Brunswick | VT | Vermont |
| ID | Idaho | NY | New York | WA | Washington |
| IL | Illinois | OH | Ohio | WI | Wisconsin |
| IN | Indiana | OK | Oklahoma | WV | West Virginia |
| KS | Kansas | | | WY | Wyoming |
| KY | Kentucky | | | YT | Yukon Territory |
| LA | Louisiana | | | | |
| MA | Massachusetts | | | | |