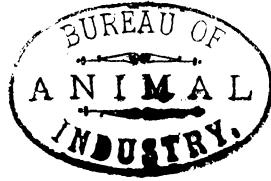


## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



CIRCULAR No. 13.

U. S. DEPARTMENT OF AGRICULTURE.  
BUREAU OF ANIMAL INDUSTRY.

**CHECK LIST OF THE ANIMAL PARASITES OF DUCKS.**

(*Anas boschas domestica.*)

This check list is taken from the card catalogue of the Zoological Laboratory, Bureau of Animal Industry, and contains all of the animal parasites of the domesticated duck recorded up to the present time, so far as it has been possible to trace them in veterinary and zoological literature. The generic names are printed in brier antique lower case, ex., *Monas*; the generally accepted specific names are given in brier small caps under the generic name, ex., *ANATIS*; synonyms, which are taken upon the authority of various authors, are printed in brier italics and cross referenced to the name adopted for the parasite by the most recent authorities, ex., "*Coccidium Rivolta* see COCCIDIUM TENELLUM."

In the present list I do not commit myself to the validity of any species or genus or to the validity of any specific or generic name. The names given are those adopted by the most recent authorities, but it will be years before all of these forms can be properly studied. In a few cases I have adopted the "generally accepted name," even if it is apparently not the first available name, as I consider it better to make changes in nomenclature only when the literature can be given. An historical review of the species is, however, out of the question in a check list of this kind.

ALBERT HASSALL,  
*Zoological Laboratory, Bureau of Animal Industry.*

Approved:

J. STERLING MORTON, *Secretary.*  
WASHINGTON, D. C., *May 14, 1896.*

**PROTOZOA (UNICELLULAR ANIMALS).**

**Coccidium** R. Leuckart, 1879

*Rivolta* see COCCIDIUM TENELLUM.

TENELLUM Railliet & Lucet, 1891.....Intestine  
1886, *Coccidium Rivolta* Harz [*nec* Grassi, 1881].

**Monas** Müller, 1773

ANATIS Davaine, 1874.....Cæcum

**TREMATODA (FLUKES).**

**Cephalogonimus** J. Poirier, 1885 (also as subg. of *Distomum*)

OVATUS (Rudolphi, 1802) Stossich, 1892.....Bursa of Fabricius  
1802, *Fasciola ovata* Rudolphi.  
1809, *Distoma ovatum* (Rudolphi, 1802) Rudolphi.  
1846, *D. bursicola* Creplin.

**Distomum** Retzius, 1786 (also **Distoma**) [*nec* **Distomus** Gaertner, 1774]

- anatis* see ECHINOSTOMUM ECHINATUM.  
*anatis fusca* see " "  
*armatum*<sup>1</sup> see " "  
*bursicola* see CEPHALOGONIMUS OVATUS.  
*conoideum* see ECHINOSTOMUM ECHINATUM.  
*dilatatum*<sup>1</sup> see " "  
*echinatum*<sup>1</sup> see " "  
*echiniferum* see " "  
*excavatum* see " "  
*fuligulae ferinae* see " "  
*gruis* see " "  
*militare* see " "  
*ovatum* see CEPHALOGONIMUS OVATUS.  
*oxycephalum* see ECHINOSTOMUM ECHINATUM.  
*radiatum* see " "  
*recurvatum* see ECHINOSTOMUM RECURVATUM.

**Echinostomum** Rudolphi, 1809 (also **Echinostoma**) (also as subg. of **Distomum**)

- dilatatum*<sup>1</sup> see ECHINOSTOMUM ECHINATUM.  
 ECHINATUM<sup>1</sup> (Zeder, 1803) Rudolphi, 1809 ..... Intestine  
 1782, *Cucullanus conoideus* Bloch.  
 1782, *Planaria teres poro simplici* Goeze.  
 1788, *Festucaria anatis* Schrank.  
 1790, *Fasciola anatis* (Schrank, 1788) Gmelin.  
 1790, *F. gruis* Gmelin.  
 1790, *Festucaria boschadis* Schrank.  
 †, *Distoma anatis fusca* Viborg.  
 1800, *D. anatis* (Schrank, 1788) Zeder.  
 1803, *D. gruis* (Gmelin, 1790) Zeder.  
 1803, *D. echinatum*<sup>1</sup> Zeder.  
 1809, *D. excavatum* Rudolphi.  
 1809, *D. militare* Rudolphi.  
 1819, *D. oxycephalum*<sup>1</sup> Rudolphi.  
 1844, *D. fuligulae ferinae* Bellingham.  
 1845, *D. radiatum* Dujardin.  
 1846, "*D. dilatatum*<sup>1</sup> Miram n. sp." [nomen nudum of Creplin].  
 1855, *D. echiniferum* La Valette.  
 1858, *D. armatum*<sup>1</sup> Molin [*nec* (Rudolphi, 1793) Zeder, 1803].  
 1860, "*Echinostoma dilatatum*<sup>1</sup> (Miram," 1846) Cobbold.  
 1885, *Distoma conoideum* (Bloch, 1782) Railliet.  
 RECURVATUM (Linstow, 1873) Stossich, 1892 ..... Intestine  
 1873, *Distomum recurvatum* Linstow.

**Fasciola** Linnæus, 1758

- anatis* see ECHINOSTOMUM ECHINATUM.  
*gruis* see " "  
*ovata* see CEPHALOGONIMUS OVATUS.  
*trachea* see SYNGAMUS TRACHEALIS.  
*verrucosa* see NOTOCOTYLE VERRUCOSUM.

<sup>1</sup>Railliet thinks that both *D. armatum* Molin and *D. dilatatum* of chickens are identical with *D. echinatum* of ducks. Various authors have published long lists of synonymy of *E. echinatum*, but I am very skeptical as to the standing of most of them. The genus *Echinostomum* Rudolphi, 1809 [type species *E. echinatum* (Zeder, 1803)], must be subjected to monographic revision, based upon specimens as well as literature, before we can look upon the synonymy as established.

**Festucaria** Schrank, 1788

- anatis* see ECHINOSTOMUM ECHINATUM.  
*boschadis* see " "  
*caryophyllina* see MONOSTOMUM CARYOPHYLLINUM.

**Hypostoma** Blainville, 1828 [*nec* Lacépède, 1803]

- caryophyllum* see MONOSTOMUM CARYOPHYLLINUM.

**Monostomum** Zeder, 1800 (also **Monostoma**)

- attenuatum* see NOTOCOTYLE VERRUCOSUM.  
 CARYOPHYLLINUM (Rudolphi, 1802) Zeder, 1803..... Intestine  
 1802, *Festucaria caryophyllina* Rudolphi.  
 1828, *Hypostoma caryophyllum* (Rudolphi, 1802) Blainville.  
*lineare* see NOTOCOTYLE VERRUCOSUM.  
*verrucosum* see " "

**Notocotyle** Diesing, 1850

- triseriale* see NOTOCOTYLE VERRUCOSUM.  
 VERRUCOSUM (Frölich, 1789) Monticelli, 1892..... Intestine  
 1789, *Fasciola verrucosa* Frölich.  
 1800, *Monostomum verrucosum* (Frölich, 1789) Zeder.  
 1809, *M. attenuatum* Rudolphi [*nec* Molin, 1859].  
 1819, *M. lineare* Rudolphi.  
 1839, *Notocotylus triserialis* Diesing.  
 1850, *Notocotyle triseriale* (Diesing, 1839) Diesing.

**Notocotylus** Diesing, 1839

- triserialis* see NOTOCOTYLE VERRUCOSUM.

**Planaria** Goeze, 1782 [*nec* Müller, 1776]

- teres poro simplici* see ECHINOSTOMUM ECHINATUM.

CESTODA (TAPEWORMS).<sup>1</sup>**Alyselminthus** Zeder, 1800

- columbæ* see DAVAINEA CRASSULA.  
*sinuosus* see DREPANIDOTÆNIA SINUOSA.

**Choanotænia**<sup>2</sup> Railliet, 1896

- infundibuliformis* see DREPANIDOTÆNIA INFUNDIBULIFORMIS.

**Davainea** R. Blanchard & Railliet, 1891

- columbæ* see DAVAINEA CRASSULA.  
 CRASSULA (Rudolphi, 1819) Railliet, 1893..... Intestine  
 ? 1790, *Tænia serpentiformis* i. *T. turturis* Gmelin.  
 ? 1800, *Alyselminthus columbæ* Zeder.  
 ? 1803, *Halysis columbæ* (Zeder, 1800) Zeder.  
 ? 1810, *Tænia sphenoccephala* Rudolphi.  
 1819, *T. sphenoccephala* Rudolphi.  
 1819, *T. crassula* Rudolphi.  
 1891, *Davainea columbæ* (Zeder, 1800) R. Blanchard.

<sup>1</sup>For a discussion of these parasites see Stiles's Report upon the Present Knowledge of the Tapeworms of Poultry. (Bull. 12, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C.)

<sup>2</sup>Railliet has recently proposed a new genus (*Choanotenia*) for the species *Drepanidotænia infundibuliformis*. As this species has not yet been sufficiently studied anatomically, I prefer to retain the present name.

**Dicranotænia** Railliet, 1892

- CORONULA (Dujardin, 1845) Railliet, 1892..... Intestine  
1845, *Tenia coronula* Dujardin.

**Drepanidotænia** Railliet, 1892

- ANATINA (Krabbe, 1869) Railliet, 1893..... Intestine  
1869, *Tenia anatina* Krabbe.  
GRACILIS (Krabbe, 1869) Railliet, 1893..... Intestine  
? 1782, *Tenia collo longissimo* Bloch.  
? 1803, *Halysis gracilis* Zeder.  
? 1810, *Tenia gracilis* (Zeder, 1803) Rudolph.  
1869, *T. gracilis* Krabbe.  
INFUNDIBULIFORMIS (Goeze, 1782) Railliet, 1893..... Intestine  
1779, *Tenia infundibulum* Bloch pro parte.  
1782, *T. infundibuliformis* Goeze.  
1896, *Choanotænia infundibuliformis* (Goeze, 1782) Railliet.  
LANCEOLATA (Bloch, 1782) Railliet, 1892..... Intestine  
[1727, *Tenia anserum* Frisch.]  
1779, *T. anseris* Bloch.  
1781, *T. acutissima* Pallas pro parte.  
1782, *T. lanceolata* Bloch.  
1786, *T. lanceola* Batsch.  
1803, *Halysis lanceolata* (Bloch, 1782) Zeder.  
1858, *Hymenolepis (Dilepis) lanceolata* (Bloch, 1782) Weinland.  
SINUOSA (Zeder, 1800) Railliet, 1893..... Intestine  
1782, *Tenia collari nigro* Bloch.  
1786, *T. collaris* Batsch.  
1790, *T. torquata* Gmelin.  
1800, *Alyselminthus sinuosus* Zeder.  
1803, *Halysis sinuosa* (Zeder, 1800) Zeder.  
1803, *H. torquata* (Gmelin, 1790) Zeder.  
1850, "*Tenia infundibuliformis (Anserum)* Goeze" of Diesing.  
1858, *Hymenolepis (Lepidotrias) sinuosa* (Zeder, 1800) Weinland.

**Echinocotyle** R. Blanchard, 1891

- ROSSETERI R. Blanchard, 1891..... Intestine

**Fimbriaria** Frölich, 1802

- MALLEUS (Goeze, 1782) Frölich..... Intestine  
1781, *Tenia fasciolaris y malleus* Pallas.  
1782, *T. malleus* Goeze.  
1802, *Fimbriaria mitra* Frölich.

**Halysis** Zeder, 1803

- columba* see DAVAINEA CRASSULA.  
*gracilis* see DREPANIDOTÆNIA GRACILIS.  
*lanceolata* see " LANCEOLATA.  
*sinuosa* see " SINUOSA.  
*torquata* see " "

**Hymenolepis** Weinland, 1858

- sinuosa* see DREPANIDOTÆNIA SINUOSA.  
*lanceolata* see " LANCEOLATA.

**Mesocestoides** Vaillant, 1863

- imbutiformis* see TÆNIA IMBUTIFORMIS.

**Tænia** (s. l.) Linnæus, 1758

- acutissima* see DREPANIDOTÆNIA LANCEOLATA.  
*anatina* see " ANATINA.  
*anseris* see " LANCEOLATA.

**Tænia** (s. l.) Linnæus, 1758—Continued.*anserum* see DREPANIDOTÆNIA LANCEOLATA.*collari nigro* see " SINUOSA.*collaris* see " "*collo longissimo* see " GRACILIS.*coronula* see DICRANOTÆNIA CORONULA.*crassula* see DAVAINEA CRASSULA.*fasciolaris*  $\gamma$  *malleus* see FIMBRIARIA MALLEUS.*gracilis* see DREPANIDOTÆNIA GRACILIS.

IMBUTIFORMIS Polonio, 1860 ..... Intestine

1893, *Mesocestoides imbutiformis* (Polonio, 1860) Railliet.*infundibuliformis* see DREPANIDOTÆNIA INFUNDIBULIFORMIS.*infundibuliformis* (*anserum*) see DREPANIDOTÆNIA SINUOSA.*lanceola* see " LANCEOLATA.*lanceolata* see " "*malleus* see FIMBRIARIA MALLEUS.*serpentiiformis* i. *T. turturis* see DAVAINEA CRASSULA.*sphenocephala* see " "*torquata* see DREPANIDOTÆNIA SINUOSA.**NEMATODA (ROUND WORMS).****Acanthophorus** Linstow, 1876*tenuis* see TROPISURUS FISSISPINUS.**Ascaris** Linnæus, 1758*anatis* see ASCARIS CRASSA.

CRASSA E. Deslongchamps, 1824 ..... Intestine

1790, *Ascaris anatis* Gmelin.1800, *Fusaria inflexa* Zeder.1809, *Ascaris inflexa* (Zeder, 1800) Rudolphi.*dispar* see HETERAKIS DISPAR.*inflexa* see ASCARIS CRASSA.**Cucullanus** Müller*conoideus* see ECHINOSTOMUM ECHINATUM.**Dispharagus** Dujardin, 1845

UNCINATUS (Rudolphi, 1819) Dujardin, 1845 ..... (Esophagus (encysted))

1819, *Spiroptera uncinata* Rudolphi.1866, *Filaria uncinata* (Rudolphi, 1819) Schneider.**Eustrongylus** Diesing, 1851*tubifex* see HYSTRICHIS TUBIFEX.**Filaria** O. F. Müller, 1787

ANATIS Rudolphi, 1819 ..... Heart

*uncinata* see DISPHARAGUS UNCINATUS.**Fusaria** Zeder, 1800*dispar* see HETERAKIS DISPAR.*inflexa* see ASCARIS CRASSA.**Heterakis** Dujardin, 1845

DISPAR (Schrank, 1790) Dujardin, 1845 ..... Intestine

1790, *Ascaris dispar* Schrank.1800, *Fusaria dispar* (Schrank, 1790) Zeder.

LINEATA Schneider, 1866 ..... Intestine

PAPILLOSA (Bloch, 1782) Railliet, 1885 ..... Intestine

1782, *Ascaris papillosa* Bloch [*nec* Molin, 1860].1791, *A. vesicularis* Frölich pro parte.1845, *Heterakis vesicularis* (Frölich, 1791) Dujardin.*vesicularis* see HETERAKIS PAPILLOSA.

- Hystrichis** Dujardin, 1845  
 ELEGANS (Olfers, 1816) Railliet, 1893..... Oesophagus  
 1809, *Strongylus mergorum* Rudolphi.  
 1809, *S. anatis* Rudolphi.  
 1816, *S. elegans* Olfers.  
 1819, *S. tubifex* Nitzsch.  
 1851, *Eustrongylus tubifex* (Nitzsch, 1819) Diesing.  
 1860, *Hystrichis tubifex* (Nitzsch, 1819) Molin.  
 TRICOLOR Dujardin, 1845..... Ventriculus  
*tubifex* see HYSTRICHIS ELEGANS.
- Sclerostomum** Blainville, 1828 (also *Sclerostoma*)  
*syngamus* see SYNGAMUS TRACHEALIS.
- Spiroptera** Rudolphi, 1819  
*uncinata* see DISPHARAGUS UNCINATUS.
- Strongylus** O. F. Müller, 1780  
*anatis* see HYSTRICHIS ELEGANS.  
*elegans* see " "  
*mergorum* see " "  
*trachealis* see SYNGAMUS TRACHEALIS.  
*tubifex* see HYSTRICHIS ELEGANS.
- Syngamus** Siebold, 1836  
*primitivus* see SYNGAMUS TRACHEALIS.  
 TRACHEALIS Siebold, 1836..... Trachea  
 1811, *Fasciola trachea* Montagu.  
 1846, *Strongylus trachealis* (Siebold, 1836) Creplin.  
 1851, *Sclerostomum syngamus* Diesing.  
 1860, *Syngamus primitivus* Molin.
- Trichosoma** Rudolphi, 1819 (also *Trichosomum*)  
 CONTORTUM Creplin, 1839..... Oesophagus
- Tropidocerca** Diesing, 1851  
*fissispina* see TROPISURUS FISSISPINUS.
- Tropisurus** Diesing, 1835  
 FISSISPINUS (Diesing, 1860) Neumann, 1888..... Ventriculus (encysted)  
 1860, *Tropidocerca fissispina* Diesing.  
 1876, *Acanthoporus tenuis* Linstow.

#### ACANTHOCEPHALA (THORN-HEADED WORMS).

- Echinorhynchus** O. F. Müller  
 FILICOLLIS Rudolphi, 1809..... Intestine  
 POLYMORPHUS Bremser, 1819..... Intestine  
 SPHEROCEPHALUS Bremser, 1819..... Intestine

#### ARACHNIDA (MITES).

- Freyana** G. Haller, 1878  
 ANATINA Koch..... External
- Megninia**  
 VELATA (Mégnin)..... External
- Tydeus** Koch, 1842  
 MOLESTUS Moniez, 1889..... External

## INSECTA (INSECTS)

- Docophorus** (Nitzsch, 1818)  
 ICTERODES Nitzsch, 1818..... External  
 1818, *Phlopterus (Docophorus) icterodes* Nitzsch.
- Liotheum** Nitzsch, 1806  
*luridum* see TRINOTON LURIDUM.
- Lipeurus** (Nitzsch, 1818)  
 ANATIS (Fabricius, 1775) Railliet, 1895..... External  
 1758, *Pediculus anatis* Linnæus.  
 1818, *Phlopterus (Lipeurus) squalidus* Nitzsch.
- Pediculus** Linnæus, 1758  
*anatis* see LIPEURUS ANATIS.
- Phlopterus** Nitzsch, 1818  
*icterodes* see DOCOPHORUS ICTERODES.  
*squalidus* see LIPEURUS ANATIS.
- Trinoton** (Nitzsch, 1818)  
 LURIDUM Nitzsch, 1818..... External  
 1818, *Liotheum (Trinoton) luridum* Nitzsch.