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A LIST OF WORMS PARASITIC IN CETACEA

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INTRODUCTION

THE compilation of a catalogue of the worm parasites of Cetacea was undertaken some time ago at the request of Dr Stanley Kemp, F.R.S., and of the Discovery Committee. The list now presented is, it is hoped, as complete as it is possible at the present time to make it, though our knowledge of many of the forms mentioned is very scanty, and the systematic position of some of them remains uncertain.

The catalogue is divided into three sections:

(1) A list of the parasites, in which are given their synonyms, references to the more important literature upon them, and the hosts from which they have been recorded. The parasites are here arranged, as far as possible, in systematic order, and are classified under their families, and these again under the headings of the four principal groups, Trematodes, Cestodes, Nematodes and Acanthocephala. No attempt has been made to give a complete bibliography for every species mentioned, but the works referred to include those in which descriptions of the species are given or their systematic position discussed, or in which references to further literature may be found. The date of publication follows the author's name, different publications in the same year being distinguished by the letters *a*, *b*, etc., following the date. Where the date is followed by a number, this is a page reference. The full references will be found by turning to the bibliography in the third section.

(2) A list of the hosts, with the parasites recorded from each. In this section the names of the hosts are arranged alphabetically, and their principal synonyms and vernacular names, when known, are given. The names of the parasites are again arranged systematically.

(3) A bibliography, arranged in the alphabetical order of the authors' names.

The writer is greatly indebted to Sir Sidney F. Harmer, F.R.S., for very kindly checking the names and synonyms of the hosts. The synonymy of many of the Cetacea is extremely involved, and it is sometimes impossible to be certain what species of whale is meant by authors who have recorded parasites from these animals.

CLASSIFIED LIST OF PARASITES, WITH SYNONYMS, REFERENCES TO LITERATURE, AND HOSTS

TREMATODES

Family HETEROPHYIDAE

Galactosomum erinaceum (Poirier, 1886), Nicoll, 1923.

Synonyms: *Distomum erinaceum*, Poirier, 1886; *D. (Dicrocoelium) erinaceum*, Stossich, 1892; *Astiotrema erinacea*, Stossich, 1904.

References: Poirier, 1886, 37; Stossich, 1892, 22; 1904, 2; Looss, 1899, 590; Nicoll, 1923, 240, 244; Price, 1932, 40.

Recorded from the intestine of *Delphinus delphis* (in cysts).

Family OPISTHORCHIDAE

Opisthorchis tenuicollis (Rud., 1819), Stiles and Hassall, 1896.

Reference: Price, 1932, 26 (*q.v.* for synonyms).

Recorded, according to Price, from the bile ducts of *Phocaena phocaena*.

Amphimerus lancea (Dies., 1850), Barker, 1911.

Synonyms: *Distomum lancea*, Diesing, 1850; *D. (Dicrocoelium) lancea*, Stossich, 1892; *Opisthorchis lancea*, Braun, 1901.

References: Diesing, 1850, 334; 1855, 64; v. Beneden, 1870, 362; Cobbold, 1876, 35; 1879, 416; Stossich, 1892, 26; Weski, 1900, 579; Braun, 1901, 897; Price, 1932, 29.

Recorded from the liver of *Orcella brevirostris*, *Sotalia tucuxi*.

Cyclorchis campula (Cobbold, 1876), Lühe, 1908.

Synonyms: *Distoma campula*, Cobbold, 1876; *Campula oblonga*, Cobbold, 1876, *nec* Cobbold, 1858; *Opisthorchis campula*, Looss, 1899; *Metorchis campula*, Looss, 1899.

References: Cobbold, 1876, 40; Looss, 1899, 559, 565; Lühe, 1908, 432; Price, 1932, 28.

Recorded from the bile ducts of *Platanista gangetica*.

Family TROGLOTREMATIDAE

Pholeter gastrophilus (Kossack, 1910), Odhner, 1914.

Synonym: *Distomum gastrophilum*, Kossack, 1910.

References: Kossack, 1910, 118; Odhner, 1914, 233; Price, 1932, 24.

Recorded from the stomach of *Phocaena phocaena* (in cysts).

Family FASCIOLIDAE, sub-family CAMPULINAE (= CAMPULIDAE, Fuhrm.)

Campula oblonga, Cobbold, 1858, of Braun, 1900.

Synonyms: *Campula oblonga*, Cobbold, 1858, *nec* Cobbold, 1876; *Distomum oblongum*, Braun, 1891; *D. (Brachylaimus) oblongum*, Stossich, 1892; *Distomum tenuicolle*, Olsson, 1893; *Opisthorchis oblonga*, Kowalevsky, 1898; *Brachycladium oblongum*, Looss, 1902.

References: Cobbold, 1858, 168; 1879, 419; Stossich, 1892, 16; Monticelli, 1893, 44; Stiles, 1895, 219; Looss, 1899, 558, etc.; 1902, 716; Braun, 1900, 249; Price, 1932, 7.

Recorded from the bile ducts of *Phocaena phocaena*.

Campula delphini (Poirier, 1886), Bittner and Sprehn, 1928.

Synonyms: *Distomum delphini*, Poirier, 1886; *Cladocoelium delphini*, Stossich, 1892; *Brachycladium delphini*, Looss, 1899.

References: Poirier, 1886, 34; Stossich, 1892, 10; Monticelli, 1893, 44 *et passim*; Stiles, 1895, 219; Looss, 1899, 558; Odhner, 1905, 348.

Recorded from the liver of *Delphinus delphis*.

Campula palliata (Looss, 1885), Looss, 1901.

Synonyms: *Distomum palliatum*, Looss, 1885; *Cladocoelium palliatum*, Stossich, 1892; *Brachycladium palliatum*, Looss, 1899.

References: Looss, 1885, 390; 1899, 556; 1901, 208; Stossich, 1892, 10; Monticelli, 1893, 27 *et passim*; Stiles, 1895, 219; Odhner, 1905, 341, etc.; Price, 1932, 9.

Recorded from the bile ducts of *Delphinus delphis*.

Campula rochebruni (Poirier, 1886), Bittner and Sprehn, 1928.

Synonyms: *Distomum rochebruni*, Poirier, 1886; *Cladocoelium rochebruni*, Stossich, 1892; *Brachycladium rochebruni*, Looss, 1899.

References: Poirier, 1886, 36; Stossich, 1892, 11; Monticelli, 1893, 44, etc.; Stiles, 1895, 219; Looss, 1899, 558; Odhner, 1905, 344, etc.; Price, 1932, 11.

Recorded from the liver of *Delphinus delphis*.

Lecithodesmus goliath (v. Beneden, 1858), Braun, 1902.

Synonym: *Distomum goliath*, v. Beneden, 1858.

References: v. Beneden, 1858, 95; Diesing, 1858, 336; Stossich, 1892, 34; Braun, 1902, 800; Odhner, 1905, 344; Price, 1932, 12.

Recorded from the liver of *Balaena mysticetus*, *Balaenoptera borealis*, *B. acutorostrata*.

Synthesium tursionis (Marchi, 1873), Stunkard and Alvey, 1930.

Synonyms: *Distomum tursionis*, Marchi, 1873; *D. longissimum*, Poirier, 1886; *D. (Dicrocoelium) longissimum*, Stossich, 1892; *D. (Dicrocoelium) tursionis*, Parona, 1896; *Fasciolopsis*(?) *tursionis*, Nicoll, 1923.

References: Marchi, 1873, 304; Poirier, 1886, 29; Stossich, 1892, 37; Nicoll, 1923, 238; Stunkard and Alvey, 1930, 332; Price, 1932, 16.

Recorded from the intestine of *Tursiops truncatus*.

Hadwenius seymouri, Price, 1932.

Reference: Price, 1932, 18.

Recorded from the intestine of *Delphinapterus leucas*.

Family NOTOCOTYLIDAE

Ogmogaster plicatus (Creplin, 1829), Jägerskiöld, 1891.

Synonym: *Monostomum plicatum*, Creplin, 1829.

References: Creplin, 1829, 878; Diesing, 1850, 324; v. Beneden, 1870, 357; Cobbold, 1879, 421; Jägerskiöld, 1891 *a*; 1891 *b*, 129; Brandes, 1892, 509; Monticelli, 1892 *b*, 696, etc.; Odhner, 1905, 366; Leiper and Atkinson, 1915, 37; Hamilton, 1916, 131; Price, 1932, 45.

Recorded from the intestine of *Balaenoptera acutorostrata*, *B. borealis*, *B. musculus*, *B. physalus*.

UNCLASSIFIED FORMS

Distoma andersoni, Cobbold, 1876.

Synonym: *Distomum (Brachylaimus) andersoni*, Stossich, 1892.

References: Cobbold, 1876, 46; 1879, 420; Stossich, 1892, 19; Price, 1932, 56.

Recorded from the small intestine of *Platanista gangetica*.

Distomum pallasii, Poirier, 1885.

Synonym: *D. (Dicrocoelium) pallasii*, Stossich, 1892.

References: Poirier, 1885, 477; Stossich, 1892, 27.

Recorded from the stomach of *Phocaena phocaena*.

Distomum philocholum, Creplin, 1845.

Reference: Creplin, 1845, 330.

Recorded from the liver of *Phocaena phocaena* (see Nicoll, 1923, 243. According to Price, 1932, 56, the host is *Delphinus delphis*.)

Distomum validum, v. Linstow, 1886.

Synonym: *D. (Brachylaimus) validum*, Stossich, 1892.

References: v. Linstow, 1886, 124; Stossich, 1892, 15.

Recorded from the stomach of *Delphinus* sp.

Monostomum delphini, Diesing, 1850.

Synonyms: *Monostomum blainvillei*, Cobbold, 1860; *Monostomulum delphini*, Brandes, 1892; *Agamodistomum delphini*, Price, 1932.

References: de Blainville, 1825, 141; Diesing, 1850, 330; Cobbold, 1860, 39; 1879, 421; v. Beneden, 1870, 358; Monticelli, 1892 *b*, 711; Brandes, 1892, 510; Price, 1932, 57.

Recorded from the blubber of "*Delphinus dalei* spec. affin."¹ (in cyst).

¹ From information kindly supplied by Sir Sidney Harmer, F.R.S., it appears that the whale here referred to was probably either *Hyperoodon rostratus* or *Mesoplodon bidens*.

CESTODES

Family DIPHYLLOBOTHRIIDAE

Diphylobothrium stemmacephalum, Cobbold, 1858.

Synonyms: *Dibothrium stemmacephalum*, Diesing, 1863; *Bothriocephalus stemmacephalus*, Braun, 1883.

References: Cobbold, 1858, 167; 1879, 105, 422; Diesing, 1863, 239; Stiles and Hassall, 1899, 170; Scott, 1909, 88; Baer, 1932, 214.

Recorded from the intestine of *Delphinus delphis*, *Phocaena phocaena*.

Diplogonoporus balaenopterae, Lönnberg, 1892.

References: Lönnberg, 1892, 4; Lühe, 1899, 50; Ariola, 1900, 385; Baer, 1932, 214.

Recorded from the intestine of *Balaenoptera borealis*.

Family PHYLLOBOTHRIIDAE

Phyllobothrium delphini (Bosc, 1802), Gervais, 1885.

Synonyms: *Hydatis delphinii*, Bosc, 1802; *Cysticercus delphini*, Laennec, 1804; *Cysticercus delphini*, Rudolphi, 1810; *Vermis delphini delphis*, Rud., 1810; *Cephalocotyleum delphini delphis*, Diesing, 1850; ? *Cysticercus physeteris*, Dies., 1863 (*vide Phyllobothrium physeteris*, *infra*).

References: Bosc, 1802, 1, 324; Laennec, 1804, 136; Rudolphi, 1810, 236, 265; Diesing, 1850, 493; 1863 *b*, 423; v. Beneden, 1870, 360; Cobbold, 1879, 422; Moniez, 1880, 117; Gervais, in Carus, 1885, 114; Linton, 1905, 820; Stiles and Hassall, 1912, 171; Southwell and Prashad, 1920, 2; Baer, 1932, 219.

Recorded from the blubber of *Delphinus delphis*, *Grampus griseus*, *Tursiops truncatus*.

Phyllobothrium inchoatum, Leidy, 1891.

(Possibly identical with *P. lactuca*, v. Beneden, 1850.)

References: Leidy, 1891, 418; Southwell and Prashad, 1920, 2; Southwell, 1925, 152.

Recorded from the blubber of *Mesoplodon bidens*.

Phyllobothrium physeteris (Dies., 1863), Meggitt, 1924.

(Possibly identical with *P. delphini* (Bosc).)

Synonyms: *Cysticercus balaenae mysticeti*, Diesing, 1850; *Cysticercus physeteris*, Diesing, 1863

References: Diesing, 1850, 493; 1863 *b*, 423; v. Beneden, 1870, 348; Cobbold, 1879, 421; Moniez, 1880, 117; Meggitt, 1924, 156.

Recorded from the blubber and skin of *Balaena mysticetus*, *Physeter catodon*.

Phyllobothrium sp. "(Carnot, 1822)," Meggitt, 1924.

References: Cobbold, 1879, 421; Meggitt, 1924, 157.

Recorded from the nasal sinus of *Tursiops truncatus*.

Phyllobothrium, sp., Linton, 1905.

Reference: Linton, 1905, 819.

Recorded from the mesentery of *Lagenorhynchus acutus*.

Monorygma chamissonii (Linton, 1905), Meggitt, 1924.

(Possibly identical with *M. grimaldii*, *vide infra*.)

Synonyms: *Taenia chamissonii*, Linton, 1905; ? *Cysticercus delphini*, Rudolphi, 1819, *nec* 1810.

References: Linton, 1905, 819; Meggitt, 1924, 152; Baylis, 1926 *b*, 667.

Recorded from the blubber and mesentery of *Lagenorhynchus acutus*.

Monorygma delphini (Gervais, 1870), Meggitt, 1924.

Synonym: *Stenotaenia delphini*, Gervais, 1870.

References: Gervais, 1870, 779; Baylis, 1919, 417; 1926 *b*, 667; Meggitt, 1924, 152.

Recorded from the diaphragm of *Delphinus delphis*.

Monorygma grimaldii (Moniez, 1889), Meggitt, 1924.

Synonyms: *Taenia Grimaldii*, Moniez, 1889; *Cysticercus Taeniae Grimaldii*, Moniez, 1889; *Cysticercus grimaldii*, Braun, 1898.

References: Moniez, 1889, 825; Braun, 1898, 1558; Baylis, 1919, 417; 1926 *b*, 665; Meggitt, 1924, 152.

Recorded from the blubber of *Lagenorhynchus acutus*, *Kogia breviceps*, (?) *Delphinus delphis*.

Scolex delphini, Stossich, 1898.

Reference: Stossich, 1898, 8.

Recorded from the rectum of *Grampus griseus*.

Family TETRABOTHRIIDAE

Tetrabothrius affinis (Lönnerberg, 1891), Lönnerberg, 1892.

Synonyms: *Diplobothrium affine*, Lönnerberg, 1891; *Tetrabothrium (Diplobothrium) affine*, Lönnerberg, 1892.

References: Lönnerberg, in Jägerskiöld, 1891 *b*, 130, etc.; Lönnerberg, 1892, 16; Baylis, 1926 *a*, 163; Baer, 1932, 196.

Recorded from the intestine of *Balaenoptera borealis*, *B. musculus*.

Tetrabothrius forsteri (Kreffit, 1871), Johnston, 1912.

Synonyms: *Taenia forsteri*, Krefft, 1871; *Prostheocotyle forsteri*, Monticelli, 1892; *Tetrabothrium triangulare*, Leidy, 1892, *nec* Diesing, 1850.

References: Krefft, 1871, 218; Cobbold, 1879, 422; Monticelli, 1892, 6; Fuhrmann, 1898, 386, etc.; 1899 *a*, 181; 1899 *b*, 865, 869; Johnston, 1912, 13; Linton, 1923, 52; Baylis, 1926 *a*, 169; Baer, 1932, 197.

Recorded from the intestine of *Delphinus delphis*, *Mesoplodon bidens*, *Steno rostratus*.

Tetrabothrius ruudi, Nybelin, 1928.

Reference: Nybelin, 1928, 312.

Recorded from the intestine of *Balaenoptera physalus*.

Tetrabothrius wilsoni (Leiper and Atkinson, 1914), Baylis, 1926.

Synonym: *Oriana wilsoni*, Leiper and Atkinson, 1914.

References: Leiper and Atkinson, 1914, 225; 1915, 46; Baylis, 1926 *a*, 168; Baer, 1932, 198.

Recorded from the intestine of *Balaenoptera borealis*.

Priapocephalus grandis, Nybelin, 1922.

References: Nybelin, 1922, 194; Baylis, 1926 *a*, 161; Baer, 1932, 205.

Recorded from the intestine of *Balaenoptera borealis*, *B. musculus*, "*Balaena antarctica*".

Priapocephalus minor, Nybelin, 1928.

Reference: Nybelin, 1928, 309.

Recorded from the intestine of *Balaenoptera borealis*.

Strobilocephalus triangularis (Dies., 1850), Baer, 1932.

Synonyms: *Tetrabothrium triangulare*, Diesing, 1850; *Prosthecocotyle triangulare*, Fuhrmann, 1899; *Tetrabothrius triangularis*, Fuhrmann, 1903.

References: Diesing, 1850, 601; 1863 *a*, 255; v. Beneden, 1870, 362; Cobbold, 1879, 422; Leidy, 1891, 417; Fuhrmann, 1899 *a*, 183; 1899 *b*, 865, etc.; Linton, 1923, 52; Joyeux and Dollfus, 1931, 112; Baer, 1932, 202.

Recorded from the intestine of *Delphinus* sp., *Hyperoodon rostratus*, *Lagenorhynchus acutus*.

Trigonocotyle monticellii (Linton, 1923), Baer, 1932.

Synonym: *Prosthecocotyle monticellii*, Linton, 1923, *nec* Fuhrmann, 1899.

References: Linton, 1923, 52; Baylis, 1926 *a*, 169, 170; Baer, 1932, 199.

Recorded from the intestine of *Globicephala melaena*.

NEMATODES

Family ASCARIDAE

Anisakis catodontis, Baylis, 1929.

Reference: Baylis, 1929, 544.

Recorded from the stomach of *Physeter catodon*.

Anisakis dussumierii (v. Beneden, 1870), Baylis, 1920.

Synonyms: *Ascaris (Anisakis) simplex* of Dujardin, 1845, *nec* Rudolphi, 1809; *Ascaris dussumierii*, van Beneden, 1870.

References: Dujardin, 1845, 220; v. Beneden, 1870, 362; Cobbold, 1879, 426; Stiles and Hassall, 1899, 161 *et passim*; Stossich, 1896, 17; Baylis, 1920 *b*, 260; 1923 *a*, 216.

Recorded from the intestine of *Delphinus* sp.

Anisakis insignis (Dies., 1851), Baylis, 1920.

Synonyms: *Peritrachelius insignis*, Diesing, 1851; *Ascaris insignis*, Jägerskiöld, 1893.

References: Diesing, 1851, 210; 1855, 181; Jägerskiöld, 1893, 7; 1894, 543; Stiles and Hassall, 1899, 107, 138; Baylis, 1920 *b*, 260; 1923 *a*, 216.

Recorded from the stomach of *Inia geoffrensis* [*Delphinus amazonicus*].

Anisakis kükenenthalii (Cobb, 1888), Baylis, 1920.

(Possibly a synonym of *A. simplex*.)

Synonym: *Ascaris kükenenthalii*, Cobb, 1888.

References: Cobb, 1888, 4, etc.; Stossich, 1896, 53; Stiles and Hassall, 1899, 144 *et passim*; Baylis, 1920 *b*, 260; 1923 *a*, 216.

Recorded from the stomach of *Delphinapterus leucas*.

Anisakis physeteris, Baylis, 1923.

References: Baylis, 1923 *a*, 211; 1929, 543.

Recorded from the stomach of *Physeter catodon*.

Anisakis simplex (Rud., 1804), Baylis, 1920.

Synonyms: *Ascaris simplex*, Rudolphi, 1804; (not *Ascaris (Anisakis) simplex*, Dujardin, 1845); *Ascaris angulivalvis*, Creplin, 1851.

References: Rudolphi, 1804, 94 (*nomen nudum*); 1809, 170; Dujardin, 1845, 220; Creplin, 1851, 158; Diesing, 1851, 155; 1861, 656; v. Beneden, 1870, 363; Krabbe, 1878, 47; Cobbold, 1879, 426; Monticelli, 1889, 69; Leidy, 1891, 411; Jägerskiöld, 1891 *b*, 131, 132; 1893, 27; 1894, 474; 1898, 738 *et passim*; Stossich, 1896, 17; Stiles and Hassall, 1899, 120 *et passim*; Baylis, 1920 *b*, 260; 1923 *a*, 216.

Recorded from the stomach of *Balaenoptera acutorostrata*, *B. borealis*, *B. musculus*, *Delphinapterus leucas*, *Delphinus* sp., *Hyperoodon rostratus*, *Lagenorhynchus albirostris*, *Mesoplodon bidens*, *Monodon monoceros*, *Phocaena phocaena*, (?) *Platanista gangetica*.

Anisakis typica (Dies., 1861), Baylis, 1920.

Synonyms: *Conocephalus typicus*, Diesing, 1861; *Ascaris typica*, Jägerskiöld, 1894; *Ascaris (Peritrachelius) typica*, Jägerskiöld, 1894; *Peritrachelius typicus*, Jägerskiöld, 1894.

References: Diesing, 1861, 669; Jägerskiöld, 1894, 450, 453; Stiles and Hassall, 1899, 127 *et passim*; Stossich, 1902, 6 (66); Baylis, 1920 *b*, 260; 1923 *a*, 216; 1929, 543.

Recorded from the stomach of *Delphinus delphis*, *Globicephala melaena*, *Lagenorhynchus obscurus*, *Phocaena phocaena*, *Prodelphinus* sp.

Anisakis sp. (larval).

Reference: Baylis, 1929, 544.

Recorded from [the stomach of ?] *Megaptera nodosa*.

Contracaecum lobulatum (Schneider, 1866), Baylis, 1920.

Synonyms: *Ascaris lobulata*, Schneider, 1866; ? *Ascaris delphini*, Rudolphi, 1819 (*vide infra*); ? *Ascaris simplex* of Diesing, 1851 (part).

References: Schneider, 1866, 44, 193; Krabbe, 1878, 47; Jägerskiöld, 1893, 20; 1894, 467; Stossich, 1896, 43; Stiles and Hassall, 1899, 159 *et passim*; v. Linstow, 1907, 37; Baylis, 1920 *b*, 260; Baylis and Daubney, 1923, 557.

Recorded from the mouth, oesophagus, stomach and intestine of *Platanista gangetica*.

Contracaecum sp. (larval).

Reference: Baylis, 1929, 548.

Recorded from the stomach of *Balaenoptera physalus*.

“*Ascaris*” *delphini*, Rud., 1819 (sp. inq.).

(? synonym of *Contracaecum lobulatum*).

References: Rudolphi, 1819, 54, 296; Dujardin, 1845, 221; v. Beneden, 1870, 359; Cobbold, 1879, 426; Stossich, 1896, 17; Stiles and Hassall, 1899, 162 *et passim*.

Recorded from the mouth and stomach of *Platanista gangetica*.

Family ONCHOLAIMIDAE

Odontobius ceti, Roussel de Vauzème, 1834.

References: Roussel de Vauzème, 1834, 326; Dujardin, 1845, 292; Cobbold, 1879, 427; Baylis, 1923, 617.

Recorded from the baleen-plates of *Balaena australis*, *Balaenoptera musculus*, *B. physalus*, *Megaptera nodosa*.

Family METASTRONGYLIDAE

Pseudalius inflexus (Rud., 1809), Schneider, 1866.

Synonyms: *Strongylus inflexus*, Rudolphi, 1809; *S. inflexus major*, Raspail, 1829; *S. major*, Raspail, 1829; *Pseudalius filum*, Dujardin, 1845; *Prosthecosacter inflexus*, Diesing, 1851; ? *Prosthecosacta convolutus*, Cobbold, 1864; ? *Prosthecosacter convolutus*, Cobbold, 1879. (Not *Stenurus inflexus*, Dujardin, 1845.)

References: Rudolphi, 1809, 227; Kuhn, 1829 *a*, 150; 1829 *b*, 139; 1829 *c*, 363, 367; Raspail, 1829, 250, 251; Dujardin, 1845, 135; Diesing, 1851, 323; Cobbold, 1864, Pl. vi, fig. 3; 1879, 424; Schneider, 1866, 173; Baylis and Daubney, 1925, 204.

Recorded from the bronchi, blood-vessels and heart of *Phocaena phocaena*.

Stenurus arcticus (Cobb, 1888), Baylis and Daubney, 1925.

Synonyms: *Strongylus pallasii*, v. Beneden, 1870 (*nomen nudum*); *Strongylus arcticus*, Cobb, 1888; *Pseudalius arcticus*, v. Linstow, 1906.

References: v. Beneden, 1870, 366; Cobb, 1888, 64; 1889, 150; v. Linstow, 1906, 114; Baylis and Daubney, 1925, 208.

Recorded from the "hearing organs" (probably tympanic cavity) of *Delphinapterus leucas*.

Stenurus globicephalae, Baylis and Daubney, 1925.

Reference: Baylis and Daubney, 1925, 206.

Recorded from the base of the blow-hole of *Globicephala melaena*.

Stenurus minor (Kuhn, 1829), Baylis and Daubney, 1925.

Synonyms: *Strongylus minor*, Kuhn, 1829; *Stenurus inflexus*, Dujardin, 1845 (*nec Strongylus inflexus*, Rudolphi, 1809); *Prosthecosacter minor*, Diesing, 1851; *Prosthecosacter (Stenurus) minor*, Diesing, 1861; *Pseudalius minor*, Schneider, 1866; *Pharurus minor*, Cobbold, 1879.

References: Kuhn, 1829 *a*, 152; 1829 *b*, 139; 1829 *c*, 363; Raspail, 1829, 246; Dujardin, 1845, 266; Diesing, 1851, 323; 1861, 719; Schneider, 1866, 174; Cobbold, 1879, 423; v. Linstow, 1888 *a*, 235; Baylis and Daubney, 1925, 205.

Recorded from the bronchi, tympanic cavity and blood-vessels (especially the venous sinuses of the head) of *Phocaena phocaena*.

Stenurus ovatus (v. Linst., 1910), Baylis and Daubney, 1925.

Synonym: *Pseudalius ovatus*, v. Linstow, 1910.

References: v. Linstow, 1910, 133; Baylis and Daubney, 1925, 208; Baylis, 1928, 464.

Recorded from the oesophagus(?), stomach(?), blow-hole, larynx and trachea of *Tursiops truncatus*.

“*Strongylus*” [?*Stenurus*] *alatus*, Leuckart, 1848.

Synonyms: *Prosthecosacter alatus*, Diesing, 1851; *Strongylus (Pharurus) alatus*, Diesing, 1851; *Pseudalius alatus*, v. Linstow, 1888. (Not *Strongylus alatus*, v. Linstow, 1879.)

References: Leuckart, 1848, 26; Diesing, 1851, 324, 325; v. Linstow, 1888 *b*, 15; Baylis and Daubney, 1925, 208.

Recorded from the pharyngeal cavities, mouth, Eustachian tubes and “cranial cavity” (probably in blood-sinus) of *Monodon monoceros*.

Torynurus convolutus (Kuhn, 1829), Baylis and Daubney, 1925.

Synonyms: *Strongylus convolutus*, Kuhn, 1829; *Prosthecosacter convolutus*, Diesing, 1851; *Prosthecosacta convolutus*, Cobbold, 1864; *Pseudalius convolutus*, Schneider, 1866; ?*Pseudalius bicostatus*, v. Linstow, 1906.

References: Kuhn, 1829 *c*, 365; Diesing, 1851, 324; Cobbold, 1864, 91; 1879, 423; Schneider, 1866, 174; v. Linstow, 1906, 114; Baylis and Daubney, 1925, 209.

Recorded from the bronchi and pulmonary blood-vessels of *Globicephala melaena*, *Phocaena phocaena*.

Halocercus delphini, Baylis and Daubney, 1925.

Reference: Baylis and Daubney, 1925, 210.

Recorded from the bronchi of *Delphinus delphis*.

Halocercus inflexocaudatus (v. Sieb., 1842), Baylis and Daubney, 1925.

Synonyms: *Filaria inflexocaudata*, v. Siebold, 1842; *Pseudalius tumidus*, Schneider, 1866; ? *Strongylus vagans*, Eschricht, 1841; ? *Strongylus invaginatus*, Quekett, 1842.

References: v. Siebold, 1842, 348; Schneider, 1866, 174; Baylis and Daubney, 1925, 213, 215.

Recorded from the lungs of *Phocaena phocaena* (in nodules).

Halocercus lagenorhynchi, Baylis and Daubney, 1925.

Reference: Baylis and Daubney, 1925, 211.

Recorded from the bronchi of *Lagenorhynchus albirostris*.

Halocercus pingi, Wu, 1929.

Reference: Wu, 1929, 276.

Recorded from the lungs of *Neomeris phocaenoides* (in cavities in the tissue).

Family SPIRURIDAE

Crassicauda bennetti, Spaul, 1926.

(= *Crassicauda* sp., Baylis, 1920).

References: Baylis, 1920 *a*, 417; Spaul, 1926, 581.

Recorded from the kidney of *Hyperoodon* sp. (probably *planifrons*).

Crassicauda boopis, Baylis, 1920.

Synonym: *C. crassicauda* of Leiper and Atkinson, 1914.

References: Leiper and Atkinson, 1914, 226; 1915, 29; Baylis, 1916, 144; 1920, 417.

Recorded from the renal tubules and stomach (wall?) of *Megaptera nodosa*, and doubtfully from the renal tubules(?) of *Ziphius cavirostris*.

Crassicauda crassicauda (Creplin, 1829), Leiper and Atkinson, 1915.

Synonym: *Filaria crassicauda*, Creplin, 1829.

References: Creplin, 1829, 874; Dujardin, 1845, 50; Diesing, 1851, 264; Molin, 1858, 374; v. Beneden, 1870, 356; Cobbold, 1879, 425; Jägerskiöld, 1891 *b*, 129; Hamilton, 1916, 132; Baylis, 1920 *a*, 410; 1922, 9; 1929, 550; Joyeux and Baer, 1931, 198.

Recorded from the renal tubules, urethra and other parts of the urino-genital system of *Balaenoptera physalus*, *B. musculus*, *Tursiops truncatus*, (?) *Balaenoptera borealis*.

Crassicauda fuelleborni (Hoepli and Hsü, 1929).¹

Synonym: *Onchocerca fuelleborni*, Hoepli and Hsü, 1929.

Reference: Hoepli and Hsü, in Hoepli, Hsü and Wu, 1929, 33.

Recorded from nodules in the musculature of the vagina of *Neomeris phocaenoides*.

ACANTHOCEPHALA

Bolbosoma aurantiacum (Risso, 1826), Porta, 1908.

Synonyms: *Echinorhynchus aurantiacus*, Risso, 1826; *E. annulatus*, Molin, 1858; *E. bifasciatus*, Lühe, 1904; ? *E. pellucidus*, Leuck., 1828; *E. serrani*, Linton, 1901; *Bolborhynchus aurantiacus*, Porta, 1907.

References: Risso, 1826, 261; Leidy, 1891, 413; Porta, 1905, 167, 181; 1908, 273; 1909, 250; Van Cleave, 1924, 293.

Recorded from the intestine of *Delphinus delphis*, *Mesoplodon bidens*.

Bolbosoma brevicolle (Malm, 1867), Porta, 1908.

Synonyms: *Echinorhynchus brevicollis*, Malm, 1867; *Bolborhynchus brevicollis*, Porta, 1908.

References: Malm, 1867, 95; v. Beneden, 1870, 357; Cobbold, 1879, 428; Borgström, 1892; v. Linstow, 1896, 20; Shipley, 1899, 262; Porta, 1906, 269; 1908, 274; 1909, 251; Baylis, 1929, 555; Meyer, 1931, 13.

Recorded from the intestine of *Balaenoptera acutorostrata*, *B. borealis*, *B. musculus*, *B. physalus*, *Physeter catodon*.

Bolbosoma capitatum (v. Linst., 1880), Porta, 1908.

Synonyms: *Echinorhynchus capitatus*, v. Linstow, 1880; *Bolborhynchus capitatus*, Porta, 1908; ? *Echinorhynchus vasculosus*, Rudolphi, 1819.²

References: Rudolphi, 1819, 75, 334, 581; v. Linstow, 1880, 49; Shipley, 1899, 265 *et passim*; Porta, 1906, 235; 1908, 273; 1909, 254; Hamilton, 1916, 132; Baylis, 1929, 556; Meyer, 1931, 14.

Recorded from the intestine of *Globicephala melaena*, *Physeter catodon*, *Pseudorca crassidens*, *Steno rostratus*.

¹ From the description of this worm, and its position in nodules of connective tissue in the musculature of the vagina of its host, there can be little doubt that it belongs to the genus *Crassicauda*. The description, however, which was based on fragmentary material, is not sufficient to determine whether the species is identical with any of those already known. Since the male appears to be without spicules, it seems probable that it is distinct at least from *C. crassicauda*.

² A larval form found in various fishes, according to Meyer (1931) possibly the larva of *B. capitatum*.

Bolbosoma hamiltoni, Baylis, 1929.

Reference: Baylis, 1929, 556.

Recorded from the intestine of *Balaenoptera musculus*, *B. physalus*.

Bolbosoma pellucidum (Leuckart, 1828), Porta, 1908.

(? Synonym of *B. aurantiacum*.)

Synonyms: *Echinorhynchus pellucidus*, Leuckart, 1828; [*Bolborhynchus pellucidus*], Porta, 1906.

References: Leuckart, 1828, 23; Diesing, 1851, 44; Cobbold, 1879, 428; Leidy, 1891, 413; Shipley, 1899, 264 *et passim*; Porta, 1906, 267; 1908, 273; 1909, 250.

Recorded from the intestine of *Delphinus delphis*, *Mesoplodon bidens*.

Bolbosoma porrigens (Rud., 1814), Porta, 1908.

Synonyms: *Echinorhynchus balaenae*, Gmelin, 1790, *e.p.*; *Echinorhynchus porrigens*, Rudolphi, 1814; *Bolborhynchus porrigens*, Porta, 1906.

References: Rudolphi, 1814, 98; 1819, 71, 325, etc.; Westrumb, 1821, 28; Cobbold, 1879, 427; Jägerskiöld, 1891 *b*, 128, etc.; Borgström, 1892, 1; v. Linstow, 1896, 20; Shipley, 1899, 262 *et passim*; Lühe, 1904-5, 154, 180, etc.; Porta, 1906, 235 *et passim*; 1908, 276; 1909, 255; Hamilton, 1916, 132; Wesenberg-Lund, 1926, 148; Johnston and Deland, 1929, 147; Meyer, 1931, 13 (*B. balaenae*).

Recorded from the intestine of *Balaena mysticetus*, *Balaenoptera acutorostrata*, *B. borealis*, *B. musculus*, *Megaptera nodosa*.

Bolbosoma turbinella (Dies., 1851), Porta, 1908.

Synonyms: *Echinorhynchus turbinella*, Diesing, 1851; *E. ruber*, Collett, 1886; *E. porrigens* of Kaiser, 1893; *Bolborhynchus turbinella*, Porta, 1908; *Pomporhynchus turbinella*, Leiper and Atkinson, 1915.

References: Diesing, 1851, 54; Cobbold, 1879, 427; Collett, 1886, 258; Jägerskiöld, 1891, 128, etc.; Borgström, 1892; Kaiser, 1893, *passim*; v. Linstow, 1896, 20; Shipley, 1899, 262 *et passim*; Lühe, 1904-5, 284, etc.; Porta, 1906, 235 *et passim*; 1908, 274; 1909, 253; Leiper and Atkinson, 1915, 31; Wesenberg-Lund, 1926, 147; Baylis, 1929, 555; Meyer, 1931, 14.

Recorded from the intestine of *Balaenoptera borealis*, *B. musculus*, *Hyperoodon rostratus*, *Megaptera nodosa*.

Bolbosoma sp.

Reference: Van Cleave, 1925, 155.

Recorded from the intestine of *Balaenoptera velifera* (? = *B. physalus*).

Corynosoma sp., Johnston and Deland, 1929.

Reference: Johnston and Deland, 1929, 147.

Recorded from [the intestine of ?] *Delphinus delphis*.

HOST-LIST

The names of the hosts are arranged alphabetically.

Balaena australis (Southern right whale).

Nematodes.

Odontobius ceti, Roussel de Vauzème, 1834.

“**Balaena antarctica.**”

[? *B. australis*.]

Cestodes.

Priapocephalus grandis, Nybelin, 1922 [*fide* Baer, 1932, 224].

Balaena mysticetus (Arctic right whale, Bowhead).

Synonym: *B. groenlandica*.

Trematodes.

Lecithodesmus goliath (v. Ben., 1858).

Cestodes.

Phyllobothrium physeteris (Dies., 1863) (? = *P. delphini* (Rud.)).

Acanthocephala.

Bolbosoma porrigens (Rud., 1814).

Balaenoptera acutorostrata (Lesser rorqual, Lesser finner, Little piked whale).

Synonym: *B. rostrata*, auctt.

Trematodes.

Lecithodesmus goliath (v. Ben., 1858).

Ogmogaster plicatus (Crepl., 1829).

Nematodes.

Anisakis simplex (Rud., 1809).

Acanthocephala.

Bolbosoma brevicolle (Malm, 1867).

Bolbosoma porrigens (Rud., 1814).

Balaenoptera borealis (Sei whale, Pollack whale, Rudolphi's whale).

Synonym: *Balaena rostrata*, Rud., 1822, *nec* Müller, 1776.

Trematodes.

Lecithodesmus goliath (v. Ben., 1858).

Ogmogaster plicatus (Crepl., 1829).

Cestodes.

Diplogonoporus balaenopterae, Lönnbg., 1892.

Tetrabothrius affinis (Lönnbg., 1892).

Tetrabothrius wilsoni (Leiper and Atk., 1914).

Priapocephalus grandis, Nybelin, 1922.

Priapocephalus minor, Nybelin, 1928.

Nematodes.

? *Ascaris angulivalvis*, Crepl., 1851.

? *Crassicauda crassicauda* (Crepl., 1829).

Acanthocephala.

Bolbosoma brevicolle (Malm, 1867).

Bolbosoma porrigens (Rud., 1814).

Bolbosoma turbinella (Diesing, 1851).

Balaenoptera musculus (Blue whale, Sulphur-bottom, Sibbald's rorqual).

Synonyms: *B. sibbaldii*, *B. intermedia*.

Trematodes.

Ogmogaster plicatus (Crepl., 1829).

Cestodes.

Priapocephalus grandis, Nybelin, 1922.

Tetrabothrius affinis (Lönnbg., 1892).

Nematodes.

Ascaris angulivalvis, Crepl., 1851.

Odontobius ceti, Roussel de Vauzème, 1834.

Crassicauda crassicauda (Crepl., 1829).

Acanthocephala.

Bolbosoma brevicolle (Malm, 1867).

Bolbosoma hamiltoni, Baylis, 1929.

Bolbosoma porrigens (Rud., 1814).

Bolbosoma turbinella (Dies., 1851).

Balaenoptera physalus (Fin whale, Finback, Finner, Common rorqual).

Synonym: *B. musculus*, auctt.

Trematodes.

Ogmogaster plicatus (Crepl., 1829).

Cestodes.

Tetrabothrius ruudi, Nybelin, 1928.

Nematodes.

Contracaecum sp., Baylis, 1929.

Odontobius ceti, Roussel de Vauzème, 1834.

Crassicauda crassicauda (Crepl., 1829).

Acanthocephala.

Bolbosoma brevicolle (Malm, 1867).

Bolbosoma hamiltoni, Baylis, 1929.

Balaenoptera velifera.

[Probably = *B. physalus*.]

Acanthocephala.

Bolbosoma sp., Van Cleave, 1925.

Delphinapterus leucas (White whale).

Synonym: *Beluga leucas*.

Nematodes.

Anisakis kükenenthalii (Cobb, 1888).

Anisakis simplex (Rud., 1809).

Stenurus arcticus (Cobb, 1888).

"Delphinus dalei."

[Probably = *Hyperoodon rostratus* or *Mesoplodon bidens*.]

Trematodes.

Monostomum delphini, Dies., 1850.

Delphinus delphis (Common dolphin).

Trematodes.

Galactosomum erinaceum (Poirier, 1886).

Campula delphini (Poirier, 1886).

Campula palliata (Looss, 1885).

Campula rochebruni (Poirier, 1886).

? *Distomum philocholum*, Crepl., 1845.

Cestodes.

Diphyllbothrium stemmacephalum, Cobbold, 1858.

Phyllobothrium delphini (Rud., 1819) (? = *P. physeteris*).

Monorygma delphini (Gervais, 1847).

? *Monorygma grimaldii* (Moniez, 1889), Meggitt, 1924. (*Cysticercus Taeniae Grimaldii*, Moniez, 1889.)

Tetrabothrius forsteri (Kreff, 1871).

Nematodes.

Anisakis typica (Dies., 1860).

Halocercus delphini, Baylis and Daubney, 1925.

Acanthocephala.

Bolbosoma aurantiacum (Risso, 1826).

Bolbosoma pellucidum (Leuck., 1828).

Corynosoma sp., Johnston and Deland, 1929.

Delphinus sp.

Nematodes.

Anisakis simplex (Rud., 1809).

Delphinus sp.

Nematodes.

Anisakis dussumieri (v. Ben., 1870).

Delphinus sp.

Trematodes.

Distomum validum, v. Linst., 1886.

Delphinus sp.

Cestodes.

Strobilocephalus triangularis (Dies., 1850).**Globicephala melaena** (Pilot whale, Caa'ing whale, Blackfish).Synonyms: *Globicephalus melas*, *G. globiceps*, *G. svineval*.

Cestodes.

Trigonocotyle monticellii (Linton, 1923).

Nematodes.

Anisakis typica (Dies., 1860).*Stemurus globicephalae*, Baylis and Daubney, 1925.*Torynurus convolutus* (Kuhn, 1829).

Acanthocephala.

Bolbosoma capitatum (v. Linst., 1880).**Grampus griseus** (Risso's dolphin).Synonym: *G. cuvieri*.

Cestodes.

Phyllobothrium delphini (Rud., 1819) (? = *P. physeteris*).*Scolex delphini*, Stossich, 1898.**Hyperoodon rostratus** (Bottle-nosed whale). [See also "*Delphinus dalei*."]

Cestodes.

Strobilocephalus triangularis (Dies., 1850).

Nematodes.

Anisakis simplex (Rud., 1809).

Acanthocephala.

Bolbosoma turbinella (Dies., 1851).**Hyperoodon sp.** (probably *H. planifrons*).

Nematodes.

Crassicauda bennetti, Spaul, 1926.**Inia geoffrensis** ("Bouto" (native name)).Synonyms: *Delphinus amazonicus*, *D. geoffroyi*, *Inia boliviensis*.

Nematodes.

Anisakis insignis (Dies., 1851).**Kogia breviceps** (Pygmy Sperm whale).

Cestodes.

Monorygma grimaldii (Moniez, 1889), Meggitt, 1924. (*Cysticercus Taeniae Grimaldii*, Moniez, 1889.)

Lagenorhynchus acutus (White-sided dolphin).

Cestodes.

Phyllobothrium sp., Linton, 1905.

Monorygma chamissonii (Linton, 1905).

Monorygma grimaldii (Moniez, 1889), Meggitt, 1924. (*Cysticercus Taeniae Grimaldii*, Moniez, 1889.)

Strobilocephalus triangularis (Dies., 1850).

Lagenorhynchus albirostris (White-beaked dolphin).

Nematodes.

Anisakis simplex (Rud., 1809).

Halocercus lagenorhynchi, Baylis and Daubney, 1925.

Lagenorhynchus obscurus.

Nematodes.

Anisakis typica (Dies., 1860).

Megaptera nodosa (Humpback).

Synonyms: *M. longimana*, *M. boops*.

Nematodes.

Anisakis sp., Baylis, 1929.

Odontobius ceti, Roussel de Vauzème, 1834.

Crassicauda boopis, Baylis, 1920.

Acanthocephala.

Bolbosoma porrigens (Rud., 1814).

Bolbosoma turbinella (Dies., 1851).

Mesoplodon bidens (Sowerby's whale). [See also "*Delphinus dalei*".]

Synonym: *M. sowerbiensis*.

Cestodes.

Phyllobothrium inchoatum, Leidy, 1891 (probably = *P. lactuca*, v. Ben., 1850).

Tetrabothrius forsteri (Krefft, 1871).

Nematodes.

Anisakis simplex (Rud., 1809).

Acanthocephala.

Bolbosoma aurantiacum (Risso, 1826).

Bolbosoma pellucidum (Leuck., 1828).

Monodon monoceros (Narwhal).

Nematodes.

Anisakis simplex (Rud., 1809).

Stenurus (?) *alatus* (Leuck., 1848).

Neomeris phocaenoides ("Common Chinese porpoise").

Nematodes.

Crassicauda fuelleborni (Hoeppli and Hsü, in Hoeppli, Hsü and Wu, 1929).

Halocercus pingi, Wu, 1929.

Orcella brevirostris.

Trematodes.

Amphimerus lancea (Dies., 1850).

Phocaena phocaena (Common porpoise).

Synonym: *P. communis*.

Trematodes.

Opisthorchis tenuicollis (Rud., 1819).

Pholeter gastrophilus (Kossack, 1910).

Campula oblonga (Cobbold, 1858).

Distomum pallasii, Poirier, 1885.

? *Distomum philocholum*, Crepl., 1845.

Cestodes.

Diphyllbothrium stemmacephalum, Cobbold, 1858.

Nematodes.

Anisakis simplex (Rud., 1809).

Anisakis typica (Dies., 1860).

Pseudalius inflexus (Rud., 1809).

Stenurus minor (Kuhn, 1829).

Torynurus convolutus (Kuhn, 1829).

Halocercus inflexocaudatus (v. Sieb., 1842).

Physeter catodon (Sperm whale, Cachalot).

Synonym: *P. macrocephalus*.

Cestodes.

Phyllobothrium physeteris (Dies., 1863) (? = *P. delphini* (Rud.)).

Nematodes.

Anisakis catodontis, Baylis, 1929.

Anisakis physeteris, Baylis, 1923.

Acanthocephala.

Bolbosoma brevicolle (Malm, 1867).

Bolbosoma capitatum (v. Linst., 1880).

Platanista gangetica (Gangetic dolphin).

Trematodes.

Cyclorchis campula (Cobbold, 1876).

Distomum andersoni, Cobbold, 1876.

Nematodes.

? *Anisakis simplex* (Rud., 1809).

Contracaecum lobulatum (Schneider, 1866).

Ascaris delphini, Rud., 1819.

Prodelphinus sp.

Nematodes.

Anisakis typica (Dies., 1860).

Pseudorca crassidens (False Killer).

Acanthocephala.

Bolbosoma capitatum (v. Linst., 1880).

Sotalia tucuxi.

Trematodes.

Amphimerus lancea (Dies., 1850).

Steno rostratus.

Synonym: *Delphinus rostratus*.

Cestodes.

Tetrabothrius forsteri (Kreff, 1871).

Nematodes.

Porrocaecum or *Anisakis* larvae [Baylis, 1929, 546].

Acanthocephala.

Bolbosoma capitatum (v. Linst., 1880).

Tursiops truncatus (Bottle-nosed dolphin).

Synonym: *T. tursio*.

Trematodes.

Synthesium tursionis (Marchi, 1873).

Cestodes.

Phyllobothrium delphini (Rud., 1819) (? = *P. physeteris*).

? *Phyllobothrium* sp. ("Cysticercus") (Carnot, 1822).

? *Monorygma delphini* (Gervais, 1847).

Nematodes.

Stenurus ovatus (v. Linst., 1910).

Crassicauda crassicauda (Crepl., 1829).

Ziphius cavirostris (Cuvier's whale).

Nematodes.

? *Crassicauda boopis*, Baylis, 1920.

BIBLIOGRAPHY

- ARIOLA, V., 1900. *Rivisione della famiglia Bothriocephalidae s.str.* Arch. Parasitol., Paris, III, 369-484, pls. viii-x.
- BAER, J. G., 1932. *Contribution à l'étude des Cestodes de Cétacés.* Rev. Suisse Zool., xxxix, 195-228.
- BAYLIS, H. A., 1916. *On Crassicauda crassicauda (Crepl.) [Nematoda] and its hosts.* Ann. Mag. Nat. Hist. (8), xvii, 144-8.
- 1919. *A remarkable Cysticercus from a rare dolphin.* Ann. Mag. Nat. Hist. (9), III, 417-24.
- 1920 a. *Observations on the genus Crassicauda.* Ann. Mag. Nat. Hist. (9), v, 410-19.
- 1920 b. *On the classification of the Ascaridae. I. The systematic value of certain characters of the alimentary canal.* Parasitol., XII, 3, 253-64.
- 1922. *Note on the habitat and structure of Crassicauda [Nematoda].* Parasitol., XIV, 1, 9-12.
- 1923 a. *An Ascarid from the Sperm-whale.* Ann. Mag. Nat. Hist. (9), XI, 211-17.
- 1923 b. *On Odontobius ceti, Roussel de Vauzème, a nematode living on the baleen of whales.* Ann. Mag. Nat. Hist. (9), XII, 617-23.
- 1926 a. *Some Tetrabothriid Cestodes from whales of the genus Balaenoptera.* Journ. Linn. Soc. Lond., Zool., xxxvi, 161-72.
- 1926 b. *Note on the occurrence of "Cysticercus Taeniae Grimaldii" in a new host.* Ann. Mag. Nat. Hist. (9), XVIII, 665-7.
- 1928. *Note on Stenurus ovatus (v. Linstow), a little-known lung-worm of Cetacea.* Ann. Mag. Nat. Hist. (10), II, 464-6.
- 1929. *Parasitic Nematoda and Acanthocephala collected in 1925-1927.* Discovery Reports, I, 541-59.
- BAYLIS, H. A., and DAUBNEY, R., 1923. *A further report on parasitic Nematodes in the collection of the Zoological Survey of India.* Rec. Ind. Mus., xxv, vi, 551-78.
- — 1925. *A revision of the lung-worms of Cetacea.* Parasitol., xvii, 2, 201-16.
- BENEDEN, P. J. VAN, 1858. *Note sur une nouvelle espèce de Distome, le géant de sa famille, habitant le foie d'une Baleine, nommée Distoma goliath v. Ben.* Bull. Acad. roy. Sci. Belg. (2), v, 95-7, 1 pl.
- 1870. *Les Cétacés, leurs commensaux et leurs parasites.* Bull. Acad. roy. Sci. Belg. (2), xxix, 347-68.
- BITTNER, H., and SPREHN, C., 1928. *Trematodes:* in Schulze, P., *Biologie der Tiere Deutschlands*, Berlin, Lief. 27, Teil 5, 1-133.
- DE BLAINVILLE, M. H. D., 1825. *Note sur un Cétacé échoué au Havre et sur un ver trouvé dans sa graisse.* N. Bull. d. sc. Soc. philom., Paris, Sept., 139-40.
- BORGSTRÖM, E., 1892. *Ueber Echinorhynchus turbinella, brevicollis und porrigens.* Bihang t. k. svenska Vet.-Akad. Handl., Stockholm, xvii, 4, 60 pp., pls. i-v.
- BOSC, L. A. G., 1802. *Histoire naturelle des Vers, contenant leur Description et leurs Mœurs.* [In Buffon, *Histoire Naturelle*, ed. R. R. Castel (Suites)], 3 Tom., Paris.
- BRANDES, G., 1892. *Revision der Monostomiden.* Centralbl. f. Bakt. u. Parasitenk., XII, pp. 504-11.
- BRAUN, M., 1898. *Vermes.* In Bronn, *Klassen und Ordnungen d. Thier-Reichs*, Leipzig, IV, Abt. 1 b, Lief. 56-8, pp. 1535-614, pl. lix.
- 1900. *Ueber Campula oblonga Cobb.* Centralbl. f. Bakt. u. Parasitenk., Abt. I, xxviii, 249-54.
- 1901. *Zur Revision der Trematoden der Vögel. II.* Centralbl. f. Bakt. u. Parasitenk., Abt. I, xxix, 895-7.
- 1902. *Ueber Distoma goliath P. f. v. Ben., 1858.* Centralbl. f. Bakt. u. Parasitenk., Abt. I, xxxii, 800-3, 1 pl.
- CARUS, L. V., 1885. *Prodromus faunae Mediterraneae, etc. Vermes*, I, 112-282. Stuttgart.
- COBB, N. A., 1888. *Beiträge zur Anatomie und Ontogenie der Nematoden.* Jena. Zeitschr., xxiii, 41-76, pls. iii-v.
- 1889. *Neue parasitische Nematoden.* Arch. f. Naturg., LV, i, 149-59, pl. vii.
- COBBOLD, T. S., 1858. *Observations on Entozoa, etc.* Trans. Linn. Soc. Lond., xxii, 155-72, pls. xxxi-xxxiii.
- 1860. *Synopsis of the Distomidae.* J. Proc. Linn. Soc. Lond., Zool., v, 1-56.

- COBBOLD, T. S., 1864. *Entozoa: An introduction to the study of Helminthology*. London.
- 1876. *Trematode parasites from the dolphins of the Ganges*, *Platanista gangetica* and *Orcella brevirostris*. Journ. Linn. Soc. Lond., Zool., XIII, 35-46, pl. x.
- 1879. *Parasites: A treatise on the Entozoa of man and animals*. London.
- COLLETT, R., 1886. *On the external characters of Rudolphi's Rorqual* (*Balaenoptera borealis*). Proc. Zool. Soc. Lond., 225-60.
- CREPLIN, F. C. H., 1829. [Descriptions of new species of *Filaria* and *Monostomum* found in "Balaena rostrata".] Verh. d. k. Leop.-Carol. Ak. d. Naturf. (Bonn), XIV, 2 Abt., 871-82, pl. lii.
- 1845. *Nachträge zu Gurlt's Verzeichniss der Thiere, bei welchen Entozoen gefunden worden sind*. Arch. f. Naturg., XI, i, 325-36.
- 1851. *Ascaris angulivalvis, eine neue Spulwurmart, aus dem Schnabelwalische*. Arch. f. Naturg., XVII, i, 158-60.
- DIESING, K. M., 1850. *Systema Helminthum I*. Wien.
- 1851. *Systema Helminthum II*. Wien.
- 1855. *Sechzehn Gattungen von Binnenwürmern und ihre Arten*. Denkschr. k. Akad. Wiss., Wien, IX, 1, 171-85, pls. i-vi.
- 1858. *Revision der Myzhelminthen. Abtheilung: Trematoden*. Sitz. k. Akad. Wiss., Wien, XXXII, 207-390, pls. i-ii.
- 1861. *Revision der Nematoden*. Sitz. k. Akad. Wiss., Wien, XLII, 595-736, 1 pl.
- 1863 a. *Revision der Cephalocotyleen, Abth. Paramecocotyleen*. Sitz. k. Akad. Wiss., Wien, XLVIII, Abt. 1, 200-345.
- 1863 b. *Revision der Cephalocotyleen. Abtheilung: Cyclocotyleen*. Sitz. k. Akad. Wiss., Wien, XLIX, Abt. 1, 357-430.
- DUJARDIN, F., 1845. *Histoire naturelle des Helminthes*. Paris.
- FUHRMANN, O., 1898. *Über die Genera Prosthecocotyle Monticelli und Bothridiotaenia Lönnberg. (Vorläufige Mittheilung.)* Zool. Anz., XXI, 385-88.
- 1899 a. *Das Genus Prosthecocotyle*. Zool. Anz., XXII, 180-3.
- 1899 b. *Das Genus Prosthecocotyle*. Centralbl. f. Bakt. u. Parasitenk., Abt. 1, XXV, 863-77.
- GERVAIS, H., 1870. *Sur les Entozoaires des Dauphins*. Compt. rend. Acad. Sci., Paris, LXXI, 779.
- HAMILTON, J. E., 1914. [Report on Belmullet Whaling Station.] Brit. Assoc. Rep. (1913), 125-61.
- 1916. [Report on Belmullet Whaling Station.] Brit. Assoc. Rep. (1915), 124-46.
- HOEPLI, R., HSÜ, H. F., and WU, H. W., 1929. *Helminthologische Beiträge aus Fukien und Chekiang*. Arch. f. Schiffs- u. Tropen-Hyg., XXXIII, Beiheft 1, 43 pp., pls. i-xii.
- JÄGERSKIÖLD, L. A., 1891 a. *Ueber den Bau des Ogmogaster plicatus, Creplin* (*Monostomum plicatum, Creplin*). K. Svensk. Vetensk. Ak. Handl., XXIV, 7, 32 pp., 2 pls.
- 1891 b. [Lönnberg, in] *Einiges über die Schmarotzer der nordatlantischen Balaenopteriden*. Biol. Fören. Förhandl., Stockholm, III, 7, 127-34.
- 1893. *Bidrag till Kännedom om Nematoderna*. Diss., Stockholm. 86 pp., 5 pls.
- 1894. *Beiträge zur Kenntnis der Nematoden*. Zool. Jahrb., Anat., VII, 449-532, pls. xxiv-xxviii.
- JOHNSTON, T. H., 1912. *On a re-examination of the types of Krefft's species of Cestoda in the Australian Museum, Sydney*. Part I. Rec. Austral. Mus., IX, 1, 1-35, pls. i-vi.
- JOHNSTON, T. H., and DELAND, E. W., 1929. *Australian Acanthocephala, No. 1. Census of recorded hosts and parasites*. Trans. Roy. Soc. S. Australia, LIII, 146-54.
- JOYEUX, C., and BAER, J. G., 1931. *Sur la présence du Nématode, Crassicauda crassicauda (Creplin, 1829) chez un Dauphin des côtes de la France*. Bull. Soc. Path. exot., XXIV, 198-203.
- JOYEUX, C., and DOLLFUS, R. PH., 1931. *Sur quelques Cestodes de la Collection du Musée de Munich*. Zool. Jahrb., Syst., LXII, 109-18.
- KAISER, J. E., 1891-3. *Die Acanthocephalen und ihre Entwicklung*. In Leuckart and Chun, Bibliotheca Zoologica, Cassel and Stuttgart, VII, 136 pp.
- KOSSACK, W., 1910. *Neue Distomen*. Centralbl. f. Bakt. u. Parasitenk., Abt. 1, LVI, 114-20.
- KRABBE, H., 1878. *Saelernes og Tandhvalernes Spolorme*. K. Dansk. Vidensk. Selsk. Forh., 43-51, pl. i.
- KREFFT, G., 1871. *On Australian Entozoa, with descriptions of new species*. Trans. Entom. Soc. N.S. Wales, Sydney, II, 206-32, pls. i-iii.

- KUHN, J., 1829 *a*. *Description d'une nouvelle espèce de Strongle trouvée dans le Marsouin*. Bull. Sci. Nat. et Géol., xvii, 150-3.
- 1829 *b*. *Anatomie comparée de deux espèces de Strongylus, qui vivent dans le Marsouin; par M. Raspail*. Bull. Sci. Nat. et Géol., xix, 139-43.
- 1829 *c* [1830]. *Description d'un nouveau genre de l'ordre des Douves, et de deux espèces de Strongles*. Mém. Mus. Hist. Nat., Paris, xviii, 357-68, pl. xvii bis, issued with vol. xix.
- LAENNEC, R. T. H., 1804. *Mémoire sur les vers vésiculaires, et principalement sur ceux qui se trouvent dans le corps humain*. 176 pp., 3 pls. [n.p.].
- LEIDY, J., 1891. *Notices of Entozoa*. Proc. Acad. Nat. Sci. Phila. (3), xx, 410-18.
- LEIPER, R. T., and ATKINSON, E. L., 1914. *Helminthes of the British Antarctic Expedition, 1910-1913*. Proc. Zool. Soc. Lond., 222-6.
- 1915. *Parasitic Worms: British Antarctic ("Terra Nova") Exp., 1910*. Natural History Report, Zoology, II, 3, 19-60, pls. i-v.
- LEUCKART, F. S., 1828. *Breves animalium quorundam maxima ex parte marinorum descriptiones, etc.* Heidelbergae.
- LEUCKART, K. G. F. R., 1848. *Beschreibung zweier neuen Helminthen*. Arch. f. Naturg., xiv, i, 26-9, pl. ii.
- LINSTOW, O. VON, 1880. *Helminthologische Untersuchungen*. Arch. f. Naturg., xlvi, i, 41-54, pl. iii.
- 1888 *a* [? 1889]. *Helminthologisches*. Arch. f. Naturg., liv, 235-46, pl. xvi.
- 1888 *b*. *On Pseudalius alatus Leuckart, collected by Mr Robert Gray in the Arctic Seas, and other species of the genus*. Proc. Roy. Soc. Edinburgh, xvi, 15-17.
- 1896. *Nemathelminthen*. Hamburg. Magalhaensische Sammelreise, Hamburg, 21 pp., 1 pl.
- 1906. *Ostpreussische Nematoden*. Schrift. Physik.-Ökon. Ges., Königsberg, xlvii, 111-14, 1 pl.
- 1907. *Ascaris lobulata, Schneider, ein Parasit des Darms von Platanista gangetica*. Journ. and Proc. Asiat. Soc. Bengal, III, 37-8.
- 1910. *Pseudalius ovatus n.sp.* Centralbl. f. Bakt. u. Parasitenk., Abt. 1, lv, 133-5.
- LINTON, E., 1905. *Notes on Cestode cysts, Taenia chamissonii, new species, from a porpoise*. Proc. U.S. Nat. Mus., xxviii, 819-22, pl. xxxv.
- 1923. *A new Cetacean Cestode (Prosthecoctyle monticellii, sp.nov.), with a note on the genus Tetrabothrius Rudolphi*. Journ. Parasitol., x, 1, 51-5, pl. 5.
- LÖNNBERG, E., 1892. *Anatomische Studien über Skandinavische Cestoden, II. Zwei Parasiten aus Walfischen und zwei aus Lamna cornubica*. Kongl. Svensk. Vetensk.-Akad. Handl., xxiv, 16, 1-30, 1 pl.
- LOOSS, A., 1885. *Beiträge zur Kenntnis der Trematoden, etc.* Zeitschr. f. wiss. Zool., xli, 390-446, pl. xxiii.
- 1899. *Weitere Beiträge zur Kenntniss der Trematoden-Fauna Aegyptens, etc.* Zool. Jahrb., Syst., xii, 521-784, pls. xxiv-xxxii.
- 1901. *Natura doceri, eine Erklärung und Begründung einiger Grundsätze, etc.* Centralbl. f. Bakt. u. Parasitenk., Abt. 1, xxix, 191-210.
- 1902. *Ueber neue und bekannte Trematoden aus Seeschildkröten. Nebst Erörterungen zur Systematik und Nomenclatur*. Zool. Jahrb., Syst., xvi, 411-894, pls. xxi-xxxii.
- LÜHE, M., 1899. *Zur Anatomie und Systematik der Bothriocephaliden*. Verh. d. deutsch. Zool. Ges., Leipzig, 30-55.
- 1904-5. *Geschichte und Ergebnisse der Echinorhynchen-Forschung bis auf Westrumb (1821), etc.* Zool. Ann., Würzb., 1, 139-353.
- 1908. *Zur Systematik und Faunistik der Distomen. I. Die Gattung Metorchis Looss, nebst Bemerkungen über die Familie Opisthorchiidae*. Centralbl. f. Bakt. u. Parasitenk., Abt. 1, xlviii, 428-36.
- MALM, A. W., 1867. *Monographie illustrée du Baleinoptère trouvé le 29 Octobre 1865 sur la côte occidentale de Suède*. Stockholm, 110 pp., 20 pls.
- MARCHI, P., 1873. *Sopra una specie nuova di Distomum trovata nelle intestina del Delphinus tursio*. Atti Soc. ital. di Sc. nat., Milano, xv, 304, pl. v, fig. B.
- MEGGITT, F. J., 1924. *The Cestodes of Mammals*. London.
- MEYER, A., 1931. *Die Acanthocephalen des Arktischen Gebietes*. Fauna Arctica, vi, 1, 9-20.
- MOLIN, R., 1858. *Versuch einer Monographie der Filarien*. Sitz. K. Akad. Wiss., Wien, xxviii, 365-461, pls. i-ii.

- MONIEZ, R., 1880. *Essai monographique sur les Cysticerques*. Trav. de l'Inst. Zool. de Lille, Paris, III, Fasc. 1, 1-190, pls. i-iii.
- 1889. *Sur la larve du Taenia Grimaldii, nov. sp., parasite du Dauphin*. Compt. rend. Acad. Sci., Paris, CIX, 825.
- MONTICELLI, F. S., 1889. *Elenco degli elminti raccolti dal Capitano G. Chierchia durante il viaggio di circumnavigazione della r. corvetta "Vettor Pisani"*. Boll. Soc. Nat. Napoli (1), III, 67-71.
- 1892 a. *Nota intorno a due forme di Cestodi*. Boll. Mus. Zool. Torino, VII, 127, 1-9, 1 pl.
- 1892 b. *Studii sui Trematodi endoparassiti Monostomum cymbium Diesing*. Mem. r. Accad. Sci. Torino (2), XLII, 683-727, 1 pl.
- 1893. *Studii sui Trematodi endoparassiti: Primo contributo di osservazioni sui Distomidi*. Zool. Jahrb., Suppl. 3, 229 pp., pls. i-viii.
- NICOLL, W., 1923. *A reference list of the Trematode parasites of British Mammals*. Parasitol., xv, 3, 236-52.
- NYBELIN, O., 1922. *Anatomisch-Systematische Studien über Pseudophyllideen*. Kungl. Vetensk.- och Vitterh.-Samh. Handl., Göteborg (4), XXVI, 1, pp. iv, 1-228.
- 1928. *Zwei neue Cestoden aus Bartenwalen*. Zool. Anz., LXXVIII, 11/12, 309-14.
- ODHNER, T., 1905. *Die Trematoden des arktischen Gebietes*. In Römer and Schaudinn, Fauna Arctica, IV, 2, 291-372, pls. ii-iv.
- 1914. *Die Verwandtschaftsbeziehungen der Trematodengattung Paragonimus Brn.* Zool. Bidrag från Uppsala, III, 231-46.
- POIRIER, J., 1885. *Contribution à l'histoire des Trématodes*. Arch. Zool. exp. et gén. (2), III, 465-624, pls. xxiii-xxxiv.
- 1886. *Trématodes nouveaux ou peu connus*. Bull. Soc. Philomat. Paris (7), x, 20-40, pls. i-iv.
- PORTA, A., 1905. *Gli echinorinchi dei pesci*. Arch. Zool., Napoli, II, 2, 149-214, pls. x-xii.
- 1906. *Ricerche anatomiche sull' Echinorhynchus capitatus v. Linst., e note sulla sistematica degli echinorinchi dei Cetacei*. Zool. Anz., xxx (8-9), 235-71.
- 1908. *Gli Acantocefali dei Mammiferi*. Arch. Parasitol., Paris, XII, 2, 268-82.
- 1909. *Gli Acantocefali dei Mammiferi*. Arch. Zool., Napoli, IV, 239-85, pl. v.
- PRICE, E. W., 1932. *The Trematode parasites of marine Mammals*. Proc. U.S. Nat. Mus. LXXXI, Art. 13, 1-68, pls. i-xii.
- RASPAIL [F.-V.], 1829. *Anatomie comparée de deux espèces de Strongylus qui vivent dans le Delphinus phocena*. Ann. Sci. d'Obs., Paris, II, 244-54, pls. vii-viii.
- RISSO, A., 1826. *Histoire naturelle des principales productions de l'Europe méridionale, etc.*, v. Paris.
- ROUSSEL DE VAUZÈME, 1834. *Note sur l'Odontobius ceti de l'ordre des intestinaux cavitaires*. Ann. Sci. Nat., Paris (2), I, 326-33, pl. ix.
- RUDOLPHI, C. A., 1809. *Entozoorum sive Vermium Intestinalium Historia Naturalis*, II, 1, 457 pp., pls. vii-xii. Amstelaedami.
- 1810. *Entozoorum sive Vermium Intestinalium Historia Naturalis*, II, 2, xii+386 pp. Amstelaedami.
- 1814. *Erster Nachtrag zu meiner Naturgeschichte der Eingeweidewürmer*. Mag. f. d. n. Entdeck. in d. ges. Naturk., Berlin, VI, 2, 83-113.
- 1819. *Entozoorum Synopsis*. Berlin.
- SCHNEIDER, A., 1866. *Monographie der Nematoden*. Berlin.
- SCOTT, T., 1909. *Some notes on fish parasites*. Ann. Rep. Fishery Board for Scotland, XXVI, Part III, 73-92, pls. iii-vii.
- SHIPLEY, A. E., 1899. *Notes on the species of Echinorhynchus parasitic in the Cetacea*. Arch. Parasitol., Paris, II, 2, 262-9.
- SIEBOLD, C. VON, 1842. *Bericht über die Leistungen im Gebiete der Helminthologie während des Jahres 1841*. Arch. f. Naturg., VIII, II, 338-72.
- SOUTHWELL, T., 1925. *A monograph on the Tetraphyllidea, with notes on related Cestodes*. Liverpool School of Tropical Medicine Memoir (New Series), No. 2, pp. i-xv, 1-368.
- SOUTHWELL, T., and PRASHAD, B., 1920. *A revision of the Indian species of the genus Phyllobothrium*. Rec. Ind. Mus., XIX, 1, 1-8, pl. i.
- SPAUL, E. A., 1926. *Crassicauda bennetti, sp.n., a new Nematode parasite from the Bottle-nosed whale (Hyperoodon)*. Ann. Mag. Nat. Hist. (9), XVII, 581-5.

- STILES, C. W., 1895. *The anatomy of the large American Fluke (Fasciola magna), etc.* J. Comp. M. and Vet. Arch., N.Y., XVI, pp. 139-47, pls. v-vi, pp. 213-22, pls. vii-viii, pp. 277-82.
- STILES, C. W., and HASSALL, A., 1899. *Internal parasites of the Fur seal.* (In "The Fur seals and Fur seal Islands of the North Pacific Ocean.") Report on Fur seal Investigations, Washington, Pt. 3, 99-177.
- 1908. *Index-catalogue of medical and veterinary zoology. Subjects: Trematoda and Trematode diseases.* U.S. Pub. Health and Mar.-Hosp. Serv., Hyg. Lab. Bull., 37, 398 pp.
- 1912. *Index-catalogue of medical and veterinary zoology. Subjects: Cestoda and Cestodaria.* U.S. Pub. Health and Mar.-Hosp. Serv., Hyg. Lab. Bull., 85, 467 pp.
- 1920. *Index-catalogue of medical and veterinary zoology. Subjects: Round-worms.* U.S. Pub. Health Serv., Hyg. Lab. Bull., 114, 881 pp.
- STOSSICH, M., 1892. *Distomi dei Mammiferi.* Program. d. civ. scuola r. sup., Trieste, 42 pp.
- 1896. *Il Genere Ascaris Linné. Lavoro Monografico.* Boll. Soc. Adriat. Sci. Nat., Trieste, XVII, 9-120.
- 1898. *Note parassitologiche.* Boll. Soc. Adriat. Sci. Nat., Trieste, XVIII, 1-10, pls. i-ii.
- 1902. *Sopra alcuni Nematodi della Collezione elmintologica del Prof. Dott. Corrado Parona.* Boll. Mus. Zool., Genova, 16 pp., pls. iii-v. (Also Atti Soc. Ligust., Genova, XIII, 61-76, pls. iii-v.)
- 1904. *Alcuni distomi della Collezione elmintologica del Museo Zoologico di Napoli.* Ann. Mus. Zool. Napoli, n.s., I, 1-14, pl. ii.
- STUNKARD, H. W., and ALVEY, C. H., 1930. *The morphology of Zalophotrema hepaticum, with a review of the Trematode family Fasciolidae.* Parasitol., XXII, 326-33, pl. xxxiii.
- VAN CLEAVE, H. J., 1924. *A critical study of the Acanthocephala described and identified by Joseph Leidy.* Proc. Acad. Nat. Sci. Phila., LXXVI, 279-334, pls. xiv-xviii.
- 1925. *Acanthocephala from Japan.* Parasitol., XVII, 149-56.
- WESENBERG-LUND, E., 1926. *Acanthocephaler.* Meddelelser om Grønland, Copenhagen, Pt 23, Suppl. XXI, 143-55.
- WESKI, O., 1900. *Mitteilungen über Distomum lancea Dies.* Centralbl. f. Bakt. u. Parasitenk., Abt. 1, XXVII, 579-83.
- WESTRUMB, A. H. L., 1821. *De helminthibus acanthocephalis [etc.].* Hanoverae.
- WU, HSIEN WEN, 1929. *On Halocercus pingi n.sp. a Lung-worm from the porpoise, Neomeris phocaenoides.* Journ. Parasitol., xv, 4, 276-9.



Baylis, H. A. 1932. "A list of worms parasitic in Cetacea." *Discovery reports* 6, 393-418.

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