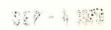
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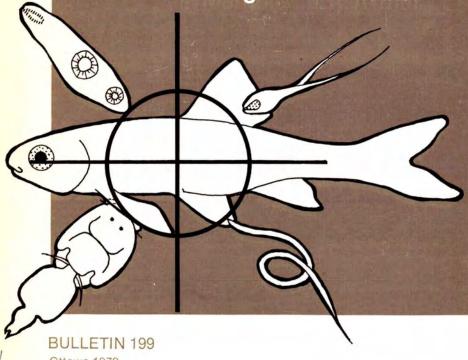




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Synopsis of the **Parasites of Fishes of Canada**

L. Margolis · J. R. Arthur



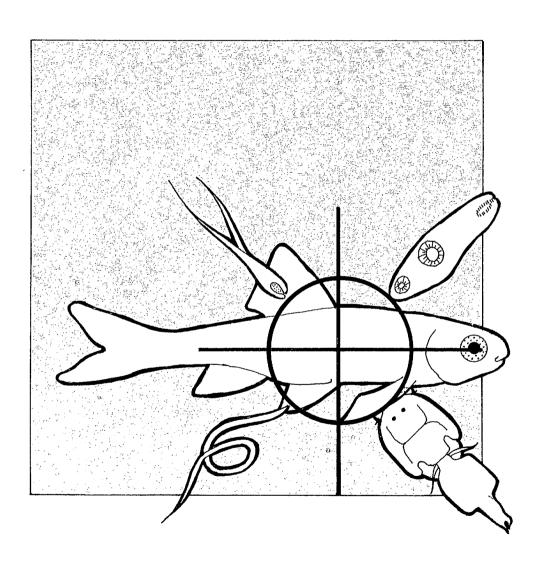
Ottawa 1979



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Synopsis of the Parasites of Fishes of Canada



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DEPARTMENT OF FISHERIES AND OCEANS

Ottawa 1979

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Abstract

MARGOLIS, L., AND J. R. ARTHUR. 1979. Synopsis of the parasites of fishes of Canada. Bull. Fish. Res. Board Can. 199: 269 p.

Published information on the parasites of Canadian fishes is assembled in two lists, Parasite-Host and Host-Parasite. Eight hundred and thirty named species of the following taxa have been reported: Protozoa (77 species), Myxosporida (92), Turbellaria (1), Monogenea (163), Trematoda (179), Cestoidea (93), Nematoda (58), Acanthocephala (26), Hirudinoidea (21), Mollusca (3), Branchiura (10), Copepoda (104), and Isopoda (3). Additionally there are many records of parasites not identified to species level, including two species of Acarina. The Parasite-Host list is organized on a taxonomic basis and identifies for each parasite species its habitat (freshwater, marine, or brackish), site of occurrence (location) within the host, species of host(s), known geographic distribution in Canadian waters, and the published source of each host and locality record. The Host-Parasite list is organized according to taxonomy of the hosts and is accompanied by data on known distribution of the parasites. In addition to listing the cited references, a supplementary list of references is included to cover other Canadian literature on fish parasites. The work concludes with an index to parasites and hosts. Although taxonomic revision is not the aim of the synopsis, notes on taxonomy and nomenclature are included when appropriate and, of necessity, several new combinations and one new synonym are proposed. They are Prosorhynchoides basargini (Layman, 1930) n.comb. for Bucephalopsis b.; Prosorhynchoides ozakii (Nagaty, 1937) n.comb. for Bucephalopsis o.; Prosorhynchoides pusilla (Stafford, 1904) n.comb. for Bucephalopsis p.; Thynnascaris brachyura (Ward and Magath, 1917 sensu Van Cleave and Mueller, 1934) n.comb. for Contracaecum brachyurum; Thynnascaris magna (Smedley, 1934) n.comb for Contracaecum mg.; Thynnascaris melanogrammi (Smedley, 1934) n.comb. for Contracaecum ml.; and Echinorhynchus ekbaumi Golvan, 1969 new synonym of E. gadi Zoega in O. F. Müller, 1776.

Résumé

MARGOLIS, L., AND J. R. ARTHUR. 1979. Synopsis of the parasites of fishes of Canada. Bull. Fish. Res. Board Can. 199: 269 p.

Les auteurs assemblent en deux listes, une des parasites-hôtes et l'autre, des hôtes-parasites, les renseignements publiés sur les parasites des poissons canadiens. On y donne 830 espèces nommées, appartenant aux taxa suivants: Protozoa (77 espèces), Myxosporida (92), Turbellaria (1), Monogenea (163), Trematoda (179), Cestoidea (93), Nematoda (58), Acanthocephala (26), Hirudinoidea (21), Mollusca (3), Branchiura (10), Copepoda (104) et Isopoda (3). On y rapporte aussi plusieurs signalements de parasites non identifiés au niveau de l'espèce, dont deux Acarina. La liste des parasites-hôtes est structurée sur base taxonomique et, pour chaque espèce parasite, indique l'habitat (eau douce, eau salée, eau saumâtre), la site d'occurrence (position) au sein de l'hôte, la ou les espèces d'hôtes, la répartition géographique connue dans les eaux canadiennes et la source imprimée pour chaque donnée de localité de chaque hôte. La liste des hôtes-parasites est ordonnée suivant la taxonomie des hôtes et accompagnée de données sur la répartition connue des parasites. En plus d'établir la liste des références citées, on donne une liste supplémentaire de la documentation canadienne sur les parasites des poissons. L'ouvrage se termine par un index des parasites et des hôtes. Bien que ce synopsis ne vise pas à une révision taxonomique, il inclut des notes sur la taxonomie et une nomenclature quand la chose semble appropriée, et a dû proposer plusieurs nouvelles combinaisons et un nouveau synonyme. Ce sont : Prosorhynchoides basargini (Layman, 1930) n.comb. pour Bucephalopsis b.; Prosorhynchoides ozakii (Nagaty, 1937) n.comb. pour Bucephalopsis o.; Prosorhynchoides pusilla (Stafford, 1904) n.comb. pour Bucephalopsis p.; Thynnascaris brachyura (Ward et Magath, 1917 sensu Van Cleave et Mueller, 1934) n.comb. pour Contracaecum brachyurum; Thynnascaris magna (Smedley, 1934) n.comb. pour Contracaecum mg.; Thynnascaris melanogrammi (Smedley, 1934) n.comb, pour Contracaecum ml.; et Echinorhynchus ekbaumi Golvan, 1969, nouveau synonyme de E. gadi Zoega dans O. F. Müller, 1776.

Introduction

Investigations on the parasites of Canadian fishes date back at least a century (Margolis 1969). At first entirely faunal and taxonomic in nature, these investigations later expanded to include various other fundamental aspects of the biology of fish parasites, including life histories, ecology, population biology, physiology, and biochemistry. Applied studies have also had a prominent place in Canadian fish parasitology. Problems such as the presence of parasites in edible fish products, fishtransmitted parasites of public health importance, parasitic diseases of fishes, and the use of parasites as biological tags all have received increasing attention in recent years. Additionally, the current focus on environmental issues has had its influence on stimulating parasitological studies of fish, by creating a need for information on the actual or potential detrimental effects of parasites associated with real or proposed manmade changes in the aquatic environment.

After 100 years of scattered investigations it is timely to consolidate the available information on the parasite fauna of Canadian fishes, to facilitate the work of future investigators. Indeed, such a summation seems imperative as a basis for extending studies of the biology of fish parasites and of applied fish parasitology in Canada, as these are dependent upon sound knowledge of the parasite fauna of fishes in Canadian waters.

Despite the considerable number of published reports over the past 100 years, information on the occurrence and distribution of fish parasites in Canadian waters is incomplete. Therefore, caution must be exercised in making zoogeographic interpretations from the accumulated information contained herein.

The compiled information covers the period up to the end of 1977 and was

extracted from numerous publications in the primary scientific literature and from various "Report" series, such as Manuscript Reports and Technical Reports of the Fisheries and Marine Service, Department of Fisheries and the Environment (formerly Manuscript and Technical Reports of the Fisheries Research Board of Canada). Theses and annual reports of federal and provincial government departments and of other institutions were not searched, hence, some existing records may have been omitted. However, because theses and material appearing in annual reports usually are published subsequently in the primary or "Report" literature, the number of omissions of particular hostparasite-locality records are probably comparatively few.

In providing references to the parasite—host—locality data we have attempted to include only reports based on original records, but screening of all reports to ensure complete exclusion of repetitive records based on the same material, particularly by the same author, was deemed an unprofitable activity. Publications that do not provide original parasite—host—locality records but deal with some aspect of Canadian fish parasitology are compiled in a supplementary list of references.

The paper by Sekerak and Arai (1977), which contains a long list of parasites recovered from 26 species of *Sebastes* collected off the coasts of British Columbia and Alaska, requires a special comment. Information pertaining to the records from British Columbia waters had to be obtained from the Ph.D. thesis by A. D. Sekerak, as this information was not provided in the published paper.

A matter of some concern was the taxonomic arrangement to be adopted for each phylum or class of parasitic organism included in Canadian records. Not only is

there considerable diversity of opinion among specialists for most of these groups, but views are rapidly changing, particularly with regard to classification of the Protozoa. The taxonomic arrangements decided on can be described, in most cases, as composites, reflecting as closely as possible current common usage.

The basis of the higher classification used herein for the Protozoa is the system proposed by Honigberg et al. (1964), except that we have left the affiliation of the Myxosporida (Myxospora) undecided. Classification of the Copepoda follows that proposed by Kabata (1978) and taxonomic systems for the main helminth phyla and classes are based on the following authors with modifications as current practice seemed to dictate:

Monogenea — Yamaguti (1963a)

Trematoda — La Rue (1957) and Baer and Joyeux (1961) with modifications of Cable (1974)

Cestoidea — Yamaguti (1959), Dollfus (1942) and Euzet (1959)

Nematoda — Anderson et al. (1974–76) Acanthocephala — Golvan (1960, 1969)

The material included in this Synopsis is organized under seven headings: Introduction, Parasite-Host List, Host-Parasite List, Acknowledgments, References, Supplementary References, and Index.

The PARASITE-HOST LIST is organized by phyla and classes of parasites in the usual following order: Protozoa, Myxospora (Myxosporida), Platyhelminthes (Turbellaria, Monogenea, Trematoda, Cestoidea), Nemathelminthes (Nematoda), Acanthocephala, Annelida (Hirudinoidea), Mollusca, and Arthropoda (Crustacea: Branchiura, Copepoda, Isopoda; Arachnoidea: Acarina). Species, genera, and family names are listed in alphabetical order within their respective next higher taxon, which in the case of a

family is either a superfamily or an order, depending on the group in question and the usefulness of including the superfamily category.

For each parasite species listed, the following information is provided:

- 1) The current scientific name, including author(s) and date(s), followed by any recognized synonyms that may have been used in establishing the Canadian record(s). No attempt has been made to evaluate systematically the validity of published records, but attention is drawn to obvious errors and a few new name combinations are proposed where deemed absolutely necessary to avoid confusion.
- 2) The *habitat* in which the parasite was acquired and normally completes its life cycle is given as FW for fresh water, B for brackish (including estuarine), and M for marine.
- 3) The location or site of occurrence of the parasite in its host(s) (aberrant sites usually are not included). When the location was not given in the Canadian records, the likely location, as determined from non-Canadian records, is enclosed in square brackets.
- 4) The hosts. Only currently accepted scientific names are given in the Parasite-Host List; names preceded by an interrogation mark (?) represent questionable host records. Numbers in parentheses after each host name correspond with the numbers assigned to the references establishing the particular parasite-host records.
- 5) Distribution (Dist.) within Canadian waters. Marine species are grouped into four geographic regions: Atlantic (Atl), Pacific (Pac), Eastern Arctic (E Arc), and Western Arctic (W Arc). Eastern and Western Arctic are divided by 100° W longitude. Freshwater distribution is indicated by Provincial or Territory boundaries listed in alphabetical order as follows: Alta (Alberta), BC (British Columbia), Lab

(Labrador), Man (Manitoba), NB (New Brunswick), Nfld (insular Newfoundland), NS (Nova Scotia), NWT (Northwest Territories), Ont (Ontario), PEI (Prince Edward Island), Que (Quebec), Sask (Saskatchewan), and YT (Yukon Territory). For several records from transboundary water bodies (e.g. Lake Athabasca) or other localities in which the published information on collection site was not sufficiently specific, departures from the usual manner of indicating distribution were required. Thus, distribution is occasionally indicated as Alta-Sask (indicating the collection was from a lake that traverses the Alberta-Saskatchewan border) or Hudson Bay drainage. A listing of freshwater distributions by watershed or major water body might have been more meaningful than geographic boundaries, but this proved to be too difficult or even impossible to accomplish from available data. For reports from anadromous and euryhaline fishes taken in brackish or estuarine waters, the abbreviation of the geographical locality is followed by "b," e.g. BC-b, indicating British Columbia, brackish waters. In some cases, such as several papers by Margolis, where the records are known to be estuarine, but are not so indicated in the original paper, they are nevertheless listed here with a "b."

6) Authors responsible for the records are listed in chronological order of the published records. To enable the reader to grasp at a glance the author(s) responsible for particular parasite-host-locality records, we numbered the references listed under "Records" and placed the corresponding number(s) after the host name, and each reference is followed by the locality or localities from which the parasite was reported. For example, the entries for the protozoan Trichophrya piscium show that Hare and Frantsi (1974) reported this species from Salmo salar and Salvelinus fontinalis in Nova Scotia. When only one host is listed for a particular parasite the

references are not numbered, and when all records are from the same locality there was no need to list the locality after the authors' names.

- 7) Under *Remarks*, comments are offered on systematics, nomenclature, and known misidentifications of the parasites.
- 8) Notes on specific items, such as tentative parasite or host identifications, synonyms, and inconsistencies in original reports are recorded in a series of footnotes.

The HOST-PARASITE LIST is organized according to phylogenetic relationship of the suprageneric taxa of the hosts, as given by Bailey et al. (1970) for North 'American fishes. Within each family, genera and species are listed alphabetically. The scientific and common names of fishes are those recommended in Bailey et al. (1970), except when these names have not been accepted by Hart (1973) for Pacific fishes or by Scott and Crossman (1973) for freshwater fishes; in these cases the names recommended by the latter authors are used. Host synonyms included are only those found associated with the Canadian parasite records. After the name of each parasite species, its geographic distribution in the host in question is given in parentheses. A single asterisk (*) after the parasite name indicates a tentative, provisional, or presumptive original parasite identification, or indicates that a subsequent worker has tentatively referred a previous record to the indicated species. A double asterisk (**) after the parasite name indicates a tentative, doubtful, or ambiguous host identification, or a possible erroneous host listing by the original author, for the parasite in question. A triple asterisk (***) after the parasite name indicates that the original or a subsequent author has considered the parasite to be of abnormal occurrence (i.e. a pseudoparasite or accidental parasite) for the host in question. An interrogation mark (?)

preceding a parasite name indicates questionable validity of the parasite identification and the same mark after a locality citation indicates an ambiguous or uncertain locality record.

The REFERENCES are given in two groups, the first includes those directly referred to and a second, SUPPLEMEN-

TARY REFERENCES, contains a list of publications dealing with various aspects of parasites of Canadian fishes but which do not contain original parasite—host records.

To facilitate access to information in the parasite-host and host-parasite lists, the publication concludes with an INDEX to parasite and host scientific names.

PARASITE-HOST LIST



PHYLUM PROTOZOA

SUBPHYLUM **SARCOMASTIGOPHORA**

CLASS ZOOMASTIGOPHOREA

ORDER KINETOPLASTIDA

Family BODONIDAE

Bodomonas concava Davis, 1947

(FW)

Location: gills

Host: Ictalurus nebulosus

Dist · Ont

Record: Molnar et al. 1974

Remarks: Lom, in Hoffman (1967), suggests this species may be Cryptobia branchialis.

Ichthyobodo necatrix (Henneguy, 1884) Pinto, (FW)

Syn.: Costia necatrix Henneguy, 1884

Location: gills

Hosts: Gasterosteus aculeatus (3) Oncorhynchus nerka (1.4) Salvelinus fontinalis (2)

Dist.: BC

Records: 1. Duff 19301; 2. Savage 1935b (unspecified locality); 3. Lester 1975; 4.

Hoskins et al. 1976

Remarks: For a discussion on the nomenclature of this species, well known in the literature as Costia necatrix, see Becker (1977).

Ichthyobodo sp.

(FW)

Syn.: Costia sp.

Location: not specified Host: Salvelinus fontinalis

Dist.: Oue

Record: Richardson 1937a

Family CRYPTOBIIDAE

Cryptobia bullocki Strout, 19652 (M)

Location: blood

Hosts: Liopsetta putnami

Pseudopleuronectes americanus

¹The report of Duff (1930) involves a tentative parasite identification (as "... Coștia necatrix (?)").

²Becker (1977) accepted Trypanoplasma as a valid genus, distinct from Cryptobia, and considered all species from the blood of fishes to belong to the former.

Dist.: Atl

Record: Laird and Bullock 1969

Cryptobia catostomi Bower and Woo.

(FW)

Syn.: ?Trypanoplasma borreli of Mavor, 1915,

 1916^{3}

Location: blood

Hosts: Catostomus catostomus (3)

C. commersoni (1,2,3,4)

Dist.: Ont

Records: 1. Mavor 1915b, 2. 1916b; 3. Bower

and Woo 1977a, 4. 1977b

Cryptobia dahli (Möbius, 1888) Alexeieff,

(M)

Location: stomach, urinary bladder

Host: Cyclopterus lumpus

Dist.: Atl

Record: Khan and Noble 1972

Cryptobia gurneyorum (Minchin, 1909) (FW)

Location: blood

Hosts: Coregonus clupeaformis

Esox lucius

Salvelinus namaycush

Dist.: NWT

Record: Laird 1961a

(FW) Cryptobia salmositica Katz, 1951

Location: blood

Hosts: Oncorhynchus kisutch (1,3)

O. nerka (2)

O. tshawytscha (4)

Dist.: BC

Records: 1. Becker and Katz 1965b; 2. Katz et al. 1966; 3. Hoskins et al. 1976; 4. Hoskins

and Hulstein 1977

(M, FW)Cryptobia spp.

Location: blood

Hosts: Liopsetta putnami (1)

Oncorhynchus kisutch (2)

Pseudopleuronectes americanus (1)

Dist.: Atl, BC

Records: 1. Strout 1962 (Atl); 2. Hoskins and

Hulstein 1977 (BC)

³Bower and Woo (1977a) noted that the tentative record of T. borreli from C. commersoni by Mavor (1915b) is a misidentification.

Family TRYPANOSOMATIDAE Dist.: Atl, Que Records: 1. Fantham and Porter 1948 (Que); 2. So 1972 (Atl); 3. Khan 1972b (Atl) Trypanosoma murmanensis Nikitin, 1927 (M)Location: blood Hosts: Anarhichas lupus (5) ORDER DIPLOMONADIDA A. minor (5) Gadus morhua (1,2,3,4,5) Glyptocephalus cynoglossus (5) Hippoglossoides platessoides (5) Limanda ferruginea (5) Liparis cyclostigma (5) Lycodes reticulatus (5) Dist.: Atl Records: 1. Khan 1972b, 2. 1974, 3. 1975b, 4. 1976, 5, 1977 Remarks: In addition to the hosts listed above, Khan (1977) has also experimentally infected Anguilla rostrata, Lycodes vahlii, Microgadus tomcod, Myoxocephalus octodecemspinosus, M. scorpius, Pseudopleuronectes americanus, and Tautogolabrus adspersus. Trypanosoma myoxocephali Fantham, Porter and Richardson, 1942 (M) Location: blood Host: Myoxocephalus octodecemspinosus Dist.: Atl Record: Fantham et al. 1942 Remarks: Khan (1977) considered this species to be probably referable to T. murmanensis. Trypanosoma percae var. canadensis Fantham, Porter and Richardson, 1942 (FW) Location: blood Hosts: Perca flavescens (1,2) Salvelinus fontinalis (2) Dist.: Que Records: 1. Fantham et al. 1942; 2. Fantham and Porter 1948 Trypanosoma rajae Laveran and Mesnil, 1902 (M) Location: blood

Family HEXAMITIDAE (FW) Hexamita salmonis (Moore, 1923) Syn.: Octomitus salmonis Moore, 1923 Location: intestine, gall bladder Hosts: Coregonus clupeaformis (8) Gasterosteus aculeatus (7) Lota lota (8) Prosopium cylindraceum (8) Salvelinus fontinalis (1,2,3,4,5,6) S. namaycush (8) Thymallus arcticus (8) Dist.: BC, PEI, Que, YT Records: 1 Richardson 1935 (Que), 2. 1936 (Que), 3. 1937a (Que); 4. A. Wright 1936 (Que); 5. M'Gonigle 1941 (maritime hatcheries); 6. Hare and Frantsi 1974 (PEI); 7. Lester 1975 (BC); 8. Arthur et al. 1976 (YT) (FW) Hexamita spp. Location: intestine Hosts: Catostomus catostomus (1) Oncorhynchus keta (2) O. tshawytscha (2) Dist.: BC, Que Records: 1. Hanek and Molnar 1974 (Que); 2. Hoskins and Hulstein 1977 (BC) Spironucleus spp. (FW) Location: intestine Hosts: Micropterus salmoides Notropis heterolepis Perca flavescens Pimephales notatus Dist.: Ont Record: Molnar et al. 1974 Hosts: Raja erinacea (1) R. radiata (1,2) Dist.: Atl Hexamitidae gen.sp. (FW) Records: 1. Laird and Bullock 1969; 2. So Includes: Octomitus sp. of Fantham and Por-1972 ter, 1948 Location: intestine Trypanosoma spp. Host: Catostomus commersoni (FW, M) Location: blood Dist.: Que Hosts: Gadus morhua (2,3) Record: Fantham and Porter 1948 Glyptocephalus cynoglossus (2) Remarks: Kulda and Lom (1964) indicated Salvelinus fontinalis (1) that Octomitus has not been shown to occur

in freshwater fishes. The above record cannot be referred with certainty to either Hexamita or Spironucleus.

> Sarcomastigophora of **Uncertain Taxonomic Position**

Unidentified "flagellates"

Location: gills

Host: Oncorhynchus nerka

Dist.: Pac

Record: Hoskins et al. 1976

Unidentified "amoeba"

Location: not specified

Host: Oncorhynchus nerka

Dist.: BC

Record: Duff 1930

Hippoglossoides platessoides Limanda ferruginea Melanogrammus aeglefinus Urophycis tenuis

(M)

(FW)

Dist.: Atl

Record: So 1972

Haemohormidium spp.

Location: blood

Hosts: Hemitripterus americanus Hippoglossoides platessoides

Dist.: Atl

(M)

(FW)

(FW)

Record: Laird and Bullock 1969

CLASS SPOROZOEA

ORDER EUCOCCIDA

Family EIMERIIDAE

SUBPHYLUM APICOMPLEXA

CLASS PIROPLASMEA ORDER PIROPLASMIDA

Family DACTYLOSOMATIDAE

Dactylosoma salvelini Fantham, Porter and

(FW) Richardson, 1942

Location: blood

Host: Salvelinus fontinalis

Dist.: Que

Record: Fantham et al. 1942

Dactylosoma sp.4

Location: blood

Host: Salvelinus fontinalis

Dist.: Que

Record: Fantham and Porter 1948

(M) Haemohormidium beckeri So, 1972

Location: blood

Host: Myoxocephalus octodecemspinosus

Dist.: Atl

Record: So 1972

Haemohormidium terraenovae So, 1972 (M)

Location: blood

Hosts: Ammodytes americanus Glyptocephalus cynoglossus

4This report involves a tentative parasite identification (parasite reported as "... a probable Dactylosoma").

Eimeria anguillae Léger and Hollande, 1922

Location: intestine

Host: Anguilla rostrata

Dist.: Que

Records: Hanek and Molnar 1974; Molnar

and Hanek 1974

Eimeria catostomi Molnar and Hanek,

(FW) 1974

Location: intestine

Hosts: Catostomus commersoni Hypentelium nigricans

Dist.: Ont

Record: Molnar and Hanek 1974

Eimeria clupearum (Thélohan, 1894) Doflein, 1909 (M)

Location: liver

Host: Clupea harengus harengus

Dist.: Atl

Record: Sindermann 1961

Eimeria degiustii Molnar and Fernando,

1974 (FW)

Location: spleen

Hosts: Notropis cornutus (1,2)

Pimephales notatus (1,2)

P. promelas (1)

Dist.: Ont

Records: 1. Molnar and Fernando 1974; 2.

Molnar et al. 1974

Eimeria etheostomae Molnar and Hanek,

1974

Location: intestine

9

(FW)

| Hosts: Etheostoma exile | Eimeria hybognathi Molnar and Fernando, |
|--|---|
| E. nigrum | 1974 		 (FW) |
| Dist.: Ont | Location: intestine |
| Record: Molnar and Hanek 1974 | Host: Hybognathus hankinsoni |
| Eimeria fernandoae Molnar and Hanek, | Dist.: Ont |
| 1974 (FW) | Records: Molnar and Fernando 1974; Molnar |
| Location: intestine | et al. 1974 |
| Hosts: Catostomus commersoni | Eimeria ictaluri Molnar and Fernando, |
| Hypentelium nigricans | 1974 (FW) |
| Dist.: Ont | Location: intestine |
| Record: Molnar and Hanek 1974 | Host: Ictalurus nebulosus |
| | Dist.: Ont |
| Eimeria freemani Molnar and Fernando, 1974 (FW) | Records: Molnar and Fernando 1974; Molnar et al. 1974 |
| Location: renal parenchyma, kidney tubules | |
| Host: Notropis cornutus | Eimeria iroquoina Molnar and Fernando, |
| Dist.: Ont | 1974 (FW |
| Records: Molnar and Fernando 1974; Molnar | Location: intestine |
| et al. 1974 | Hosts: Nocomis biguttatus (2,3) |
| Eimeria gadi Fiebiger, 1913 (M) | Notropis cornutus (1,2,3) |
| Syn.: Goussia gadi (Fiebiger, 1913) | N. heterolepis (2,3) |
| Location: swim bladder | Pimephales notatus (2,3) |
| Hosts: Encheiyopus cimbrius (3) | P. promelas (3) |
| Gadus morhua (2) | Rhinichthys atratulus (2) |
| Melanogrammus aeglefinus (1,3) | Semotilus atromaculatus (2) |
| Dist.: Atl | Dist.: Ont |
| Records: 1. Mavor 1915a; 2. Ellis 1930; 3. Odense and Logan 1976 | Records: 1. Molnar and Fernando 1974; 2 Molnar and Hanek 1974; 3. Molnar et al 1974 |
| Eimeria gasterostei (Thélohan, 1890) Doffein, | |
| 1909 (FW) | Eimeria laureleus Molnar and Fernando, |
| Location: liver | 1974 (FW) Location: intestine |
| Host: Gasterosteus aculeatus | Host: Perca flavescens |
| Dist.: BC Record: Lester 1975 | Dist.: Ont |
| Record: Lester 1975 | Records: Molnar and Fernando 1974; Molnar |
| Eimeria glenorensis Molnar and Fernando, 1974 (FW) | et al. 1974 |
| Location: intestine | Eimeria micropteri Molnar and Hanek, |
| Host: Morone americana | 1974 		 (FW) |
| Dist.: Ont | Location: intestine |
| Record: Molnar and Fernando 1974 | Hosts: Micropterus dolomieui M. salmoides |
| Eimeria haneki Molnar and Fernando, | Dist.: Ont |
| 1974 (FW) | Records: Molnar and Hanek 1974 |
| Location: intestine | |
| Host: Culaea inconstans | Eimeria moronei Molnar and Fernando, |
| Dist.: Ont | 1974 (FW) |
| Record: Molnar and Fernando 1974 | Location: intestine |
| Eimeria hoffmani Molnar and Hanek, | Host: <i>Morone americana</i> Dist.: Ont |
| 1974 (FW) | Record: Molnar and Fernando 1974 |
| Location: intestine | Record. Momar and Perhando 1974 |
| Host: Umbra limi | Eimeria ojibwana Molnar and Fernando, |
| Dist.: Ont | 1974 (FW) |
| Record: Molnar and Hanek 1974 | Location: intestine |

Host: Cottus bairdi Dist.: Ont Record: Molnar and Fernando 1974 Eimeria osmeri Molnar and Fernando, 1974 (FW) Location: intestine Host: Osmerus mordax Dist.: Ont Record: Molnar and Fernando 1974 Eimeria pungitii Molnar and Hanek, 1974 (FW) Location: intestine Host: Pungitius pungitius Dist.: Que Record: Molnar and Hanek 1974 Eimeria salvelini Molnar and Hanek, 1974 (FW) Location: intestine Host: Salvelinus fontinalis Dist.: Que Record: Molnar and Hanek 1974 Eimeria sardinae (Thélohan, 1890) Reichenow, (M) 1921 Location: testis Host: Clupea harengus harengus Dist.: Atl Record: Sindermann 1961 Eimeria tedlai Molnar and Fernando, 1974 (FW) Location: intestine Host: Perca flavescens Dist · Ont Record: Molnar and Fernando 1974 Eimeria truttae (Léger and Hesse, 1919) Stankovitch, 1924 (FW) Location: intestine Host: Salvelinus fontinalis Dist.: Que Records: Hanek and Molnar 1974; Molnar and Hanek 1974 Eimeria spp. (FW, M) Location: intestine, kidney Hosts: Catostomus commersoni (3) Etheostoma exile (3) Fundulus heteroclitus (1) Macrourus berglax (4) Micropterus salmoides (3) Pungitius pungitius (2) Salvelinus fontinalis (1,2) Dist.: Atl, NS, Ont, Que Records: 1. Fantham and Porter 1948 (NS, Que); 2. Hanek and Molnar 1974 (Que); 3. Molnar et al. 1974 (Ont); 4. Lom et al. 1975

(Atl)

Family HAEMOGREGARINIDAE

Haemogregarina aeglefini Henry, 1913 (M) Syn.: Haemogregarina urophysis Fantham, Porter and Richardson, 1942 Haemogregarina sp. of Mavor, 1915 Location: blood Hosts: Gadus morhua (2) Melanogrammus aeglefinus (3) Pollachius virens (3) Urophycis chuss (1) U. tenuis (2.3) Dist.: Atl Records: 1. Mayor 1915a; 2. Fantham et al. 1942; 3. Laird and Bullock 1969 Haemogregarina bigemina Laveran and (M) Mesnil, 1901

Location: blood
Hosts: Artedius fenestralis (2)
?Centropristis striata (1)
Macrozoarces americanus (1)
Dist.: Atl, Pac

Records: 1. Fantham et al. 1942⁵ (Atl); 2. Laird 1961b (Pac)

Haemogregarina delagei Laveran and
Mesnil, 1902 (M)
Location: blood

Hosts: Raja erinacea (1)
R. radiata (1,2,3)
R. senta (3)
Squalus acanthias (1)

Dist.: Atl

Records: 1. Laird and Bullock 1969; 2. Khan 1972a; 3. So 1972

Haemogregarina irkalukpiki Laird, 1961 (FW) Location: blood

Hosts: Coregonus clupeaformis (2) Prosopium cylindraceum (2) Salvelinus alpinus (1)

Dist.: NWT, Que, YT

Records: 1. Laird 1961a (NWT, Que); 2. Arthur et al. 1976 (YT)

Haemogregarina mavori Laird and Bullock, 1969 (M) Location: blood

5The parasite reported by Fantham et al. (1942) from *Macrozoarces americanus* was referred to as "... a haemogregarine, probably *Haemogregarina bigemina*...," and that from *C. striata* was reported as an unidentified "haemosporidian," which Laird and Bullock (1969) considered to be probably referable to *H. bigemina*.

Host: Macrozoarces americanus

Dist.: Atl

Record: Laird and Bullock 1969

Haemogregarina myoxocephali Fantham,

Porter and Richardson, 1942

Location: blood

Host: Myoxocephalus octodecemspinosus

Dist.: Atl

Records: Fantham et al. 1942; Laird and Bul-

lock 1969; So 1972

Haemogregarina platessae Lebailly, 1904 (M)

Location: blood

Hosts: Glyptocephalus cynoglossus (3)

Pseudopleuronectes americanus (1,2)

Scophthalmus aquosus (3)

Dist.: Atl

Records: 1. Fantham et al. 19426: 2. Laird and

Bullock 1969; 3. So 1972

Haemogregarina salvelini (Fantham, Porter and

Richardson, 1942) Laird, 1961

Syn.: Leucocytozoon salvelini Fantham,

Porter and Richardson, 1942

Location: blood

Host: Salvelinus fontinalis

Dist.: Oue

Records: Fantham et al. 1942; Fantham and

Porter 1948

Haemogregarina spp.

(FW, M)

Syn.: Leucocytozoon sp. of Fantham and

Porter, 1948 Location: blood

Hosts: Liparis atlanticus (2)

Micropterus dolomieui (1)7

Pholis gunnellus (2)

Salvelinus fontinalis (1)⁷

Dist.: Atl. Que

Records: 1. Fantham and Porter 1948 (Que);

2. Laird and Bullock 1969 (Atl)

Remarks: Material reported as Haemogregarina sp.? by Mavor (1915a) from Urophycis

chuss was referred to H. aeglefini Henry,

1913 by Laird and Bullock (1969).

⁶The parasite reported by Fantham et al. (1942) from P. americanus was referred to as "Haemogregarina platessae Lebailly, or a form closely allied thereto . . ."

⁷Included in these records of Fantham and Porter (1948) is material reported as ". : . . an unidentified haemogregarine" from S. fontinalis from Fourth Lake and from M. dolomieui from Lac des Sables.

Family SARCOCYSTIDAE

Sarcocystis salvelini Fantham and Porter,

(FW)

Location: musculature Host: Salvelinus fontinalis

Dist.: Unspecified locality in eastern Canada

Record: Fantham and Porter 1943

Sarcocystis sp. (M)

Location: musculature

Host: Macrozoarces americanus

Dist.: Atl

(M)

Record: Fantham and Porter 1943

Remarks: The taxonomic position of the genus Sarcocystis has been extremely uncertain, Scholtysek (1974) recently placed this

genus in the Eimeriidae.

Apicomplexa of Uncertain Taxonomic Position

(?)

(FW?)

Unidentified "sporozoites"

Location: intestine

Host: Gasterosteus aculeatus

Dist.: BC and/or Pac Record: Lester 1975

SUBPHYLUM MICROSPORA

CLASS MICROSPOREA

ORDER HAPLOSPORIDA

Haplosporida gen.sp.

Location: kidney

Hosts: Oncorhynchus gorbuscha

O. kisutch

Dist.: BC

Record: Hoskins et al, 1976

ORDER MICROSPORIDA

Family NOSEMATIDAE

Glugea anomala (Moniez, 1887) Gurley,

1893 (FW, M)

Location: cysts in body cavity, branchial cav-

ity, and subcutaneous connective tissue

Host: Gasterosteus aculeatus

Dist.: Atl, BC

Records: Lester 1975 (BC); Lom and Laird 1976 (Atl)

Glugga berglax Lom and Laird, 1976 (M)Syn.: Nosema sp. of Lom, Noble and Laird, 1975

Location: cyst in intestinal wall

Host: Macrourus berglax

Dist. Atl

Records: Lom et al. 1975: Lom and Laird 1976

Glugea branchiale (Nemeczek 1911)

Syn.: Nosema branchiale Nemeczek, 1911

Location: gill cyst

Hosts: Gadus morhua (1)

Melanogrammus aeglefinus (2)

Dist : Atl

Records: 1. Fantham et al. 19418; 2, Lom and

Laird 1976

Glugea hertwigi Weissenberg, 1911 (FW)

Syn.: Glugea hertwigi var. canadensis Fantham, Porter and Richardson, 1941

Location: cysts in viscera, subcutaneous connective tissue

Host: Osmerus mordax

Dist.: Ont. Que

Records: Fantham et al. 1941 (Oue): Dechtiar 1965b (Ont), 1972b (Ont); Legault and Delisle 1967 (Que); Delisle 1969 (Que), 1972b (Que); Delisle and Veilleux 1969 (Que); Chen and Power 1972 (Ont); Nepszy and Dechtiar 1972 (Ont)

Glugea stephani (Hagenmuller, 1899)

Woodcock, 1904 (M)

Location: cysts in intestinal submucosa

Hosts: Limanda ferruginea

Pseudopleuronectes americanus

Dist.: Atl

Record: Fantham et al. 1941

Glugea spp. (FW, M)

Location: cysts in viscera and musculature;

gall bladder, intestine

Hosts: Mallotus villosus (1.2.3) Notropis cornutus (6)

Osmerus mordax (4,5)9

Pimephales promelas (6)

Dist.: Atl. Ont. Que

Records: 1. Marchant and Schiffman 1946 (Atl); 2. Templeman 1948 (Atl), 3. 1968 (Atl); 4. Legault et al. 1965 (Que); 5. Delisle 1966 (Que); 6. Molnar et al. 1974 (Ont)

Nosema pimephales Fantham, Porter and

Richardson, 1941

Location: cvsts in viscera and musculature

Hosts: Pimephales notatus (2)

P. promelas (1.2)

Dist.: Ont. Oue

Records: 1. Fantham et al. 1941 (Oue): 2.

Dechtiar 1972c (Ont)

Pleistophora cepedianae Putz, Hoffman and

Dunbar, 1965 (FW)

Location: [cysts in visceral cavity] Host: Dorosoma cepedianum

Dist.: Ont

Record: Dechtiar 1972b

Pleistophora macrozoarcidis Nigrelli, 1946 (M)

Location: cysts in musculature

Host: Macrozoarces americanus

Dist · Atl

Record: Olsen and Merriman 1946

Pleistophora salmonae Putz, Hoffman and

(FW) **Dunbar**, 1965

Location: gills [cvst] Host: Salvelinus fontinalis

Dist.: Oue

Record: Hanek and Molnar 1974

Pleistophora sp. (M)

Location: not specified Host: Gadus macrocephalus

Dist.: Pac

Record: Hoskins et al. 1976

Unidentified Microsporida

Microsporida gen.spp.

(FW, M)

Location: kidney cysts, musculature

Hosts: Gadus macrocephalus (3)

Pholis gunnellus (2)

Salmo trutta (1)10 Salvelinus fontinalis (1)

S. namaycush (1)

Theragra chalcogramma (3)11

Dist.: Atl. Pac. Ont

Records: 1. MacLulich 1943b (Ont); 2. Lom and Laird 1976 (Atl); 3. Hoskins and Hulstein 1977 (Pac)

⁸The report of Fantham et al. (1941) involves a tentative parasite identification, the parasite was considered to be "... probably the same as N. branchiale ..."

These records from O. mordax probably pertain to Glugea hertwigi.

¹⁰ The record of MacLulich (1943b) for Microsporida from S. trutta appears only in the abstract.

¹¹The material reported from T. chalcogramma (as pollock) by Hoskins and Hulstein (1977) was noted to be probably *Pleistophora* sp.

SUBPHYLUM CILIOPHORA

CLASS CILIATEA

ORDER CYRTOPHORIDA

Family CHLAMYDODONTIDAE

Chilodonella dentata (Dujardin, 1841) (FW)
Syn.: Chilodonella dentatus Fantham and
Porter, 1947 of Hoffman, 1967

Chilodon dentatus of Fantham and

Porter, 1948

Location: gills

Host: Micropterus dolomieui

Dist.: Que

Record: Fantham and Porter 1948

Chilodonella sp.

(FW)

Syn.: Chilodon sp.
Location: not specified
Host: Salvelinus fontinalis

Dist.: Que

Record: Richardson 1937a

ORDER TRICHOSTOMATIDA

Family BALANTIDIIDAE

Balantidium sp. 12

(FW)

(FW)

Location: intestine
Hosts: Perca flavescens
Salvelinus fontinalis

Dist.: Que

Record: Fantham and Porter 1948

Remarks: Hoffman (1967) noted that according to R. M. Stabler, Fantham and Porter's identification was in error and should be *Nyctotherus* sp.

ORDER SUCTORIDA

Family DENDROSOMATIDAE

Trichophrya piscium Bütschli, 1889

Location: gills

Hosts: Salmo gairdneri (1)

S. salar (1,2)

S. trutta (1)

Salvelinus fontinalis (1,2)

Dist.: Nfld, NS

Records: 1. Sandeman and Pippy 1967 (Nfld);

2. Hare and Frantsi 1974 (NS)

Trichophrya sp.

(FW)

Location: gills

Hosts: Ictalurus nebulosus (2)

Morone chrysops (1)

Dist.: Ont

Records: 1. Dechtiar 1972b, 2. 1972c

ORDER HYMENOSTOMATIDA

Family OPHRYOGLENIDAE

Ichthyophthirius multifiliis Fouquet, 1876 (FW)

Location: skin, fins, gills

Hosts: Aplodinotus grunniens (3)
Catostomus commersoni (4)
Gasterosteus aculeatus (7)

Ictalurus nebulosus (6)

Micropterus dolomieui (1) M. salmoides (1) Morone chrysops (3) Perca flavescens (3,4)

Salmo salar (5)

Salvelinus fontinalis (2)

Dist.: BC, Nfld, NS, Ont

Records: 1. Bangham and Hunter 1939 (Ont); 2. Sandeman and Pippy 1967 (Nfld); 3. Dechtiar 1972b (Ont), 4. 1972c (Ont); 5. Hare and Frantsi 1974 (NS); 6. Molnar et

al. 1974 (Ont); 7. Lester 1975 (BC)

Ichthyophthirius sp. (FW)

Location: [skin, fins, gills]

Hosts: Gasterosteus aculeatus (3)

Oncorhynchus kisutch (2)

O. tshawytscha (2)

Salmo clarki (2)

S. gairdneri (2)

S. trutta (2)

Salvelinus fontinalis (1)

Dist.: BC, Nfld, Que

Records: 1. Richardson 1937a (Que); 2. Carl

1939 (BC); 3. Threlfall 1968 (Nfld)

ORDER PERITRICHIDA

Family EPISTYLIDAE

Epistylis lwoffi Fauré-Fremiet, 1943

Location: gills, body surface

Host: Gasterosteus aculeatus

Dist.: BC

Records: Lester and Adams 1974; Lester 1975

(FW)

¹²The material from *P. flavescens* was reported as "... *Balantidium* sp., very near *B. entozoon*," that from *S. fontinalis* as "... *Balantidium* sp., practically identical with *B. ranarum* of frogs..."

Epistylis spp.

Location: fins

Hosts: Cottus cognatus (2) Etheostoma exile (1)

Dist.: Ont. YT

Records: 1. Dechtiar 1972c (Ont): 2. Arthur

et al. 1976 (YT)

Family SCYPHIIDAE

A piosoma spp.

(FW)

(FW)

Location: fins, gills, skin

Hosts: Ambloplites rupestris (2) Catostomus catostomus (1)

Etheostoma exile (2)

Gasterosteus aculeatus (1.3) Ictalurus nebulosus (2)

Micropterus salmoides (2) Notropis cornutus (2)

Pimephales notatus (2)

Salvelinus fontinalis (1)

Dist.: Pac, BC, Ont, Que

Records: 1. Hanek and Molnar 1974 (Que); 2. Molnar et al. 1974 (Ont); 3. Lester 1975 (Pac, BC)

Caliperia brevipes Laird, 1959

(M)

Location: gills Host: Raia erinacea

Dist.: Atl

Record: Laird 1959

Scyphidia arctica Zhukov, 1964

(M)

(FW)

Location: gills

Host: Myoxocephalus octodecemspinosus

Dist.: Atl

Record: Lom and Laird 1969

Scyphidia micropteri Surber, 194013

Location: gills

Host: Esox americanus vermiculatus

Dist.: Ont

Record: Crossman 1962

Family VORTICELLIDAE

Vorticellidae gen.spp.

Location: gills

(FW)

13This material was reported by Crossman (1962) as scyphiids which "... were probably Scyphidia micropteri . . ." and was recorded in his table 7

as this species.

Hosts: Esox americanus vermiculatus (2) Micropterus dolomieui and/or M. sal-

moides (1)14

Dist · Ont

Records: 1. Bangham and Hunter 1939: 2.

Crossman 1962

Family URCEOLARIIDAE

Trichodina cottidarum Dogiel, 1948

(M)

Location: gills

Hosts: Myoxocephalus octodecemspinosus

M. scorpius

Dist.: Atl

Record: Lom and Laird 1969

Trichodina deciviens Laird, 1961

(M)

Location: gills

Host: Artedius fenestralis

Dist. Pac

Record: Laird 1961b

Remarks: The "giant forms" of T. decipiens described by Laird (1961b) were later considered by Lom (1970) to constitute a separate species, T. lairdi.

Trichodina domerguei (Wallengren,

1897)

(FW, M)

(M)

Syn.: Cyclochaeta domerguei Wallengren,

1897

Location: gills, skin, fins

Hosts: Gasterosteus aculeatus (2)

Micropterus dolomieui or M. salmoides (1)15

Dist.: Pac, BC, Ont

Records: 1. Bangham and Hunter 1939 (Ont);

2. Lester 1975 (Pac, BC)

Trichodina domerguei saintiohnsi Lom and

Laird, 1969

Location: gills, fins, skin

Hosts: Cyclopterus lumpus

M voxocephalus scorpius

Triglops murrayi

Dist.: Atl

Record: Lom and Laird 1969

¹⁴In their host-parasite list Bangham and Hunter (1939) recorded Vorticellidae from Micropterus salmoides (as Aplites salmoides) but in their parasitehost list they reported this species from M. dolomieui. The correct host record cannot be determined.

¹⁵Bangham and Hunter (1939) in their hostparasite list recorded T. domerguei from M. salmoides but in their parasite-host list they reported this species from M. dolomieui. The correct host record cannot be determined.

Trichodina elizabethae Lom and Laird, 1969 (M) Location: gills Host: Ulvaria subbifurcata Dist.: Atl Record: Lom and Laird 1969 Trichodina galyae Lom and Laird, 1969 (M)Location: gills Host: Cvclopterus lumpus Dist · Atl Record: Lom and Laird 1969 Trichodina jarmilae Lom and Laird, 1969 (M)Location: gills Host: Hemitripterus americanus Dist.: Atl Record: Lom and Laird 1969 Trichodina lairdi Lom. 1970 (M)Syn: Trichodina decipiens of Laird, 1961, (partim)16 Host: Artedius fenestralis Dist · Pac Record: Lom 1970 (based on Laird 1961b) Trichodina oviducti Polyansky, 1955 (M)Location: urogenital tract, rectum, claspers Hosts: Raja ocellata (1) R. radiata (1,2,3,4) Dist.: Atl Records: 1. Khan 1972c. 2. 1975a: 3. Khan et al. 1974; 4. Lom and Haldar 1976 Trichodina rectuncinata Raabe, 1958 (M) Location: gills Host: Artedius fenestralis Dist.: Pac Record: Lom 1970 Trichodina tenuidens Fauré-Fremiet, 1943 (FW, M) Location: gills Host: Gasterosteus aculeatus Dist.: Atl, Pac, BC

Record: Laird 1961b

16Lom (1970) considered the "giant forms" of

Trichodina vancouverense Laird, 1961

Records: Lom and Laird 1969 (Atl): Lester

1975 (Pac, BC)

Host: Artedius fenestralis

Location: gills

Dist.: Pac

and Adams 1974 (Pac and/or BC); Lester

(M)

Trichodina spp. (FW, B, M) Syn.: Cyclochaeta sp. of Fantham and Porter, 1948 Location: gills, urinary bladder, ureters Hosts: Carpiodes cyprinus (6) Catostomus commersoni (9) Cottus bairdi (7) C. cognatus (13.14)17 Cyprinus carpio (4) Esox lucius (6) Gasterosteus aculeatus (5.8) Hybognathus hankinsoni (9) Ictalurus nebulosus (9) Lepomis gibbosus (15) Lota lota (7) Lycodes lavalaei (10) Micropterus salmoides (9) Morone chrysops (6) Nocomis biguttatus (9) Notropis cornutus (9) N. heterolepis (9) Perca flavescens (3,6,7,9) Percina caprodes (7) Percopsis omiscomaycus (7) Pimephales promelas (9) Pomoxis nigromaculatus (7)

Semotilus atromaculatus (9)
Dist.: Atl, Pac, BC, NB-b, NB, Nfld-b, Nfld,
Ont, Que-b, Que, YT

Salvelinus fontinalis (1,2,3)

Pungitius pungitius (8)

Salmo salar (11,12)

Records: 1. Richardson 1937a (Que); 2. Bangham 1941 (Ont); 3. Fantham and Porter 1948 (Que); 4. Bangham and Adams 1954 (BC); 5. Hanek and Threlfall 1970e (Atl, Nfld-b, Nfld); 6. Dechtiar 1972b (Ont), 7. 1972c (Ont); 8. Hanek and Molnar 1974 (Que-b, Que); 9. Molnar et al. 1974 (Ont); 10. Khan and Pitt 1974 (Atl); 11. Hare and Burt 1975a (NB), 12. 1976 (NB-b); 13. Hoskins et al. 1976 (YT); 14. Arthur et al. 1976 (YT); 15. Cone and Anderson 1977b (Ont)

Vauchomia renicola (Mueller, 1932) Mueller, 1938 (FW)

Syn.: *Trichodina renicola* Mueller, 1932 Location: urinary bladder, ureters

Hosts: Esox americanus vermiculatus (2) E. niger (1)¹⁸

¹⁶Lom (1970) considered the "giant forms" of *T. decipiens* described by Laird (1961b) to constitute a separate species, *T. lairdi*.

¹⁷The material reported as trichodinids from "sculpins" by Hoskins et al. (1976) was subsequently identified as *Trichodina* sp. by Arthur et al. (1976).

¹⁸This parasite was reported as "... Trichodina, probably A. (sic) renicola" by Fantham and Porter (1948, p. 626) and later referred to as T. renicola (p. 627).

Dist.: Ont. Oue

Records: 1. Fantham and Porter 1948 (Que):

2. Crossman 1962 (Ont)

Urceolariidae gen.spp.

(FW, M)

Location: gills

Hosts: Clupea harengus harengus (2)

Enchelvopus cimbrius (2) Fundulus heteroclitus (2)

Isonsetta isolenis (1)

Levidopsetta bilineata (1) Lophius americanus (2) Ophiodon eloneatus (1.3) Pollachius virens (2) Pseudopleuronectes americanus (2) Salmo gairdneri (3) Scophthalmus aquosus (2)

Dist.: Atl. Pac. BC

Records: 1. Bell 1962 (Pac): 2. Lom and Laird 1969 (Atl): 3. Hoskins et al. 1976 (Pac. BC)

PHYLUM?19

SUBPHYLUM MYXOSPORA

CLASS MYXOSPOREA

ORDER MYXOSPORIDA

Family CERATOMYXIDAE

Ceratomyxa acadiensis Mayor, 1915 (M)

Location: gall bladder

Hosts: Clupea harengus harengus (3)20 Cryptacanthodes maculatus (3)20

Macrozoarces americanus (1,2,3)

Pseudopleuronectes americanus (1,2,3)

Urophycis chuss (1,2) U. tenuis (3.4)

Dist.: Atl

Records: 1. Mayor 1915a, 2. 1916a; 3. Ellis

1930: 4. Fantham et al. 1940

Ceratomyxa coryphaenoida Moser and Noble,

(M)1976

Location: gall bladder

Host: Coryphaenoides cinereus

Dist · Pac

Record: Moser and Noble 1976a

(M)Ceratomyxa hokarari Meglitsch, 1960

Location: gall bladder, bile ducts Host: Coryphaenoides acrolepis

Dist · Pac

Records: Moser and Noble 1976a; Moser 1977

19The Myxosporida traditionally have been grouped with the phylum Protozoa. Current opinion (Lom 1969; Weiser 1974) holds that these organisms cannot be retained in this phylum and either should be transferred to the Coelenterata or a separate phylum should be established for them. Until this matter is settled we leave the group without a phylum affiliation.

20The records of Ellis (1930) for C. h. harengus and C. maculatus involve tentative parasite identifications.

Ceratom yxa shasta Noble, 1950

(M)

Syn.: Ceratomyxa sp. of Hoskins, Bell and

Evelvn 1976

Location: kidney, viscera, musculature

Hosts: Oncorhynchus keta (1)

O. kisutch (1.2)

Dist · Pac

Records: 1. Margolis and Evelyn 1975; 2.

Hoskins et al. 1976

Ceratomyxa urophysis Fantham, Porter and

Richardson, 1940 (M)

Location: gall bladder Host: Urophycis tenuis

Dist.: Atl

Record: Fantham et al. 1940

Ceratomyxa spp.

(FW. M) Location: gall bladder, intestine

Hosts: Gasterosteus aculeatus (4)

Hemitripterus americanus (1,2)

Notropis stramineus (3)

Dist.: Atl. Pac. Ont

Records: 1. Mayor 1915a (Atl); 2. Ellis 1930

(Atl); 3. Dechtiar 1972b (Ont); 4. Lester

1975 (Pac)

Leptotheca agilis (Thélohan, 1892) Thélohan,

(M)

Location: gall bladder Host: Raja erinacea

Dist.: Atl

Record: Ellis 1930

Leptotheca informis Auerbach, 1910

Location: gall bladder

Host: Coryphaenoides filifera

Dist.: Pac

Record: Moser and Noble 1976b

(M)

| Family MYXIIDAE | Myxidium zealandicum Hine, 1975 (M?) Location: gills, kidney cysts |
|---|--|
| Myxidium bergense Auerbach, 1910 (M) | Host: Anguilla rostrata Dist.: Ont, Que |
| Location: gall bladder Hosts: Melanogrammus aeglefinus (1,2) Urophycis tenuis (2) | Records: Komourdjian et al. 1977 (Ont, Que); Hulbert et al. 1977 (unspecified locality) |
| Dist.: Atl | Myxidium spp. (FW, M) |
| Records: 1. Mavor 1915a; 2. Ellis 1930 | Location: gall bladder, kidney Hosts: Catostomus commersoni (3) |
| Myxidium coryphaenoidium Noble, 1966 (M) Location: gall bladder | Micropterus dolomieui (2) |
| Host: Coryphaenoides filifera | Notropis cornutus (3) N. heterolepis (3) |
| Dist.: Pac Record: Moser et al. 1976 | Oncorhynchus gorbuscha.(6) |
| Myxidium gadi Géorgevich, 1916 (M) | O. kisutch (4,5) Pseudopleuronectes americanus (1) |
| Location: gall bladder | Dist.: Atl, BC, NS, Ont |
| Host: Melanogrammus aeglefinus Dist.: Atl | Records: 1. Mayor 1915a (Atl); 2. Fantham and Porter 1948 (NS); 3. Molnar et al. 1974 |
| Record: Fantham et al. 1940 | (Ont); 4. Hoskins et al. 1976 (BC); 5. Bell |
| Myxidium gasterostei Noble, 1943 (FW) | and Margolis 1976 (BC); 6. Hoskins and Hulstein 1977 (BC) |
| Location: gall bladder | Zschokkella globulosa Davis, 1917 (M) |
| Host: Gasterosteus aculeatus Dist.: BC | Location: urinary bladder |
| Record: Lester 1975 | Host: Nezumia bairdi Dist.: Atl |
| Myxidium giardi Cépède, 1906 (FW) | Record: Moser and Noble 1977c |
| Location: liver, intestine [cyst] Host: Anguilla rostrata | Zschokkella hildae Auerbach, 1910 (M) |
| Dist.: Que | Location: urinary bladder Hosts: Gadus morhua ²² |
| Record: Hanek and Molnar 1974 | Microgadus tomcod |
| Myxidium lieberkuehni Bütschli, 1882 (FW) | Dist.: Atl Record: Fantham et al. 1940 |
| Location: urinary bladder Hosts: Esox lucius (1,3) | Zschokkella kudoi Moser and Noble, 1977 (M) |
| E. niger $(2)^{21}$ | Syn.: Zschokkella parasiluri of Yoshino and |
| Dist.: Ont, Que, YT Records: 1. Mayor 1916b (Ont); 2. Fantham | Noble, 1973 Location: kidney |
| et al. 1940 (Que); 3. Arthur et al. 1976 (YT) | Host: Macrourus berglax |
| Myxidium myoxocephali Fantham, Porter and | Dist.: Atl Records: Yoshino and Noble 1973; Moser and |
| Richardson, 1940 (M) Location: gall bladder | Noble 1977c |
| Host: Myoxocephalus octodecemspinosus | Remarks: Moser and Noble (1977c) referred Yoshino and Noble's (1973) report of Z. |
| Dist.: Atl Record: Fantham et al. 1940 | parasiluri from M. berglax to this species. |
| | Zschokkella salvelini Fantham, Porter and |
| Myxidium percae Fantham, Porter and Richardson, 1939 (FW) | Richardson, 1939 (FW) Location: cyst on kidney, intestine |
| Location: cyst beneath skin | Host: Salvelinus fontinalis |
| Host: Perca flavescens Dist.: Que | Dist.: Que Records: Fantham et al. 1939; Fantham and |
| Record: Fantham et al. 1939 | Porter 1948; Hanek and Molnar 1974 |

²¹The record of Fantham et al. (1940) for this host was given as "...a Myxidium, which is probably Myxidium lieberkuhni..."

²²The report of this parasite from G. morhua (as G. callarias) involves a tentative parasite identification.

| Myxobilatus gasterostei (Parisi, 1912) Davis, 1944 Location: kidney tubules, urinary bladder Host: Gasterosteus aculeatus Dist.: BC Records: Lester 1975; Arthur and Margolis 1975b; Hoskins et al. 1976 Location: ureters, urinary bladder Host: Lepomis gibbosus Dist.: Ont Records: Cone and Anderson 1977a, b Myxobilatus yukonensis Arthur and Margolis, 1975 Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: 177 Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. Myxobilat | Family MYXOBILATIDAE | Henneguya esocis Fantham, Porter and Richardson, 1939 (FW) Location: gill cyst |
|--|--|--|
| Location: kidney tubules, urinary bladder Host: Gasterosteus aculeatus Myxobilatus ohioensis (Herrick, 1941) Davis, 1944 Location: ureters, urinary bladder Host: Lepuins gibbosus Dist.: Ont Records: Cone and Anderson 1977a, b Myxobilatus yukonensis Arthur and Margolis, 1975 Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis, 1975 Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Henneguya acuta Bond, 1939 Location: gills (cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill eyst Host: Amia calva Dist.: Que Records: Fantham et al. 1939; Fantham and Porter 1948 Henneguya partialis Vat. notropis Fantham, Porter and Richardson, 1939 (FW) Location: gill eyst Host: Perca flavescens Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya partialis Vat. notropis Fantham, Porter and Richardson, 1939 (FW) Location: gill eyst Host: Perca flavescens Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya partialis Vat. notropis Fantham, Porter and Richardson, 1939 (FW) Location: gill eyst Host: Perca flavescens Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya partialis Vat. notropis Fantham, Porter and Richardson, 1939 (FW) Location: gill eyst Host: Perca flavescens Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya partialis Vat. notropis Fantham, Porter and Richardson, 1939 (FW) Location: gill eyst Host: Perca flavescens Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya acuta Bond, 1939 (FW) Location: gill eyst Henneguya acuta Bond, 1939 (FW) Location: | | Host: Esox niger |
| 1975b; Hoskins et al. 1976 Myxobilatus ohioensis (Herrick, 1941) Davis, 1944 Location: ureters, urinary bladder Host: Lepomis gibbosus Dist.: Ont Records: Cone and Anderson 1977a, b Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: 27 Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. (M) Location: kidney tubules Host: Easter 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Henneguya acuta Bond, 1939 Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Same and Moloar 1974 Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya adoori Guilford, 1963 Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Fantham et al. 1940 Location: [gill cyst] Host: Perca flavescens Dist.: On text of New Conton: (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Fantham et al. 1940 Location: [gill cyst] Host: Perca flavescens Dist.: On text of New Conton: (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Ont Location: [gill cyst] Lo | Location: kidney tubules, urinary bladder Host: Gasterosteus aculeatus | Records: Fantham et al. 1939; Fantham and |
| 1944 (FW) Location: ureters, urinary bladder Host: Lepomis gibbosus Dist.: Ont Records: Cone and Anderson 1977a, b Myxobilatus yukonensis Arthur and Margolis, 1975 (FW) Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. (M) Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Henneguya acuta Bond, 1939 (FW) Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Henneguya amiae Fantham, Porter and Richardson, 1940 (FW) Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya doori Guilford, 1963 (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Tentham et al. 1940 Henneguya aminical Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Perca flavescens Dist.: On c. shawytscha (4) Dist.: On c. shawytscha (4) | | Location: gills [cyst] |
| Host: Lepomis gibbosus Dist.: Ont Records: Cone and Anderson 1977a, b Myxobilatus yukonensis Arthur and Margolis. 1975 (FW) Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. Location: kidney tubules Host: Cottus cognatus Myxobilatus sp. (M) Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Henneguya acuta Bond, 1939 Location: gill cyst Host: Esox marguinonsy Dist.: Ont Henneguya amiae Fantham, Porter and Richardson, 1939 Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya percae Fantham, Porter and Richardson, 1939 Location: gill cyst Host: Esox marguinonsy Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya percae Fantham, Porter and Richardson, 1939 Location: gill cyst Host: Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya doori Guilford, 1963 (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Fantham et al. 1940 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keia (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. nerka (1,2,5) O. shawytscha (4) | | Dist.: Ont |
| Records: Cone and Anderson 1977a, b Myxobilatus yukonensis Arthur and Margolis. 1975 (FW) Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis 1975b; Arthur et al. 1976 (M) Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Henneguya acuta Bond, 1939 (FW) Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya adori Guilford, 1963 (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Fantham et al. 1940 Location: gill cyst Host: Soor masquinongy Dist.: Ont Record: Fantham et al. 1940 Location: gill cyst Host: Contoninglil cyst Host: Soor masquinongy Dist.: Que Record: Fantham et al. 1940 Location: gill cyst Host: Soor masquinongy Dist.: Que Record: Hanek and Molnar 1974 Henneguya abori Guilford, 1963 (FW) Location: gill cyst Host: Perca flavescens Dist.: Que Record: Hanek and Molnar 1974 Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) Dist.: Ont | Location: ureters, urinary bladder Host: Lepomis gibbosus | 1974 |
| Myxobilatus yukonensis Arthur and Margolis, 1975 Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Henneguya acuta Bond, 1939 Location: gills (cyst] Host: Esox masquinongy Dist.: Ont Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1939; Fantham and Porter and Richardson, 1939 Location: gill cyst Host: Box masquinongy Dist.: Ont Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Out Henneguya amiae Fantham, Porter and Richardson, 1939 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Henneguya percae Fantham, Porter and Richardson, 1939 Location: gill cyst Host: Balvelinus fontinalis Dist.: Que Records: Fantham et al. 1939; Fantham and Porter and Richardson, 1939 (FW) Location: gill cyst Host: Salvelinus fontinalis Dist.: Que Records: Fantham et al. 1939; Fantham and Porter and Richardson, 1939 (FW) Location: gill cyst Host: Parca flavescens Dist.: Que Record: Fantham et al. 1939 (FW) Location: gill cyst Henneguya pungitii Akhmerov, 1953 (FW) Location: kidney Location: kidney Henneguya pungitii Akhmerov, 1953 (FW) Location: gill cyst Henneguya salminicola Ward, 1919 (M or FW?) Syn.: Henneguya salminicola Ward, 1919 (M or FW?) Syn.: Henneguya sportuscha (1,5) O. keta (4) O. kisuch (3,4,5) O. nerka (1,2,5) O. nerka (1,2,5) O. nerka (1,2,5) O. tishwytscha (4) | | Richardson, 1939 (FW) |
| Location: kidney tubules, urinary bladder Host: Cottus cognatus Dist.: YT Records: Arthur and Margolis 1975b; Arthur et al. 1976 Myxobilatus sp. (M) Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Henneguya acuta Bond, 1939 Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | | Host: Salvelinus fontinalis |
| Porter and Richardson, 1939 (FW) Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Family MYXOBOLIDAE Henneguya acuta Bond, 1939 (FW) Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya adoori Guilford, 1963 (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (M or FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Hanek and Molnar 1974 Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) Dist.: Ont | Host: Cottus cognatus Dist.: YT | Records: Fantham et al. 1939; Fantham and |
| Myxobilatus sp. Location: kidney tubules Host: Gasterosteus aculeatus Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Family MYXOBOLIDAE Henneguya acuta Bond, 1939 Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1939; Fantham and Porter 1948 Location: kidney Henneguya pungitii Akhmerov, 1953 (FW) Location: kidney Henneguya pungitiis Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Fantham et al. 1940 Cokisutch (3,4,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | | Porter and Richardson, 1939 (FW) |
| Dist.: Pac Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Family MYXOBO | | Hosts: Notropis cornutus N. heterolepis |
| Records: Lester 1975; Hoskins et al. 1975 (based on the material of Lester 1975) Family MYXOBOLIDAE Host: Perca flavescens Dist.: Que Records: Fantham et al. 1939; Fantham and Porter 1948 Henneguya pungitii Akhmerov, 1953 (FW) Location: kidney Hosts: Gasterosteus aculeatus Pungitius pungitius Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (M or FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. nerka (1,2,5) O. tshawytscha (4) | | |
| (based on the material of Lester 1975) (FW) (F | | Record: Fantham et al. 1939 |
| Family MYXOBOLIDAE Host: Perca flavescens Dist.: Que Records: Fantham et al. 1939; Fantham and Porter 1948 Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Location: gill cyst Henneguya doori Guilford, 1963 Location: [gill cyst] Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Que Record: Fantham et al. 1940 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | | Richardson, 1939 (FW) |
| Location: gills [cyst] Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Henneguya pungitii Akhmerov, 1953 (FW) Location: kidney Hosts: Gasterosteus aculeatus Pungitius pungitius Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | Family MYXOBOLIDAE | Host: Perca flavescens Dist.: Que |
| Host: Esox masquinongy Dist.: Ont Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 Location: [gill cyst] O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | , , , | Porter 1948 |
| Record: Dechtiar 1972c Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Hosts: Gasterosteus aculeatus Pungitius Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | | |
| Pungitius pungitius Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Pungitius pungitius Dist.: Que Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. nerka (1,2,5) O. tshawytscha (4) | | |
| Henneguya amiae Fantham, Porter and Richardson, 1940 Location: gill cyst Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Record: Hanek and Molnar 1974 Henneguya salminicola Ward, 1919 (Mor FW?) Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. nerka (1,2,5) O. tshawytscha (4) | Record: Dechtiar 1972c | Pungitius pungitius |
| Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | | |
| Host: Amia calva Dist.: Que Record: Fantham et al. 1940 Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Syn.: Henneguya sp. of Bell and Margolis, 1976 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | Location: gill cyst | Henneguya salminicola Ward, 1919 (Mor FW?) |
| Record: Fantham et al. 1940 Location: muscle cysts Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 Location: [gill cyst] Host: Perca flavescens Dist.: Ont Cysterian in muscle cysts O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | | |
| Hosts: Oncorhynchus gorbuscha (1,5) Henneguya doori Guilford, 1963 (FW) O. keta (4) Location: [gill cyst] O. kisutch (3,4,5) Host: Perca flavescens O. nerka (1,2,5) Dist.: Ont O. tshawytscha (4) | | |
| Henneguya doori Guilford, 1963 (FW) Location: [gill cyst] Host: Perca flavescens Dist.: Ont O. keta (4) O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | Record: Fantham et al. 1940 | |
| Location: [gill cyst] Host: Perca flavescens Dist.: Ont O. kisutch (3,4,5) O. nerka (1,2,5) O. tshawytscha (4) | Hannagung doori Guilford 1962 (EW) | |
| Host: Perca flavescens O. nerka (1,2,5) Dist.: Ont O. tshawytscha (4) | , | |
| Dist.: Ont O. tshawytscha (4) | | |
| | | |
| | Record: Dechtiar 1972b | Oncorhynchus sp. (4) |

(FW) Myxobolus conspicuus Kudo, 1929 Dist.: Pac. BC-b. BC Location: cysts beneath skin Records: 1 Margolis 1957 (Pac. BC-b), 2. 1963 (Pac): 3. Boyd and Tomlinson 1965 Hosts: Chrosomus neogaeus (3) (Pac); 4. Hoskins et al. 1976 (Pac. BC); Moxostoma anisurum (2) 5. Bell and Margolis 1976 (Pac) M. macrolepidotum (1) Remarks: Akhmerov (1955) considered this Dist.: Ont. Oue species to be a synonym of H. zschokkei. Records: 1. Fantham et al. 1939 (Que); 2. Dechtiar 1972b (Ont), 3, 1972c (Ont) Henneguya salmonis Fantham, Porter and Richardson 1939 (?) Myxobolus couesii Fantham, Porter and (FW) Richardson, 1939 Location: cvst beneath skin Location: cvst in eve Host: Salmo salar Host: Couesius plumbeus Dist : Que?23 Record: Fantham et al. 1939 Dist.: Oue Record: Fantham et al. 1939 Henneguya zschokkei (Gurley, 1893) Doflein, Myxobolus dechtiari Cone and Anderson, (FW) 1977 (FW) Location: cysts in musculature, fins Location: cysts in gills Hosts: Coregonus clupeaformis Host: Lepomis gibbosus Prosopium cylindraceum Dist.: Ont Dist.: YT Records: Cone and Anderson 1977a, b Record: Arthur et al. 1976 Remarks: Unidentified Sporozoa reported Myxobolus dentium Fantham, Porter and from P. cylindraceum from the Northwest Richardson, 1939 (FW) Territories by Miller (1947) and noted to Location: cyst at base of palatine area produce large milky cysts in the flesh was Host: Esox masquinonev probably H. zschokkei. Dist.: Oue Record: Fantham et al. 1939 (FW) Henneguya spp. Location: gill cyst (FW) Myxobolus funduli Kudo, 1920 Hosts: Coregonus artedii (3) Location: musculature [cyst] Esox niger (4) Host: Fundulus diaphanus Morone americana (1) Dist.: NS Oncorhynchus tshawytscha (5) Record: Wiles 1975b Perca flavescens (2) Rhacochilus vacca (5) Myxobolus grandis Fantham, Porter and Dist.: Pac. BC. Ont. Oue (FW) Richardson, 1939 Records: 1. Tedla and Fernando 1969e (Ont), Location: abdominal cyst 2. 1970a (Ont); 3. Dechtiar 1972c (Ont); Host: Notropis cornutus 4. Delisle 1972a (Que); 5. Hoskins et al. Dist.: Oue 1976 (Pac, BC) Record: Fantham et al. 1939 Myxobolus catostomi Fantham, Porter and Myxobolus hyborhynchi Fantham, Porter and Richardson, 1939 Richardson, 1939 Location: cysts on floor of mouth and in fins; Location: cyst embedded in mandibular bone; intestine, gall bladder, liver, kidney kidnev Hosts: Catostomus catostomus (3) Hosts: Pimephales notatus (1,2) C. commersoni (1,2) P. promelas (2) Dist.: Oue Dist.: Ont, Que Records: 1. Fantham et al. 1939; 2. Fantham Records: 1. Fantham et al. 1939 (Que); 2.

²³The host was obtained from a Montreal fish shop; the authors inferred from the common name (Gaspé salmon) that it originated from the Gaspé Peninsula.

and Porter 1948; 3. Hanek and Molnar

Myxobolus intestinalis Kudo, 1929
Location: intestinal wall [cyst]
Host: Pomoxis nigromaculatus
Dist.: Ont

Record: Dechtiar 1972c

Molnar et al. 1974 (Ont)

1974

Myxobolus magnaspherus Cone and Myxobolus rhinichthidis Fantham, Porter and (FW) Anderson, 1977 Richardson, 1939 Location: cysts in parietal peritoneum of Location: cysts beneath skin, between maxkidney illa, behind eve Host: Lepomis gibbosus Host: Rhinichthys atratulus Dist.: Ont Dist.: Que Record: Fantham et al. 1939 Records: Cone and Anderson 1977a, b Myxobolus subcircularis Fantham, Porter and Myxobolus neurobius Schuberg and Schröder, Richardson, 1939 (FW) 1905 (FW) Location: cysts in musculature Location: brain, spinal cord Host: Catostomus commersoni Hosts: Coregonus clupeaformis Dist.: Que Prosopium cylindraceum Record: Fantham et al. 1939 Salvelinus namaycush Thymallus arcticus Myxobolus transversalis Fantham, Porter and Dist.: YT Richardson, 1939 Record: Arthur et al. 1976 Location: cysts in musculature; kidney Hosts: Hybognathus hankinsoni (2) Myxobolus notropis Fantham, Porter and Notropis cornutus (1,2) Richardson, 1939 (FW) N. heterolepis (2) Location: cysts on surface of body Dist.: Ont, Que Hosts: Notropis cornutus Records: 1. Fantham et al. 1939 (Que); 2. N. heterolepis Molnar et al. 1974 (Ont) Dist.: Que Record: Fantham et al. 1939 Myxobolus uvuliferis Cone and Anderson, (FW) Myxobolus osburni Herrick, 1936 Location: within fibrous capsule of metacer-Location: mesenteries [cyst]; pancreatic tiscariae of Uvulifer ambloplitis sue cysts Host: Lepomis gibbosus Hosts: Lepomis gibbosus (2,3) Dist.: Ont Micropterus dolomieui (1) Records: Cone and Anderson 1977a, b Dist.: Ont (FW) Records: 1. Dechtiar 1972c; 2. Cone and Myxobolus spp. Anderson 1977a, 3. 1977b Location: cysts in gills, mesenteries, viscera, Hosts: Ambloplites rupestris (4,7) Myxobolus ovoidalis Fantham, 1930 (FW) Anguilla rostrata (3,6) Location: subepidermal cyst Catostomus commersoni (3) Host: Salvelinus fontinalis Cottus bairdi (4) Dist.: Que C. cognatus (9) Record: Fantham et al. 1939 Etheostoma exile (4,7) E. nigrum (4) Myxobolus percae Fantham, Porter and Fundulus diaphanus (8) (FW) Richardson, 1939 Hybognathus hankinsoni (7) Location: cysts at fin base; eye Ictalurus nebulosus (4) Host: Perca flavescens Lepomis gibbosus (4) Dist.: Ont, Que Lota lota (4) Records: Fantham et al. 1939 (Que); Dechtiar Micropterus salmoides (1)24 1972c (Ont) Moxostoma anisurum (3,4) M. erythrurum (3,4)Myxobolus poecilichthidis Fantham, Porter Nocomus biguttatus (7) and Richardson, 1939 Location: cysts in connective tissue of gut

Host: Etheostoma exile

Record: Fantham et al. 1939

Dist.: Que

²⁴Bangham and Hunter (1939) recorded only unidentified Myxosporida from *M. salmoides* in their parasite-host list. Generic identification appears only in their host-parasite list.

Myxosoma commersonii Fantham, Porter and Notropis cornutus (3,7) Richardson, 1939 Noturus gyrinus (4) Percina caprodes (4) Location: skin cyst Percopsis omiscomaycus (5) Host: Catostomus commersoni Pimephales notatus (7) Dist.: Oue P. promelas (7) Record: Fantham et al. 1939 Pomoxis nigromaculatus (3) Myxosoma diaphana Fantham, Porter and Pungitius pungitius (4) Richardson, 1940 (FW) Rhinichthys cataractae (4) Location: cyst in testis Salvelinus fontinalis (2) Host: Fundulus diaphanus Semotilus atromaculatus (7) Dist.: NS S. margarita (4) Record: Fantham et al. 1940 Dist.: NS, Ont, Que, YT Records: 1. Bangham and Hunter 1939 (Ont); Myxosoma ellipticoides Fantham, Porter and 2. Fantham and Porter 1948 (Que); 3. Richardson, 1939 (FW) Dechtiar 1972b (Ont), 4. 1972c (Ont); 5. Location: cysts on sides of cleithrum Scott and Crossman 1973 (Ont); 6. Hanek Host: Catostomus commersoni and Molnar 1974 (Que); 7. Molnar et al. Dist.: Que 1974 (Ont); 8. Wiles 1975b (NS); 9. Arthur Record: Fantham et al. 1939 et al. 1976 (YT) Myxosoma grandis Kudo, 1934 (FW) Location: liver [cyst] Thelohanellus notatus (Mavor, 1916) Kudo, Host: Notropis hudsonius (FW) 1933 Dist.: Ont Syn.: Myxobolus notatus Mavor, 1916 Record: Dechtiar 1972c Location: cysts in musculature, fins Hosts: Catostomus commersoni (2,3) Myxosoma media Fantham, Porter and Chrosomus neogaeus (2) (FW) Richardson, 1939 Notropis cornutus (2,3) Location: abdominal cvst Pimephales notatus (1,2) Host: Notropis cornutus Dist.: Ont, Que Dist.: Que Records: 1. Mayor 1916b (Ont); 2. Fantham Record: Fantham et al. 1939 et al. 1939 (Que); 3. Fantham and Porter 1948 (Que) Myxosoma notropis Fantham, Porter and (FW) Richardson, 1939 (FW) Thelohanellus sp. Location: abdominal cyst; liver Location: not specified Host: Notropis cornutus Host: Notropis hudsonius Dist.: Que Dist.: Ont Record: Fantham et al. 1939 Record: Dechtiar 1972b Myxosoma orbitalis Fantham, Porter and (FW) Richardson, 1939 Location: cysts in orbit of eye Family MYXOSOMATIDAE Host: Notropis cornutus Dist.: Oue (FW) Myxosoma bibullatum Kudo, 1934 Record: Fantham et al. 1939 Location: gill cyst Hosts: Catostomus catostomus (2) Myxosoma parellipticoides Fantham, Porter C. commersoni (1) and Richardson, 1939 (FW) Dist.: Ont, Que Location: abdominal cyst Records: 1. Dechtiar 1972c (Ont); 2. Hanek Host: Chrosomus neogaeus and Molnar 1974 (Que) Dist.: Oue Record: Fantham et al. 1939 Myxosoma catostomi Kudo, 1923 (FW) Location: cysts in musculature (FW) Myxosoma pendula Guilford, 1967 Host: Catostomus commersoni Location: [cvst on gill arch] Dist.: Ont, Que Host: Semotilus atromaculatus Records: Fantham et al. 1939 (Que); Dechtiar Dist.: Ont 1972c (Ont) Record: Dechtiar 1972b

| Myxosoma pfrille Fantham, Porter and Richardson, 1939 | (FW) | Dist.: Pac Record: Moser and Noble 1977a . |
|---|-------------|---|
| Location: abdominal cyst Host: Chrosomus neogaeus Dist.: Que | | Davisia newfoundlandia Yoshino and Noble, 1973 (M) |
| Record: Fantham et al. 1939 | | Location: kidney tubules, urinary bladder Host: Macrourus berglax |
| Myxosoma procerum Kudo, 1934 Location: gills [cyst] Host: Percopsis omiscomaycus Dist.: Ont | (FW) | Dist.: Atl Records: 1. Yoshino and Noble 1973; 2. Moser and Noble 1977a |
| Record: Dechtiar 1972c | | Myxoproteus abyssus Yoshino and Moser, 1974 (M) |
| Myxosoma rotundum Meglitsch, 1937 Location: gills [cyst] Host: Carpiodes cyprinus Dist.: Ont Records: Dechtiar 1972b, c | (FW) | Location: gall bladder Host: Coryphaenoides acrolepis Dist.: Pac Record: Moser and Noble 1977d |
| Myxosoma scleroperca Guilford, 1963 Location: cysts in sclerotic cartilage Host: Perca flavescens Dist.: Ont Records: Dechtiar 1965a, 1972b | (FW) | Myxoproteus myoxocephali Fantham, Porter and Richardson, 1940 (M) Location: gall bladder Hosts: Myoxocephalus octodecemspinosus M. scorpius Dist.: Atl |
| Myxosoma squamalis Iverson, 1954 Location: scales Hosts: Oncorhynchus keta (1) O. kisutch (1,2) | (M) | Record: Fantham et al. 1940 Remarks: Sankurathri (1977) noted that this species does not belong in <i>Myxoproteus</i> and its taxonomic status requires reassessment. |
| Dist.: Pac, BC Records: 1. Hoskins et al. 1976 (Pac 2. Hoskins and Hulstein 1977 (Pac) | c, BC); | Myxoproteus rosenblatti Moser and Noble, 1977 (M) Location: gall bladder |
| Myxosoma subtecalis Bond, 1938 Syn.: Myxobolus subtecalis (Bond, 193 Location: skin [cyst] | (FW) 8) | Host: Coryphaenoides filifera Dist.: Pac Record: Moser and Noble 1977d |
| Host: Fundulus diaphanus Dist.: NS Record: Wiles 1975b | | Sinuolinea magna Yoshino and Noble, 1973 (M) Location: urinary bladder |
| Myxosoma sp. Location: gill cyst | (FW) | Host: Coryphaenoides acrolepis Dist.: Pac |
| Host: Catostomus catostomus Dist.: YT | | Record: Moser and Noble 1977b |
| Record: Arthur et al. 1976 | | Family SPHAEROSPORIDAE |
| Family SINUOLINEIDAE | | Auerbachia pulchra Lom, Noble and Laird, 1975 (M) |
| Conispora renalis Sankurathri, 1977 Location: kidney tubules Host: Merluccius productus Dist.: Pac Record: Sankurathri 1977 | (M) | Syn.: Auerbachia sp. of Yoshino and Noble, 1973 Location: gall bladder Hosts: Coryphaenoides filifera (3) Macrourus berglax (1,2,3,4) Nezumia bairdi (3) |
| Davisia coryphaenoidia Yoshino and No. 1973 Location: urinary bladder, kidney Host: Coryphaenoides acrolepis | ble, (M) | Dist.: Atl, Pac Records: 1. Yoshino and Noble 1973 (Atl); 2. Lom et al. 1975 (Atl); 3. Moser and Noble 1977a (Atl, Pac); 4. Moser 1977 (Atl) |

Chloromyxum catostomi Kudo, 1920 (FW) Sphaerospora cristata Shulman, 1962 (FW) Location: urinary bladder Location: gall bladder Hosts: Catostomus commersoni (1) Host: Lota lota Notropis cornutus (2) Dist.: YT N. heterolepis (2) Record: Arthur et al. 1976 Semotilus atromaculatus (2) Sphaerospora elegans Thélohan, 1892 (FW) Dist.: Ont-:-Location: kidney tubules Records: 1. Dechtiar 1972c; 2. Molnar et al. Hosts: Gasterosteus aculeatus (1,2) 1974 Pungitius pungitius (1) Dist.: Pac, BC, Que Chloromyxum dubium Auerbach, 1908 (FW) Records: 1. Hanek and Molnar 1974 (Que); Location: gall bladder 2. Lester 1975 (Pac, BC) Host: Lota lota Dist.: YT Sphaerospora notropis Fantham, Porter and Record: Arthur et al. 1976 Richardson, 1939 (FW) Location: cysts beneath epithelium of roof of (FW) Chloromyxum esocinum Dogiel, 1934 mouth, musculature Location: gall bladder Hosts: Catostomus commersoni Host: Esox lucius Notropis cornutus Dist.: YT Dist.: Oue Record: Arthur et al. 1976 Record: Fantham et al. 1939 Chloromyxum gibbosum Herrick, 1941 (FW) Sphaerospora spp. (FW) Location: gall bladder Location: gall bladder, kidney, urinary ducts Host: Lepomis gibbosus Hosts: Fundulus heteroclitus (1) ·Dist.: Ont Notropis cornutus (2) Record: Dechtiar 1972c Dist.: NS. Ont Records: 1. Fantham and Porter 1948 (NS); Chloromyxum granulosum Davis, 1917 (M) 2. Molnar et al. 1974 (Ont) Location: gall bladder Unicapsula muscularis Davis, 1924 (M) Host: Myoxocephalus scorpius Includes: Sporozoa of Thompson, 1916 Dist.: Atl (partim)25 Record: Fantham et al. 1940 Location: musculature Host: Hippoglossus stenolepis Chloromyxum leydigi Mingazzini, 1890 (M) Dist.: Pac Location: gall bladder Records: Thompson 1916; Davis 1924 Hosts: Raja erinacea (1) R. ocellata (2) Salvelinus fontinalis (3) Family TETRACAPSULIDAE Dist.: Atl, Que Records: 1. Ellis 1930 (Atl); 2. Fantham et Kudoa clupeidae (Hahn, 1917) Meglitsch, al. 1940 (Atl, purchased in fish shop, Mon-(M) treal, Que); 3. Fantham and Porter 1948 Location: cysts in musculature (Que) Host: Clupea harengus harengus Dist.: Atl Chloromyxum truttae Léger, 1906 (FW, B) Records: Sindermann 1957a, b, 1965 Location: gall bladder Host: Salvelinus fontinalis Kudoa spp. (M) Dist.: Que-b, Que Syn.: Chloromyxum sp. of Forrester, 1956 Record: Hanek and Molnar 1974 Includes: Sporozoa of Thompson, 1916 (partim)26 Chloromyxum sp. (FW) Location: gall bladder 25Part of the material identified only as sporo-Hosts: Coregonus clupeaformis zoans by Thompson (1916) from Pacific coast hali-Thymallus arcticus but was referred to *U. muscularis* by Davis (1924).

²⁶Part of the material reported only as sporozoans

by Thompson (1916) is referable to this genus.

24

Dist.: YT

Record: Arthur et al. 1976

Location: musculature, blood smears

Hosts: Atheresthes stomias (5)

Clupea harengus harengus (3)

Gadus macrocephalus (5)

G. morhua (4)

Hippoglossus stenolepis (1,5)

Lepidopsetta bilineata (5)

Macrozoarces americanus (3)

Myoxocephalus octodecemspinosus (3)

Parophrys vetulus (2,5)

Pholis gunnellus (3)

Dist.: Atl, Pac

Records: 1. Thompson 1916 (Pac); 2. Forrester 1956 (Pac); 3. Laird and Bullock 1969 (Atl); 4. So 1972 (Atl); 5. Hoskins et al.

1976 (Pac)

Remarks: Laird and Bullock (1969) noted that some, if not all their material is refer-

able to Kudoa clupeidae.

Unidentified Myxosporida

Myxosporida gen.sp.

(FW, M)

Location: various

Hosts: A plodinotus grunniens (4)

Catostomus catostomus (6,7)

C. commersoni (6,7)

C. macrocheilus (7)

Coregonus artedii (6)

Cottus asper (7)

Couesius plumbeus (7)

Esox americanus vermiculatus (8)

Fundulus diaphanus (4,12)27

Hemitripterus americanus (1)

Hypentelium nigricans (4)

Ictalurus nebulosus (5)

I. punctatus (4)

Ictiobus cyprinellus (9)

Lepomis gibbosus (4,5)

Lota lota (7)

Micropterus dolomieui (4,6)

Moxostoma macrolepidotum (4)

Mylocheilus caurinus (7)

Notemigonus crysoleucas (4) Notropis atherinoides (4,6) N. hudsonius $(4)^{27}$ N. stramineus (4) Oncorhynchus keta (10) O. nerka (7) Percina caprodes (4)

Percopsis omiscomaycus (4)27

Pimephales notatus (4,6)

P. promelas (4)

Pomoxis annularis (4)

Prosopium williamsoni (7)

Ptychocheilus oregonensis (7)

Raja radiata (11)

Rhinichthys cataractae (7)

Richardsonius balteatus (7)

Salmo clarki (7)

Salvelinus fontinalis (5)

S. malma (7)

Semotilus atromaculatus (6)

Stizostedion canadense (4)

S. vitreum vitreum (3)

Urophycis chuss (1,2)

Dist.: Atl, Pac, BC, NS, Ont, Sask

Records: 1. Mayor 1915a (Atl), 2. 1916a (Atl), 3. 1916b (Ont); 4. Bangham and Hunter 1939 (Ont); 5. Bangham 1941 (Ont), 6. 1955 (Ont); 7. Bangham and Adams 1954 (BC); 8. Crossman 1962 (Ont); 9. Johnson 1963 (Sask); 10. Godfrey 1968 (Pac); 11. So 1972 (Atl); 12. Wiles 1975b (NS)

Remarks: The material reported as unidentified sporozoans by Thompson (1916) from the musculature of halibut evidently consisted of two species of Myxosporida, Unicapsula muscularis, later described by Davis (1924), and an unidentified species of Kudoa. Material reported as unidentified myxosporidians from Clupea harengus by Cox (1916) was referred to the fungus Ichthyophonus hoferi by Fish (1934).

²⁷The records of Myxosporida from these hosts by Bangham and Hunter (1939) are found only in their host-parasite list.

PHYLUM PLATYHELMINTHES

CLASS TURBELLARIA

ORDER TRICLADIDA

Family PROCEROIDIDAE

Micropharynx parasitica Jägerskiöld, 1897 (M)

Location: skin

Hosts: Raja laevis (1,2,3) R. radiata (4)

Dist.: Atl

Records: 1. Stafford 1904, 2. 1907; 3. Cooper

1915a; 4. Ball and Khan 1976

CLASS MONOGENEA

ORDER MONOPISTHOCOTYLEA

Superfamily ACANTHOCOTYLOIDEA

Family ACANTHOCOTYLIDAE

Pseudacanthocotyla verrilli (Goto, 1899)

Yamaguti, 1963 (M)

Syn.: A canthocotyle verrilli Goto, 1899

Location: skin Host: Raja radiata

Dist.: Atl

Records: Stafford 1904, 1907; Threlfall 1969;

Gaevskaya and Umnova 1977

Pseudacanthocotyla williamsi (Price, 1938)

Yamaguti, 1963 (M)

Location: gills Host: Sebastes alutus

Dist.: Pac

Record: Sekerak and Arai 1973

Remarks: The record of this parasite, which is normally found on elasmobranchs, was considered by Sekerak and Arai (1973) to be the probable result of interhost transfer in the trawl net during host capture.

Superfamily CAPSALOIDEA

Family CAPSALIDAE

Benedinia derzhavini (Layman, 1930)

Meserve, 1938 Location: gills

Hosts: Sebastes crameri

S. proriger

S. reedi

S. variegatus S. zacentrus

Dist.: Pac

Record: Sekerak and Arai 1977

Capsala martinierei Bosc, 1811

Syn.: Tristoma molae Blanchard, 1847

Location: skin Host: Mola mola Dist.: Atl, Pac

Records: de La Martinière 1787 (Pac), 1797 (Pac); Stafford 1904 (Atl), 1907 (Atl); Threlfall 1967 (Atl); Logan and Odense

(M)

(M)

(M)

1974 (Atl)

Remarks: Bosc (1811) proposed the name Capsala martinierei for an unnamed ectoparasite taken from a fish of the genus Diodon (considered to be Diodon mola (syn. of Mola mola) by Price 1939) from the Pacific coast from Monterey to Nootka (probably Nootka Sound, west coast Vancouver Island, BC) during the La Pérouse Expedition, and described by de La Martinière (1787) (description republished in 1797).

Entobdella curvunca Ronald, 1957

Location: skin

Host: Hippoglossus hippoglossus

Dist.: Atl

Records: Ronald 1957b, 1960a

Entobdella hippoglossi (O. F. Müller, 1776)

Johnston, 1856 (M) Syn.: Epibdella hippoglossi (O. F. Müller,

1776)

Location: skin

Hosts: Hippoglossus hippoglossus (1,2,3,4,5)

H. stenolepis (6)

Dist.: Atl, Pac

Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl);

3. Cooper 1921 (Atl); 4. Ronald 1957b (Atl),

5. 1960a (Atl); 6. Hoskins et al. 1976 (Pac)

Entobdella sp. (M)

Location: not specified

Host: Pleuronectidae gen.sp.

Dist.: Pac

(M)

Record: Hoskins et al. 1976

Tristoma coccineum Cuvier, 1817

Location: gills, gill cavity

Host: Xiphias gladius

Dist.: Atl

Records: Stafford 1904, 1907; Iles 1971

| Tristoma integrum Diesing, 1850 (I Location: gills Host: Xiphias gladius Dist.: Atl Record: Iles 1971 | Syn.: Pseudocotyle apiculatum (Olsson, 1869) Location: skin Host: Squalus acanthias Dist.: Atl Records: Stafford 1904, 1907 |
|---|---|
| | (M) Superfamily DACTYLOGYROIDEA |
| Syn.: Megalocotyle marginata Folda, 1928 Location: gills Hosts: Sebastes alutus (2,3) | Family DACTYLOGYRIDAE |
| S. caurinus (1,3) S. maliger (3) S. nebulosus (3) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Ar | Acolpenteron catostomi Fischthal and Allison, 1942 (FW) Location: ureters Hosts: Carpiodes cyprinus (1) Catostomus catostomus (3) |
| 1973, 3. 1977 Remarks: The validity of the genus Megale cotyle has been much debated. Arai at Koski (1964) considered it a synonym Trochopus. | and Records: 1 Dechtiar 1972h (Ont) 2 1972c |
| Syn: Megalocotyle trituba Pratt and Aldric | M) the family Dactylogyridae. |
| 1953 Location: [gills] Hosts: Sebastes caurinus S. pinniger Dist.: Pac Record: Hoskins et al. 1976 | 1943 (FW) Location: [gills] Host: Lepomis macrochirus Dist.: Ont Record: Dechtiar 1972b |
| Syn.: Megalocotyle sp. Location: gills Hosts: Sebastes aleutianus (2) S. alutus (2) | M) Actinocleidus gibbosus Mizelle and Donahue, 1944 (FW) Location: gills Hosts: Lepomis gibbosus (1,3) L. macrochirus (2) |
| S. babcocki (2) S. borealis (2) S. brevispinis (2) | Dist.: Ont Records: 1. Mizelle and Donahue 1944; 2. Hanek and Fernando 1972a, 3. 1975 |
| S. crameri (2) S. diploproa (2) S. elongatus (2) S. en comelas (2) | Actinocleidus incus Mizelle and Donahue, 1944 (FW) Location: gills |
| S. flavidus (2) S. goodei (2) S. pinniger (2) S. proriger (2) | Host: <i>Lepomis gibbosus</i> Dist.: Ont Record: Mizelle and Donahue 1944 |
| S. pronger (2) S. reedi (2) S. ruberrimus (2) S. zacentrus (1,2) Dist.: Pac Records: 1 Hoskins et al. 1976; 2. Sekera and Arai 1977 | Actinocleidus mizellei Hanek and Fernando, 1972 (FW) Location: gills Host: Micropterus salmoides ak Dist.: Ont Record: Hanek and Fernando 1972a |
| Family MICROBOTHRIIDAE Microbothrium apiculatum Olsson, 1869 (M. 1868) | Actinocleidus oculatus (Mueller, 1934) Mueller, 1937 (FW) M) Location: gills |

Host: Lepomis gibbosus

Dist.: Ont

Records: Mizelle and Donahue 1944; Dechtiar

1972b

Actinocleidus recurvatus Mizelle and

Donahue, 1944

(FW)

Location: gills

Host: Lepomis gibbosus

Dist.: Ont

Records: Mizelle and Donahue 1944; Dechtiar 1972b; Hanek and Fernando 1972a, 1975

Actinocleidus scapularis Mizelle and

Donahue, 1944

(FW)

Location: gills

Host: Lepomis gibbosus

Dist.: Ont

Record: Mizelle and Donahue 1944

Actinocleidus sigmoideus Mizelle and

Donahue, 1944

(FW)

Location: gills

Host: Lepomis gibbosus

Dist.: Ont

Record: Mizelle and Donahue 1944

Actinocleidus unguis Mizelle and Cronin,

1943

(FW)

(FW)

Location: [gills] Host: Lepomis macrochirus

Dist.: Ont

Record: Dechtiar 1972b

Remarks: Mizelle et al. (1956) placed this species in Clavunculus, which was suppressed as a synonym of Actinocleidus by Yamaguti (1963a) and Price and McMahon (1967) but is still being recognized by some

workers.

Ancyrocephalus sp.

Location: gills

Host: Micropterus dolomieui

Dist.: NS

Record: Fantham and Porter 1948

Remarks: Bykhovsky and Nagibina (1970) revised the genus Ancyrocephalus leaving only two European species in it. Thus this record likely involves an incorrect generic

identification.

Anonchohaptor anomalus Mueller, 1938 (FW)

Location: gills, fins

Hosts: Carpiodes cyprinus (1,2)

Catostomus catostomus (3,4,5) *C. commersoni* (1,2,3,4)

Moxostoma anisurum (1,2)

M. erythrurum (1,2)M. macrolepidotum (1)

Dist.: Lab, Ont, YT

Records: 1. Dechtiar 1972b (Ont), 2. 1972c

(Ont); 3. Dechtiar and Dillon 1974 (Ont); 4. Threlfall 1974 (Lab); 5. Arthur et al.

1976 (YT)

Anonchohaptor sp.

(FW)

Location: not specified Host: Carpiodes cyprinus

Dist.: Ont

Record: Dechtiar 1972b

Remarks: The genus Anonchohaptor was recently transferred from the family Calceostomatidae to the Dactylogyridae by Leiby

et al. (1972).

Cleidodiscus baldwini Dechtiar, 1974

(FW)

Location: gills

Host: Percopsis omiscomaycus

Dist.: Ont

Record: Dechtiar 1974a

Cleidodiscus banghami (Mueller, 1936)

Mizelle, 1939

(FW)

Location: gills

Host: Micropterus dolomieui

Dist.: Ont

Records: Mizelle and Donahue 1944; Dechtiar

1972b, c

(FW) Cleidodiscus capax Mizelle, 1936

Location: gills

Hosts: Pomoxis annularis (1)

P. nigromaculatus (1,2,3)

Dist.: Ont

Records: 1. Dechtiar 1972b, 2. 1972c; 3.

Hanek and Fernando 1972a

Cleidodiscus floridanus Mueller, 1936 (FW)

Location: [gills]

Hosts: Ictalurus nebulosus

I. punctatus Noturus gyrinus

Dist.: Ont

Record: Dechtiar 1972b

Cleidodiscus glenorensis Hanek and Fernando, (FW)

Location: gills

Hosts: Ambloplites rupestris (1,2,3,4) Micropterus dolomieui (1)

Dist.; Ont

Records: 1. Hanek and Fernando 1972a, 2.

1973b, 3. 1974; 4. Hanek 1977

| Cleidodiscus longus Mizelle, 1936 Location: [gills] | (FW) | Hosts: Ambloplites rupestris (2) Lepomis macrochirus (2) | |
|---|-----------|--|-----------------|
| Hosts: Pomoxis annularis | | Micropterus dolomieui (2) | |
| P. nigromaculatus | | Morone americana (1) | |
| Dist.; Ont | | Perca flavescens (2) | |
| Record: Dechtiar 1972b | | Percopsis omiscomaycus (2) | |
| | | Stizostedion vitreum vitreum (3) | |
| Cleidodiscus pricei Mueller, 1936 | (FW) | Dist.: Ont | |
| Location: gills | (2 // / | Records: 1. Tedla and Fernando 1969 | e; 2. |
| Hosts: Ictalurus melas (1) | | Dechtiar 1972b; 3. Anthony 1976 | |
| <i>I. nebulosus</i> (1,2,3,4,5) | | Remarks: Cleidodiscus sp. of Mizelle | and |
| I. punctatus (2) | | Donahue, 1944 is referred to Uroca | leidus |
| Noturus flavus (2) | | adspectus Mueller, 1936 following Dec | chtiar |
| N. gyrinus (2) | | (1974a). | |
| Dist.: Ont | | | |
| Records: 1. Mizelle and Donahue Dechtiar 1972b, 3. 1972c; 4. Har | | Dactylogyrus albertensis Price and Arai, 1967 | (FW) |
| Fernando 1972a; 5. Molnar et al. | | Location: gills | () |
| Ternando 1972a, 3. Montai et al. | 1717 | Host: Platygobio gracilis | |
| Claide diamental Marallan 1024 | (1733/) | Dist.: Alta | |
| Cleidodiscus robustus Mueller, 1934 Location: gills | (FW) | Records: Price and Arai 1967; Arai and | Chien |
| Hosts: Lepomis gibbosus (1,2) | | 1973 | |
| L. macrochirus (1) | | | |
| Dist.: Ont | | Dactylogyrus anchoratus (Dujardin, 1845) | |
| Records: 1. Hanek and Fernando 1 | 972a 2 | Wagener, 1857 | (FW) |
| 1975 | >12a, 2. | Location: gills | |
| 1975 | | Hosts: Carassius auratus (2) | |
| Cleidodiscus stentor Mueller, 1937 | (FW) | Cyprinus carpio (1,2) | |
| Location: gills | (1.11) | Dist.: BC, Ont | |
| Host: Ambloplites rupestris | | Records: 1. Monaco and Mizelle 1955 | (BC); |
| Dist.: Ont | | 2. Dechtiar 1972b (Ont) | |
| Records: Dechtiar 1972b; Hanek a | nd Fer- | 25 11 4000 | (T) T T T |
| nando 1972a, 1973b, 1974; Molna | ar et al. | , | (FW) |
| 1974; Hanek 1977 | | Location: gills | |
| | | Host: Hypentelium nigricans | |
| Cleidodiscus uniformis Mizelle, 1936 | (FW) | Dist.: Ont Record: Hanek et al. 1975 | |
| Location: [gills] | Ç=/ | Record. Hallek et al. 1975 | |
| Host: Pomoxis annularis | | Dactylogyrus attenuatus Mizelle and | |
| Dist.: Ont | | Klucka, 1953 | (FW) |
| Record: Dechtiar 1972b | | Location: gills | (1 11) |
| | | Host: Semotilus atromaculatus | |
| Cleidodiscus vancleavei Mizelle, 1936 | (FW) | Dist.: Ont | |
| Location: gills | , , | Records: Molnar et al. 1974; Hanek | et al. |
| Host: Pomoxis nigromaculatus | | 1975 | |
| Dist.: Ont | | | |
| Record: Hanek and Fernando 1972a | | Dactylogyrus aureus Seamster, 1948 | (FW) |
| | | Location: gills | |
| Cleidodiscus venardi Mizelle and Jaskos | ki, | Host: Notemigonus crysoleucas | |
| 1942 | (FW) | Dist.: Ont | |
| Location: [gills] | | Record: Hanek and Fernando 1972b | |
| Host: Lepomis macrochirus | | | |
| Dist.: Ont | | , | (FW) |
| Record: Dechtiar 1972b | | Syn.: Dactylogyrus micropogoni Hanek, | Mol- |
| | /F777 | nar and Fernando, 1975 | |
| Cleidodiscus spp. | (FW) | Location: gills | |
| Location: gills | | Host: Nocomis micropogon | |

| Dist.: Ont Record: Hanek et al. 1975 | Records: 1. Molnar et al. 1974; 2. Hanek et al. 1975 |
|--|--|
| Remarks: The above synonymy was proposed by Kritsky et al. (1977). | Dactylogyrus cheloideus Rogers, 1967 (FW) Syn.: Dactylogyrus atratuli Hanek and Fer- |
| Dactylogyrus banghami Mizelle and Donahue, 1944 (FW) | nando, 1972 Location: gills |
| Location: gills | Host: Rhinichthys atratulus |
| Hosts: Couesius plumbeus (2) | Dist.: Ont |
| Notropis cornutus (1,2,7,8) | Records: Hanek and Fernando 1972b; Hanek |
| Rhinichthys atratulus (5,8) | et al. 1975 |
| R. cataractae (2,3,4,5,6) | Remarks: The above synonymy was proposed |
| Richardsonius balteatus (2) | by Kritsky et al. (1977). |
| Dist.: Alta, BC, Ont | Don't Carlo Malanand |
| Records: 1. Mizelle and Donahue 1944 (Ont); | Dactylogyrus chrosomi Hanek, Molnar and Fernando, 1975 (FW) |
| 2. Monaco and Mizelle 1955 (BC, Ont); 3. Price and Arai 1967 (Alta); 4. Dechtiar | Fernando, 1975 (FW) Location: gills |
| 1972c (Ont); 5. Hanek and Fernando 1972b | Host: Chrosomus eos |
| (Ont); 6. Arai and Chien 1973 (Alta); 7. | Dist.: Ont |
| Molnar et al. 1974 (Ont); 8. Hanek et al. 1975 (Ont) | Record: Hanek et al. 1975 |
| Dactylogyrus bifurcatus Mizelle, 1937 (FW) | Dactylogyrus columbiensis Monaco and Mizelle, 1955 (FW) |
| Location: gills | Location: gills |
| Hosts: Pimephales notatus (1,2) | Host: Ptychocheilus oregonensis |
| P. promelas (2) | Dist.: BC |
| Dist.: Ont | Record: Monaco and Mizelle 1955 |
| Records: 1. Dechtiar 1972c; 2. Hanek et al. | Dactylogyrus cornutus Mueller, 1938 (FW) |
| 1975 | Dactylogyrus cornutus Mueller, 1938 (FW) Location: gills |
| Dactylogyrus buddi Dechtiar, 1974 (FW) | Host: Notropis cornutus |
| Location: gills | Dist.: Ont |
| Hosts: Cottus bairdi (1) | Records: Mizelle and Donahue 1944; Molnar |
| C. cognatus (1,2) | et al. 1974; Hanek et al. 1975 |
| Dist.: Ont, YT | |
| Records: 1. Dechtiar 1974b (Ont); 2. Arthur et al. 1976 (YT) | Dactylogyrus dubius Mizelle and Klucka, 1953 (FW) |
| | Location: gills |
| Dactylogyrus bulbus Mueller, 1938 (FW) | Host: Notropis cornutus |
| Location: gills | Dist.: Ont |
| Host: Notropis cornutus | Records: Molnar et al. 1974; Hanek et al. |
| Dist.: Ont | 1975 |
| Records: Mizelle and Donahue 1944; Molnar et al. 1974; Hanek et al. 1975 | Dactylogyrus eos Hanek, Molnar and |
| ct al. 1974, Hanck et al. 1975 | Fernando, 1975 (FW) |
| Dactylogyrus bullosus Mizelle and Donaliue, | Location: gills |
| 1944 (FW) | Host: Chrosomus eos |
| Location: gills | Dist.: Ont |
| Host: Notropis cornutus | Record: Hanek et al. 1975 |
| Dist.: Ont | |
| Record: Mizelle and Donahue 1944 | Dactylogyrus eucalius Mizelle and |
| D 1 1 1 1 1 1027 (FW) | Regensberger, 1945 (FW) |
| Dactylogyrus bychowskyi Mizelle, 1937 (FW) Location: gills | Location: gills Host: <i>Culaea inconstans</i> |
| Hosts: Pimephales notatus (2) | Dist.: Ont |
| P. promelas (1,2) | Records: Dechtiar 1972b, c; Hanek and Fer- |
| Dist.: Ont | nando 1972b; Hanek et al. 1975 |
| | The state of the s |

| Dactylogyrus extensus Mueller and Van Cleave, 1932 (FW) | Mylocheilus caurinus (1) Dist.: BC, Ont Percental Monage and Mizella 1955 (PC): |
|---|---|
| Location: gills, fins Hosts: Cyprinus carpio (1,2,3,4,5) Micropterus dolomieui (1) | Records: 1. Monaco and Mizelle 1955 (BC); 2. Dechtiar 1972c (Ont) |
| Dist.: BC, NS, Ont Records: 1. Fantham and Porter 1948 (NS); | Dactylogyrus parvicirrus Seamster, 1948 (FW) Location: gills |
| 2. Bangham and Adams 1954 (BC); 3. Bangham 1955 (Ont); 4. Monaco and Mizelle 1955 (BC); 5. Dechtiar 1972b (Ont) | Host: <i>Notemigonus crysoleucas</i> Dist.: Ont Record: Dechtiar 1972c |
| | Record. Decimal 1972e |
| Dactylogyrus flagristylus Chien, 1974 (FW) Syn.: Dactylogyrus cernyi Hanek, Molnar and Fernando, 1975 | Dactylogyrus perlus Mueller, 1938 (FW) Location: gills |
| Location: gills | Host: Notropis cornutus Dist.: Ont |
| Host: Nocomis micropogon Dist.: Ont | Record: Mizelle and Donahue 1944 |
| Record: Hanek et al. 1975 Remarks: The above synonymy was proposed by Kritsky et al. (1977). | Dactylogyrus pollex Mizelle and Donahue, 1944 (FW) |
| by Kritsky et al. (1577). | Location: gills |
| Dactylogyrus hankinsoni Hanek, Molnar and | Host: Notropis cornutus Dist.: Ont |
| Fernando, 1975 (FW) Location: gills | Record: Mizelle and Donahue 1944 |
| Host: <i>Hybognathus hankinsoni</i> Dist.: Ont | Dactylogyrus ptychocheilus Monaco and |
| Record: Hanek et al. 1975 | Mizelle, 1955 (FW) Location: gills |
| | Host: Ptychocheilus oregonensis |
| Dactylogyrus heterolepis Hanek, Molnar and Fernando, 1975 (FW) | Dist.: BC |
| Location: gills | Record: Monaco and Mizelle 1955 |
| Host: Notropis heterolepis | Doctrile and Doctrile (EW) |
| Dist.: Ont | Dactylogyrus reciprocus Rogers, 1967 (FW) Location: gills |
| Record: Hanek et al. 1975 | Host: Nocomis micropogon |
| Dactylogyrus lachneri Chien, 1971 (FW) | Dist.: Ont |
| Location: gills | Record: Hanek et al. 1975 |
| Host: Nocomis micropogon Dist.: Ont | Dactylogyrus richardsonius Monaco and |
| Record: Hanek et al. 1975 | Mizelle, 1955 (FW) |
| | Location: gills Host: <i>Richardsonius balteatus</i> |
| Dactylogyrus luxili Rogers, 1967 (FW) | Dist.: BC |
| Location: gills Host: Notropis cornutus | Record: Monaco and Mizelle 1955 |
| Dist.: Ont | |
| Record: Hanek et al. 1975 | Dactylogyrus rubellus Mueller, 1938 (FW) Location: gills |
| Dactylogyrus microphallus Mueller, 1938 (FW) | Host: Notropis rubellus |
| Location: gills | Dist.: Ont |
| Host: Semotilus atromaculatus | Record: Hanek et al. 1975 |
| Dist.: Ont | Dantalanawa tuidantalan Marana and |
| Record: Hanek et al. 1975 Dactylogyrus mylocheilus Monaco and | Dactylogyrus tridactylus Monaco and Mizelle, 1955 (FW) Location: gills |
| Mizelle, 1955 (FW) | Host: Ptychocheilus oregonensis |
| Location: gills | Dist.: BC |
| Hosts: Couesius plumbeus (1,2) | Record: Monaco and Mizelle 1955 |

| Dactylogyrus urus Mueller, 1938 (FW) Location: gills | 1969 (FW) |
|---|---|
| Hosts: Moxostoma anisurum (1) M. erythrurum (2) | Location: fins Host: Ambloplites rupestris |
| Dist.: Ont Records: 1. Dechtiar 1972b, 2. 1972c | Dist.: Ont Record: Dechtiar 1973 |
| Dactylogyrus vancleavei Monaco and Mizelle, 1955 (FW) Location: gills | Lyrodiscus rupestris Dechtiar, 1973 (FW) Location: nasal cavities, fins, skin Host: Ambloplites rupestris |
| Hosts: Acrocheilus alutaceus Ptychocheilus oregonensis | Dist.: Ont Records: Dechtiar 1972b, 1973 |
| Dist.: BC Record: Monaco and Mizelle 1955 | Lyrodiscus seminolensis Rogers, 1967 (FW) Location: fins, body surface |
| Dactylogyrus vastator Nybelin, 1924 (FW) Location: [gills] | Host: Lepomis macrochirus Dist.: Ont Record: Dechtiar 1973 |
| Host: Carassius auratus | T 11 |
| Dist.: Ont Record: Dechtiar 1972b | Lyrodiscus sp. (FW) Location: not specified Hosts: Lepomis macrochirus |
| Dactylogyrus spp. | Pomoxis nigromaculatus |
| Location: gills | Dist.: Ont |
| Hosts: Catostomus commersoni (3) | Record: Dechtiar 1972b |
| Cottus bairdi (1,2) | 2 1 1 1 10 (C (TW) |
| Gasterosteus aculeatus (4) | Pellucidhaptor catostomi Dechtiar, 1969 (FW) |
| Hybognathus hankinsoni (3) | Location: nasal cavities Host: Catostomus catostomus |
| Moxostoma erythrurum (1) | Dist.: Ont |
| M. macrolepidotum (1) | Record: Dechtiar 1969 |
| Nocomis biguttatus (3) | Record: Declina 1909 |
| Notropis atherinoides (1) N. cornutus (1) | Pellucidhaptor nasalis Dechtiar, 1969 (FW) |
| N. corniius (1) N. heterolepis (3) | Location: nasal cavities |
| N. hudsonius (1,2) | Host: Catostomus commersoni |
| Pimephales promelas (2) | Dist.: Ont |
| Semotilus atromaculatus (3) | Records: Dechtiar 1969, 1972c |
| Dist.: BC, Ont | |
| Records: 1. Dechtiar 1972b (Ont), 2. 1972b | Pellucidhaptor sp. (FW) |
| (Ont); 3. Molnar et al. 1974 (Ont); 4. Leste | Location: not specified |
| 1975 (BC) | Hosts: Carpiodes cyprinus Moxostoma macrolepidotum |
| Icelanonchohaptor fyviei Dechtiar and Dillon, | Dist.: Ont |
| 1974 (FW | Record: Dechtiar 1972b |
| Location: gills | |
| Host: Carpiodes cyprinus | Pseudacolpenteron pavlovskii Bykhowsky and Gussey, 1955 (FW) |
| Dist.: Ont | Gussev, 1955 (FW) Location: skin, fins |
| Record: Dechtiar and Dillon 1974 | Host: Cyprinus carpio |
| | Dist.: Ont |
| Lyrodiscus longibasus Rogers, 1967 (FW | |
| Location: fins, body surface | Remarks: Yamaguti (1963a) considered the |
| Hosts: Lepomis macrochirus (1) | genus Pseudacolpenteron a synonym of |
| Pomoxis annularis (1,2) | Acolpenteron Fischthal and Allison, 1940. |
| P. nigromaculatus (1,2) | Its distinctness has since been established |
| Dist.: Ont | by Rogers (1968) and Dechtiar (1971a) who |
| Records: 1. Dechtiar 1972b, 2. 1973 | place it in the Dactylogyridae. |
| | |

Pseudomurraytrema copulatum (Mueller, the genus has not been contested, most (FW) 1938) Bykhowsky, 1957 authors apparently do not recognize it, Location: gills referring to the species as Actinocleidus Hosts: Catostomus commersoni (1,2) fusiformis. Moxostoma anisurum (1,2) Urocleidus acer (Mueller, 1936) Mizelle and M. erythrurum (1)M. macrolepidotum (1) Hughes, 1938 (FW) Dist.: Ont Location: gills Host: Lepomis gibbosus Records: 1. Dechtiar 1972b, 2. 1972c Dist: Ont Record: Hanek and Fernando 1972a Pseudomurraytrema moxostomi Dechtiar, 1972 nom.nud (FW) Location: not specified Urocleidus aculeatus (Van Cleave and Mueller, Host: Moxostoma macrolepidotum 1932) Mueller, 1934 (FW) Dist.: Ont Syn.: Cleidodiscus aculeatus (Van Cleave and Record: Dechtiar 1972b Mueller, 1932) Remarks: As the material to which this name Location: gills was applied by Dechtiar (1972b) was not Hosts: Stizostedion canadense (1,2) S. vitreum glaucum (1) described, it must be regarded as a nomen S. vitreum vitreum (1,2,3) Dist.: Ont Records: 1. Dechtiar 1972b, 2. 1972c; 3. Pseudomurraytrema muelleri Price, 1967 (FW) (syn. of P. alabarrum Rogers, 1966 (?)) Anthony 1976 Remarks: Mizelle and Regensberger (1945) Location: gills Host: Catostomus commersoni transferred this species to Cleidodiscus. Dist.: Alta However, as *U. aculeatus* is the type species Record: Price and Arai 1967 of Urocleidus, this transfer cannot be made without synonymyzing these genera. Price Remarks: Rogers (1969) reexamined the holotype of *Pseudomurraytrema muelleri* and and Mura (1969) and Prost (1973) independently concluded that Urocleidus is a synwas unable to distinguish it from P. alabarrum. onym of *Cleidodiscus*, but this synonymy has not yet been accepted by many workers. Pseudomurraytrema sp. (FW) Location: gills Urocleidus adspectus Mueller, 1936 (FW) Hosts: Moxostoma anisurum Syn.: Cleidodiscus adspectus (Mueller, 1936) M. erythrurum Cleidodiscus sp. of Mizelle and Donahue, Dist.: Ont 194428 Record: Dechtiar 1972c Location: gills Remarks: Yamaguti (1963a), for unspecified Host: Perca flavescens reasons, did not recognize the genus Pseu-Dist.: Ont. domurraytrema. Records: Mizelle and Donahue 1944; Tedla and Fernando 1969a, 1970a, 1972; Hanek Syncleithrium fusiformis (Mueller, 1934) Price, and Fernando 1972a; Dechtiar 1972b, c; Molnar et al. 1974 Syn.: Actinocleidus fusiformis (Mueller, Urocleidus alatus (Mueller, 1938) Price, Ancyrocephalus cruciatus of Cooper, 1968 (FW) 1915 Syn,: Cleidodiscus alatus Mueller, 1938 Location: gills Location: gills, skin, fins Hosts: Micropterus dolomieui (1,2,3) Host: Ambloplites rupestris M. salmoides (2,4,5)

Dist.: Ont

Records: Dechtiar 1972b; Hanek and Fernando 1972a, 1973b, 1974; Molnar et al. 1974; Hanek 1977

Records: 1. Cooper 1915a; 2. Dechtiar 1972b,

3. 1972c; 4. Hanek and Fernando 1972b;

Dist.: Ont

5. Molnar et al. 1974

Remarks: Price (1967) established the genus Syncleithrium for S. fusiformis. Although

Urocleidus angularis Mueller, 1934 (FW) Records: 1. Mizelle and Donahue 1944; 2. Syn.: Cleidodiscus angularis (Mueller, 1934) Hanek and Fernando 1972a, 3, 1975; 4, Location: gills Molnar et al. 1974; 5. Cone and Anderson Hosts: Fundulus diaphanus (2,3) 1977b F. heteroclitus (1) Dist.: Nfld. NS Urocleidus ferox Mueller, 1934 (FW) Records: 1. Dickinson and Threlfall 1975 Syn.: Cleidodiscus ferox (Mueller, 1934) (Nfld), 2. 1976 (Nfld); 3. Wiles 1975b (NS) Location: gills Hosts: Lepomis gibbosus (1,2,3) L. macrochirus (2) Urocleidus attenuatus Mizelle, 1941 (FW) Micropterus dolomieui (2) Location: gills Dist.: Ont Host: Lepomis gibbosus Records: 1. Mizelle and Donahue 1944; 2. Dist.: Ont Hanek and Fernando 1972a; 3. Dechtiar Records: Hanek and Fernando 1973a, 1975 1972b Urocleidus brachus (Mueller, 1938) Price, Urocleidus fundulus Mizelle, 1940 (FW) (FW) Location: gills Syn.: Cleidodiscus brachus Mueller, 1938 Host: Fundulus diaphanus Location: gills Dist.: Ont. Hosts: Chrosomus neogaeus (2) Record: Hanek and Fernando 1972a Couesius plumbeus (4) Platygobio gracilis (3) Urocleidus furcatus (Mueller, 1937) Mizelle Semotilus atromaculatus (1) and Hughes, 1938 (FW) Dist.: Alta, Lab, Ont Location: gills Records: 1. Dechtiar 1972b (Ont), 2. 1972c Host: Micropterus salmoides (Ont); 3. Arai and Chien 1973 (Alta); 4. Dist.: Ont Threlfall 1974 (Lab) Records: Hanek and Fernando 1972a; Molnar et al. 1974 Urocleidus chautauquaensis (Mueller, 1938) Mizelle and Hughes, 1938 Urocleidus hargisi Hanek and Fernando, Syn.: Cleidodiscus chautauquaensis (Mueller, 1972 (FW) 1938) Location: gills Location: gills Host: Etheostoma nigrum Host: Ambloplites rupestris Dist.: Ont Dist.: Ont Record: Hanek and Fernando 1972a Records: Dechtiar 1972b; Hanek and Fernando 1973a, b, 1974; Molnar et al. 1974; Urocleidus helicis (Mueller, 1936) Mizelle and Hanek 1977 Hughes, 1938 Syn.: Cleidodiscus helicis (Mueller, 1936) Urocleidus chrysops Mizelle and Klucka, Location: [gills] Host: Micropterus salmoides Syn.: Cleidodiscus chrysops (Mizelle and Dist.: Ont. Klucka, 1953) Record: Dechtiar 1972b Location: [gills] Host: Morone chrysops Urocleidus malleus (Mueller, 1938) Mizelle and Dist.: Ont Hughes, 1938 (FW) Record: Dechtiar 1972b Syn.: Cleidodiscus malleus Mueller, 1938 Location: gills Urocleidus dispar (Mueller, 1936) Mizelle and Host: Percina caprodes Hughes, 1938 Dist.: Ont (FW) Location: gills Records: Dechtiar 1972b, c Hosts: Lepomis gibbosus (1,3,5) L. macrochirus (2) Urocleidus megalonchus (Mueller, 1936) Micropterus dolomieui (2) Price, 1968 M. salmoides (4) Syn.: Ancyrocephalus paradoxus of Cooper, Dist.: Ont 1915

| Tetraonchus unguiculatus of Stafford, 1905 Location: gills Hosts: Ambloplites rupestris (1) Lepomis gibbosus (1) Micropterus dolomieui (2) | Gyrodactylus aldrichi Threlfall, 1974 (FW) Location: gills Host: Couesius plumbeus Dist.: Lab Record: Threlfall 1974 |
|---|---|
| Dist.: Ont Records: 1. Stafford 1905 (unspecified local- ity); 2. Cooper 1915a (Ont) | Gyrodactylus alexanderi Mizelle and Kritsky, 1967 (FW, M) Location: skin |
| Urocleidus principalis (Mizelle, 1936) Mizelle and Hughes, 1938 (FW) Location: gills Hosts: Micropterus dolomieui (1) | Host: Gasterosteus aculeatus Dist.: Pac, BC Records: Lester 1972 (BC), 1975 (Pac, BC); Lester and Adams 1974 (Pac, BC) |
| M. salmoides (1,2) Dist.: Ont Records: 1. Hanek and Fernando 1972a; 2. Molnar et al. 1974 | Gyrodactylus aquilinus Threlfall, 1974 (FW) Location: fins Host: Catostomus catostomus Dist.: Lab |
| Urocleidus procax Mizelle and Donahue, 1944 (FW) Location: gills Host: Lepomis gibbosus | Record: Threlfall 1974 Gyrodactylus atratuli Putz and Hoffman, 1963 Location: fins (FW) |
| Dist.: Ont Record: Mizelle and Donahue 1944 Urocleidus rogersi Hanek and Fernando, | Hosts: Catostomus catostomus (2) Rhinichthys atratulus (1) R. cataractae (1) |
| 1972 (FW) Location: gills Host: Morone americana Dist.: Ont Record: Hanek and Fernando 1972a | Dist.: Lab, Ont Records: 1. Hanek and Fernando 1971b (Ont); 2. Threlfall 1974 (Lab) Gyrodactylus avalonia Hanek and Threlfall, |
| Urocleidus similis (Mueller, 1936) Mizelle and Hughes, 1938 (FW) Location: gills Host: Lepomis gibbosus Dist.: Ont Records: Dechtiar 1972b; Cone and Anderson 1977b | 1969 (FW, B) Location: gills, fins Hosts: A peltes quadracus (2) Fundulus diaphanus (7) Gasterosteus aculeatus (1,4,7,8) G. wheatlandi (1,5) Lepomis gibbosus (7) Pungitius pungitius (3,8) |
| Urocleidus sp. (FW) Location: gills Host: Micropterus salmoides Dist.: Ont Record: Molnar et al. 1974 | Rhinichthys atratulus (7) Salvelinus fontinalis (6) Dist.: Atl, Lab-b, Lab, Nfld-b, Nfld, Ont, Que-b, Que Records: 1. Hanek and Threlfall 1969c (Nfld-b), 2. 1970b (Nfld-b), 3. 1970d (Lab-b, Nfld), |
| Superfamily GYRODACTYLOIDEA | 4. 1970e (Atl, Lab-b, Lab, Nfld-b, Nfld), 5. 1971 (Nfld-b); 6. Threlfall and Hanek 1970c |
| Family GYRODACTYLIDAE | (Nfld-b); 7. Hanek and Fernando 1971b (Ont); 8. Hanek and Molnar 1974 (Que-b, Que) |
| Gyrodactyloides strelkowi Bykhovsky and Polyansky, 1953 (M) Location: gills Hosts: Oncorhynchus gorbuscha O. nerka Dist.: Pac, BC-b Record: Margolis 1956b | Gyrodactylus bairdi Wood and Mizelle, 1957 (FW) Location: gills Hosts: Cottus bairdi (1,2) C. cognatus (3) Dist.: Ont, YT |

| Records: 1. Dechtiar 1972b (Ont), 2. 1972c (Ont); 3. Arthur et al. 1976 (YT) | Hosts: Etheostoma exile (2) E. nigrum (1) |
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| Gyrodactylus bullatarudis Turnbull, 1956 (FW) | Dist.: Ont Records: 1. Hanek and Fernando 1971b; 2. |
| Location: fins, skin | Molnar et al. 1974 |
| Host: Poecilia reticulata | |
| Dist.: Ont | Gyrodactylus eucaliae Ikezaki and Hoffman, |
| Record: Turnbull 1956 | 1957 Location: gills, fins |
| Remarks: The host species was an aquarium- held tropical fish (guppy). | Host: Culaea inconstans |
| ned dopical fish (guppy). | Dist.: Ont |
| Gyrodactylus cameroni Hanek and Threlfall, 1970 (B) | Records: Hanek and Fernando 1971b; Dechtiar 1972c |
| Location: fins | |
| Host: A peltes quadracus | Gyrodactylus freemani Hanek and Fernando, |
| Dist.: Nfld-b | 1971 (FW) |
| Record: Hanek and Threlfall 1970b | Location: fins |
| Considerately and state of Throffell | Host: Perca flavescens Dist.: Ont |
| Gyrodactylus canadensis Hanek and Threlfall, 1969 (FW, B) | Record: Hanek and Fernando 1971b |
| Location: gills | Record. Haller and Perhando 19710 |
| Hosts: A peltes quadracus (2) | Gyrodactylus goerani Hanek and Fernando, |
| Gasterosteus aculeatus (1,4,5) | 1971 (FW) |
| Pungitius pungitius (3,5) | Location: fins |
| Dist.: Atl, Lab-b, Nfld-b, Nfld, Que-b, Que | Host: Ambloplites rupestris |
| Records: 1. Hanek and Threlfall 1969c (Nfld- | Dist.: Ont |
| b), 2. 1970b (Nfld-b), 3. 1970d (Lab-b, Nfld),4. 1970e (Atl, Nfld-b, Nfld);5. Hanek and | Record: Hanek and Fernando 1971b |
| Molnar 1974 (Que-b, Que) | Gyrodactylus hoffmani Wellborn and Rogers, |
| Remarks: Malmberg (1970) considered this | 1967 (FW) |
| species as possibly identical with G. bran- | Location: fins |
| chicus. | Host: Pimephales promelas Dist.: Ont |
| Gyrodactylus commersoni Threlfall, 1974 (FW) | Record: Molnar et al. 1974 |
| Location: gills | record. Monar or an 15. |
| Host: Catostomus commersoni | Gyrodactylus labradorius Hanek and Threlfall, |
| Dist.: Lab | 1970 (FW) |
| Record: Threlfall 1974 | Location: gills |
| | Host: Cottus bairdi |
| Gyrodactylus couesius Wood and Mizelle, | Dist.: Lab |
| 1957 (FW) | Record: Hanek and Threlfall 1970f |
| Location: gills | Considerated in Transported in Harolt and Threafall |
| Host: Couesius plumbeus Dist.: BC | Gyrodactylus lacusgrandis Hanek and Threlfall 1970 (FW) |
| Record: Wood and Mizelle 1957 | Location: fins |
| 110001d. Wood and 1112010 1937 | Host: Cottus bairdi |
| Gyrodactylus dechtiari Hanek and Fernando, | Dist.: Lab |
| 1971 (FW) | Record: Hanek and Threlfall 1970f |
| Location: gills | |
| Hosts: Rhinichthys atratulus | Gyrodactylus lairdi Hanek and Threlfall, |
| R. cataractae | 1969 (M, B) |
| Dist.: Ont | Location: fins |
| Record: Hanek and Fernando 1971b | Hosts: Gasterosteus aculeatus (1,2) G. wheatlandi (1,3) |
| Gyrodactylus etheostomae Wellborn and | Dist.: Atl, Nfld-b |
| Rogers, 1967 (FW) | Records: 1. Hanek and Threlfall 1969c (Nfld- |
| Location: fins | b), 2, 1970e (Atl, Nfld-b), 3, 1971 (Nfld-b) |

| Gyrodactylus limi Wood and Mizelle, 1957 (FW) | Gyrodactylus prolongus Hargis, 1955 (FW) Location: fins |
|---|--|
| Location: fins | Hosts: Fundulus diaphanus (1) |
| Host: <i>Umbra limi</i> Dist.: Ont | F. heteroclitus (2) |
| Record: Hanek and Fernando 1971b | Dist.: Nfld, Ont |
| | Records: 1. Hanek and Fernando 1971b (Ont); 2. Dickinson and Threlfall 1975 (Nfld) |
| Gyrodactylus macrochiri Hoffman and Putz, 1964 (FW) | Gyrodactylus spathulatus Mueller, 1936 (FW) |
| Location: gills, fins | Location: gills, fins |
| Hosts: Lepomis gibbosus (2) | Hosts: Catostomus catostomus (3) |
| Micropterus dolomieui (1) | C. commersoni (1,2) |
| M. salmoides (1,3) Dist.: Ont | Moxostoma anisurum (2) |
| Records: 1. Hanek and Fernando 1971b; 2. | Dist.: Lab, Ont |
| Dechtiar 1972c; 3. Molnar et al. 1974 | Records: 1. Dechtiar 1972b (Ont), 2. 1972c |
| Beendan 1972e, 3. Momar et al. 1974 | (Ont); 3. Threlfall 1974 (Lab) |
| Gyrodactylus medius Kathariner, 1895 (FW) Location; skin | Gyrodactylus stephanus Mueller, 1937 (FW) |
| Host: Micropterus dolomieui | Location: gills |
| Dist.: Ont | Hosts: Fundulus heteroclitus (1) Pungitius pungitius (2) |
| Record: Cooper 1915a | Dist.: Nfld |
| Remarks: Price (1937) and Malmberg (1970) | Records: 1. Dickinson and Threlfall 1975, |
| indicated this record to be a misidentifica- | 2. 1976 |
| tion. | |
| | Gyrodactylus stunkardi Kritsky and Mizelle, |
| Gyrodactylus memorialis Hanek and Threlfall, | 1968 (FW) |
| 1969 (FW, M, B) | Location: gills, fins |
| Location: fins | Hosts: Catostomus commersoni (3) |
| Hosts: Gasterosteus aculeatus (2) | Etheostoma nigrum (1) |
| G. wheatlandi (1) | Rhinichthys atratulus (1) |
| Dist.: Atl, Nfld-b, Nfld | R. cataractae (1,2) |
| Records: 1. Hanek and Threlfall 1969c (Nfld- | Dist.: Lab, Ont Records: 1. Hanek and Fernando 1971b |
| b), 2. 1970e (Atl, Nfld-b, Nfld) | (Ont); 2. Threlfall 1974 (Lab); 3. Molnar |
| Gyrodactylus nainum Hanek and Threlfall, | et al. 1974 (Ont) |
| 1970 (B) | Gyrodactylus terranovae Hanek and Threifall, |
| Location: gills, fins | 1969 (B) |
| Host: Myoxocephalus quadricornis | Location: fins |
| Dist.: Lab-b Record: Hanek and ThreIfall 1970f | Host: Gasterosteus wheatlandi |
| Record: Flanck and Threllall 1970f | Dist.: Nfld-b |
| | Records: Hanek and Threlfall 1969c, 1971 |
| Gyrodactylus nebulosus Kritsky and Mizelle, | |
| 1968 (FW) | Gyrodactylus spp. (FW, M) |
| Location: fins Host: <i>Ictalurus nebulosus</i> | Location: gills, fins, skin |
| Dist.: Ont | Hosts: Ambloplites rupestris (3,4) |
| Records: Hanek and Fernando 1971b; Molnar | Culaea inconstans (3) |
| et al. 1974 | Cymatogaster aggregata (2) |
| ot al. 1277 | Etheostoma exile (4) |
| Gyrodactylus plumbea Threlfall, 1974 (FW) | E. nigrum (4) Fundulus heteroclitus (1) |
| Location: gills | Hybognathus hankinsoni (7) |
| Host: Couesius plumbeus | Moxostoma anisurum (3) |
| Dist.: Lab | M. macrolepidotum (3) |
| Record: Threlfall 1974 | Nocomis highteaths (7) |

N. hudsonius (3) Ictalurus nebulosus (2,3) Noturus gyrinus (4) I. punctatus (1,3) Oncorhynchus nerka (11) Lepomis gibbosus (2,3) Percopsis omiscomaycus (4) L. macrochirus (1) Micropterus dolomieui (1,3) Salmo clarki (10) S. gairdneri (6,12) M. salmoides (1,2,3)Morone chrysops (1.3) S. salar (6,8,9) Mylocheilus caurinus (2) Salvelinus fontinalis (5,6) Dist.: Atl, Pac, BC, Lab, NB, NS, Ont Notemigonus crysoleucas (3) Records: 1. Gowanloch 1927 (Atl): 2. Arai Notropis atherinoides (3) N. cornutus (3) 1967b (Pac); 3. Dechtiar 1972b (Ont), 4. 1972c (Ont); 5. Hicks and Threlfall 1973 N. heterolepis (3) (Lab); 6. Hare and Frantsi 1974 (NS); 7. N. hudsonius (3) Oligocottus maculosus (5) Molnar et al. 1974 (Ont); 8. Hare and Burt 1975a (NB), 9. 1975b (NB); 10. Hoskins et Oncorhynchus kisutch (2,4,5) Perca flavescens (3) al. 1976 (BC); 11. Bell and Margolis 1976 Percina caprodes (3) (Pac); 12. Hoskins and Hulstein 1977 (BC) Percopsis omiscomaycus (3) Pholis ornata (4,5) Gyrodactylidae gen.spp. (FW) Pimephales notatus (3) Location: gills Platichthys stellatus (4,5) Hosts: Catostomus commersoni Pomoxis nigromaculatus (2,3) Chrosomus neogaeus Prosopium williamsoni (2) Ictalurus nebulosus Ptychocheilus oregonensis (2) Lepomis gibbosus Rhinichthys cataractae (2) Micropterus dolomieui Richardsonius balteatus (2) Notropis cornutus Salmo clarki (2) N. heterolepis Salvelinus malma (2) Perca flavescens Semotilus atromaculatus (3) Semotilus atromaculatus Stizostedion vitreum vitreum (3) Dist.: Ont Syngnathus griseolineatus (4,5) Record: Bangham 1941 Thymallus arcticus (2) Remarks: Part of the material reported as Dist.: Pac, BC, Ont Gyrodactylidae by Bangham (1941) was Records: 1. Bangham and Hunter 1939 (Ont); identified to species by Mizelle and Do-2. Bangham and Adams 1954 (BC); 3. nahue (1944). Bangham 1955 (Ont); 4. Arai 1967a (Pac), 5. 1969b (Pac) Remarks: Some material from the collection Gyrodactyloidea gen.spp. (FW, M) Location: gills, skin of Bangham and Adams (1954) was identi-Hosts: Acrocheilus alutaceus (2) fied to species by Monaco and Mizelle Ambloplites rupestris (3) (1955).Ammodytes hexapterus (4,5) Catostomus catostomus (2) Superfamily TETRAONCHOIDEA C. macrocheilus (2) Chrosomus eos (3) Family TETR AONCHIDAE Clupea harengus pallasi (4,5) Cottus asper (2) (FW) C. cognatus (2) Tetraonchus alaskensis Price, 1937 C. rhotheus (2) Location: gills Couesius plumbeus (2) Host: Salvelinus alpinus Culaea inconstans (2,3) Dist.: YT Cymatogaster aggregata (4,5) Record: Mudry and McCart 1976 Cyprinus carpio (2) Esox lucius (3) Tetraonchus borealis (Olsson, 1893) (FW) E. masquinongy (3)Monticelli, 1905

Etheostoma nigrum (3)

Gasterosteus aculeatus (2,4)

Notropis anogenus (4)

N. cornutus (7)

Syn: Tetraonchus rauschi Mizelle and Webb,

1953

Location: gills

Host: Thymallus arcticus

Dist.: Sask, YT

Records: Wobeser et al. 1976 (Sask); Arthur

et al. 1976 (YT)

Tetraonchus loftusi Dechtiar, 1972

(FW)

Location: gills

Host: Esox masquinongy

Dist.: Ont

Record: Dechtiar 1972a

Tetraonchus monenteron (Wagener, 1857)

Diesing, 1858

(FW)

(FW)

Location: gills Host: Esox lucius

Dist.: Alta, Lab, Ont, YT

Records: Threlfall and Hanek 1970b (Lab); Hanek and Fernando 1972a (Ont); Dechtiar 1972a (Ont), 1972b (Ont), 1972c (Ont); Arai and Chien 1973 (Alta); Arthur et al. 1976 (YT)

Tetraonchus variabilis Mizelle and Webb, 1953

Location: gills

Hosts: Prosopium coulteri (5) P. cylindraceum (1,2,4)

> Salvelinus fontinalis (2) Unspecified Salmonidae (3)

Dist.: BC, Lab, Ont, YT

Records: 1. Dechtiar 1972a (Ont); 2. Hicks and Threlfall 1973 (Lab); 3. Collins and Dechtiar 1974 (Ont); 4. Arthur et al. 1976 (YT); 5. Mudry and Anderson 1977 (BC)

Superfamily UDONELLOIDEA

Family UDONELLIDAE

Udonella caligorum Johnston, 1835

(M)

Location: skin

Hosts: Gadus morhua (1.2)29

Hippoglossus hippoglossus (3,4)30

Dist.: Atl

Records: 1. Stafford 1904, 2. 1907; 3. Ronald

1958a, 4. 1960a

ORDER POLYOPISTHOCOTYLEA

Superfamily DICLIDOPHOROIDEA

Family DICLIDOPHORIDAE

Diclidophora denticulata (Olsson, 1876) Price,

1943 (M

Syn.: Dactylocotyle denticulata (Olsson, 1876)

Location: gills

Host: Pollachius virens

Dist.: Atl

Records: Stafford 1904, 1907; Cooper 1915a

Diclidophora maccallumi (Price, 1943)

Sproston, 1946 (M)

Syn.: Dactylocotyle phycidis of Stafford 1904,

1907

Diclidophoroides maccallumi Price, 1943

Location: gills

Host: Urophycis chuss

Dist.: Atl

Records: Stafford 1904, 1907; Gaevskaya and

Umnova 1977

Family DISCOCOTYLIDAE

Anthocotyle merluccii van Beneden and Hesse, 1863 (M)

Location: gills

Host: Merluccius bilinearis

Dist.: Atl

Records: Stafford 1904, 1907

Remarks: Crane (1972) erroneously reported MacCallum's (1916) record of A. americana (syn. of A. merluccii according to Sproston (1946)) from M. bilinearis as being from Canadian Atlantic waters. The correct locality is Woods Hole, Mass.

Discocotyle sagittata (Leuckart, 1842) Diesing, 1850 (FW)

Syn.: Discocotyle salmonis Schaffer, 1916

Location: gills

Hosts: Coregonus artedii (2,6)

C. clupeaformis (6,8,14)

C. hoyi (2)

Oncorhynchus kisutch (10)

Prosopium cylindraceum (2,8,14)

P. williamsoni (1)

Salmo gairdneri (7)

S. salar (3,4,8,9,11,12,13)

S. trutta (3,5,7)

Salvelinus fontinalis (3,5,7,8,9)

S. malma(1)

S. namaycush (8,14)

²⁹The parasite was attached to an unidentified species of *Caligus*.

³⁰The parasite was attached to *Lepeophtheirus hippoglossi*.

Thymallus arcticus (14) Octomacrum semotili Dechtiar, 1966 (FW) Unspecified Salmonidae (10) Location: gills Dist.: Alta, BC, Lab, NB-b, NB, Nfld-b?, Hosts: Chrosomus neogaeus (2) Nfld, NS, Ont, YT Semotilus atromaculatus (1) Records: 1. Bangham and Adams 1954 (BC); S. margarita (2) 2, Bangham 1955 (Ont); 3, Sandeman and Dist.: Ont Pippy 1967 (Nfld); 4. Pippy 1969 (Lab, NB-Records: 1. Dechtiar 1966b, 2. 1972c b, NB, Nfld, NS); 5. Threlfall and Hanek 1970c (Nfld-b and/or Nfld); 6. Dechtiar Octomacrum spp. (FW) 1972c (Ont); 7. Hanek and Fernando 1972b Syn.: ?Octobothrium sp. of Bangham, 1941 (Ont); 8. Hicks and Threlfall 1973 (Lab); (new) 9. Hare and Frantsi 1974 (NS); 10. Leong Location: gills and Holmes 1974a (Alta); 11. Hare and Hosts: Couesius plumbeus (3,4) Burt 1975a (NB), 12. 1975b (NB-b, NB), Hybognathus hankinsoni (1) 13. 1976 (NB); 14. Arthur et al. 1976 (YT) Richardsonius balteatus (3) Semotilus atromaculatus (2)32 (FW) Discocotyle sp. S. margarita (2) Location: gills Dist,: BC, Ont Hosts: Salmo salar Records: 1. Bangham 1941 (Ont): 2. Bangham Salvelinus fontinalis and Venard 1946 (Ont); 3, Bangham and Dist.: Oue Adams 1954 (BC); 4. Dechtiar 1972c (Ont) Record: Hanek and Molnar 1974 Neodiscocotyle carpioditis Dechtiar, Family MAZOCRAEIDAE (FW) 1967 Location: gills Kuhnia scombri (Kuhn, 1829) Sproston, Host: Carpiodes cyprinus (M) 1945 Dist.: Ont Syn,: Octocotyle scombri (Kuhn, 1829) Records: Dechtiar 1967b, 1972b Location: gills Host: Scomber scombrus Octomacrum lanceatum Mueller, 1934 (FW) Dist.: Atl Syn.: Octobothrium sagittatum of Wright, Records: Stafford 1904, 1907 1879 Location: gills Mazocraeoides olentangiensis Sroufe, Hosts: Catostomus catostomus (5) (FW) C. commersoni (1,2,3,4,6,7,8) Location: [gills] C. macrocheilus (5) Host: Dorosoma cepedianum Mylocheilus caurinus (5) Dist.: Ont Notropis cornutus (8) Record: Dechtiar 1972b N. heterolepis (2) Dist.: BC, Ont (FW) Mazocraeoides sp. Records: 1. Wright 1879 (Ont?)31; 2. Bang-Location: not specified ham 1941 (Ont), 3. 1955 (Ont); 4. Bangham Host: Hiodon tergisus and Venard 1946 (Ont); 5. Bangham and Dist.; Ont Adams 1954 (BC); 6, Dechtiar 1972b (Ont), Record: Dechtiar 1972b 7. 1972c (Ont); 8. Molnar et al. 1974 (Ont) Octomacrum microconfibula Hargis, Pseudomazocraeoides ontariensis Hanek and (FW) Fernando, 1971 (FW) 1952 Location: gills Location: gills Host: Notemigonus crysoleucas Host: Dorosoma cepedianum Dist.: Ont Dist.: Ont Record: Dechtiar 1972c Record: Hanek and Fernando 1971a

³¹Wright (1879) identified this parasite as *O. sagittatum* from hosts tentatively identified as *C. teres* (syn. of *C. commersoni*). The collection locality was unknown.

³²Dechtiar (1966b) speculated that the record of *Octomacrum* sp. from *S. atromaculatus* by Bangham and Venard (1946) was possibly referable to *O. semotili*.

Superfamily MICROCOTYLOIDEA

Family AXINIDAE

Lintaxine cokeri (Linton, 1940) Sproston, (FW)

Location: [gills]

Host: A plodinotus grunniens

Dist.: Ont

Record: Dechtiar 1972b

Family MICROCOTYLIDAE

Microcotyle eriensis Bangham and Hunter, (FW)

1936

Location: [gills]³³

Host: Aplodinotus grunniens

Dist.: Ont

Record: Bangham and Hunter 1939

Microcotyle poronoti MacCallum, 1915

Location: gills

Host: Peprilus triacanthus

Dist.: Atl

Record: Cooper 1915a

Microcotyle sebastis Goto, 1894

Syn.: Polyopisthocotylidea of Arai, 1967

Location: gills

Hosts: Hexagrammos lagocephalus (1,2)

Sebastes alutus (3,4)

S. brevispinis (4)

S. caurinus (2,4)

S. diploproa (4)

S. elongatus (2,4)

S. helvomaculatus (4)

S. maliger (4)

S. nigrocinctus (4)

S. paucispinus (4)

S. proriger (4)

S. reedi (4)

S. variegatus (4)

S. wilsoni (4)

S. zacentrus (4)

Dist.: Pac

Records: 1. Arai 1967a, 2. 1969b; 3. Sekerak

and Arai 1973, 4. 1977

Microcotyle spinicirrus MacCallum, 1918 (FW)

Location: [gills]34

Host: A plodinotus grunniens

Dist.: Ont

Record: Bangham and Hunter 1939

Microcotyle sp.

(M)

Location: gills

Hosts: Sebastes alutus (2)

S. caurinus (1)

Dist.: Pac

Records: 1. Hoskins et al. 1976; 2. Sekerak

and Arai 1977

Superfamily POLYSTOMATOIDEA

Family DICLYBOTHRIIDAE

Diclybothrium armatum Leuckart, 1835 (FW)

Syn.: Diplobothrium armatum (Leuckart,

1835)

(M)

(M)

Location: gills

Host: Acipenser fulvescens

Dist.: Ont

Records: Stafford 1904; Cooper 1915a; Dech-

tiar 1972b, c; Anthony 1974

Diclybothrium hammulatum (Simer, 1929)

Price, 1942 (FW)

Syn.: Diplobothrium hammulatum Simer,

1929

Location: gills

Host: Acipenser fulvescens

Dist.: Ont

Record: Bangham 1955

Paradiclybothrium sp.35

Location: gills

Host: Acipenser fulvescens

Dist.: Ont

Record: Anthony 1974

Family HEXABOTHRIIDAE

Squalonchocotyle abbreviata (Olsson, 1876)

Cerfontaine, 1899

Syn.: Erpocotyle abbreviata (Olsson, 1876) Onchocotyle abbreviata Olsson, 1876

Location: gills

Host: Squalus acanthias

Dist.: Atl

Records: Stafford 1904, 1907; Threlfall 1969

(FW)

³³The location given by Bangham and Hunter (1939) was the digestive tract.

³⁴The location given by Bangham and Hunter (1939) was the digestive tract.

³⁵This monogenean was noted by Anthony (1974) to be "... probably ... Paradiclybothrium sp"

Unidentified Monogenea

Monogenea gen.spp.

(FW, M)

Location: gills

Hosts: Oncorhynchus kisutch Unspecified skate

Dist.: Pac

Record: Hoskins and Hulstein 1977

CLASS TREMATODA

SUBCLASS ASPIDOGASTREA

Family ASPIDOGASTERIDAE

Cotylogaster occidentalis Nickerson, 1902 (FW)

Location: [intestine]

Host: A plodinotus grunniens

Dist.: Ont

Record: Dechtiar 1972b

SUBCLASS DIGENEA

ORDER STRIGEIDA

SUBORDER STRIGEATA

Superfamily STRIGEOIDEA

Family DIPLOSTOMATIDAE

Crassiphiala bulboglossa Haitsma, 1925

(metacercaria) (FW) Syn.: Neascus bulboglossa (Haitsma, 1925)

Location: musculature, skin

Hosts: Ericymba buccata (1)³⁶

Esox americanus vermiculatus (2)

Fundulus diaphanus (5)

Perca flavescens (3,4)

Semotilus atromaculatus (1)

Dist.: Ont, NS

Records: 1. Bangham and Hunter 1939 (Ont); 2. Crossman 1962 (Ont); 3. Dechtiar 1972b (Ont), 4. 1972c (Ont); 5. Wiles 1975b (NS)

Diplostomulum scheuringi Hughes, 1929

(metacercaria) (FW)

Syn.: Diplostomum scheuringi (Hughes, 1929)

Location: vitreous humor of eye

Hosts: Ambloplites rupestris (5)

Lepomis gibbosus (4,6)

³⁶The record of *C. bulboglossa* (as *Neascus b.*) from this host is found only in the host-parasite list of Bangham and Hunter (1939).

Micropterus salmoides (5)
Perca flavescens (1,2,3,4,5)
Percina caprodes (4)
Pomoxis nigromaculatus (4)
Rhinichthys cataractae (4)
Stizostedion vitreum vitreum (4)

Dist.: Ont

Records: 1. Bangham and Hunter 1939; 2. Tedla and Fernando 1969a, 3. 1972; 4. Dechtiar 1972c; 5. Molnar et al. 1974; 6. Cone and Anderson 1977b

Diplostomulum spp. (metacercaria) (FW)
Includes: Diplostomum sp. (metacercaria)
auct.

Location: eye, brain, pharynx Hosts: Acipenser fulvescens (4.11)

Ambloplites rupestris (4,11,16)

Amia calva (4)

Catostomus catostomus (3,10)

C. commersoni (3)
C. macrocheilus (3)
Chrosomus eos (4)
Coregonus alpenae (4)
C. artedii (4,11)

C. clupeaformis (4,11)

C. hoyi (4)
Cottus asper (3)
C. bairdi (4,11)
C. rhotheus (3)

Couesius plumbeus (3,4,11)

Culaea inconstans (4) Cyprinus carpio (4) Esox lucius (4,11)

E. masquinongy (4) Etheostoma exile (11)

E. nigrum (4)

Fundulus diaphanus (13) Gasterosteus aculeatus (3,12)

Ictalurus nebulosus (4,8,11)³⁷

I. punctatus (4)

Lepomis gibbosus (4,11)

Lota lota (3,4,11)

Micropterus dolomieui (4,11)

M. salmoides (3,4)
Morone chrysops (4)
Mylocheilus caurinus (3)
Nocomis biguttatus (4)

Notemigonus crysoleucas (4,11)

Notropis anogenus (11) N. atherinoides (11) N. heterodon (4) N. heterolepis (4,11)

³⁷The report of Ali and Hanyu (1964) was given as "...an eyefluke. The condition resembles that caused by the strigeid, *Diplostomulum*."

N. hudsonius (4,11) N. volucellus (4) Oncorhynchus kisutch (3) O. nerka (5,6,7) Osmerus mordax (4) Perca flavescens (4,11) Percina caprodes (2,11)38 Percopsis omiscomaycus (4,11) Petromyzon marinus (4) Pimephales notatus (4,11) P. promelas (11) Pomoxis nigromaculatus (4,11) Prosopium cylindraceum (4) P. williamsoni (3) Ptychocheilus oregonensis (3) Rhinichthys cataractae (11) Richardsonius balteatus (3) Salmo clarki (3) S. gairdneri (3,4) S. salar (9,14) Salvelinus fontinalis (3,4,14) S. malma (3) S. namaycush (4,11) Semotilus atromaculatus (4) S. corporalis (1) Stizostedion canadense (4,11) S. vitreum vitreum (4,11) Umbra limi (4,11) Unspecified Salmonidae (15)

Dist.: Atl, BC, Lab, NB, Nfld, NS, Ont, PEI, Oue

Records: 1. Stafford 1902 (unspecified locality); 2. Bangham and Hunter 1939 (Ont); 3. Bangham and Adams 1954 (BC); 4. Bangham 1955 (Ont); 5. Margolis 1956b (BC), 6. 1957 (BC), 7. 1963 (BC); 8. Ali and Hanyu 1964 (Que); 9. Pippy 1969 (Atl, Lab, NB, Nfld, NS, PEI); 10. Threlfall and Hanek 1970a (Lab); 11. Dechtiar 1972c (Ont); 12. Scott and Crossman 1973 (Ont); 13. Wiles 1975b (NS); 14. Frantsi et al. 1975 (NS); 15. Bell and Margolis 1976 (BC); 16. Lester and Huizinga 1977 (Ont)

Diplostomum adamsi Lester and Huizinga,

1977 (metacercaria) (FW)

Location: retina of eye Host: Perca flavescens

Dist.: Ont

Records: Lester and Huizinga 1977; Lester

Remarks: Lester (1977) noted that retinal diplostomula reported as D. huronense by Tedla and Fernando (1969a) are referable to *D. adamsi*.

Diplostomum scudderi (Olivier, 1941) Dubois, 1966 (metacercaria) (FW)

Syn.: Diplostomulum baeri eucaliae Hoffman and Hundley, 1957

Location: eye, brain

Hosts: Culaea inconstans (1)
Gasterosteus aculeatus (2)

Dist.: BC, Ont

Records: 1. Dechtiar 1972c (Ont); 2. Lester 1975 (BC)

Diplostomum spathaceum (Rudolphi, 1819)

Olsson, 1876 (metacercaria) (FW)

Syn.: Diplostomum volvens Nordmann, 1832 Diplostomulum spathaceum (Rudolphi, 1819)

Location: vitreous humor, lens of eye Hosts: *Alosa pseudoharengus* (9)

Ambloplites rupestris (7) Anguilla rostrata (2)

Catostomus catostomus (5,13)

C. commersoni (5,7,9)

Coregonus clupeaformis (6,9,13)

Cottus cognatus (13)

Esox lucius (13)

Etheostoma exile (7)

Gasterosteus aculeatus (4,10)

Hybognathus hankinsoni (7)

Ictalurus nebulosus (7)

Lota lota (13)

Micropterus dolomieui (1)

Nocomis biguttatus (7)

Notropis cornutus (7)

N. heterolepis (7)

Oncorhynchus nerka (9)

Osmerus mordax (9)

Perca flavescens (7,9)

Percopsis omiscomaycus (9)

Pimephales notatus (7)

P. promelas (7)

Prosopium cylindraceum (6,13)

Pungitius pungitius (3)

Salmo salar (6,8,11,12)

Salvelinus alpinus (6)

S. fontinalis (6,8)

S. fontinalis \times S. namaycush (9)

S. namaycush (6,13)

Semotilus atromaculatus (7)

Thymallus arcticus (13)

Dist.: BC, Lab, NB-b, NB, Nfld-b, Nfld, NS, Ont, YT

Records: 1. Cooper 1915a (Ont); 2. Hanek and Threlfall 1970c (Lab, Nfld-b), 3. 1970d (Nfld), 4. 1970e (Lab, Nfld-b, Nfld); 5.

³⁸The record of *Diplostomulum* sp. from *P. caprodes* is found only in the host-parasite list of Bangham and Hunter (1939).

Threlfall and Hanek 1970a (Lab); 6. Hicks and Threlfall 1973 (Lab); 7. Molnar et al. 1974 (Ont); 8. Hare and Frantsi 1974 (NB, NS); 9. Collins and Dechtiar 1974 (Ont); 10. Lester 1975 (BC); 11. Hare and Burt 1975a (NB), 12. 1976 (NB-b, NB); 13. Arthur et al. 1976 (YT)

Diplostomum spathaceum huronense (La Rue, 1927) Hughes, 1929 (metacercaria) (FW) Syn.: Diplostomum huronense (La Rue, 1927) Diplostomulum huronense (La Rue, 1927)

Location: eye

Hosts: Lepomis gibbosus (5)

Morone americana (3)

Perca flavescens (2,4)

Petromyzon marinus (1)

Dist.: Ont

Records: 1. Wilson and Ronald 1967; 2. Tedla and Fernando 1969a³⁹, 3. 1969e, 4. 1972; 5. Cone and Anderson 1977b

Diplostomum spathaceum indistinctum (Guberlet, 1923) Hughes, 1929 (metacercaria) (FW)
Syn.: Diplostomum flexicaudum (Cort and Brooks, 1928)
Diplostomulum flexicaudum (Cort and

Location: eye

Hosts: Anguilla rostrata (2)
Catostomus catostomus (1)
C. commersoni (1,2,3)
Coregonus clupeaformis (2)
Cyprinus carpio (2)
Esox masquinongy (2)
Moxostoma anisurum (3)
M. erythrurum (2)
M. macrolepidotum (2)
Notropis atherinoides (2)

Brooks, 1928)

Osmerus mordax (2)
Percopsis omiscomaycus (2)

N. cornutus (2)

Dist.: Ont

Records: 1. Bangham 1955; 2. Dechtiar 1972b, 3. 1972c

(FW)

Neascus pyriformis Chandler, 1951 (metacercaria)

Location: fins, skin
Hosts: Notropis cornutus
Perca flavescens
Semotilus atromaculatus

Dist.: Ont

Record: Molnar et al. 1974

Neascus rhinichthysi Hunter, 1933 (metacercaria)

Location: musculature, skin Hosts: Rhinichthys atratulus

R. cataractae

Dist.: Ont

Record: Bangham and Hunter 1939

(FW)

(FW)

Neascus spp. metacercaria

Location: mesenteries, gills, skin

Hosts: Acrocheilus alutaceus (6)
Ambloplites rupestris (3)
Ammocrypta pellucida (1)⁴⁰
Aplodinotus grunniens (1)
Campostoma anomalum (1)
Catostomus catostomus (6)

C. commersoni (3,9)
C. macrocheilus (6)

Chrosomus eos (5) C. neogaeus (5,9)

Cottus cognatus (12) Couesius plumbeus (6,9)

Culaea inconstans (3,9) Cyprinus carpio (1) Etheostoma exile (9)

E. flabellare (1)

E. nigrum (1,3)

Fundulus diaphanus (10) Hybognathus hankinsoni (5)

Hybopsis storeriana (1) Lepomis gibbosus (1,3,6,9)⁴¹

Lota lota (3)

Micropterus dolomieui (3)

M. salmoides (6)
Morone chrysops (1)
Moxostoma anisurum (9)
M. macrolepidotum (1)⁴⁰
Mylocheilus caurinus (6)
Nocomis micropogon (1)
Notemigonus crysoleucas (1)

Notropis anogenus (9) N. cornutus (1,2,3,5)

N. emiliae (1)

N. heterodon (1)

N. heterolepis (2,3) N. hudsonius (1,3,9)⁴⁰

N. spilopterus (1)
N. stramineus (1)

³⁹See remarks under D. adamsi.

⁴⁰The records of Bangham and Hunter (1939) for the indicated hosts are found only in their host-parasite list.

⁴¹The record of *Neascus* sp. from *L. gibbosus* (as *Eupomotis g.*) by Bangham and Hunter (1939) is found only in their parasite—host list.

Location: mesenteries, kidney, liver Noturus gyrinus and/or N. miurus $(1)^{42}$ Hosts: Ambloplites rupestris (1) Oncorhynchus kisutch (11) Lepomis gibbosus (2) Notropis atherinoides (2) Perca flavescens (1,3,4,5,6,7,8) Percina caprodes (1,9) N. cornutus (2) Semotilus atromaculatus (2) P. copelandi (1) Dist.: Ont. Oue? Percopsis omiscomaycus (3) Records: 1. Stafford 1904 (Que?)⁴³; 2. Cooper Pimephales notatus (1,3) 1915a (Ont) P. promelas (1,3,9) Pomoxis nigromaculatus (9) Posthodiplostomum minimum (MacCallum, Ptychocheilus oregonensis (6) 1921) Dubois, 1936 (metacercaria) Rhinichthys cataractae (6,9) Syn.: Neascus vancleavei (Agersborg, 1926) Richardsonius balteatus (6) Location: mesenteries, liver, kidney Salmo clarki (6) Hosts: Acrocheilus alutaceus (6) S. gairdneri (11) Ambloplites rupestris (1,2,4) Salvelinus fontinalis (6) Campostoma anomalum (2) S. malma (6) Catostomus catostomus (4,6) Semotilus atromaculatus (2,3,5) C. commersoni (5) S. corporalis (5) C. macrocheilus (6) S. margarita (5) Chrosomus eos (4,5) Stizostedion canadense (1,9) S. vitreum vitreum (1,3) C. neogaeus (7) Cottus asper (6) Umbra limi (3) Couesius plumbeus (4,6) Dist.: BC, NS, Ont, YT Records: 1. Bangham and Hunter 1939 (Ont); Culaea inconstans (4) Esox lucius (7) 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. MacLulich 1943b (Ont); 5. Bangham and Etheostoma exile (4) Venard 1946 (Ont); 6. Bangham and Adams E. nigrum (2,4)Fundulus diaphanus (2) 1954 (BC); 7. Tedla and Fernando 1969a (Ont), 8. 1972 (Ont); 9. Dechtiar 1972c Gasterosteus aculeatus (6) (Ont); 10. Wiles 1975b (NS); 11. Hoskins Ictalurus nebulosus (3) Lepomis gibbosus (2,3,4,5,6,7,8) et al. 1976 (BC); 12. Arthur et al. 1976 (YT) L. macrochirus (2) Ornithodiplostomum ptychocheilus (Faust, L. megalotis (2) (FW) Lota lota (6) 1917) Dubois, 1936 (metacercaria) Micropterus dolomieui (1,3,4,5) Location: brain, viscera M. salmoides (2) Hosts: Fundulus diaphanus (2) Mylocheilus caurinus (6) Hybognathus hankinsoni (1) Nocomis biguttatus (4) Nocomis biguttatus (1) N. micropogon (2) Notropis cornutus (1) N. heterolepis (1) Notemigonus crysoleucas (7) Pimephales notatus (1) Notropis atherinoides (2,4) N. cornutus (2,3,4,5) P. promelas (1) Semotilus atromaculatus (1) N. heterodon (4) Dist.: NS, Ont N. heterolepis (4,7) N. hudsonius (2,4,7) Records: 1. Molnar et al. 1974 (Ont); 2. Wiles 1975b (NS) N. volucellus (2,4) Perca flavescens (3,4,5) Posthodiplostomum cuticola (Nordmann, 1832) Percina caprodes (7) Dubois, 1936 (metacercaria) Percopsis omiscomaycus (2,4) Pimephales notatus (2,4,5,7) Syn.: Diplostomum cuticola (Nordmann, P. promelas (5,7) 1832) Pomoxis nigromaculatus (2,7)

(FW)

⁴²Bangham and Hunter listed Neascus sp. from N. miurus (as Schilbeodes m.) in their host-parasite list but recorded the tadpole cat (N. gyrinus) as host in their parasite-host list.

⁴³The host from which Stafford (1904) reported this species was probably purchased from a Montreal fish shop.

| Ptychocheilus oregonensis (6) | Neascus wardi Hunter, 1928 |
|--|--|
| Rhinichthys atratulus (2,7) | Location: skin, musculature, fins, gills |
| R. cataractae (4,6,7) | Hosts: Ambloplites rupestris (1,7) |
| Richardsonius balteatus (6) | Catostomus commersoni (7) |
| Salvelinus fontinalis (4) | Chrosomus eos (2) |
| Semotilus atromaculatus (2,3,4,5) | C. neogaeus (2) |
| S. corporalis (5) | Esox lucius (5,6) |
| Stizostedion vitreum vitreum (2) | |
| | Etheostoma exile (7) |
| Dist.: BC, Ont, Que | Hybognathus hankinsoni (2,7) |
| Records: 1. Lyster 1939 (Que); 2. Bangham | Lepomis gibbosus (1,2,3,4,8) |
| and Hunter 1939 (Ont); 3. Bangham 1941 | L. macrochirus (1) |
| (Ont), 4. 1955 (Ont); 5. Bangham and | Micropterus dolomieui (2,3,4,6) |
| Venard 1946 (Ont); 6. Bangham and Adams | Nocomis biguttatus (7) |
| 1954 (BC); 7. Dechtiar 1972c (Ont); 8. Cone | Notemigonus crysoleucas (2) |
| and Anderson 1977b (Ont) | Notropis cornutus (2,7) |
| | N. heterolepis (2) |
| Posthodiplostomum minimum centrarchi | Perca flavescens (2,7) |
| Hoffman, 1958 (metacercaria) (FW) | Pimephales notatus (2,7) |
| Location: liver | P. promelas (2,7) |
| Hosts: Ambloplites rupestris (2) | Semotilus atromaculatus (2,7) |
| Lepomis gibbosus (1) | S. margarita (2) |
| L. macrochirus (1) | Dist.: Ont, Que |
| Micropterus salmoides (2) | Records: 1. Bangham and Hunter 1939 (Ont); |
| Perca flavescens (2) | 2. Bangham 1941 (Ont); 3. Bangham and |
| Dist.: Ont | Venard 1946 (Ont); 4. Lachance 1947 |
| Records: 1. Dechtiar 1972b; 2. Molnar et al. | |
| 1974 | (Que); 5. Dechtiar 1972b (Ont), 6. 1972c |
| 1974 | (Ont); 7. Molnar et al. 1974 (Ont); 8. Cone |
| Donth adial and a second and in the second and i | and Anderson 1977b (Ont) |
| Posthodiplostomum minimum minimum | |
| (MacCallum, 1921) Hoffman, 1958 | Eamily STRICEIDAE |
| (metacercaria) (FW) | Family STRIGEIDAE |
| Location: mesenteries | |
| Hosts: Carpiodes cyprinus (1) | A patemon gracilis (Rudolphi, 1819) Szidat, |
| Fundulus diaphanus (3) | 1928 (metacercaria) (FW) |
| Hybognathus hankinsoni (2) | Syn.: Apatemon gracilis pellucidus (Yama- |
| Nocomis biguttatus (2) | guti, 1933) |
| Notropis atherinoides (1) | Location: eye, brain, body cavity, musculature |
| N. cornutus (2) | Hosts: Culaea inconstans (2) |
| N. hudsonius (1) | Gasterosteus aculeatus (1) |
| Pimephales notatus (2) | Dist.: BC, Que |
| P. promelas (2) | Records: 1. Lester 1975 (BC); 2. Rau and |
| Semotilus atromaculatus (2) | Gordon 1977 (Que) |
| Dist.: NS, Ont | (200) |
| Records: 1. Dechtiar 1972b (Ont); 2. Molnar | Cotylurus communis (Hughes, 1928) La Rue, |
| et al. 1974 (Ont); 3. Wiles 1975b (NS) | 1932 (metacercaria) (FW) |
| (110) | Syn.: Tetracotyle communis Hughes, 1928 |
| Posthodiplostomum sp. metacercaria (FW) | Location: mesenteries, liver |
| Location: skin | Hosts: Catostomus catostomus (2) |
| Hosts: Ambloplites rupestris | |
| Micropterus dolomieui | C. commersoni (2) |
| Dist.: Que | Chrosomus neogaeus (2) |
| | Etheostoma flabellare (1) |
| Record: Fantham and Porter 1948 | Percopsis omiscomaycus (2) |
| Unvillan anablantisia (Tivet ee 1007) | Stizostedion canadense (2) |
| Uvulifer ambloplitis (Hughes, 1927) | S. vitreum vitreum (2) |
| Dubois, 1938 (metacercaria) (FW) | Dist.: Ont |
| Syn.: Neascus ambloplitis Hughes, 1927 | Records: 1. Bangham and Hunter 1939; 2. |
| Crassiphiala ambloplitis (Hughes, 1927) | Dechtiar 1972c |

Remarks: Dubois (1968) listed this species as Cotylurus platyce phalus communis. Cotylurus erraticus (Rudophi, 1809) Szidat, (FW) 1928 (metacercaria) Location: [pericardial cavity, mesenteries] Host: Coregonus clupeaformis Dist.: Alta Record: Leong and Holmes 1974a Tetracotyle diminuta Hughes, 1928 (metacercaria) (FW) Location: mesenteries Hosts: Perca flavescens (2) Percopsis omiscomaycus (1) Dist.: Ont Records: 1. Bangham and Hunter 1939; 2. Tedla and Fernando 1972 Tetracotyle intermedia Hughes, 1928 (metacercaria) (FW) Location: heart, mesenteries Hosts: Alosa pseudoharengus (2) Catostomus commersoni (2) Coregonus artedii (1) C. clupeaformis (1,2) Oncorhynchus nerka (2) Osmerus mordax (2) Perca flavescens (2) Percopsis omiscomaycus (2) Salvelinus fontinalis \times S. namaycush (2)Dist.: Ont Records: 1. Dechtiar 1972c; 2. Collins and Dechtiar 1974 Tetracotyle parvula (Stafford, 1904) Mataré, 1909 (metacercaria) Syn.: Diplostomum parvulum Stafford, 1904 Location: pharvnx Hosts: Esox lucius

Semotilus corporalis

Dist.: Oue?

Record: Stafford 1904

Remarks: Stafford (1904) described this species from the pharynx of S. corporalis (as S. bullaris) and noted cysts free in the intestine of E. lucius. The description makes identification impossible. Hughes (1928) indicated this species may be Tetracotyle communis (syn. of Cotylurus c.) and later (1929) he listed it as a species inquirenda of the genus Diplostomulum.

(FW) Tetracotyle spp. metacercaria Location: heart, pericardium, mesenteries, kidney, musculature

Hosts: Ambloplites rupestris (12) Ammocrypta pellucida (1)44 A plodinotus grunniens (1)45 Catostomus catostomus (5) C. commersoni (2,13) C. macrocheilus (5) Chrosomus eos (3) Coregonus artedii (11) C. clupeaformis (14) Cottus asper (5) C. bairdi (3,11,12) C. rhotheus (5) Couesius plumbeus (5) Culaea inconstans (5,12) Esox lucius (12) Etheostoma blennioides (1)44 *E. exile* (3,12,13) E. nigrum (3,12) Gasterosteus aculeatus (5) Hiodon tergisus (1) Hybognathus hankinsoni (13) Ictalurus nebulosus (12,13) Lepomis gibbosus (2,12,15) L. macrochirus (1) Lota lota (12,14) Micropterus dolomieui (12) M. salmoides (13) Mylocheilus caurinus (5) Notropis cornutus (2) N. hudsonius (1,3,12)Oncorhynchus nerka (5,6,7,8) Osmerus mordax (11) Perca flavescens (3,12) Percina caprodes (1)44 Percopsis omiscomaycus (3) Pimephales notatus (2,4,12,13) Pomoxis annularis (11) P. nigromaculatus (12) Prosopium cylindraceum (14) P. williamsoni (5) Ptychocheilus oregonensis (5) Pungitius pungitius (12) Rhinichthys cataractae (12) Richardsonius balteatus (5) Salmo salar (9,10) Salvelinus fontinalis (9) S. malma (5) S. namaycush (14) Stizostedion canadense (11)

⁴⁴The record of *Tetracotyle* sp. from the indicated hosts is given in the host-parasite list of Bangham and Hunter (1939). Identification to family only is given in their parasite-host list.

⁴⁵Bangham and Hunter (1939) reported Tetracotyle sp. from A. grunniens only in their hostparasite list.

Thymallus arcticus (14) Umbra limi (3)

Dist.: BC, Nfld, NS, Ont, YT

Records: 1. Bangham and Hunter 1939 (Ont);
2. Bangham 1941 (Ont), 3. 1955 (Ont);
4. Bangham and Venard 1946 (Ont); 5.
Bangham and Adams 1954 (BC); 6. Margolis 1956b (BC), 7. 1957 (BC), 8. 1963 (BC); 9. Sandeman and Pippy 1967 (Nfld);
10. Pippy 1969 (Nfld, NS); 11. Dechtiar 1972b (Ont), 12. 1972c (Ont); 13. Molnar et al. 1974 (Ont); 14. Arthur et al. 1976 (YT); 15. Cone and Anderson 1977b (Ont)

Superfamily CLINOSTOMATOIDEA

Family CLINOSTOMATIDAE

Clinostomum complanatum (Rudolphi, 1814) Braun, 1899 (metacercaria) (FW)

Location: gills, musculature

Hosts: Ambloplites rupestris (1,3)

Catostomus commersoni (3)

Esox lucius (1,3)

Micropterus dolomieui (1,3,4)

Perca flavescens (1,3,4)

Salvelinus fontinalis (2,3)46

Stizostedion vitreum vitreum (4)

Dist.: Man, Ont, Que

Records: 1. Lyster 1939 (Que); 2. MacLulich 1943b (Ont); 3. Fantham and Porter 1948 (Que); 4. Dowsett and Lubinsky 1966 (Man)

Clinostomum marginatum (Rudolphi, 1819)

Braun, 1899 (metacercaria)

~ (1

Syn.: ?Clinostomum gracile of Stafford, 1904 ?Distomum gracile of Wright, 1879

Location: gill cavity, gills, musculature, fins, mesenteries

Hosts: Ambloplites rupestris (4,6,13,14)

Catostomus commersoni (5)

Esox lucius (13)

Etheostoma flabellare (4)

E. nigrum (4,13)

Ictalurus melas (4)

I. nebulosus (4,5,6,13,14)47

Lepomis gibbosus (3,4,5,6,7,13,19)

L. macrochirus (4)

Micropterus dolomieui (3,4,5,6,7,13)

Morone americana (11)

Mylocheilus caurinus (9)

Notropis cornutus (5,7)

N. hudsonius (13)

Perca flavescens (1,2,3,4,5,6,7,8,10,12,

13,14,17,18)47

Percina caprodes (4)

Pimephales notatus (13)

P. promelas (7)

Richardsonius balteatus (9)

Semotilus atromaculatus (5,7)

S. corporalis (7)

Stizostedion canadense (13)

S. vitreum vitreum (13,16,17,18)

Unspecified trout (15)

Dist.: BC, Man, Ont, Que

Records: 1. Wright 1879 (Ont?); 2. Stafford 1904 (Que?)⁴⁸; 3. Cooper 1915a (Ont); 4. Bangham and Hunter 1939 (Ont); 5. Bangham 1941 (Ont), 6. 1955 (Ont); 7. Bangham and Venard 1946 (Ont); 8. Worley and Bangham 1952 (Que); 9. Bangham and Adams 1954 (BC); 10. Tedla and Fernando 1969a (Ont), 11. 1969e (Ont), 12. 1972 (Ont); 13. Dechtiar 1972c (Ont); 14. Molnar et al. 1974 (Ont); 15. Hoskins et al. 1976 (BC); 16. Anthony 1976 (Ont); 17. Evans (1963 MS) cited in Lubinsky 1976 (Man); 18. Dickson (1964 MS) cited in Lubinsky 1976 (Man); 19. Cone and Anderson 1977b (Ont)

Remarks: Ukoli (1966) and other authors considered *C. marginatum* to be a synonym of *C. complanatum*.

(FW)

Clinostomum spp. metacercaria

Location: musculature, viscera

Hosts: Ambloplites rupestris (3)

Fundulus diaphanus (1)

Micropterus dolomieui (3)

Perca flavescens (3)

Salmo clarki (2)

S. gairdneri (3)

Stizostedion vitreum vitreum (3)

Unspecified trout (2)

Dist.: BC, Man, NS

Records: 1. Wiles 1975b (NS); 2. Hoskins et al. 1976 (BC); 3. Anon. (no date) cited in Lubinsky 1976 (Man)

⁴⁶Record of *C. complanatum* from the intestine of *S. fontinalis* by MacLulich (1943b) was considered probably to be due to ingestion of infected perch. Material reported by Fantham and Porter (1948) was also recovered from this host's intestine.

⁴⁷Records of *C. marginatum* for *I. nebulosus* (as *Ameiurus n.*) and *P. flavescens* by Bangham and Hunter (1939) are given only in their host-parasite list.

⁴⁸The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

| Strigeidae gen.spp. metacercaria Location: mesenteries Hosts: Hybopsis storeriana (1) Notropis atherinoides (1) Perca flavescens (2) | (FW) | S. caurinus (1,2,4) S. crameri (1,2,4) S. diploproa (1,2) S. flavidus (1,2,4) S. helvomaculatus (1,2,4) | |
|--|---------|---|-----------|
| Dist.: Ont, Que | | S. maliger (1,2,4) | |
| | (Ont). | | |
| Records: 1. Bangham and Hunter 1939 | (Ont), | S. melanops (1,2) | |
| 2. Lyster 1940a (Que) | | S. nigrocinctus (1,2,4) | |
| | | S. paucispinis (2) | |
| | | S. pinniger (1,2,4) | |
| Superfamily SCHISTOSOMATOID | EA | S. proriger (2,4) | |
| | | S. reedi (4) | |
| Family SANGUINICOLIDAE | | S. variegatus (4) | |
| | | S. zacentrus (1,2,4) | |
| Aporocotyle macfarlani Holmes, 1971 | (M) | Dist.: Pac | |
| Syn.: Aporocotyle simplex of McF | | | Calca |
| | arrane, | Records: 1. Holmes 1971a, 2. 1971b; 3 | . BCKC- |
| 1936 | | rak and Arai 1973, 4. 1977 | |
| Location: blood vessels of gills, heart | | | |
| Hosts: Sebastes caurinus (2,3,4) | | Sanguinicola occidentalis Van Cleave and | |
| S. flavidus (2,3) | | Mueller, 1932 | (FW) |
| S. maliger (2,3,4) | | Location: blood | |
| S. melanops (2,3) | | Hosts: Perca flavescens (1) | |
| S. pinniger (2,3) | | Stizostedion vitreum vitreum (1 | 2) |
| Sebastes sp. (1) | | Dist.: Ont | ,, |
| | | | v. 1076 |
| Dist.: Pac | (T. 1 a | Records: 1. Dechtiar 1972b; 2. Anthor | 1y 1970 |
| Records: 1. McFarlane 1936; 2. | | a | (T) X X X |
| 1971a, 3. 1971b; 4. Sekerak and Ar | | Sanguinicola spp. | (FW) |
| Remarks: This species was reported a | | Location: blood | |
| rocotyle n.sp. in a paper presented | to the | Hosts: A plodinotus grunniens (1) | |
| 44th annual meeting of the Americ | can So- | Carpiodes cyprinus (1) | |
| ciety of Parasitologists (see Holmes | | Moxostoma anisurum (2) | |
| , | , | M. erythrurum (1) | |
| Aporocotyle margolisi Smith, 1967 | (M) | M. macrolepidotum (1) | |
| Location: bulbus arteriosus | (111) | Notropis hudsonius (1) | |
| | | | |
| Host: Merluccius productus | | Pimephales notatus (2) | |
| Dist.: Pac | | P. promelas (2) | |
| Record: Smith 1967 | | Dist.: Ont | |
| | | Records: 1. Dechtiar 1972b, 2. 1972c | |
| A porocotyle simplex Odhner, 1900 | (M) | | |
| Location: intestinal mesenteries | | | |
| Host: Hippoglossoides platessoides | | SUBORDER AZYGIATA | |
| Dist: Atl | | | |
| Record: Ronald 1960b | | Superfamily AZYGIOIDEA | |
| Record, Rolland 17000 | | , | |
| 1 | (3.4) | Family AZYGIIDAE | |
| A porocotyle sp. | (M) | runny rior one rio | |
| Location: blood vessels of gills | | / 1 / / / / / / / / / / / / / / / / / / | |
| Host: Theragra chalcogramma | | Azygia angusticauda (Stafford, 1904) Ma | |
| Dist.: Pac | | 1926 | (FW) |
| Record: Smith 1967 | | Syn.: Mimodistomum angusticaudur ford, 1904 | n Staf- |
| Psettarium sebastodorum Holmes, 1971 | (M) | Location: intestine, stomach | |
| Location: heart | (111) | Hosts: Ambloplites rupestris (5,13) | |
| | | Esox americanus vermiculatus | (2 10)49 |
| Hosts: Sebastes aleutianus (4) | | ESOX americanus vermiculalus | (2,10)" |
| S. alutus (3,4) | | | |
| S. aurora (1,2) | | ⁴⁹ Bangham and Hunter (1939) reported 2 | |
| S. babcocki (4) | | sticauda from the indicated hosts only | |
| S. brevispinis (2) | | host-parasite list. | |

E. lucius (12,13) E, masquinongy (9,13)Etheostoma exile (5,13,14) E. nierum (13) Ictalurus nebulosus (5,13) I. punctatus (5) Lepomis gibbosus (4,5,7,13) Lota lota (1,13) Micropterus dolomieui (2,3,4,5,7,8, 13)49 M. salmoides (5,14) Perca flavescens (4,5,7,8,11,14) Salvelinus namavcush (6) Stizostedion vitreum glaucum (2) S. vitreum vitreum (1,2,3,13)49 Dist.: Ont. Oue Records: 1. Stafford 1904 (Que?)50; 2. Bangham and Hunter 1939 (Ont); 3, Miller 1940 (Oue); 4. Bangham 1941 (Ont), 5. 1955 (Ont); 6. MacLulich 1943b (Ont); 7. Bangham and Venard 1946 (Ont); 8. Fantham and Porter 1948 (Que); 9. Choquette 1951c (Que); 10. Crossman 1962 (Ont); 11. Tedla and Fernando 1972 (Ont); 12. Dechtiar 1972b (Ont), 13. 1972c (Ont); 14. Molnar et al. 1974 (Ont) Azygia longa (Leidy, 1851) Manter, 1926 (FW)

Syn.: Megadistomum longum (Leidy, 1851) Azygia acuminata Goldberger, 1911 Azygia lucii of Cooper, 1915 Azygia tereticolle of Stafford, 1904 Location: intestine, stomach Hosts: Ambloplites rupestris (7) Amia calva (2) Anguilla rostrata (3,4,6,7,11) Esox lucius (1,2,3,5,7,12) E. masquinongy (1,2,8)Ictalurus punctatus (1) Lota lota (1) Micropterus dolomieui (2) Perca flavescens (2)51 Salmo salar (10)

Salvelinus fontinalis (9)

S. namaycush (2) Stizostedion sp. (2)52

Dist.: NB-b, Nfld, Ont, Que

Records: 1. Stafford 1904 (Que?)53; 2. Cooper 1915a (Ont); 3. Lyster 1939 (Que); 4. Bangham 1941 (Ont), 5, 1955 (Ont); 6, Bangham and Venard 1946 (Ont); 7. Fantham and Porter 1948 (Que); 8. Choquette 1951c (Oue); 9. Sandeman and Pippy 1967 (Nfld); 10. Pippy 1969 (NB-b); 11. Dechtiar 1972b (Ont), 12, 1972c (Ont)

Azygia sp. (FW)

Location: not specified

Host: Stizostedion vitreum vitreum

Dist.: Ont.

Record: Anthony 1976

Leuceruthrus micropteri Marshall and Gilbert, (FW)

Location: stomach

Hosts: Ambloplites rupestris Amia calva Ictalurus melas

Micropterus dolomieui M. salmoides

Dist.: Ont

Record: Bangham and Hunter 1939

(FW)

Leuceruthrus sp.

Location: digestive tract Hosts: Etheostoma nigrum Morone chrysops Notropis atherinoides54 Perca flavescens

Percina caprodes

Dist.: Ont

Record: Bangham and Hunter 1939

Otodistomum cestoides (van Beneden, 1871)

Odhner, 1911 (adult) Syn.: Distomum veliporum of Stafford, 1907 Otodistomum veliporum of Stafford, 1904; Myers, 1959 (partim); Temple-

man, 1965, 1973

Location: intestine, stomach

Hosts: Bathyraja richardsoni (7,9,10) Centroscyllium fabricii (9,10)

> Raja jenseni (6,9,10) R. laevis (1,2,3)

R. ocellata (5)

R. radiata (4,5,8)

⁵⁰The hosts from which Stafford (1904) reported this species were probably obtained from a Montreal fish shop.

⁵¹The record of Cooper (1915a) for P. flavescens was for immature Azygia which were considered probably to be A. *lncii* (syn. of A. *longa*).

⁵²The record of Cooper (1915a) for Stizostedion sp. is apparently a tentative host identification (as "Lucioperca sp.?, pickerel . . .").

⁵³The hosts reported for A, longa (as A, tereticolle and Megadistomum 1.) by Stafford (1904) were probably obtained from a Montreal fish shop.

⁵⁴The record of Leuceruthrus sp. from this host is found only in the host-parasite list of Bangham and Hunter (1939).

Dist.: Atl

Records: 1. Stafford 1904, 2. 1907; 3. Cooper 1915a; 4. Heller 1949; 5. Myers 1959; 6. Templeman 1965, 7. 1973b; 8. Threlfall 1969; 9. Gibson 1976; 10. Gibson and Bray 1977

Remarks: There has been much controversy in the literature concerning the independence of O. cestoides from O. veliporum. Following detailed morphological studies of large numbers of these trematodes, Gibson (1976) and Gibson and Bray (1977) concluded that the two species are indeed distinct. According to their criteria and reexamination of some Canadian material, all Canadian records of adult worms, except those of Myers (1959) and Threlfall (1969) from Squalus acanthias, appear to be referable to O. cestoides.

Otodistomum veliporum (Creplin, 1837)

Stafford, 1904 (adult) (M)

Location: [stomach]
Host: Squalus acanthias

Dist.: Atl

Records: Myers 1959; Threlfall 1969

Otodistomum sp. metacercaria (M)

Includes: Xenodistomum melanocystis Stafford, 1904

Otodistomum veliporum of Ronald, 1960; Scott, 1975

Location: encysted on digestive tract, liver,

Hosts: Glyptocephalus cynoglossus (2,4) Hippoglossoides platessoides (3)

Limanda ferruginea (2) Lophius americanus (1)

Dist.: Atl

Records: 1. Stafford 1904; 2. Ronald 1960b; 3. Scott 1975a, 4. 1975d

Remarks: Because it is not possible to distinguish O. veliporum and O. cestoides in the metacercarial stage (Gibson and Bray 1977), all records are listed under Otodistomum sp.

Proterometra macrostoma (Faust, 1918)

Horsfall, 1933 (FW)

Location: [esophagus]
Hosts: Ambloplites rupestris
Lepomis gibbosus

Dist.: Ont

Record: Bangham 1955

SUBORDER HEMIURATA

Superfamily HEMIUROIDEA

Family ACCACOELIIDAE

Accacladium serpentulum Odhner, 1928 (M)

Syn.: Accacladium nematulum Noble and

Noble, 1937 Location: intestine Host: *Mola mola*

Dist.: Atl

Record: Threlfall 1967

Remarks: Bray and Gibson (1977) place A. nematulum in synonymy with A. serpen-

tulum.

Accacladocoelium macrocotyle (Diesing, 1858) Robinson, 1934 (M

Syn.: Accacoelium macrocotyle (Diesing,

1858)

Location: intestine Host: Mola mola

Dist.: Atl

Records: Stafford 1904⁵⁵, 1907; Threlfall 1967

Accacladocoelium nigroflavum (Rudolphi,

1819) Robinson, 1934 (M)

Syn.: Accacoelium nigroflavum (Rudolphi, 1819)

Location: intestine Host: Mola mola

Dist.: Atl

Record: Stafford 1904

Accacoelium contortum (Rudolphi, 1819)

Looss, 1899 (M)

Location: gills, pharynx Host: *Mola mola*

Dist.: Atl

Records: Stafford 1904, 1907; Threlfall 1967

Odhnerium calyptrocotyle (Monticelli, 1893)

Yamaguti, 1934 (M)

Syn.: Accacoelium foliatum (Linton, 1898)

Location: intestine Host: *Mola mola* Dist.: Atl, Pac

Records: Stafford 1904 (Atl); Lloyd 1938

(Pac)

Family HEMIURIDAE

Brachyphallus crenatus (Rudolphi, 1802)

Odhner, 1905 (M)

55The record of Stafford (1904) is apparently a tentative parasite identification (as Accacoelium macrocotyle Diesing?).

Cryptacanthodes maculatus (1,2) 1904 (partim), 1907 (partim) Gadus morhua (1,2,4) Location: intestine, stomach Gasterosteus aculeatus (9,10,13,15) Hosts: Ammodytes dubius (20) Glyptocephalus cynoglossus (21) Clupea harengus harengus (3,5,11,12) Hemilepidotus hemilepidotus (10) Gasterosteus aculeatus (15,17) Hemitripterus americanus (1,2) Hippoglossus hippoglossus (1,2,4,10) Hippoglossoides platessoides (1,2,7,18, Oncorhynchus gorbuscha (7,8) 19) O. nerka (7,8,9)Hippoglossus hippoglossus (1,2,7) Osmerus mordax (1,2,4,5,19) Limanda ferruginea (1,2,7,20) Pungitius pungitius (16,23) Liopsetta putnami (7) Reinhardtius hippoglossoides (1,2,4) Lophius americanus (1,2) Salmo salar (1,2,4,5,13,14,18,21) Melanogrammus aeglefinus (1,2) Salvelinus alpinus (21,24) Myoxocephalus scorpius (1,2) S. fontinalis (21,22) Oncorhynchus gorbuscha (5) S. malma (6) O. nerka (5,6) S. namaycush (21) Osmerus mordax (1,2,4,24) Sebastes marinus (25) Pollachius virens (1,2) Dist.: Atl, Pac, BC-b, BC, Lab-b, Lab, NB, Pseudopleuronectes americanus (7,22) Nfld-b, Nfld, NS, PEI, Que, YT Pungitius pungitius (14) Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl); Reinhardtius hipploglossoides (1,2) Salmo salar (1,2,3,4,8,12,25,27) 3. Cooper 1915a (Atl); 4. Miller 1941a (Atl); 5. Heller 1949 (Atl, Que); 6. Bangham and Salvelinus alpinus (25) Adams 1954 (BC); 7. Margolis 1956b (Pac, S. fontinalis (25) BC-b), 8. 1957 (Pac, BC-b, BC), 9. 1963 Sebastes aleutianus (28) (Pac, BC-b); 10. Ronald 1960b (Atl); 11. S. alutus (26,28) Sindermann 1957b (Atl), 12. 1961 (Atl); S. babcocki (28) 13. Sandeman and Pippy 1967 (Nfld); S. borealis (28) 14. Pippy 1969 (Atl, NB, NS, Que, PEI); S. brevispinis (28) 15. Hanek and Threlfall 1969b (Nfld-b), S. caurinus (28) 16. 1970d (Nfld), 17. 1970e (Atl, Lab-b, S. crameri (28) Nfld-b, Nfld); 18. Threlfall and Hanek S. diploproa (28) 1970c (Nfld-b), 19. 1971 (Lab); 20. Scott S. elongatus (28) 1973 (Atl); 21. Hicks and Threlfall 1973 S. entomelas (28) (Lab); 22. Hanek and Molnar 1974 (Que); S. flavidus (28) 23. Dickinson and Threlfall 1976 (Nfld); S. goodei (28) 24. Mudry and McCart 1976 (YT); 25. S. helvomaculatus (28) Gaevskaya and Umnova 1977 (Atl) S. maliger (28) S. marinus(1,2,3,29)Derogenes plenus Stafford, 1904 (M)S. paucispinis (28) Location: intestine S. pinniger (28) Host: Anarhichas lupus S. proriger (28) Dist.: Atl S. reedi (28) Record: Stafford 1904 S. ruberrimus (28) Remarks: This species is probably a synonym S. variegatus (28) of D. varicus. S. zacentrus (28) Squalus acanthias (11) Derogenes varicus (O. F. Müller, 1784) Looss, Tautogolabrus adspersus (23) 1901 (M) Dist.: Atl, Pac, BC-b, Lab-b, Lab, NB, Nfld-b, Location: intestine, stomach Nfld, NS, Que Hosts: Ammodytes dubius (17) Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl); Anguilla rostrata (1,2) 3. Cooper 1915a (Atl); 4. Heller 1949 (Atl, Argentina silus (16) Que); 5. Margolis 1956b (Pac, BC-b), 6. Clupea harengus harengus (1,2,3)56 1963 (BC-b); 7. Ronald 1960b (Atl); 8. 56Cooper (1915a) reported mature (egg-bearing) Sandeman and Pippy 1967 (Nfld); 9. Arai 1967a (Pac), 10. 1969b (Pac); 11. Threlfall D. varicus encysted in the musculature of C. harengus. 1969 (Atl); 12. Pippy 1969 (Atl, NB, NS,

Syn.: Hemiurus appendiculatus of Stafford,

Que); 13. Hanek and Threlfall 1969d (Nfld-Hosts: Coryphaenoides rupestris (2) b), 14. 1970d (Lab-b), 15. 1970e (Nfld-b); Limanda ferruginea (1) 16. Scott 1969c (Atl), 17. 1973 (Atl), 18. Dist.: Atl 1975a (Atl), 19. 1975b (Atl), 20. 1975c Records: 1. Ronald 1960b; 2. Szuks 1975 (Atl), 21. 1975d (Atl), 22. 1976 (Atl); 23. Gonocerca macroformis Wolfgang and Myers, Sekhar S. and Threlfall 1970a (Atl); 24. 1954 (M) Threlfall and Hanek 1971 (Lab); 25. Hicks and Threlfall 1973 (Lab); 26. Sekerak and Location: ovary Arai 1973 (Pac); 27. Hanek and Molnar Hosts: Gadus morhua 1974 (Que); 28. Sekerak and Arai 1977 Glyptocephalus cynoglossus (Pac); 29. Gaevskaya and Umnova 1977 Hippoglossoides platessoides Dist.: Atl (Atl) Record: Wolfgang and Myers 1954 (M) Derogenetinae gen.sp. Hemiurus appendiculatus (Rudolphi, 1802) Location: not specified Hosts: Oncorhynchus gorbuscha Looss, 1899 (M) O. nerka Location: stomach Hosts: ? Ammodytes americanus (1,2) Dist.: Pac, BC-b, BC ? Anguilla rostrata (1,2) Record: Margolis 1957 Glyptocephalus cynoglossus (6) Hippoglossus hippoglossus (4) (M) Genolinea laticauda Manter, 1925 ? Myoxocephalus scorpius (1,2) Syn.: Genolinea sp. of Arai, 1967 Osmerus mordax (3) Location: stomach ?Pollachius virens (1,2) Hosts: Artedius fenestralis (4) Pungitius pungitius (5) Blepsias cirrhosus (3,4) Dist.: Atl, Nfld-b Glyptocephalus cynoglossus (5) Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl); Hemile pidotus hemile pidotus (3,4) 3. Cooper 1915a (Atl); 4. Ronald 1960b Hexagrammos lagocephalus (3,4) (Atl); 5. Hanek and Threlfall 1970d (Nfld-Hippoglossus hippoglossus (2) b); 6. Scott 1975b (Atl) Leptocottus armatus (4) Remarks: Miller (1941a), upon reexamina-Myoxocephalus polyacanthocephalus tion of the collection of Stafford, was un-(3,4)able to substantiate Stafford's (1904, 1907) Nautichthys oculofasciatus (4) records of H. appendiculatus. Specimens Oligocottus maculosus (4) reported by Stafford from H. hippoglossus, Oncorhynchus nerka (4) O. mordax, Reinhardtius hippoglossoides, Pseudopleuronectes americanus (6) and Salmo salar were reidentified as Bra-Scorpaenichthys marmoratus (1) chyphallus crenatus. Material believed by Dist.; Atl, Pac Miller (1941a) to have been reported as Records: 1. McFarlane 1936 (Pac); 2. Ronald H. appendiculatus from Clupea harengus 1960b (Atl); 3. Arai 1967a (Pac), 4. 1969b and Gadus callarias (syn. of G. morhua) by (Pac); 5. Scott 1975d (Atl), 6. 1976 (Atl) Stafford was identified as Hemiurus levinseni. Stafford's remaining records of H. Genolinea oncorhynchi Margolis and Adams, appendiculatus are thus also likely to be 1956 (M) misidentifications. Location: stomach Host: Oncorhynchus gorbuscha (M) Hemiurus communis Odhner, 1905 Dist.: Pac Location: stomach Records: Margolis and Adams 1956; Margolis Hosts: Hippoglossus hippoglossus 1956b Remarks: Zhukov (1960) incorrectly regarded Liopsetta putnami this species as identical with G. anura, Dist.: Atl Records: Ronald 1960b from which it is quite distinct. However, G. oncorhynchi may prove to be synonymous with G. laticauda. Hemiurus levinseni Odhner, 1905 (metacercaria) (M) Location: musculature Gonocerca crassa Manter, 1934 (M)

Location: stomach

Host: Clupea harengus harengus

Dist.: Atl Dist.: Atl Records: 1. Stafford 1902; 2. Ronald 1960b Record: Cooper 1915a Lecithaster confusus Odhner, 1905 (M)Hemiurus levinseni Odhner, 1905 (adult) (M) Location: stomach Syn.: ?Hemiurus appendiculatus of Stafford, 1904 (partim), 1907 (partim) Host: Osmerus mordax Dist.: Que Location: intestine, stomach Record: Heller 1949 Hosts: Argentina silus (11) Clupea harengus harengus (1) Lecithaster gibbosus (Rudolphi, 1802) Lühe, Gadus morhua (1,2,14) Hippoglossoides platessoides (12) Syn.: Lecithaster salmonis Yamaguti, 1934 Hippoglossus hippoglossus (9) Lecithaster bothryophorus of Stafford Oncorhynchus gorbuscha (3.4.5) 1904, 1907 O. nerka (4,5,6,7) Location: intestine, pyloric caeca, stomach Raja laevis (8)57 Hosts: Ammodytes dubius (24) Salmo salar (10) Sebastes marinus (14) A. hexapterus (9,10,11,12,14,15,16) Squalus acanthias (8)57 Anoplarchus purpurescens (14) Tautogolabrus adspersus (13) Aprodon cortezianus (9,11) Aulorhynchus flavidus (9,11) Dist.: Atl. Pac. BC-b Blepsias cirrhosus (9,11) Records: 1. Miller 1941a (Atl)⁵⁸; 2. Heller 1949 (Atl); 3. Margolis 1956a (BC-b), 4. Brach vistius frenatus (9,11) Clupea harengus harengus (1,2) 1956b (Pac, BC-b), 5, 1957 (Pac, BC-b), 6. 1958a (Pac, BC-b), 7. 1963 (Pac, BC-b); C. harengus pallasi (9,10,11,12,13, 8. Myers 1959 (Atl); 9. Ronald 1960b (Atl); 14,15) Coryphopterus nicholsi (9,11) 10. Pippy 1969 (Atl); 11. Scott 1969c (Atl), Cymatogaster aggregata (9,10,11) 12. 1975a (Atl); 13. Sekhar S. and Threlfall 1970a (Atl): 14. Gaevskava and Umnova Dasycottus setiger (11) Gadus macrocephalus (9,11) 1977 (Atl) Gasterosteus aculeatus (9,10,11,14, 19,20,30) Hemiurus spp. (M) Glyptocephalus cynoglossus (28) Location: intestine, stomach Hemilepidotus hemilepidotus (9,11) Hosts: Anguilla sp. (1) Hexogrammos decagrammus (15) Clupea sp. (1) Cryptacanthodes sp. (1) H. lagocephalus (9,11) Gadus sp. (1) H. stelleri (9,11) Hippoglossoides platessoides (25,26) Hemitripterus sp. (1) Hippoglossoides platessoides (2) Hypomesus pretiosus (15) Lepidopsetta bilineata (9,11) Hippoglossus sp. (1) Limanda ferruginea (27) Limanda ferruginea (2) Melanogrammus sp. (1) Liparis pulchellus (14) Lumpenus sagitta (14) Myoxocephalus sp. (1) Lyconectes aleutensis (14) Osmerus sp. (1) Pleuronectes sp. (1) Nautichthys oculofasciatus (11) Oligocottus maculosus (11) Pollachius sp. (1) Pseudopleuronectes americanus (2) Oncorhynchus gorbuscha (4,5,7,8,9, Reinhardtius sp. (1) 11, 15, 17) Salmo sp. (1) O. keta (9,11,17) O. kisutch (9,11) Sebastes sp. (1) O. nerka (3,4,5,6,9,11) O. tshawytscha (9,11) 57Myers (1959) considered H. levinseni to be a Oncorhynchus sp. (10) "pseudoparasite" of these hosts. Ophiodon elongatus (9,11,14) ⁵⁸Miller (1941a) identified material from C. Pholis ornata (9,11) harengus and G. morhua from the collection of Platichthys stellatus (9,11,15) Stafford as H. levinseni. Miller believed these speci-

Pseudopleuronectes americanus (29)

Ronquilus jordani (9,11)

Stafford (1904, 1907).

mens had been reported as H. appendiculatus by

Lecithophyllum botryophorum (Olsson, 1868) Salmo salar (1,2,18,21,23) Odhner, 1905 Salvelinus malma (3,9,11) (M) Syn.: Lecithophyllum anteroporum Margolis, Sebastes alutus (31) S. caurinus (31) Lecithophyllum sp. of Margolis, 1957 S. pinniger (31) S. proriger (31) and of Arai, 1967 S. variegatus (31) Aponurus sp. of Margolis, 1956 S. zacentrus (31) Location: intestine, stomach Syngnathus griseolineatus (9,11) Hosts: Argentina silus (7,8,9) Tautogolabrus adspersus (22) Dasycottus setiger (5,6) Thaleichthys pacificus (9,11,12,14) Hexagrammos lagocephalus (6) H. stelleri (6) Theragra chalcogramma (9,11,14) Merluccius productus (3) Dist.: Atl, Pac, BC-b, BC, Lab, NB, Nfld-b, Oncorhynchus gorbuscha (2,3) NS O. nerka (1,2,3,4) Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl); Sebastes aleutianus (11) Bangham and Adams 1954 (BC); 4. Mar-S. alutus (10,11) golis 1956b (Pac, BC-b), 5. 1957 (Pac, BC-b, S. borealis (11) BC), 6. 1963 (Pac, BC-b); 7. Boyce 1966 S. crameri (10,11) (Pac), 8. 1969 (Pac); 9. Arai 1967a (Pac), S. flavidus (11) 10. 1967b (Pac), 11. 1969b (Pac); 12. Barra-S. paucispinis (11) clough 1967b (Pac); 13. Barraclough and S. reedi (11) Fulton 1967 (Pac); 14. Robinson et al. Dist.: Atl, Pac, BC-b, BC 1968a (Pac), 15. 1968b (Pac); 16. Robinson Records: 1. Margolis 1956b (BC-b), 2. 1957 1969 (Pac); 17. Margolis and Boyce 1969 (Pac, BC-b, BC), 3. 1958c (Pac, BC-b, BC), (Pac); 18. Pippy 1969 (Atl, NB, NS); 19. 4. 1963 (BC-b); 5. Arai 1967a (Pac), 6. 1969b Hanek and Threlfall 1969b (Nfld-b), 20. (Pac); 7. Scott 1969a (Atl), 8. 1969b (Atl), 1970e (Nfld-b); 21. Threlfall and Hanek 9. 1969c (Atl); 10. Sekerak and Arai 1973 1970c (Nfld-b); 22. Sekhar S. and Threlfall (Pac), 11. 1977 (Pac) 1970a (Atl); 23. Hicks and Threlfall 1973 (Lab); 24. Scott 1973 (Atl), 25. 1975a (Atl), Parahemiurus merus (Linton, 1910) Woolcock, 26. 1975b (Atl), 27. 1975c (Atl), 28. 1975d (Atl), 29. 1976 (Atl); 30. Lester 1975 (Pac); 31. Sekerak and Arai 1977 (Pac) Syn.: Parahemiurus sp. of Margolis, 1956, 1957 Location: intestine, pyloric caeca, stomach Lecithochirium exodicum McFarlane, Hosts: A prodon cortezianus (5,6) (M) Clupea harengus pallasi (5,6) Syn.: Sterrhurus exodicus (McFarlane, 1936) Gadus macrocephalus (5,6) Location: stomach Hexagrammos stelleri (5,6) Oncorhynchus gorbuscha (1,2,3,4) Hosts: Ophiodon elongatus (1) O. kisutch (5,6) Sebastes caurinus (2) O. nerka (1,6) S. elongatus (2) Ophiodon elongatus (5,6) S. flavidus (2) Syngnathus griseolineatus (6) S. paucispinis (2) Dist.: Pac, BC-b Dist.: Pac Records: 1. Margolis 1956b (Pac, BC-b), 2. Records: 1. McFarlane 1936; 2. Sekerak and 1957 (Pac); 3. Boyce 1966 (Pac), 4. 1969 Arai 1977 (Pac); 5. Arai 1967a (Pac), 6. 1969b (Pac) Remarks: This species has had an involved Remarks: The specimens reported as Parataxonomic history since its original descriphemiurus sp. by Margolis (1956b, 1957) tion. It has been placed in Adinosoma by have since been identified as P. merus (Mar-Skrjabin and Gushanskaya (1955); in Sterrgolis unpublished data). hurus by Yamaguti (1958); and in Separogermiductus by Manter and Pritchard Tubulovesicula lindbergi (Layman, 1930) (1960). Nasir and Diaz (1971) considered Yamaguti, 1934 (M) L. exodicum a synonym of L. caudiporum Syn.: Dinurus nanaimoensis McFarlane, 1936 (Rudolphi, 1819). Location: intestine, stomach

| Hosts: Citharichthys stigmaeus (6,7) Cymatogaster aggregata (7) | Family LAMPRITREMATIDAE |
|--|---|
| Leptocottus armatus (7) Myoxocephalus polyacanthocephalus | Lampritrema miescheri (Zschokke, 1890) Margolis, 1962 (M) |
| (6,7) | Syn.: Lampritrema nipponicum Yamaguti, |
| Oligocottus maculosus (7) | 1940 |
| Oncorhynchus gorbuscha (2,3) | Location: stomach, gills (?) |
| O. keta (8) | Hosts: Argentina silus (3,4) |
| O. nerka (2,3,4,5) | Brama japonica (1) |
| Ophiodon elongatus (6,7) | Salmo salar (2) |
| Parophrys vetulus (1) | Dist.: Atl, Pac |
| Porichthys notatus (7) | Records: 1. Margolis 1962 (Pac); 2. Pippy |
| Salvelinus malma (6,7) | 1969 (Atl); 3. Scott 1969a (Atl), 4. 1969c |
| Scorpaenichthys marmoratus (1) | (Atl) |
| Sebastes alutus (9,10) | Remarks: Gibson and Bray (1977) relegated |
| S. borealis (10) | L. nipponicum to the synonymy of L. |
| S. brevispinis (10) S. caurinus (10) | miescheri. |
| S. crameri (10) | |
| S. maliger (10) | Family PTYCHOGONIMIDAE |
| S. paucispinis (10) | |
| S. pinniger (10) | Ptychogonimus fontanus Lyster, 1939 (FW) |
| Syngnathus griseolineatus (6,7) | Location: stomach |
| Dist.: Pac, BC-b, BC | Hosts: Perca flavescens (1,2,3) |
| Records: 1. McFarlane 1936 (Pac); 2. Mar- | Salvelinus fontinalis (2) |
| golis 1956b (Pac, BC-b), 3. 1957 (Pac, BC-b, | Dist.: Que |
| BC), 4. 1958a (BC), 5. 1963 (BC-b); 6. Arai | Records: 1. Lyster 1939, 2. 1940a; 3. Fantham |
| 1967a (Pac), 7. 1969b (Pac); 8. Margolis and | and Porter 1948 |
| Boyce 1969 (Pac); 9. Sekerak and Arai 1973 | D. J. 1. 1. 1010) |
| (Pac), 10. 1977 (Pac) | Ptychogonimus megastomus (Rudolphi, 1819) Lühe, 1900 (M) |
| Hemiuridae gen. sp. (M) | Location: intestine |
| Location: intestine, stomach | Host: Tautogolabrus adspersus |
| | 1 hot + A +1 |
| Hosts: Icelinus tenuis (1) | Dist.: Atl Record: Sekhar S. and Thresfall 1970a |
| Sebastes aleutianus (2) | Dist.: Atl Record: Sekhar S. and Threlfall 1970a |
| Sebastes aleutianus (2) S. alutus (2) | |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) | |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, 1835 (M) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) Dist.: Pac, BC-b |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) Dist.: Pac, BC-b Records: 1. Margolis 1956b (Pac, BC-b), 2. |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, 1835 (M) Syn.: Hirudinella clavata (Menzies, 1791) Hirudinella marina Garcin, 1730 Location: stomach | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) Dist.: Pac, BC-b |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, 1835 (M) Syn.: Hirudinella clavata (Menzies, 1791) Hirudinella marina Garcin, 1730 Location: stomach Hosts: Thunnus thynnus (1) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) Dist.: Pac, BC-b Records: 1. Margolis 1956b (Pac, BC-b), 2. 1963 (Pac, BC-b); 3. Sekerak and Arai 1977 (Pac) Remarks: Gibson and Bray (1977) transferred |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, 1835 (M) Syn.: Hirudinella clavata (Menzies, 1791) Hirudinella marina Garcin, 1730 Location: stomach Hosts: Thunnus thynnus (1) Xiphias gladius (2) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) Dist.: Pac, BC-b Records: 1. Margolis 1956b (Pac, BC-b), 2. 1963 (Pac, BC-b); 3. Sekerak and Arai 1977 (Pac) Remarks: Gibson and Bray (1977) transferred this species to Copiatestes Crowcroft, 1948, |
| Sebastes aleutianus (2) S. alutus (2) S. babcocki (2) S. caurinus (2) S. caurinus (2) S. crameri (2) S. elongatus (2) S. flavidus (2) S. nigrocinctus (2) Dist.: Pac Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Family HIRUDINELLIDAE Hirudinella ventricosa (Pallas, 1774) Baird, 1835 (M) Syn.: Hirudinella clavata (Menzies, 1791) Hirudinella marina Garcin, 1730 Location: stomach Hosts: Thunnus thynnus (1) | Record: Sekhar S. and Threlfall 1970a Family SYNCOELIIDAE Syncoelium filiferum (Leuckart in Sars, 1885) Odhner, 1911 (M) Syn.: Syncoelium katuwo Yamaguti, 1938 Location: gills Hosts: Oncorhynchus gorbuscha (1) O. nerka (1,2) Sebastes alutus (3) S. brevispinis (3) S. flavidus (3) S. pinniger (3) S. proriger (3) Dist.: Pac, BC-b Records: 1. Margolis 1956b (Pac, BC-b), 2. 1963 (Pac, BC-b); 3. Sekerak and Arai 1977 (Pac) Remarks: Gibson and Bray (1977) transferred |

Syncoelium sp.
Location: gills

Host: Brama japonica

Dist.: Pac

Record: Margolis 1962

Superfamily DIDYMOZOOIDEA⁵⁹ Family DIDYMOZOIDAE

Didymozoidae gen. sp.

(M)

(M)

Location: unspecified Host: unspecified tuna Dist.: unspecified

Record: Hoskins et al. 1976

Remarks: This parasite was indicated to have been recovered from a canned or processed fish product.

SUBORDER BRACHYLAIMATA

Superfamily FELLODISTOMATOIDEA

Family FELLODISTOMATIDAE

Fellodistomum agnotum Nicoll, 1909 (M) Syn.: ?Fellodistomum incisum of Stafford,

1904 (partim)

?Distomum incisum of Stafford, 1907 (partim)

Host: Anarhichas lupus Location: gall bladder

Dist.: Atl

Record: Miller 1941a

Remarks: Miller (1941a) identified material from the collection of J. Stafford as F. agnotum but since the vial which contained the specimens was unlabeled, he was unable to ascertain if this material was reported in Stafford's papers (1904, 1907).

Fellodistomum fellis (Olsson, 1868) Nicoll, 1909

1909 (M) Syn.: Fellodistomum incisum of Stafford, 1904

Distomum incisum of Stafford, 1907

Location: gall bladder Host: Anarhichas lupus

Dist.: Atl

Records: Stafford 1904, 1907

Fellodistomum furcigerum (Olsson, 1867) Yamaguti, 1954 (M) Syn.: Distomum furcigerum Olsson, 1867

Leioderma furcigerum (Olsson, 1867) Steringophorus furciger (Olsson, 1867)

Location: intestine, pyloric caeca, stomach

Hosts: Cryptacanthodes maculatus (1,2)

Glyptocephalus cynoglossus (4,8) Hippoglossoides platessoides (1,2,5,6)

Hippoglossus hippoglossus (4) Limanda ferruginea (4,7)

Liopsetta putnami (4)

Pseudopleuronectes americanus (1,2, 3,4,9)

Reinhardtius hippoglossoides (1,2)

Dist.: Atl

Records: 1. Stafford 1904, 2. 1907; 3. Heller 1949; 4. Ronald 1960b; 5. Scott 1975a, 6. 1975b, 7. 1975c, 8. 1975d, 9. 1976

Fellodistomum sebastodis Yamaguti and

Matumura, 1942

Location: gall bladder

Hosts: Sebastes alutus (1,2)

S. elongatus (2) S. ruberrimus (2)

S. ruberrimus (2)

S. zacentrus (2)

Dist.: Pac

Records: 1. Sekerak and Arai 1973, 2. 1977

Pseudopentagramma petrowi (Layman, 1930)

Yamaguti, 1971 (M)

Syn.: Pentagramma petrowi (Layman, 1930)

Location: intestine, pyloric caeca

Hosts: Clupea harengus pallasi (1,4,5,7)

Coryphopterus nicholsi (7)

Hypomesus pretiosus (1)
Mallotus villosus (1)

Oncorhynchus gorbuscha (2,3)

Spirinchus thaleichthys (1)

Thaleichthys pacificus (6)

Dist.: Pac

Records: 1. Margolis and Ching 1965; 2. Boyce 1966, 3. 1969; 4. Arai 1967a, 5. 1969b; 6. Barraclough 1967b; 7. Barraclough and Fulton 1967

Stenakron vetustum Stafford, 1904 (M)

Location: intestine

Hosts: Glyptocephalus cynoglossus (6) Hemitripterus americanus (1)

Hippoglossoides platessoides (3,4)

Hippoglossus hippoglossus (1) Limanda ferruginea (2,5)

Pseudopleuronectes americanus (7)

Dist.: Atl

Records: 1. Stafford 1904; 2. Ronald 1960b; 3. Scott 1975a, 4. 1975b, 5. 1975c, 6. 1975d, 7. 1976

(M)

⁵⁹Baer and Joyeux (1961) established a new subclass of Trematoda (Didymozoidea) for the didymozoids.

Steringotrema cluthense (Nicoll, 1909) Odhner, 1911 (M)

Location: stomach

Host: Hippoglossus hippoglossus

Dist.: Atl

Record: Ronald 1960b

Steringotrema ovacutum (Lebour, 1908)

Odhner, 1911 (M)

Location: digestive tract

Host: Hippoglossoides platessoides

Dist.: Atl

Records: Scott 1975a, 1975b

Remarks: Strelkov (1960) transferred this spe-

cies to Stenakron.

Steringotrema pagelli (van Beneden, 1871)

Odhner, 1911 (M)

Location: intestine

Host: Hippoglossus hippoglossus

Dist.: Atl

Record: Ronald 1960b

Superfamily BUCEPHALOIDEA Family BUCEPHALIDAE

Bucephalus elegans Woodhead, 1929 (FW)

Location: [pyloric caeca] Host: Perca flavescens

Dist.: Ont

Records: Bangham 1941, 1955

(FW) Bucephalus spp.

Location: [digestive tract], body cavity

Hosts: Hiodon alosoides (2)60 Morone chrysops (1) Notropis hudsonius (1)

Percopsis omiscomaycus (3)

Dist.: Ont

Records: 1. Bangham 1955; 2. Kennedy and Sprules 1967 (unspecified locality); 3. Dech-

tiar 1972b

Dolichoenterum sp. metacercaria (M)

Location: subcutaneous in head region

Host: Coryphaenoides rupestris

Dist.: Atl

Record: Szuks 1975

Paurorhynchus hiodontis Dickerman, 1954 (FW) Location: body cavity Host: Hiodon alosoides

Dist.: Alta, Sask

Records: Margolis 1964 (Sask); Donald and Kooyman (1974 MS) cited in Mudry and Anderson 1976 (Alta)

Prosorhynchoides basargini (Layman, 1930)

n.comb.

Syn.: Bucephaloides basargini (Layman, 1930)

> Bucephaloides sp. of Margolis, 1956, 195761

Location: intestine

Host: Oncorhynchus gorbuscha

Dist.: Pac, BC-b

Records: Margolis 1956b, 1957

Remarks: This species is transferred to Prosorhynchoides following Srivastava and Chauhan (1973) who relegated Bucephaloides to the synonymy of Prosorhynchoides. Zhukov (1960) and other Soviet authors regard P. basargini as a synonym of P. gracilescens (Rudolphi, 1819).

Prosorhynchoides ozakii (Nagaty, 1937)

n.comb.

(M)

Syn.: Bucephalopsis ozakii Nagaty, 1937

Location: [intestine] Host: Salvelinus malma

Dist.: BC

Record: Bangham and Adams 1954

Remarks: This species is transferred to Prosorhynchoides following Srivastava and Chauhan's (1973) relegation of species of adult Bucephalopsis to the synonymy of Prosorhynchoides.

Prosorhynchoides pusilla (Stafford, 1904) n.comb. (FW)

Syn.: Bucephalopsis pusilla (Stafford, 1904) Bucephalus pusilla (Stafford, 1904) Gasterostomum pusillum Stafford, 1904

Location: stomach, pyloric caeca, intestine

Hosts: Stizostedion canadense (4,6)

S. vitreum glaucum (4) S. vitreum vitreum (1,2,3,4,5)

Dist.: Man, Ont, Que

Records: 1. Stafford 1904 (Que?)62; 2. Woodhead 1930 (Man); 3. Lyster 1939 (Que); 4.

⁶⁰The report of Bucephalus sp. from the body cavity of H. alosoides by Kennedy and Sprules (1967) is probably a misidentification of Paurorhynchus hiodontis.

⁶¹Margolis (1963) reported this species from Pacific salmon as Bucephaloides basargini. Previously Bucephaloides basargini had been assigned to Bucephalopsis.

⁶²The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

Bangham and Hunter 1939 (Ont); 5. Bangham 1955 (Ont); 6. Dechtiar 1972c (Ont) Remarks: This species is transferred to *Prosorhynchoides*, following the synonymy proposed by Srivastava and Chauhan (1973).

Prosorhynchoides sp.

(M)

Syn.: Bucephalopsis sp. of Arai, 1967

Location: pyloric caeca Host: Leptocottus armatus

Dist.: Pac

Record: Arai 1967a

Remarks: Arai's (1967a) report of *Bucephalopsis* is considered to be a *Prosorhynchoides*, following the synonymy proposed by Srivastava and Chauhan (1973).

Prosorhynchus apertus McFarlane, 1936 (M)

Location: intestine

Host: Ophiodon elongatus

Dist.: Pac

Record: McFarlane 1936

Prosorhynchus crucibulum (Rudolphi, 1819)

Odhner, 1905 (metacercaria) (M)

Location: musculature Hosts: Sebastes alutus (1) Sebastes sp. (2)⁶³

Dist.: Pac

Records: 1. Sekerak and Arai 1973; 2. Hos-

kins et al. 1976

Remarks: Stunkard (1974) erected a new genus, Rudolphinus, for P. crucibulum.

Prosorhynchus crucibulum (Rudolphi, 1819)

Odhner, 1905 (adult) (M)

Location: pyloric caeca, intestine

Hosts: Sebastes aleutianus (2)

S. alutus (1,2)

S. babcocki (2)

S. borealis (2)

S. brevispinis (2)

S. crameri (2)

S. diploproa (2)

S. elongatus (2)

S. entomelas (2)

S. flavidus (2)

S. paucispinis (2)

S. pinniger (2)

S. reedi (2)

S. ruberrimus (2) S. zacentrus (2)

Dist.: Pac

Records: 1. Sekerak and Arai 1973, 2. 1977

Prosorhynchus scalpellus McFarlane, 1936 (M)

Location: intestine

Host: Scorpaenichthys marmoratus

Dist.: Pac

Record: McFarlane 1936

Remarks: Nagaty (1937) considered P. scal-

pellus a synonym of P. crucibulum.

Prosorhynchus squamatus Odhner, 1905 (M) Syn.: Gasterostomum armatum of Stafford,

1904, 1907

Location: intestine, stomach, pyloric caeca

Hosts: Brosme brosme (1,2)

Hemitripterus americanus (1,2) Hippoglossoides platessoides (5)

Hippoglossus hippoglossus (1,2,4)

Myoxocephalus scorpius (1,2)

Squalus acanthias (3)64

Dist.: Atl

Records: 1. Stafford 1904, 2. 1907; 3. Myers 1959; 4. Ronald 1960b; 5. Scott 1975a

Prosorhynchus sp. metacercaria (M)

Location: musculature Hosts: Sebastes alutus (1,2)

S. melanops (1) Sebastes sp. (3)⁶⁵

Dist.: Pac

Records: 1. Liston et al. 1960; 2. Liston and Hitz 1961; 3. Hoskins et al. 1976

Rhipidocotyle elongata McFarlane, 1936 (M)

Syn.: Rhipidocotyle sp. of Arai, 1967

Location: intestine

Hosts: Leptocottus armatus (3)

Ophiodon elongatus (1,2,3)

Dist.: Pac

Records: 1. McFarlane 1936; 2. Arai 1967a,

3. 1969b

Rhipidocotyle papillosa (Woodhead, 1929)

Eckmann, 1932 (metacercaria) (FW)

Syn.: Gasterostomum pusillum of Cooper,

1915

Location: musculature

⁶³The life cycle stage was not indicated by Hoskins et al. (1976) for the specimens recovered from *Sebastes* sp. (as "Pacific rock perch") but it is the metacercaria (G. Hoskins, personal communication).

⁶⁴Myers (1959) considered *P. squamatus* to be a "pseudoparasite" of *S. acanthias*.

⁶⁵The life cycle stage was not indicated by Hoskins et al. (1976) for the specimens recovered from Sebastes sp. (as "Pacific rock perch") but it is the metacercaria (G. Hoskins, personal communication).

Hosts: Ambloplites rupestris Micropterus dolomieui Perca flavescens Unspecified minnow

Dist.: Ont

Record: Cooper 1915a

Rhipidocotyle papillosa (Woodhead, 1929)

Eckmann, 1932 (adult) Syn.: Bucephalus papillosus Woodhead, 1929 Gasterostomum pusillum of Cooper,

Location: intestine, stomach, pyloric caeca

Hosts: Etheostoma nigrum (1)

Micropterus dolomieui (1,2,3,4)66

Dist.: Ont

Records: 1. Cooper 1915a; 2. Bangham and Hunter 1939; 3. Bangham and Venard 1946; 4. Bangham 1955

Rhipidocotyle sp. metacercaria

(FW)

(FW)

Location: fins

Hosts: Hybognathus hankinsoni

Ictalurus nebulosus

Dist.: Ont

Record: Molnar et al. 1974

ORDER ECHINOSTOMIDA SUBORDER ECHINOSTOMATA

Superfamily ECHINOSTOMATOIDEA

Family CATHAEMASIIDAE

Ribeiroia ondatrae (Price, 1931) Price, 1942 (FW)

(metacercaria) Location: skin

Host: Ambloplites rupestris

Dist.: Ont

Record: Molnar et al. 1974

ORDER PLAGIORCHIIDA SUBORDER PLAGIORCHIATA Superfamily PLAGIORCHIOIDEA

Family LECITHODENDRIIDAE

Pleurogenes sp.

Location: intestine

Host: Salvelinus fontinalis

66The report of R. papillosa from this host by Bangham and Hunter (1939) is found only in their host-parasite list.

Dist.: Oue

Record: Fantham and Porter 1948

Remarks: The genus *Pleurogenes* occurs primarily in amphibians. Thus the above record is probably a misidentification or the result of the host's consumption of an

amphibian,

Family LISSORCHIIDAE

Lissorchis attenuatum (Mueller and Van Cleave, 1932) Krygier and Macy, 1969

Syn.: Triganodistomum attenuatum Mueller and Van Cleave, 1932

Location: intestine

Hosts: Carpiodes cyprinus (5,6)

Catostomus catostomus (4)

C. commersoni (1,2,3,7)

C. macrocheilus (4)

Moxostoma anisurum (6)

Semotilus atromaculatus (3)

Dist.: BC, Ont

Records: 1. Bangham 1941 (Ont), 2. 1955 (Ont); 3. Bangham and Venard 1946 (Ont); 4. Bangham and Adams 1954 (BC); 5. Dechtiar 1972b (Ont), 6, 1972c (Ont); 7.

Molnar et al. 1974 (Ont)

Lissorchis gullaris Self and Campbell,

Location: intestine

Host: Catostomus catostomus

Dist.: Lab

Record: Threlfall and Hanek 1970a

Lissorchis simeri (Mueller and Van Cleave,

1932) Krygier and Macy, 1969

Syn,: Triganodistomum simeri Mueller and

Van Cleave, 1932

Location: [digestive tract]

Hosts: Catostomus catostomus (2)

C. commersoni (1)

Dist.: Ont

Records: 1. Bangham 1941, 2. 1955

Lissorchis spp.67

(FW)

(FW)

Syn.: Triganodistomum spp.

Location: not specified

Hosts: Catostomus catostomus (1) Micropterus dolomieui (1) Notropis hudsonius (2)

Semotilus atromaculatus (1)

⁶⁷This parasite was indicated to be an encysted larval stage by Bangham (1955) and as an immature stage by Bangham (1941).

Dist.: Ont Steganoderma formosum Stafford, 1904 (M) Records: 1. Bangham 1941, 2. 1955 Location: intestine, pyloric caeca Hosts: Hemilepidotus hemilepidotus (5) Hippoglossus hippoglossus (1,3) (FW) Plagiocirrus sp. Limanda ferruginea (6) Location: not specified Pseudopleuronectes americanus (7) Host: Catostomus catostomus Raja laevis (2)68 Dist.: BC Sebastes aleutianus (8) Record: Bangham and Adams 1954 Squalus acanthias (2,4)68 Dist.: Atl, Pac Records: 1. Stafford 1904 (Atl); 2. Myers Family MONORCHIIDAE 1959 (Atl); 3. Ronald 1960b (Atl); 4. Threlfall 1969 (Atl); 5. Arai 1969b (Pac); 6. Scott Telolecithus pugetensis Lloyd and Guberlet, 1975c (Atl), 7. 1976 (Atl); 8. Sekerak and (M) Arai 1977 (Pac) Location: intestine Host: Cymatogaster aggregata Zoogonoides viviparus (Olsson, 1868) Odhner, Dist.: Pac 1902 (M) Records: McFarlane 1936; Arai 1967a, b, Location: digestive tract 1969b Host: Hippoglossoides platessoides Dist.: Atl Records: Scott 1975a, b Family ZOOGONIDAE (M) Family MACRODEROIDIDAE Deretrema cholaeum McFarlane, 1936 Location: gall bladder Hosts: Sebastes caurinus (3) Alloglossidium corti (Lamont, 1921) Van S. elongatus (3) (FW) Cleave and Mueller, 1934 S. maliger (2,3) Location: intestine S. nigrocinctus (3) Hosts: Ictalurus nebulosus (3,5) S. ruberrimus (3) I. punctatus (2,4) Sebastes sp. (1) Noturus gyrinus (1,6) Dist.: Pac Dist.: BC, Ont, Que Records: 1. McFarlane 1936; 2. Arai 1969b; Records: 1. Bangham and Hunter 1939 (Ont); 3. Sekerak and Arai 1977 2. Miller 1940 (Que); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. Bangham and Adams 1954 (BC); 6. Dechtiar 1972c (Ont) Lepidophyllum cameroni Arai, 1969 (M) Syn.: Lepidophyllum sp. of Arai, 1967 Glossidium geminum (Mueller, 1930) Location: urinary bladder Yamaguti, 1954 (FW) Host: Hemilepidotus hemilepidotus Syn.: Alloglossidium geminus (Mueller, 1930) Dist.: Pac Location: intestine Records: Arai 1967a, 1969a, b Host: Ictalurus nebulosus Dist.: Ont, Que Lepidophyllum steenstrupi Odhner, 1902 (M) Records: Miller 1940 (Que); Bangham 1941 Location: urinary bladder (Ont), 1955 (Ont); Bangham and Venard Hosts: Anarhichas lupus (1,2) 1946 (Ont); Dechtiar 1972c (Ont); Molnar Macrozoarces americanus (1,2,3) et al. 1974 (Ont) Dist.: Atl Records: 1. Stafford 1904, 2. 1907; 3. Cooper Macroderoides flavus Van Cleave and Mueller, 1915a (FW) 1932 Location: intestine

(M)

Neozoogonus californicus Arai, 1954

Host: Cymatogaster aggregata

Records: Arai 1967a, b, 1969b

Location: intestine

Dist.: Pac

68Myers (1959) considered S. formosum to be a "pseudoparasite" of these hosts.

Hosts: Esox americanus vermiculatus (2)

E. niger (1)

Dist.: Ont, Que

Records: 1. Fantham and Porter 1948 (Que);

2. Crossman 1962 (Ont)

Macroderoides spiniferus Pearse, 1924 (FW)

Location: digestive tract Host: Lepisosteus osseus

Dist.: Ont

Record: Bangham and Hunter 1939

Macroderoides typicus (Winfield, 1929) Van Cleave and Mueller, 1932 (FW)

Location: digestive tract

Host: Amia calva

Dist.: Ont

Records: Bangham and Hunter 1939; Bang-

ham 1955

Macroderoides sp.

Location: digestive tract Host: Ictalurus punctatus69

Dist.: Ont

Record: Bangham and Hunter 1939

Parastiotrema ottawanensis Miller, 1940 (FW)

Location: intestine Host: Ictalurus punctatus

Dist.: Que

Record: Miller 1940

Vietosoma parvum Van Cleave and Mueller, (FW)

1932 Location: digestive tract

Hosts: Ictalurus nebulosus (3,4)

I. punctatus (1,2)70

Dist.: Ont, Que

Records: 1. Lyster 1939 (Que); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont); 4. Bangham and Venard 1946 (Ont)

Family MICROPHALLIDAE

Maritreminoides obstipus (Van Cleave and Mueller, 1932) Rankin, 1939

Syn.: Maritrema obstipum (Van Cleave and Mueller, 1932) Maritrema medium (Van Cleave and

Mueller, 1932)

Location: [digestive tract] Host: Micropterus dolomieui Dist.: Ont.

Record: Bangham 1941

Remarks: Yamaguti (1953) noted that M. obstipus (listed in Yamaguti (1953) as Microphallus obstipes) is an avian parasite, and considered reports from fishes to result from accidental liberation of metacercaria from their cysts.

(FW)

(M)

(FW)

Microphallus opacus (Ward, 1894) Ward,

Syn.: Distomum opacum Ward, 1894

Location: intestine

Hosts: Ambloplites rupestris (4)

Amia calva (2)

Anguilla rostrata (1,5)

Esox lucius (3)

E, niger (3)

Ictalurus nebulosus (4)

I. punctatus (4)

Micropterus dolomieui (2,3,4,6)

M. salmoides (4) Perca flavescens (2,3)

Dist.: Ont, Que

(FW)

Records: 1. MacCallum 1895 (Ont); 2. Bangham and Hunter 1939 (Ont); 3. Fantham and Porter 1948 (Que); 4. Bangham 1955 (Ont); 5. Dechtiar 1972b (Ont), 6. 1972c (Ont)

Microphallus sp.

Location: intestine, stomach Host: Tautogolabrus adspersus

Dist.: Atl

Record: Sekhar S. and Threlfall 1970a

Microphallidae gen. sp.

Location: not specified

Hosts: Lota lota

Micropterus dolomieui Perca flavescens

Dist.: Ont

Record: Bangham 1941

Superfamily ALLOCREADIOIDEA Family ALLOCREADIIDAE

Allobunodera mediovitellata (Tsimbaliuk and Roytman in Skrjabin and Koval,

1966) Yamaguti, 1971 Syn,: Bunodera mediovitellata Tsimbaliuk

and Roytman in Skrjabin and Koval, 1966 Location: intestine

Host: Gasterosteus aculeatus

Dist.: BC

Record: Lester 1975

⁶⁹The record of Macroderoides sp. from this host is found only in the host-parasite list of Bangham and Hunter (1939).

⁷⁰Bangham and Hunter (1939) report this parasite from I. punctatus only in their host-parasite list.

Allocreadium isoporum (Looss, 1894) Odhner, (FW) Syn.: Distomum isoporum Looss, 1894 Location: intestine Hosts: Esox lucius (3) Semotilus corporalis (1,2)71 Thymallus arcticus (3) Dist.: Que?, YT Records: 1. Stafford 1902 (unspecified locality), 2. 1904 (Que?); 3. Arthur et al. 1976 Remarks: Stafford's (1902, 1904) records probably are referable to A. lobatum. Allocreadium lobatum Wallin, 1909 (FW) Location: intestine Hosts: Catostomus catostomus (4,7) C. commersoni (6) Couesius plumbeus (4,5) Mylocheilus caurinus (4) Nocomis biguttatus (2) Notropis cornutus (1,2,3,8) N. hudsonius (2) Pimephales promelas (6) Prosopium williamsoni (4) Ptychocheilus oregonensis (4) Rhinichthys cataractae (6) Richardsonius balteatus (4) Salmo gairdneri (4) Semotilus atromaculatus (1,2,3) S. corporalis (3) Dist.: BC, Lab, Ont, Que Records: 1. Bangham 1941 (Ont), 2. 1955 (Ont); 3. Bangham and Venard 1946 (Ont); 4. Bangham and Adams 1954 (BC); 5.

1974 (Que); 8. Molnar et al. 1974 (Ont) (FW) Allocreadium spp.

Threlfall and Hanek 1971 (Lab); 6. Dech-

tiar 1972c (Ont); 7. Hanek and Molnar

Location: intestine Hosts: Acipenser fulvescens (1)72 Etheostoma blennioides (1)73 E. exile $(1)^{73}$

Fundulus diaphanus (2) Labidesthes sicculus (1)72 Le pomis gibbosus (1)⁷²

Dist.: NS, Ont

71This parasite was reported as "Allocreadium isoporum Looss?" by Stafford (1904).

Records: 1. Bangham and Hunter 1939 (Ont); 2. Wiles 1975b (NS)

Anisorchis opisthorchis Polyansky, 1955 Location: intestine, pyloric caeca, stomach Hosts: Hemilepidotus hemilepidotus (1,2) Hexagrammos lagocephalus (1,2) H. stelleri (1,2)

Dist.: Pac

Records: 1. Arai 1967a, 2. 1969b

Bunodera luciopercae (O. F. Müller, 1776) Lühe, 1909

Syn.: Distomum nodulosum (Froelich, 1791)

Location: intestine

Hosts: Acipenser fulvescens (1) Ambloplites rupestris (1) Anguilla rostrata (1) A plodinotus grunniens (1) Esox lucius (10)

Gasterosteus aculeatus (9) Lepomis macrochirus (1)

Lota lota (12)74 Micropterus salmoides (1)

Perca flavescens $(3,4,6,7,11,12,13)^{75}$

Prosopium cylindraceum (14)

Pungitius pungitius (8) Salmo gairdneri (15)

S. salar (14)

Salvelinus alpinus (14)

S. fontinalis (2,5,14,15)

S. malma (15)

S. namaycush (14,15)

Dist.: Alta, BC, Lab-b, Lab, Nfld-b, Nfld, Ont. Que

Records: 1. MacCallum 1895 (Ont); 2. Stafford 1902 (unspecified locality); 3. Bangham and Hunter 1939 (Ont); 4. Fantham and Porter 1948 (Que); 5. Sandeman and Pippy 1967 (Nfld); 6. Tedla and Fernando 1969a (Ont), 7. 1972 (Ont); 8. Hanek and Threlfall 1970d (Nfld), 9. 1970e (Lab-b, Nfld-b, Nfld); 10. Threlfall and Hanek 1970b (Lab); 11. Cannon 1971 (Ont), 12. 1972 (Ont), 13. 1973 (Ont); 14. Hicks and Threlfall 1973 (Lab); 15. Mudry and Anderson 1977 (Alta, BC)

Bunodera sp. (FW) Location: not specified

⁷²Identification to family only is given in the parasite-host list of Bangham and Hunter (1939). For generic identification see their host-parasite list.

⁷³Record of Allocreadium sp. for these hosts is given only in the host-parasite list of Bangham and Hunter (1939).

⁷⁴Cannon (1972) considered the record of B. luciopercae from Lota lota probably to be the result of ingestion of infected P. flavescens.

⁷⁵The material recorded from P. flavescens by Fantham and Porter (1948) was reported as "... Bunodera perhaps B. luciopercae . . . ?

Host: Perca flavescens

Dist.: Que

Record: Fantham and Porter 1948

Bunoderina eucaliae Miller, 1936 (FW)

Syn.: Bunodera eucaliae (Miller, 1936)

Location: intestine

Hosts: Culaea inconstans (1,2,3,4,5,6)76

Gasterosteus aculeatus (4)
Pungitius pungitius (6)

Umbra limi (5)

Dist.: BC, Ont, Que

Records: 1. Miller 1936 (Que), 2. 1940 (Que); 3. Bangham and Hunter 1939 (Ont); 4. Bangham and Adams 1954 (BC); 5. Bangham 1955 (Ont); 6. Dechtiar 1972c (Ont)

Bunoderina sacculata (Van Cleave and

Mueller, 1932) Yamaguti, 1958 (FW)

Syn.: Bunodera sacculata Van Cleave and

Mueller, 1932 Location: intestine

Hosts: Lepomis gibbosus (2)

Lota lota (8)77

Notropis cornutus (4)

Perca flavescens (1,2,3,4,5,6,7,8,9,10) Stizostedion vitreum vitreum (10)

Dist.: Ont, Que

Records: 1. Lyster 1939 (Que); 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. Bangham and Venard 1946 (Ont); 5. Tedla and Fernando 1969a (Ont), 6. 1972 (Ont); 7. Cannon 1971 (Ont), 8. 1972 (Ont), 9. 1973 (Ont); 10. Dechtiar 1972c (Ont)

Cainocreadium commune (Olsson, 1867–68)

Yamaguti, 1958 (M.

Syn.: Peracreadium commune (Olsson,1867–68)

Location: pyloric caeca Host: Limanda ferruginea

Dist.: Atl

Record: Ronald 1960b

Crepidostomum brevivitellum Hopkins,

1934 (FW)

Location: intestine Host: Anguilla rostrata

Dist.: Lab, Que

⁷⁶Bangham and Hunter (1939) reported *B. eucaliae* from this host only in their host-parasite list. This material was apparently reported as unidentified Trematoda in their parasite-host list.

77The record of *B. sacculata* from *Lota lota* was considered by Cannon (1972) probably to be the result of ingestion of infected *P. flavescens*.

Records: Lyster 1939 (Que); Fantham and Porter 1948 (Que); Hanek and Threlfall 1970c (Lab); Hanek and Molnar 1974 (Que)

Crepidostomum cooperi Hopkins, 1931 (FW) Syn.: Crepidostomum ambloplitis Hopkins,

1931

Crepidostomum fausti Hunninen and Hunter, 1933

Crepidostomum laureatum of Stafford, 1904 and of Cooper, 1915 (partim)

Bunodera nodulosa of Stafford, 1904 (partim)

?Crepidostomum cornutum of Cooper, 1915 (partim)

Location: intestine, pyloric caeca, gall blad-

der

Hosts: Ambloplites rupestris (3,11)
Catostomus commersoni (13.21)

Coregonus clupeaformis (10,12)

Cyprinus carpio (13) Esox niger (13)

Fundulus heteroclitus (13)

Gasterosteus aculeatus (16,17)

Lepomis gibbosus (10,11,12,21)

Micropterus dolomieui (8,11,21)

Perca flavescens (1,2,7,8,10,11,12,13, 18,19,22,23,25,26)

Prosopium cylindraceum (10)

Salvelinus alpinus (24)

S. fontinalis (1,4,5,6,9,13,14,15,20,24)

Stizostedion vitreum vitreum (1)

Unspecified fishes (6)

Dist.: Lab, Man, NB, Nfld-b?, Nfld, NS, Ont, PEI, Que-b, Que

Records: 1. Stafford 1904 (Que?)⁷⁸; 2. Cooper 1915a (Ont)⁷⁹; 3. Hopkins 1931 (Ont)⁸⁰; 4. Richardson 1936 (Que), 5. 1937b (Que), 6.

78Stafford (1904) reported *C. laureatum* from *S. fontinalis* with a variation in *P. flavescens* and *S. v. vitreum*. From reexamination of Stafford's slides, most of which were labeled *Bunodera nodulosa*, Richardson (1936) considered the material from "trout" to be *Crepidostomum transmarinum* (Nicoll, 1909) and that from "perch" to be *C. solidum* Van Cleave and Mueller, 1932 (syn. of *C. cooperi*). Miller (1941a) also reexamined Stafford's material from *S. fontinalis* and corrected the identification to *C. cooperi*.

⁷⁹Hopkins (1931) reexamined specimens reported as *C. laureatum* by Cooper (1915a). Material from *Perca flavescens* was described as *C. cooperi* n.sp.

⁸⁰Hopkins (1931) described *C. ambloplitis* (syn. of *C. cooperi*) from material from the collection of A. R. Cooper. It is likely that these specimens were part of the collection reported as *C. cornutum* by Cooper (1915a).

1942 (Lab, NB, NS, PEI, Que); 7. Bangham and Hunter 1939 (Ont); 8. Lyster 1939 (Que), 9. 1940a (Que); 10. Bangham 1941 (Ont), 11. 1955 (Ont); 12. Bangham and Venard 1946 (Ont); 13. Fantham and Porter 1948 (NS, Que); 14. Choquette 1948a (Que), 15. 1954 (Que); 16. Hanek and Threlfall 1969d (Nfld), 17. 1970e (Nfld); 18. Tedla and Fernando 1969a (Ont), 19. 1972 (Ont); 20. Threlfall and Hanek 1970c (Nfld-b and/ or Nfld); 21. Dechtiar 1972c (Ont); 22. Cannon 1972 (Ont), 23. 1973 (Ont); 24. Hanek and Molnar 1974 (Que-b, Que); 25. Stewart-Hay (1951 MS) cited in Lubinsky 1976 (Man); 26. Dickson (1964 MS) cited in Lubinsky 1976 (Man)

Crepidostomum cornutum (Osborn, 1903)

Stafford, 1904 (FW)

Location: intestine, pyloric caeca, gall bladder Hosts: Ambloplites rupestris (1,2,3,4,6,8,10)

A mia calva (4)

Anguilla rostrata (8,9)

Ictalurus melas (4)

I. nebulosus (5,6)

I. punctatus (2)

Lepomis gibbosus (5,6,7)

Micropterus dolomieui (2,3,4,5,6,7,8)

M. salmoides (4,6)

Noturus gyrinus (10)

Salvelinus fontinalis (8)

Dist.: NS, Ont, Que

Records: 1. Stafford 1904 (Que?)81; 2. Cooper 1915a (Ont); 3. Lyster 1939 (Que); 4. Bangham and Hunter 1939 (Ont); 5. Bangham 1941 (Ont), 6. 1955 (Ont); 7. Bangham and Venard 1946 (Ont); 8. Fantham and Porter 1948 (NS, Que); 9. Dechtiar 1972b (Ont), 10. 1972c (Ont)

Crepidostomum farionis (O. F. Müller, 1780)

Lühe, 1909

Location: intestine, pyloric caeca, gall bladder Hosts: Coregonus clupeaformis (4,17,19,24,

Gasterosteus aculeatus (14)

Lota lota (8,25)

Oncorhynchus kisutch (8,11,12,20)

O. nerka (8,9,10,19)

Perca flavescens (19)

Prosopium cylindraceum (1,2,4,24)

P. williamsoni (8,25)

Salmo clarki (8,25)

S. gairdneri (5,7,8,13,25)

S. salar (13,15,17,18,21,22,23)

S. trutta (13,16)

Salvelinus alpinus (17)

S. fontinalis (3,4,5,6,8,13,16,17,18,25)

S. fontinalis \times S. namaycush (19,25)

S. malma (8,11,12,25)

S. namaycush (3,4,17,24,25)

Thymallus arcticus (8,24)

Unspecified Salmonidae (20)

Dist.: Pac, Alta, BC, Lab, NB-b, NB, Nfld-b?, Nfld, NS, Ont, PEI, Que, YT

Records: 1. Bangham 1941 (Ont), 2. 1955 (Ont); 3. MacLulich 1943b (Ont); 4. Bangham and Venard 1946 (Ont); 5. Fantham and Porter 1948 (Que); 6. Choquette 1948a (Que); 7. Rawson 1953 (Alta); 8. Bangham and Adams 1954 (BC); 9. Margolis 1957 (BC), 10. 1963 (BC); 11. Arai 1967a (Pac), 12. 1969b (Pac); 13. Sandeman and Pippy 1967 (Nfld); 14. Threlfall 1968 (Nfld); 15. Pippy 1969 (Lab, NB-b, NB, Nfld, NS, PEI); 16. Threlfall and Hanek 1970c (Nfldb and/or Nfld); 17. Hicks and Threlfall 1973 (Lab); 18. Hare and Frantsi 1974 (NS); 19. Collins and Dechtiar 1974 (Ont); 20. Leong and Holmes 1974a (Alta); 21. Hare and Burt 1975a (NB), 22. 1975b (NB), 23. 1976 (NB-b, NB); 24, Arthur et al. 1976 (YT); 25. Mudry and Anderson 1977 (Alta, BC)

Crepidostomum illinoiense Faust, 1918 Syn.: Crepidostomum hiodontos Hunter and Bangham, 1932

Location: intestine Host: Hiodon tergisus

Dist.: Ont

Records: Hunter and Bangham 1932; Bang-

ham and Hunter 1939

Crepidostomum isostomum Hopkins,

1931 (FW)

Syn.: Crepidostomum laureatum of Cooper, 1915⁸² (partim)

Crepidostomum canadense Hopkins, 1931

Location: intestine

⁸¹The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

⁸² Hopkins (1931) reexamined specimens reported as C. laureatum by Cooper (1915a) and described some as C. canadense n.sp. (syn. of C. isostomum) from Etheostoma nigrum. Hopkins also speculated that Cooper's material from E. iowae (syn. of E. exile) was identical with that from E. nigrum (i.e., C. isostomum).

Hosts: Cottus asper (4)
?Etheostoma exile (1)
E. nigrum (1,5)
Perca flavescens (3)
Percina caprodes (6)
Percopsis omiscomaycus (2,5,6)

Dist.: BC, Ont, Que

Records: 1. Cooper 1915a (Ont); 2. Bangham and Hunter 1939 (Ont); 3. Lyster 1940a (Que); 4. Bangham and Adams 1954 (BC); 5. Bangham 1955 (Ont); 6. Dechtiar 1972c (Ont)

Crepidostomum lintoni (Pratt in Linton, 1901) Hopkins, 1933 (FW

Syn.: Acrodactyla petalosa (Lander in Looss, 1902)

1902) Tantina

Location: intestine

Host: Acipenser fulvescens

Dist.: Ont, Que

Records: Stafford 1904 (Que?)⁸³; Cooper 1915a (Ont); Lyster 1939 (Que); Bangham and Hunter 1939 (Ont); Bangham 1955 (Ont); Dechtiar 1972c (Ont); Anthony 1974 (Ont)

Crepidostomum metoecus (Braun, 1900)

Braun, 1900 (FW)

Location: intestine

Hosts: Coregonus clupeaformis

Cottus cognatus
Esox lucius
Lota lota
Salvelinus namaycush
Thymallus arcticus

Dist.: YT

Record: Arthur et al. 1976

Crepidostomum spp.

Includes: Crepidostomum laureatum of Cooper, 1915 (partim)⁸⁴
Location: intestine, gall bladder
Hosts: Acipenser fulvescens (8)
Aplodinotus grunniens (2)⁸⁵

83The hosts from which Stafford (1904) reported this species were probably purchased from a Montreal fish shop.

⁸⁴Hopkins (1931) examined specimens reported as *Crepidostomum laureatum* by Cooper (1915a). Material from *Lepomis gibbosus* consisted of immature specimens only, the specific designation of which was considered to be uncertain.

85The record of *Crepidostomum* sp. from *A. grunniens* is found only in the host-parasite list of Bangham and Hunter (1939).

Catostomus commersoni (4)

Hiodon alosoides (7) Lepomis gibbosus (1,10)

Lota lota (5)

Notropis cornutus (4) Salvelinus fontinalis (4)⁸⁶ Semotilus margarita (3) Stizostedion vitreum vitreum (9)

Thymallus arcticus (5)

Unspecified fishes (6) Dist.: BC, Man, Ont, Que

Records: 1. Cooper 1915a (Ont); 2. Bangham and Hunter 1939 (Ont); 3. Bangham and Venard 1946 (Ont); 4. Fantham and Porter 1948 (Que); 5. Bangham and Adams 1954 (BC); 6. Freeman 1964b (Ont); 7. Kennedy and Sprules 1967 (Man); 8. Anthony 1974 (Ont), 9. 1976 (Ont); 10. Cone and Anderson 1977b (Ont)

Creptotrema funduli Mueller, 1934 (FW) Syn.: ?Allocreadium commune of Cooper,

1915 (partim)⁸⁷
Location: intestine

Hosts: Fundulus diaphanus (1,3)

Umbra limi (2)

Dist.: NS, Ont

Records: 1. ?Cooper 1915a (Ont); 2. Bangham 1955 (Ont); 3. Wiles 1975b (NS)

Remarks: Manter (1962) noted that this species should not be retained in the genus *Creptotrema* and that it is an opecoelid related to *Plagioporus*.

Megalogonia ictaluri Surber, 1928 (FW) Syn.: Crepidostomum ictaluri (Surber, 1928)

Location: intestine

(FW)

⁸⁶The report of *Crepidostomum* sp. from *S. fontinalis* by Fantham and Porter (1948) was based on ova only.

87Cooper (1915a) erroneously reported under the name Allocreadium commune (a syn. of Cainocreadium c.) trematodes from the intestine or gall bladder of several species of freshwater fishes (Catostomus catostomus, Fundulus diaphanus, Notropis cornutus, and tentatively from the swimbladder of "...a minnow, Notropis atherinoides (?)"). Cooper's material is believed to have contained a number of species. Mueller (1934) considered it probable that specimens of C. funduli were included in Cooper's material from Fundulus diaphanus. Mueller (1934) and Dobrovolny (1939) considered it probable that material from N. cornutus included specimens of *Plagioporus sinitsini* while Hunter and Bangham (1932) considered Cooper's A. commune to contain specimens of Lebouria cooperi (syn. of Plagioporus c.).

Hosts: Ictalurus melas (2) Phyllodistomum folium (Olfers, 1816) Braun, (FW) *I. nebulosus* (3,4,5) *I. punctatus* (1,2,4) Syn.: Distomum folium Olfers, 1816 Noturus flavus (2) Location: urinary bladder N. miurus (2) Hosts: Esox lucius (2) Dist.: Ont. Que Ictalurus nebulosus (1) Records: 1. Lyster 1939 (Que); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 Records: 1. Stafford 1902 (unspecified local-(Ont), 4. 1955 (Ont); 5. Dechtiar 1972c ity), 2. 1904 (Que?)89 (Ont) Phyllodistomum lachancei Choquette, 1947 (FW) (M) Neophasis pusilla Stafford, 1904 Location: ureters Location: urinary bladder Host: Salvelinus fontinalis Host: Anarhichas lupus Dist.: Que Dist.: Atl Records: Choquette 1947, 1948a Record: Stafford 1904 Remarks: Zhukov (1960) considered N. pusilla to be a synonym of N. oculata (Levin-Phyllodistomum lacustri (Loewen, 1929) sen, 1881). (FW) Lewis, 1935 Location: [urinary bladder] Host: Ictalurus punctatus Polylekithum ictaluri (Pearse, 1924) Arnold, Dist.: Ont (FW) 1934 Record: Dechtiar 1972b Syn.: Allocreadium ictaluri Pearse, 1924 Location: intestine Phyllodistomum limnosa Sandeman and Hosts: Ictalurus melas (3) Pippy, 1967 (FW) *I. nebulosus* (1,2,4) Location: ureters, urinary bladder Dist.: Ont, Que Hosts: Coregonus clupeaformis (3) Records: 1. Bangham 1941 (Ont); 2. Bang-Salmo salar (1,2) ham and Venard 1946 (Ont); 3. Worley and Salvelinus alpinus (3) Bangham 1952 (Que); 4. Dechtiar 1972c S. fontinalis (1,3) (Ont) Dist.: Lab, Nfld Records: 1. Sandeman and Pippy 1967 (Nfld); (FW) Allocreadiidae gen. spp. 2. Pippy 1969 (Nfld); 3. Hicks and Threlfall Location: intestine 1973 (Lab) Hosts: Ericymba buccata (1)88 Salvelinus fontinalis (2,3) Phyllodistomum lysteri Miller, 1940 (FW) Dist.: Lab, Nfld, Ont Location: ureters Records: 1. Bangham and Hunter 1939 (Ont); Host: Catostomus commersoni 2. Frost 1940 (Nfld); 3. Hicks and Threlfall Dist.: Ont, Que 1973 (Lab) Records: Miller 1940 (Que); Dechtiar 1972b (Ont), 1972c (Ont); Molnar et al. 1974 (Ont) Family GORGODERIDAE (FW) Phyllodistomum staffordi Pearse, 1924 Location: ureters Phyllodistomum coregoni Dechtiar, 1966 (FW) Hosts: Esox masquinongy (1) Location: ureters and urinary bladder Ictalurus melas (4) Host: Coregonus clupeaformis I. nebulosus (2,3,4,5,6) Dist.: Alta, Ont Dist.: BC, Ont, Que Records: Dechtiar 1966a (Ont), 1972c (Ont);

Leong and Holmes 1974a (Alta)

Records: 1. Lyster 1939 (Que); 2. Bangham

1941 (Ont), 3. 1955 (Ont); 4. Bangham and

⁸⁸The record of Allocreadiidae from *E. buccata* is found only in the parasite-host list of Bangham and Hunter (1939).

⁸⁹The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

Family LEPOCREADIIDAE 6. 1972c (Ont) Deropristis hispida (Abildgaard in Rudolphi, 1819) Odhner, 1902 (M) Phyllodistomum superbum Stafford, 1904 (FW) Location: intestine Location: ureters, urinary bladder Host: Acipenser fulvescens Hosts: Catostomus commersoni (4) Dist.: Que?92 Esox lucius (2.4) Record: Stafford 1904 E. niger (4) Remarks: Ward (1938) considered the record Ictalurus nebulosus (1,3) of D. hispida by Stafford (1904) to be a Micropterus dolomieui (4) misidentification. Perca flavescens (1,5) Salvelinus fontinalis (4) Deropristis inflata (Molin, 1859) Odhner, Stizostedion canadense (5) 1902 (M) S. vitreum vitreum (5) Location: intestine Dist.: Ont, Que Host: Anguilla rostrata Records: 1. Stafford 1904 (Que?)90; 2. Lyster Dist.: Atl 1939 (Que); 3. Bangham and Hunter 1939 Records: Stafford 1904, 1907 (Ont); 4. Fantham and Porter 1948 (Que); 5. Dechtiar 1972c (Ont) Homalometron armatum (MacCallum, 1895) Manter, 1947 (FW) Phyllodistomum undulans Steen, 1938 (FW) Syn.: Distomum isoporum var. armatum Mac-Location: ureters Callum, 1895 Host: Cottus bairdi Anallocreadium armatum (MacCallum, Dist.: Ont Record: Dechtiar 1972c Anallocreadium pearsei Hunter and Bangham, 1932 Phyllodistomum spp. (FW, M) Location: intestine Location: ureters, urinary bladder Hosts: Acipenser fulvescens (1) Hosts: Ambloplites rupestris (2) A plodinotus grunniens (1,2,3) A plodinotus grunniens (2) Ictalurus nebulosus (4) Catostomus catostomus (3) Lepomis gibbosus (1,4) Coregonus artedii (3) Dist.: Ont. Oue Ictalurus nebulosus (2) Records: 1. MacCallum 1895 (Ont); 2. Hunter I. punctatus (1)91 and Bangham 1932 (Ont); 3. Bangham and Moxostoma erythrurum (2) Hunter 1939 (Ont); 4. Miller 1940 (Que) M. macrolepidotum (2) Sebastes caurinus (4) Homalometron pallidum Stafford, 1904 Location: intestine, stomach S. diploproa (4) Host: Fundulus heteroclitus93 S. ruberrimus (4) Dist.: Atl, Nfld, NS Dist.: Pac. Ont Records: Stafford 1904 (Atl); Fantham and Records: 1. Bangham and Hunter 1939 (Ont); Porter 1948 (NS); Dickinson and Threlfall 2. Dechtiar 1972b (Ont), 3. 1972c (Ont); 4. Sekerak and Arai 1977 (Pac) 1975 (Nfld) Lepidapedon elongatum (Lebour, 1908) Nicoll, Gorgoderidae gen. sp. (FW) 1910 (M) Location: kidney Location: intestine Host: Salvelinus fontinalis Host: Tautogolabrus adspersus Dist : Nfld Dist.: Atl Record: Frost 1940 Record: Sekhar S. and Threlfall 1970a

Adams 1954 (BC): 5. Dechtiar 1972b (Ont).

91The record of Phyllodistomum sp. from this host is found only in the host-parasite list of Bangham and Hunter (1939).

⁹⁰The hosts from which Stafford (1904) reported this species were probably obtained from a Montreal fish shop.

⁹²The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

⁹³Fantham and Porter (1948) considered their material to be "... provisionally identified as Homalometron pallidum . . . "

Lepidapedon microcotyleum (Odhner, 1905) S. elongatus (2,3)Yamaguti, 1958 S. flavidus (3) (M) Syn.: Lepidapedon sp. of Arai, 1967 S. maliger (3) Location: pyloric caeca S. nebulosus (3) Sebastes sp. (1) Host: Theragra chalcogramma Syngnathus griseolineatus (2) Dist.: Pac Records: Arai 1967a, 1969b Dist.: Pac Records: 1. McFarlane 1936; 2. Arai 1969b; 3. Sekerak and Arai 1977 Lepidapedon rachion (Cobbold, 1858) Stafford, Syn.: Distomum rachion Cobbold, 1858 Family OPECOELIDAE Location: intestine Hosts: Melanogrammus aeglefinus (1,2,3) Scophthalmus aquosus (4) Helicometra sp. (M) Location: intestine Dist.: At1 Host: Sebastes marinus Records: 1. Stafford 1904, 2. 1907; 3. Kui-Dist.: Atl tunen-Ekbaum 1937b; 4. Ronald 1960b Record: Gaevskaya and Umnova 1977 Neolepidapedon pugetense (Acena, 1947) Neohelicometra sebastis Sekerak and Arai, Yamaguti, 1971 (M) 1974 Location: intestine, pyloric caeca Syn.: Helicometra sp. of Arai, 1969, and of Hosts: Sebastes caurinus Sekerak and Arai, 1973 S. nebulosus Dist: Pac Location: pyloric caeca, intestine Hosts: Sebastes aleutianus (3,4) Record: Sekerak and Arai 1977 S. alutus (2,3,4) S. babcocki (3,4) Neolepidapedon sebastisci (Yamaguti, 1938) Manter, 1954 S. caurinus (3,4) (M) S. diploproa(3,4)Location: intestine, pyloric caeca S. flavidus (3.4) Hosts: Sebastes aleutianus S. helvomaculatus (3,4) S. alutus S. maliger (1,3,4) S. babcocki S. nebulosus (4) S. borealis S. helvomaculatus S. nigrocinctus (3,4) S. paucispinis S. reedi (3,4) S. ruberrimus (3,4) S. pinniger S. ruberrimus S. variegatus (3,4) S. zacentrus S. zacentrus (3,4) Dist.: Pac Dist.: Pac Record: Sekerak and Arai 1977 Records: 1. Arai 1969b; 2. Sekerak and Arai 1973, 3. 1974, 4. 1977 Opechona alaskensis Ward and Fillingham, 1934 (M) Plagioporus cooperi (Hunter and Bangham, Location: intestine, pyloric caeca 1932) Price, 1934 Hosts: Sebastes alutus (1,2) Syn.: Lebouria cooperi Hunter and Bangham, S. flavidus (2) S. maliger (2) Allocreadium commune of Cooper, 1915 (partim)94 S. pinniger (2) Dist.: Pac Location: intestine Records: 1. Sekerak and Arai 1973, 2. 1977 Hosts: Ammocrypta pellucida (1)95 Etheostoma nigrum (3) Opechona occidentalis Montgomery, 1957 (M) Syn.: Pharyngora bacillaris of McFarlane, 94See footnote 87. 1936 95The material from A. pellucida and P. copelandi Location: intestine was considered by Hunter and Bangham (1932) to Hosts: Sebastes alutus (3)

S. caurinus (2)

be "...identical with or very closely allied ..." to

P. cooperi.

Hybopsis storeriana (1,2)
Notropis atherinoides (1,2)
N. cornutus (3)
N. emiliae (2)
N. hudsonius (1,2,3)
N. spilopterus (1,2)
N. stramineus (1,2)
Percina copelandi (1)95
Pimephales notatus (2)96
Rhinichthys cataractae (1,2)
Dist.: Ont
Records: 1. Hunter and Bangham

Records: 1. Hunter and Bangham 1932; 2. Bangham and Hunter 1939; 3. Bangham 1955

Plagioporus serotinus Stafford, 1904 (FW)

Location: intestine

Hosts: Catostomus commersoni (2)

Moxostoma macrolepidotum (1,2)

Dist.: Que

Records: 1. Stafford 190497; 2. Miller 1940

Plagioporus serratus Miller, 1940 (FW)

Location: gall bladder Host: *Hiodon tergisus*

Dist.: Que

Record: Miller 1940

Plagioporus sinitsini Mueller, 1934 (FW)

Syn.: ?Allocreadium commune of Cooper

1915 (partim)⁹⁸

Location: intestine, gall bladder
Hosts: Catostomus catostomus (2)
C. commersoni (3,4)
Nocomis biguttatus (2)
Notropis cornutus (1,4)

Dist.: Ont

Records: 1. ?Cooper 1915a; 2. Bangham 1955; 3. Dechtiar 1972c; 4. Molnar et al. 1974

Pimephales promelas (4)

Plagioporus varius (Nicoll, 1910) Price, 1934 (M)

Location: intestine, pyloric caeca

96The records of *P. cooperi* from the indicated hosts are found only in the host-parasite list of Bangham and Hunter (1939).

97The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

98See footnote 87.

Hosts: Glyptocephalus cynoglossus Hippoglossus hippoglossus Limanda ferruginea

Pseudopleuronectes americanus

Dist.: Atl

Record: Ronald 1960b

Remarks: Manter (1954) considered *P. varius* to be a synonym of *P. alacer* (Looss, 1901).

Plagioporus sp.

(FW)

Syn.: Lebouria sp. Location: intestine

Hosts: Ammocrypta pellucida Etheostoma exile Percina copelandi

Dist.: Ont

Record: Bangham and Hunter 1939

Podocotyle abitionis McFarlane, 1936 (M)

Location: intestine Host: Sebastes sp.

Dist.: Pac

Record: McFarlane 1936

Podocotyle atomon (Rudolphi, 1802) Odhner,

1905 (M) Syn.: Distomum simplex of Stafford, 1907

(partim)

Sinistroporus simplex of Stafford, 1904

(partim)

Podocotyle sp. of Arai, 1967 (partim)

Location: intestine, pyloric caeca, stomach

Hosts: Anguilla rostrata (11) A peltes quadracus (10) Aulorhynchus flavidus (7,8)

Gadus morhua (4)

Gasterosteus aculeatus (9,12,17)

G. wheatlandi (13) Hexagrammos stelleri (3)

Hippoglossoides platessoides (6,18)

Hippoglossus hippoglossus (6) Leptocottus armatus (3,8)

Limanda ferruginea (6,19)

Liopsetta putnami (6)

Myoxocephalus quadricornis (15)

M. scorpius (1,2,4)⁹⁹
Platichthys stellatus (7,8)
Pseudopleuronectes americanus

Pseudopleuronectes americanus (4,6,20)

Pungitius pungitius (17) Raja ocellata (5)¹⁰⁰

⁹⁹Material from the indicated hosts from the collection of J. Stafford was identified as *P. atomon* by Miller (1941a).

¹⁰⁰Myers (1959) considered *P. atomon* to be a "pseudoparasite" of *R. ocellata*.

Podocotyle olssoni Odhner, 1905 (M) Salvelinus fontinalis (16) Scomber scombrus (1,2)99 Location: intestine, caeca Sebastes marinus (1,2,21)99 Hosts: Limanda ferruginea (2) Syngnathus griseolineatus (3) Microgadus tomcod (1) Tautogolabrus adspersus (14) Dist.: Atl Records: 1. Heller 1949; 2. Ronald 1960b Xiphister atropurpureus (3) Dist.: Atl, Pac, Lab-b, Lab, Nfld-b, Nfld, Podocotyle pedunculata Park, 1937 (M) Que-b, Que Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl); Syn.: Neopodocotyloides pedunculata (Park, 3. McFarlane 1936 (Pac); 4. Heller 1949 1937) Podocotyle sp. of Arai, 1967 (partim) (Atl): 5. Myers 1959 (Atl): 6. Ronald 1960b (Atl); 7. Arai 1967a (Pac), 8. 1969b (Pac); Location: intestine 9. Hanek and Threlfall 1969b (Nfld-b), 10. Host: Pholis ornata 1970b (Nfld-b), 11. 1970c (Lab, Nfld-b), Dist.: Pac 12. 1970e (Atl, Lab-b, Lab, Nfld-b, Nfld), 13. Records: Arai 1967a, 1969b Remarks: Pritchard (1966) transferred this 1971 (Nfld-b); 14. Sekhar S. and Threlfall species to Neopodocotyloides. Nahhas and 1970a (Atl); 15. Threlfall and Hanek 1971 (Lab-b); 16. Hicks and Threlfall 1973 (Lab); Krupin (1977) regarded P. pedunculata as 17. Hanek and Molnar 1974 (Que-b, Que); a synonym of P. californica Park, 1937. 18. Scott 1975a (Atl), 19. 1975c (Atl), 20. 1976 (Atl); 21. Gaevskaya and Umnova Podocotyle reflexa (Creplin, 1825) Odhner, 1977 (Atl) Syn.: Sinistroporus productus Stafford, 1904 Podocotyle blennicottusi Park, 1937 Sinistroporus simplex of Stafford, 1904 Syn.: Podocotyle sp. of Arai, 1967 (partim) (partim) Location: intestine Location: intestine Host: Triglops pingeli Hosts: Hemitripterus americanus (1)101 Dist.: Pac Leptocottus armatus (2) Records: Arai 1967a, 1969b Microgadus tomcod (3) Remarks: Nahhas and Krupin (1977) re-Syngnathus griseolineatus (2) garded P. blennicottusi as a synonym of P. Tautogolabrus adspersus (4) endophrysi Park, 1937. Urophycis tenuis (1)101 Dist.: Atl, Pac Podocotyle boleosomi (Pearse, 1924) Yamaguti, Records: 1. Stafford 1904 (Atl); 2. McFarlane 1936 (Pac); 3. Heller 1949 (Atl); 4. Sekhar Syn.: Allocreadium boleosomi Pearse, 1924 S. and Threlfall 1970a (Atl) Location: digestive tract Host: Percina caprodes Podocotyle simplex (Rudolphi, 1809) Stafford, Dist.: Ont 1904 (M) Syn.: Distomum simplex Rudolphi, 1809 Record: Bangham and Hunter 1939 Sinistroporus simplex (Rudolphi, 1809) (M) Location: intestine Hosts: Gasterosteus aculeatus (1,2)¹⁰²

Podocotyle endophrysi Park, 1937

Location: intestine, pyloric caeca

Hosts: Myoxocephalus polyacanthocephalus Syngnathus griseolineatus

Dist.: Pac

Record: Arai 1969b

Podocotyle lepomis (Dobrovolny, 1939) (FW) Yamaguti, 1954

Syn.: Plagioporus lepomis Dobrovolny, 1939

Location: intestine

Host: Petromyzon marinus

Dist.: Ont

Record: Wilson and Ronald 1967

Remarks: Pritchard (1966) transferred this species to her new genus Allopodocotyle.

101 Miller (1941a) identified material from the indicated hosts from the collection of J. Stafford as P. reflexa.

Hemitripterus americanus (1)103

Myoxocephalus scorpius (1,2)104

102Material from G. aculeatus from the collection of J. Stafford was identified as Podocotyle staffordi by Miller (1941a).

103Material from H. americanus from the collection of J. Stafford was identified as Podocotyle reflexa by Miller (1941a).

104Material from M. scorpius, S. scombrus, and S. marinus from the collection of J. Stafford was identified as Podocotyle atomon by Miller (1941a).

Pholis gunnellus (3) S. brevispinis (4) Pseudopleuronectes americanus (3) S. diploproa (4) Salmo salar (1,2) S. elongatus (4) Scomber scombrus (1,2)104 S. flavidus (4) S. goodei (4) Sebastes marinus (1,2)104 S. helyomaculatus (4) Urophycis chuss (1,2) S. maliger (4) Dist.: Atl Records: 1. Stafford 1904, 2. 1907; 3. Cooper S. paucispinis (4) 1915a S. pinniger (4) S. proriger (4) S. reedi (4) Podocotyle sinusacca Ching, 1960 (M) S. ruberrimus (4) Syn.: Neopodocotyloides sinusaccus S. variegatus (4) (Ching, 1960) S. wilsoni (4) Podocotyle sp. of Arai, 1967 (partim) S. zacentrus (4) Location: intestine Syngnathus griseolineatus (1)105 Hosts: Blepsias cirrhosus (1,2) Dist.: Pac Gasterosteus aculeatus (1,2) Records: 1. Arai 1967a, 2. 1969b; 3. Sekerak Hemilepidotus hemilepidotus (1,2) and Arai 1973, 4, 1977 Hexagrammos stelleri (1,2) Leptocottus armatus (1,2) Parophrys vetulus (1,2) Allocreadioidea gen. sp. Sebastes maliger (1,2) Location: [intestine] Host: Oncorhynchus gorbuscha Syngnathus griseolineatus (1,2) Theragra chalcogramma (1,2) Dist.: BC-b Record: Margolis 1957 Dist.: Pac Records: 1. Arai 1967a, 2. 1969b Remarks: Pritchard (1966) transferred this ORDER OPISTHOR CHIIDA species to Neopodocotyloides. SUBORDER OPISTHORCHIATA Podocotyle staffordi Miller, 1941 Superfamily OPISTHORCHIOIDEA Syn.: Sinistroporus simplex of Stafford, 1904 (partim) Family CRYPTOGONIMIDAE Distomum simplex of Stafford, 1907 (partim) Location: intestine Host: Gasterosteus aculeatus Syn.: Monostomum amiuri Stafford, 1900 Dist.: Atl

Acetodextra amiuri (Stafford, 1900) Pearse, (FW)

Location: gonads

Hosts: Ictalurus nebulosus (1,2,4,5)

I. punctatus (3) Noturus flavus (6) N. gyrinus (3)106

Dist.: Ont, Que

Records: 1. Stafford 1900 (unspecified locality), 2. 1904 (Que?)107; 3. Bangham and

Podocotyle spp. (M) Location: intestine, pyloric caeca

Remarks: Miller (1941a) described this spe-

cies from specimens contained in the col-

lection of J. Stafford. Heller (1949) and

Pritchard (1966) regarded this species as

Hosts: Agonus acipenserinus (1,2) A prodon cortezianus (1,2) Blepsias cirrhosus (1,2)

a synonym of P, atomon.

Record: Miller 1941a

Hexagrammos lagocephalus (1)

H. stelleri (1,2) Pholis laeta (1,2) Sebastes aleutianus (4)

S. alutus (1,2,3,4)

S. babcocki (4)

105 Material reported by Arai (1967a) as Podocotyle sp. from S. griscolineatus was included in collections that were later identified as Neopodocotyloides sinusaccus (Ching, 1960) and P. endophrysi Park, 1937 by Arai (1969b).

106Record of A. amiuri from N. gyrinus (as Schilbeodes g.) is found only in the host-parasite list of Bangham and Hunter (1939).

107The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

Hunter 1939 (Ont); 4. Lyster 1939 (Que); 5. Bangham 1955 (Ont); 6. Dechtiar 1972b (Ont)

Allacanthochasmus artus Mueller and Van Cleave, 1932 (FW)

Location: [intestine] Host: Morone chrysops

Dist.: Ont

Record: Bangham 1955

Allacanthochasmus varius Van Cleave, 1922 (metacercaria) (FW)

Location: mesenteries Host: Labidesthes sicculus

Dist.: Ont

Record: Bangham and Hunter 1939

Allacanthochasmus varius Van Cleave, 1922 (adult) (FW)

Location: digestive tract Host: *Morone chrysops*

Dist.: Ont

Records: Bangham and Hunter 1939; Bangham 1955

nam 1955

Caecincola parvulus Marshall and Gilbert, 1905 (FW)

Location: intestine

Hosts: Micropterus dolomieui (2)

M. salmoides (1)

Dist.: Ont

Records: 1. Bangham 1955; 2. Dechtiar 1972c

Centrovarium lobotes (MacCallum, 1885)

Stafford, 1904 (metacercaria) (FW)

Location: [musculature]
Hosts: Notropis hudsonius (2)
N. volucellus (1)
Pimephales notatus (1)

Dist.: Ont

Records: 1. Bangham 1955; 2. Dechtiar 1972b

Centrovarium lobotes (MacCallum, 1895)

Stafford, 1904 (adult) (FW) Syn.: Distomum lobotes MacCallum, 1895

Location: intestine, pyloric caeca Hosts: Ambloplites rupestris (3,4)

Anguilla rostrata (1)

Esox americanus vermiculatus (5,7)

E. lucius (2,4,8)

Ictalurus nebulosus (4,6)

Micropterus dolomieui (5)

Perca flavescens (1,9)

Percopsis omiscomaycus (5) Stizostedion canadense (5,6,9) S. vitreum glaucum (5)

S. vitreum vitreum (1,2,4,5,10,11,12)

Dist.: Man, Ont, Que

Records: 1. MacCallum 1895 (Ont); 2. Stafford 1904 (Que?)¹⁰⁸; 3. Cooper 1915a (Ont); 4. Lyster 1939 (Que); 5. Bangham and Hunter 1939 (Ont); 6. Bangham 1955 (Ont); 7. Crossman 1962 (Ont); 8. Dechtiar 1972b (Ont), 9. 1972c (Ont); 10. Anthony 1976 (Ont); 11. Stewart-Hay (1951 MS) cited in Lubinsky 1976 (Man); 12. Dickson (1964 MS) cited in Lubinsky 1976 (Man)

Cryptogonimus chili Osborn, 1903

(metacercaria)

(FW)

Location: musculature

Hosts: Ambloplites rupestris Micropterus dolomieui Notropis hudsonius

Sunfish [Lepomis gibbosus?]109

Dist.: Ont

Record: Cooper 1915a

Cryptogonimus chili Osborn, 1903 (adult) (FW) Location: intestine, pyloric caeca, stomach

Hosts: Ambloplites rupestris (1,2,3,4,6,7)

Micropterus dolomieui (2,3,4,5,6)

M. salmoides (3)

Perca flavescens (3)

Dist.: Ont, Que

Records: 1. Stafford 1905 (unspecified locality); 2. Cooper 1915a (Ont); 3. Bangham and Hunter 1939 (Ont); 4. Miller 1940 (Que); 5. Fantham and Porter 1948 (Que); 6. Bangham 1955 (Ont); 7. Dechtiar 1972c (Ont)

Cryptogonimus diaphanus (Stafford, 1904)

Miller, 1941 (FW)

Syn.: Protenteron diaphanum Stafford, 1904

Location: intestine

Host: Ambloplites rupestris

Dist.: Que?

Record: Stafford 1904110

Remarks: Because this species was insufficiently described, Yamaguti (1971) suggested it should be suppressed. Perhaps it is a synonym of *C. chili*.

¹⁰⁸The hosts from which Stafford (1904) reported this species were probably obtained from a Montreal fish shop.

¹⁰⁹Record for "sunfish" is found on p. 200 in Cooper (1915a) and may be in reference to *M. dolomieui*.

¹¹⁰The host from which Stafford (1904) reported this species was probably obtained from a Montreal fish shop.

Metadena sp.

Location: intestine

Host: Tautogolabrus adspersus

Dist.: Atl

Record: Sekhar S. and Threlfall 1970a

Neochasmus umbellus Van Cleave and

Mueller, 1932 (FW)

Location: intestine

Host: Micropterus dolomieui

Dist.: Ont

Records: Bangham and Hunter 1939; Dech-

tiar 1972c

Family HETEROPHYIDAE

Apophallus brevis Ransom, 1920

(metacercaria) (FW)

Syn.: Apophallus itascensis Warren, 1953 Distomum sp. larva of Cooper, 1915¹¹¹

Location: skin, fins, gills, musculature

Hosts: Etheostoma exile (5)

E, nigrum (5) Gasterosteus aculeatus (7) Lepomis gibbosus (8)

Perca flavescens (1,4,5,6)

Salmo salar $(2,3)^{112}$

S. trutta (2)

Salvelinus fontinalis (2)

Dist.: Lab, NB-b, NB, Nfld, Ont, Que

Records: 1. Cooper 1915a (Ont); 2. Sandeman and Pippy 1967 (Nfld); 3. Pippy 1969 (Lab, NB-b, NB, Nfld); 4, Dechtiar 1972b (Ont), 5. 1972c (Ont); 6. Sinclair 1972 (Ont); 7. Hanek and Molnar 1974 (Que); 8. Cone and Anderson 1977b (Ont)

Remarks: According to Sinclair (1972) A. brevis is specific to P. flavescens. Miller's (1941b) and Cameron's (1945) records of A. brevis are discussed under A. imperator

Lyster, 1940.

Apophallus imperator Lyster, 1940

(metacercaria) (FW)

Syn.: Apophallus brevis of Miller, 1941 and of Cameron, 1945

Apophallus sp. of Lyster, 1940

Location: skin, fins

111Cooper's (1915a) report of *Distomum* sp. larva was referred to A. brevis by Sinclair (1972).

112Pippy (1969), in his text (p. 36), listed this material as Apophallus sp. and noted "Most specimens probably belong to the species Apophallus brevis . . ." In his table 1 and 2 the same material is referred to A. brevis.

Host: Salvelinus fontinalis Dist.: NB, NS, Ont, Que

(M)

Records: Lyster 1940a (Que), 1940b (Que); Miller 1941b (Que); Cameron 1945 (unspecified locality); Sinclair 1972 (Ont, Que);

Hare and Frantsi 1974 (NB, NS)

Remarks: Apophallus imperator was considered to be specific to S. fontinalis by Sinclair (1972), who referred the records of A. brevis by Miller (1941b) and Cameron (1945) to this species. Material referred to as "black spot" from S. fontinalis by Choquette (1948a) is probably also referable to this species.

Apophallus venustus (Ransom, 1920)

Cameron, 1936 (metacercaria) (FW)

Location: musculature

Hosts: Amia calva (3,4)

Catostomus commersoni (2,4)

Cyprinus carpio (2,4)

Esox lucius (2,4)

Ictalurus nebulosus (2,4)

I. punctatus (3,4)

Lepisosteus osseus (2,4)

Lepomis gibbosus (2,4)

Micropterus dolomieui (2.4) Morone americana (6)

Moxostoma macrolepidotum (4)

Notropis cornutus (2,4)

Perca flavescens (2,4,5,7)

Stizostedion vitreum vitreum (2.4)

Unspecified fishes (1)

Dist.: Ont. Que

Records: 1. Cameron 1936 (Que), 2, 1937a (Que), 3, 1937b (Que), 4, 1945 (unspecified locality); 5. Tedla and Fernando 1969a (Ont), 6, 1969e (Ont), 7, 1972 (Ont)

Apophallus sp. metacercaria

(FW)

Location: skin

Hosts: Salvelinus fontinalis

S. namaycush

Dist.: Ont

Record: Bangham and Venard 1946

Cryptocotyle lingua (Creplin, 1825)

Fischoeder, 1903 (metacercaria) (M)

Syn.: Tocotrema lingua (Creplin, 1825) Dermocystis ctenolabri Stafford, 1905

Location: skin, gills

Hosts: Clupea harengus harengus (6) Glyptocephalus cynoglossus (5) Hemitripterus americanus (2) Hippoglossoides platessoides (5) Hippoglossus hippoglossus (5) Limanda ferruginea (5)

Liopsetta putnami (5) Pseudopleuronectes americanus (3,5) Scophthalmus aquosus (5) Tautogolabrus adspersus (1,7) Unspecified flounder (4)

Dist.: Atl

Records: 1. Stafford 1905; 2. Cooper 1915a; 3. Wolfgang 1954b, 4. 1955a; 5. Ronald 1960b; 6. Sindermann 1965; 7. Sekhar S. and Threlfall 1970b

Galactosomum sp. metacercaria (M)

Location: gill arches

Hosts: Ammodytes hexapterus (1,2) Cymatogaster aggregata (1,2) Hexagrammos lagocephalus (1,2) Oncorhynchus keta (1,2)

Dist.: Pac

Records: 1. Arai 1967a, 2. 1969b

(FW) Heterophyes sp. [metacercaria?]

Location: not specified Host: Hiodon alosoides

Dist.: Man

Record: Kennedy and Sprules 1967

Remarks: This record presumably is based on a misidentification because adults of the genus Heterophyes are not known to occur in North America.

(FW) Heterophyidae gen. spp. metacercaria

Location: skin, gills, musculature Hosts: Cottus cognatus (2) Lepomis gibbosus (3) Salvelinus fontinalis (1)

Dist.: Ont, Nfld, YT

Records: 1. Frost 1940 (Nfld); 2. Arthur et al. 1976 (YT); 3. Cone and Anderson 1977b (Ont)

Family OPISTHORCHIIDAE

Amphimerus elongatus Gower, 1938

(FW) (metacercaria)

Location: musculature, fins Host: Catostomus commersoni

Dist.: Que

Record: Cameron 1944

Amphimerus pseudofelineus (Ward, 1901)

Barker, 1911 (metacercaria)

Syn.: Opisthorchis pseudofelineus Ward, 1901

Location: musculature

Hosts: Catostomus commersoni (2) Unspecified fishes (1)

Dist.: Man

Records: 1. Parnell 1934 (unspecified locality); 2. Evans 1963 (Man)

Metorchis conjunctus (Cobbold, 1860) Looss, (FW)

1899 (metacercaria)

Location: musculature

Hosts: Catostomus catostomus (3) Catostomus commersoni (1,2,4) Perca flavescens (4)

Dist.: Man, Que, Sask

Records: 1. Cameron 1944 (Que), 2. 1945 (unspecified locality); 3. Rawson 1960 (Sask); 4. Evans (1963 MS) cited in Lubinsky 1976 (Man)

Parametorchis complexus (Stiles and Hassall, 1894) Skrjabin, 1913 (metacercaria) (FW)

Location: not specified Host: Unspecified fishes Dist.: Prairie provinces Record: Parnell 1934

SUBORDER ACANTHOCOLPIATA

Superfamily ACANTHOCOLPIOIDEA

Family ACANTHOCOLPIDAE

Dihemistephanus fragilis (Linton, 1900)

Yamaguti, 1971 Syn.: Distomum fragile Linton, 1900

Stenocollum fragile (Linton, 1900)

Location: intestine, pyloric caeca Hosts: Gadus morhua (3)113

Mola mola (1,2,4)

Dist.: Atl

Records: 1. Stafford 1904, 2. 1907; 3. Cooper 1915a; 4. Threlfall 1967

Skrjabinopsolus manteri (Cable, 1952) Cable, (FW) 1955

Location: digestive tract Host: Acipenser fulvescens

Dist.: Ont

Record: Anthony 1974

Stephanostomum baccatum (Nicoll, 1907)

(M) Manter, 1934 (metacercaria)

Syn.: Stephanochasmus histrix of Stafford,

1904, 1907

Includes: Unidentified metacercaria of Huntsman, 1918

(M)

¹¹³The record of Cooper (1915a) from this host is based on a tentative parasite identification.

Location: skin, fins, gills, musculature Hosts: Glyptocephalus cynoglossus (4,7) Hemitripterus americanus (5,6)114 Hippoglossoides platessoides (3,4, $6.7)^{115}$ Hippoglossus hippoglossus (7) Limanda ferruginea (4,7) Liopsetta putnami (4.7) Lophius americanus (1)114 Pseudopleuronectes americanus (1,2,4,5,7)Scophthalmus aquosus (4) Unspecified fishes (6) Dist.: Atl Records: 1. Stafford 1904, 2. 1907; 3. Huntsman 1918b; 4. Wolfgang 1954a, 5, 1954b, 6. 1955a; 7. Ronald 1960b Stephanostomum baccatum (Nicoll, 1907) Manter, 1934 (adult) Syn.: Stephanochasmus sobrinus of Stafford, 1904, 1907 Location: pyloric caeca, intestine Hosts: Cryptacanthodes maculatus (1,2) Hemitripterus americanus (1,2,3,4) Hippoglossus hippoglossus (3,5) Limanda ferruginea (5) Lycodes sp. (1,2) Myoxocephalus scorpius (3) Pseudopleuronectes americanus (5) Unspecified flounders (4) Dist.: Atl Records: 1. Stafford 1904, 2. 1907; 3. Wolfgang 1954b, 4, 1955b; 5, Ronald 1960b Remarks: Miller (1941a) identified material from the collection of J. Stafford from H. americanus, C. maculatus, and Lycodes sp. as Stephanostomum sp. Wolfgang (1955a) reexamined the above material, correcting the identification to S. baccatum. Stephanostomum californicum Manter and Van Cleave, 1951 (M) Syn.: Stephanostomum casum of McFarlane, 1934, 1936 and Arai, 1969 Location: intestine Hosts: Artedius harringtoni (3) Sebastes caurinus (3,4) 114The records of Stafford (1904) for L. americanus (as L. piscatorius) and of Wolfgang (1954b)

for H. americanus are for metacercariae found free in the lumen of the host's digestive tract.

115 Material reported as "... minute encapsulated distomes . . ." by Huntsman (1918b) from H. platessoides was referred to S. baccatum by Wolfgang (1954b).

S. maliger (4) Sebastes sp. (1,2)

Dist.: Pac

Records: 1. McFarlane 1934, 2, 1936; 3, Arai 1969b; 4. Sekerak and Arai 1977

Stephanostomum dentatum (Linton, 1900)

Linton, 1940 (M)

Syn.: Stephanostomum sp. of Arai, 1967

(partim)

Location: intestine

Hosts: Dasycottus setiger (1,2) Sebastes babcocki (3) S. borealis (3)

Dist.: Pac

Records: 1. Arai 1967a, 2. 1969b; 3. Sekerak and Arai 1977

Stephanostomum tristephanum McFarlane,

Syn.: Stephanostomum sp. of Arai, 1967

(partim) Location: intestine

Host: Ophiodon elongatus

Dist.: Pac

Records: McFarlane 1936; Arai 1967a, 1969b

Species of Uncertain Position

Leptosoma obscurum Stafford, 1904 species inauirenda (M)

Location: intestine

Host: Lophius americanus

Dist.: Atl

Record: Stafford 1904

Remarks: This generic name is preempted. The species may belong to Lecithaster.

Digenea gen. spp. metacercariae (FW, M)

Includes: Cercaria sp.? of Cooper, 1915

Distomum sp.auct.

Location: skin, fins, eyes, viscera, muscula-

ture

Hosts: Ambloplites rupestris (7)

Chrosomus eos (9)

Esox lucius (7)

Fundulus heteroclitus (13)

Gasterosteus aculeatus (12)

Ictalurus nebulosus (2)

Lepomis sp. (7)

Lophius americanus (3)

Micropterus sp. (7)

Salmo gairdneri (14)

S. salar (7)

Salvelinus alpinus (7)

S. fontinalis (6,10,14)^{116,117}
Stizostedion vitreum vitreum (7)
Tautogolabrus adspersus (1,3,4,5)^{118,119}

Unspecified minnow (4) Unspecified trout (8)¹²⁰ Unspecified fishes (11)¹¹⁸

Dist.: Atl, Pac and/or BC, Alta, NB, Nfld, Ont, Que, Sask

Records: 1. Ryder 1884 (Atl); 2. Stafford 1900 (unspecified locality), 3. 1907 (Atl); 4. Cooper 1915a (Atl, Ont); 5. Johansen 1925 (Atl); 6. Ricker 1932 (Ont); 7. Parnell 1934 (Que); 8. Lyster 1940b (NB); 9. Bangham 1941 (Ont); 10. MacLulich 1943b (Ont); 11. Wheaton and Hazen 1951 (Sask); 12. Lester 1975 (Pac and/or BC); 13. Dickenson and Threlfall 1975 (Nfld); 14. Mudry and Anderson 1977 (Alta)¹²¹

Remarks: Material reported as *Distomum* sp.larv. by Cooper (1915a) was referred to *A pophallus brevis* (Ransom, 1920) by Sinclair (1972). Material reported as "... minute encapsulated distomes..." from the musculature of *Hippoglossoides platessoides* by Huntsman (1918b) was referred to *Stephanostomum baccatum* (Nicoll, 1907) by Wolfgang (1954b).

Digenea gen, spp.

(FW, M)

Includes: Trematoda gen. sp. Distomum sp.auct.

Location: intestine, caeca, stomach, urinary bladder, swim bladder

Hosts: Anarhichas lupus (1)

Clupea harengus pallasi (9,10) Coregonus clupeaformis (6,7)¹²²

116This parasite was reported as "...probably metacercarial roundworms of the family Strigeidae" by Ricker (1932).

117The material recorded from S. fontinalis by MacLulich (1943b) was noted to be "...a larval fluke, probably Apophallus..."

¹¹⁸The records of Ryder (1884) for *T. adspersus* and of Wheaton and Hazen (1951) for unspecified fishes involved tentative parasite identifications.

¹¹⁹The record of Cooper (1915a) for *T. adspersus* was considered to be probably *Tocotrema lingua* (syn. of *Cryptocotyle lingua*).

120This report was for cysts considered by Lyster (1940b) to be similar to Apophallus imperator.

121The records of Mudry and Anderson (1977) are for "unidentified metacercaria resembling *Tetracotyle* sp...."

122The records of unidentified trematodes from C. clupeaformis and L. gibbosus (as Eupomotis g.) by Bangham and Hunter (1939) are given only in their host-parasite list.

Culaea inconstans (3) Fundulus diaphanus (6) F. heteroclitus (1) Hemitripterus americanus (1) Hippoglossus hippoglossus (1) Lepomis gibbosus (6)122 Leptocottus armatus (13) Leuroglossus stilbius schmidti (10) Lophius americanus (1) Mallotus villosus (5) Morone chrysops (6) Notropis atherinoides (2)123 Oncorhynchus keta (11) O. nerka (8) O. tshawytscha (12) Osmerus mordax (5) Salvelinus fontinalis (3,4) Sebastes alutus (15) S. caurinus (13) S. elongatus (13) Tautogolabrus adspersus (14) Thaleichthys pacificus (9,10)

Dist.: Atl, Pac, BC, Ont, Que-b

Records: 1. Stafford 1907 (Atl); 2. Cooper 1915a (Ont); 3. Ricker 1932 (Ont); 4. Richardson 1935 (Que); 5. Pigeon and Vallée 1937 (Que-b); 6. Bangham and Hunter 1939 (Ont); 7. Welch 1952 (Ont); 8. Margolis 1956b (BC); 9. Barraclough 1967b (Pac); 10. Barraclough and Fulton 1967 (Pac); 11. Robinson et al. 1968b (Pac); 12. Godfrey 1968 (Pac); 13. Arai 1969b (Pac); 14. Sekhar S. and Threlfall 1970a (Atl); 15. Sekerak and Arai 1973 (Pac)

Remarks: Material reported as unidentified trematodes from *Oncorhynchus nerka* by Margolis (1957) was subsequently assigned to *Tubulovesicula lindbergi* (Margolis unpublished data).

CLASS CESTOIDEA SUBCLASS CESTODARIA ORDER GYROCOTYLIDEA Family GYROCOTYLIDAE

Gyrocotyle abyssicola Land and Templeman, 1968 (M)

Location: intestine Host: Hydrolagus affinis

Dist.: Atl

123The record of Cooper (1915a) for *N. atherinoides* was a tentative host identification (as "... *Notropis atherinoides* (?) . . ."). The parasite was noted to resemble *Allocreadium commune*.

Record: Land and Templeman 1968

Gyrocotyle fimbriata Watson, 1911

Syn.: Gyrocotyle urna of Wardle, 1932

(partim)

Location: intestine Host: Hydrolagus colliei

Dist.: Pac

Record: Wardle 1932a

Gyrocotyle major Land and Templeman, 1968

Location: intestine

Host: Hydrolagus affinis

Dist.: Atl

Record: Land and Templeman 1968

Gyrocotyle parvispinosa Lynch, 1945 (M)

Syn.: Gyrocotyle urna of Wardle, 1932

(partim)

Location: intestine Host: *Hydrolagus colliei*

Dist.: Pac

Record: Wardle 1932a

SUBCLASS CESTODA

ORDER CARYOPHYLLIDEA

Family CAPINGENTIDAE

Edlintonia ptychocheila Mackiewicz, 1970 (FW)

Syn.: Caryophyllaeus terebrans of Bangham

and Adams, 1954 (partim) Location: intestine

Host: Mylocheilus caurinus

Dist.: BC

Record: Mackiewicz 1970
Remarks: Mackiewicz (1970) reidentified specimens reported as Caryophyllaeus tere-

brans from M. caurinus by Bangham and

Adams (1954) as E. ptychocheila.

Spartoides wardi Hunter, 1929 (FW)

Location: [intestine]

Hosts: Carpiodes cyprinus (1,2)

Notropis hudsonius (2)

Dist.: Man, Ont

Records: 1. Dechtiar 1972b (Ont); 2. Stewart-Hay (1951a MS) cited in Lubinsky 1976

(Man)

Family CARYOPHYLLAEIDAE

Biacetabulum biloculoides Mackiewicz and McCrae, 1965 (FW)

Location: intestine

Host: Catostomus commersoni

Dist.: Ont

(M)

(M)

Record: Molnar et al. 1974

Biacetabulum infrequens Hunter, 1927 (FW)

Location: intestine

Host: Moxostoma anisurum

Dist.: Ont

Record: Dechtiar 1972c

Biacetabulum sp. (FW)

Location: intestine

Host: Pimephales promelas

Dist.: Ont

Record: Dechtiar 1972c

Glaridacris catostomi Cooper, 1920 (FW)

Syn.: Caryophyllaeus terebrans of Bangham and Adams, 1954 (partim)

Glaridacris laruei of Bangham and

Venard, 1946 Location: intestine

Hosts: Catostomus catostomus (1,3,5,6,7,8,9, 12.13)

C. commersoni (2,3,4,11,14)

C. macrocheilus (8) Catostomus sp. (10)

Dist.: Alta, BC, Man, NWT, Ont, Que, Sask,

Records: 1. Wardle 1932b (Ont, Sask)¹²⁴; 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. Bangham and Venard 1946 (Ont)¹²⁵; 6. Rawson and Elsey 1950 (Alta); 7. Rawson 1951 (NWT); 8. Bangham and Adams 1954 (BC)¹²⁶; 9.

124Mackiewicz and McCrae (1962) redetermined some of Wardle's (1932b) *G. catostomi* as *Hunterella nodulosa* but did not provide collection localities.

125 Material reported as G. laruei from C. catostomus by Bangham and Venard (1946) was redetermined as G. catostomi by Mackiewicz (1965).

126Part of the material reported as Caryophyllaeus terebrans from C. catostomus by Bangham and Adams (1954) was redetermined as G. catostomi by Mackiewicz (1965). Material reported as G. catostomi from C. commersoni by these authors was referred to Monobothrium hunteri by Mackiewicz (1963). Mackiewicz and McCrae (1962) listed Hunterella nodulosa from the collection of R. Bangham from C. macrocheilus from Else Lake [sic], British Columbia. This material was probably reported as either G. catostomi or Caryophyllaeus terebrans from Lakelse Lake by Bangham and Adams (1954). Material reported as G. catostonii or G. terebrans (as Caryophyllaeus t.) by Bangham and Adams (1954) was assigned to G. vogei n.sp. by Mackiewicz (1976).

Mackiewicz 1965 (NWT, Sask), 10. 1976 (Alta); 11. Dechtiar 1972c (Ont); 12. Hanek and Molnar 1974 (Que); 13. Arthur et al. 1976 (YT); 14. Stewart-Hay (1953 MS) cited in Lubinsky 1976 (Man)

Glaridacris confusus Hunter, 1929 (FW)

Location: intestine

Hosts: Carpiodes cyprinus (3)

Catostomus commersoni (1,2)

Dist.: Ont, Que

Records: 1. Bangham 1941 (Ont); 2. Richardson. 1942 (Que); 3. Dechtiar 1972c (Ont)

Glaridacris laruei (Lamont, 1921) Hunter,

1927 (FW) Syn.: Glaridacris intermedius Lyster, 1940

Location: intestine

Host: Catostomus commersoni

Dist.: Ont. Que

Records: Lyster 1940a (Que); Dechtiar 1972c

(Ont); Molnar et al. 1974 (Ont)

Remarks: Material reported as G. laruei from C. commersoni by Bangham and Venard (1946) was redetermined as Glaridacris catostomi by Mackiewicz (1965).

Glaridacris terebrans (Linton, 1893)

Mackiewicz, 1974 (FW)

Syn.: Caryophyllaeus terebrans (Linton, 1893)

Location: intestine

Hosts: ?Catostomus catostomus (1)

?C. macrocheilus (1) ?Salvelinus malma (2)

Dist.: Alta?, BC?

Records: 1. Bangham and Adams 1954 (BC); 2. Rawson (1939 MS) cited in Mudry and

Anderson 1976 (Alta)

Remarks: The validity of reports of Glaridacris terebrans from Canada are equivocal. Material reported as this species by Bangham and Adams (1954) has been reidentified as follows: from Cyprinus carpio, as Atractolytocestus huronensis by Mackiewicz (1970); from Mylocheilus caurinus, as Edlintonia ptychocheila by Mackiewicz (1970); from Catostomus catostomus, as Glaridacris catostomi by Mackiewicz (1965) and Isoglaridacris calentinei by Mackiewicz (1974), Mackiewicz (1974) noted that several specimens from C. catostomus from Surveyors Lake, B.C. appeared to be G. terebrans, but their poor condition made positive identification impossible. Mackiewicz and McCrae (1962) listed Hunterella nodulosa from the collection of R. Bangham from C. macrocheilus from Else Lake [sic], B.C. This is likely from material reported as either Caryophyllaeus terebrans or G. catostomi from Lakelse Lake by Bangham and Adams (1954). Mackiewicz (1976) determined as Glaridacris vogei material from Catostomus macrocheilus which was reported as either G. terebrans (as Caryophyllaeus t.) or G. catostomi by Bangham and Adams (1954).

Glaridacris vogei Mackiewicz, 1976 (

Location: intestine

Host: Catostomus macrocheilus

Dist.: BC

Record: Mackiewicz 1976

Remarks: Material from the collection of Bangham and Adams (1954) and considered to have been determined as G. catostomi or Caryophyllaeus terebrans by these authors was assigned to G. vogei by Mackiewicz (1976).

Glaridacris sp.

Location: intestine

Host: Catostomus commersoni

Dist.: Man

Record: Stewart-Hay (1952a MS) cited in

Lubinsky 1976

Hunterella nodulosa Mackiewicz and McCrae, 1962 (FW)

Location: intestine

Hosts: Catostomus catostomus (2)

C. commersoni (2,3,4,5,6,7)

C. macrocheilus (1)

Dist.: Alta, BC, Lab, Ont

Records: 1. Mackiewicz and McCrae 1962 (BC)¹²⁷; 2. Threlfall and Hanek 1970a (Lab); 3. Dechtiar 1972c (Ont); 4. Mudry and Arai 1973a (Alta), 5. 1973b (Alta); 6. Molnar et al. 1974 (Ont); 7. Mudry (1972 MS) cited in Mudry and Anderson 1976 (Alta)

Hypocaryophyllaeus paratarius Hunter,

1927 (FW)

Location: digestive tract Host: Carpiodes cyprinus

127Material reported by Mackiewicz and McCrae (1962) from *C. macrocheilus* was from the collection of R. Bangham and was probably reported as either *Glaridacris catostomi* or *Caryophyllaeus terebrans* by Bangham and Adams (1954). The same authors redetermined some material reported as *G. catostomi* by Wardle (1932b) as *H. nodulosa* but did not give collection localities.

(FW)

Dist.: Ont

Record: Bangham and Hunter 1939

Isoglaridacris calentinei Mackiewicz, 1974 (FW)
Syn.: Caryophyllaeus terebrans of Bangham

and Adams, 1954 (partim)

Location: intestine

Host: Catostomus catostomus

Dist.: BC

Record: Mackiewicz 1974

Remarks: Mackiewicz (1974) redetermined part of the material reported as *C. terebrans* by Bangham and Adams (1954) as this species.

Monobothrium hunteri Mackiewicz, 1963 (FW) Syn.: Glaridacris catostomi of Bangham and

Adams, 1954 (partim) Location: intestine

Host: Catostomus commersoni

Dist.: BC

Record: Mackiewicz 1963

Remarks: Mackiewicz (1963) tentatively identified as *M. hunteri* specimens reported as *G. catostomi* by Bangham and Adams (1954) from the above host.

Family LYTOCESTIDAE

Atractolytocestus huronensis Anthony,

1958 (FW)

Syn.: Caryophyllaeus terebrans of Bangham and Adams, 1954 (partim)

Location: [intestine] Host: Cyprinus carpio

Dist.: BC

Record: Mackiewicz 1970

Remarks: Mackiewicz (1970) reidentified as this species material reported as *C. tere-brans* by Bangham and Adams (1954) from

Cyprinus carpio.

Khawia iowensis Calentine and Ulmer,

1961 (FW)

Location: [intestine] Host: Cyprinus carpio

Dist.: Ont

Record: Dechtiar 1972b

Unidentified Caryophyllidea

(FW)

Caryophyllidea gen. spp.
Includes: Cestodaria auct.

Location: intestine

Hosts: Acrocheilus alutaceus (1)

Catostomus catostomus (2) Semotilus atromaculatus (3)

Dist.: BC, Ont

Records: 1. Bangham and Adams 1954 (BC); 2. Bangham 1955 (Ont); 3. Molnar et al. 1974 (Ont)

ORDER SPATHEBOTHRIIDEA

Family CYATHOCEPHALIDAE

Bothrimonus sturionis Duvernoy, 1842 (B)
Syn.: Bothrimonus intermedius Cooper, 1917
Diplocotyle olrikii Krabbe, 1874

Location: intestine

Hosts: Apelles quadracus (8,10) Coregonus artedii (4) C. clupeaformis (4)

Hippoglossoides platessoides (6)

Limanda ferruginea (6)

Macrozoarces americanus (2,3)

Microgadus tomcod (1)128

Myoxocephalus quadricornis (4)

Pseudopleuronectes americanus (1,5,

6,8,9,10,11) Salmo salar (7,8,10,11) Salvelinus alpinus (4,12)

S. fontinalis (4,12)

S. malma (2)

Dist.: Atl, E Arc, W Arc, Lab, Man, Nfld Records: 1. Cooper 1919 (Atl), 2. 1921 (Atl, W Arc); 3. Clemens and Clemens 1921 (Atl); 4. Wardle 1932b (E Arc, Man, various localities Hudson Bay area); 5. Heller 1949 (Atl); 6. Ronald 1958b (Atl); 7. Pippy

1969 (Nfld); 8. Burt and Sandeman 1969 (Atl), 9. 1970 (Atl), 10. 1974 (Atl); 11. Sandeman and Burt 1972 (Atl, Nfld); 12. Hicks and Threlfall 1973 (Lab)

Remarks: Burt and Sandeman (1969) suppressed *Diplocotyle* as a synonym of *Bothrimonus* and assigned *Bothrimonus* to Cyathocephalidae. This proposal has met with variable acceptance, some authors favoring the retention of both genera and their assignment to an independent family, Diplocotylidae.

Cyathocephalus truncatus (Pallas, 1781)

Kessler, 1868 (FW)

Syn.: Cyathocephalus americanus Cooper, 1917

¹²⁸The material from M.tomcod was not assigned to species by Cooper (1919). Burt and Sandeman (1969) listed this record as B.intermedius (= B.sturionis).

Location: intestine, pyloric caeca Hosts: Coregonus artedii (10,12)

C. clupeaformis (1,3,4,5,6,8,12,16)

C. zenithicus (4) Cottus asper (7)

Gasterosteus aculeatus (14) Oncorhynchus kisutch (13) Perca flavescens (10,12)

Prosopium cylindraceum (16)

Salmo salar (11)

Salvelinus alpinus (15)

S. malma (4)

S. namaycush (2,16)

Unspecified Salmonidae (13)

Unspecified fishes (9)

Dist.: Alta, BC, Man, Nfld, NWT, Ont, YT Records: 1. Cooper 1919 (Ont), 2. 1921 (NWT); 3. Hart 1931 (Ont); 4. Wardle 1932b (Alta, Man); 5. Bangham and Hunter 1939 (Ont); 6. Rawson 1951 (NWT); 7. Bangham and Adams 1954 (BC); 8. Bangham 1955 (Ont); 9. Freeman 1964b (Ont); 10. Dechtiar and Loftus 1965 (Ont); 11. Pippy 1969 (Nfld); 12. Dechtiar 1972c (Ont); 13. Leong and Holmes 1974a (Alta); 14. Lester 1975 (BC); 15. Mudry and McCart 1976 (YT); 16. Arthur et al. 1976 (YT)

(FW) Cyathocephalus sp.

Location: stomach Host: Thymallus arcticus

Dist: NWT

Record: Miller 1946a

ORDER TRYPANORHYNCHA

Family GILQUINIIDAE

Gilquinia squali (Fabricius, 1794) Dollfus, 1930 (plerocercoid) (M)

Location: musculature

Host: Citharichthys stigmaeus

Dist.: Pac

Record: Kuitunen-Ekbaum 1933c

Gilquinia squali (Fabricius, 1794) Dollfus, 1930 (adult)

Syn.: Gilquinia tetrabothrium (van Beneden,

Gilquinia anteroporus (Hart, 1936)

Location: intestine Host: Squalus acanthias Dist.: Atl, Pac

Records: Wardle 1932a (Pac), 1933a (Pac);

Threlfall 1969 (Atl)

Remarks: Hart (1936) described Gilquinia anteroporus (as Tetrarhynchus a.), attributing to this species G. tetrabothrium of Wardle, 1932 and G. squali of Wardle, 1933. Dollfus (1942) considered G. anteroporus a synonym of G. squali.

Family HEPATOXYLIDAE

Hepatoxylon squali Bosc, 1811

(plerocercoid)

(M)

Location: body cavity Host: Prionace glauca Dist.: Atl

Record: Threlfall 1969

Remarks: Dollfus (1942) considered this species a synonym of H. trichiuri.

Hepatoxylon trichiuri (Holten, 1802) Dollfus, 1942 (plerocercoid)

Svn.: Dibothriorhynchus grossus (Rudolphi, 1819)

Location: viscera, body cavity

Hosts: Gadus morhua (1) Salmo salar (2,3)

Dist.: Atl, E Arc, Lab, NB, NS

Records: 1. Wardle 1932b (E Arc); 2. Pippy 1969 (Atl, NB, NS); 3. Hicks and Threlfall 1973 (Lab)

Family LACISTORHYNCHIDAE

Grillotia erinaceus (van Beneden, 1858)

Guiart, 1927 (plerocercoid) (M) Syn.: Rhynchobothrium imparispine Linton,

Location: peritoneum, viscera Host: Melanogrammus aeglefinus

Dist.: Atl

Record: Kuitunen-Ekbaum 1937b; Gaevs-

kaya and Umnova 1977

Grillotia erinaceus (van Beneden, 1858) Guiart, 1927 (adult) (M)

Location: [spiral valve] Hosts: Raja laevis R. ocellata

Dist.: Atl

Record: Myers 1959

Grillotia heptanchi (Vaullegeard, 1899) Dollfus, 1942 (plerocercoid)

Syn.: Grillotia erinaceus of Wardle, 1933

Location: musculature

Host: Theragra sp.

Dist.: Pac

Record: Wardle 1933a

Remarks: Specimens provisionally reported by Wardle (1933a) as G. erinaceus were referred to G, heptanchi by Dollfus (1942).

Grillotia heptanchi (Vaullegeard, 1899) Dollfus, 1942 (adult)

Syn.; Grillotia erinaceus of Wardle, 1933

Location: intestine Host: Hexanchus griseus

Dist.: Pac

Record: Wardle 1933a

Remarks: Specimens provisionally reported as G. erinaceus by Wardle (1933a) were referred to G. heptanchi by Dollfus (1942).

Grillotia sp.

(M)

Location: spiral valve, intestine

Host: Raja radiata Dist.: Atl Record: Heller 1949

Family TENTACULARIIDAE

Nybelinia surmenicola Okada in Dollfus, 1929 (plerocercoid)

Syn.: Nybelinia sp. of Wardle, 1932 and of

Arai, 1967

Location: intestine, stomach, musculature,

mesenteries

Hosts: A prodon cortezianus (7)

Oncorhynchus gorbuscha (4,5)

O. nerka (4,5)

Oncorhynchus sp. (1)129

Ophiodon elongatus (1,2,3,6,7)130

Sebastes aleutianus (9)

S. alutus (8,9)

S. borealis (9)

S. brevispinis (9)

S. caurinus (9)

S. crameri (9)

S. diploproa (9)

S. elongatus (9)

S. entomelas (9)

S. flavidus (9)

S. maliger (9)

S. nigrocinctus (9)

S. pinniger (9)

129The hosts reported by Wardle (1932a) were given as "... all species of Oncorhynchus ... "

130The record of Wardle (1934) was given as "... a tetrarhynchid larva, identical probably with Nybelinia surmenicola Okada."

S. proriger (9)

S. reedi (9)

S. ruberrimus (9)

S. variegatus (9)

S. zacentrus (9)

Theragra chalcogramma (6,7)

Theragra sp. (2)

Triglops pingeli (7)

Dist.: Pac, BC-b

Records: 1, Wardle 1932a (Pac), 2, 1933a (Pac), 3, 1934 (Pac); 4, Margolis 1956b (Pac, BC-b), 5. 1957 (BC-b); 6. Arai 1967a (Pac), 7. 1969b (Pac); 8. Sekerak and Arai 1973

(Pac), 9, 1977 (Pac)

Tentacularia corvohaenae Bosc. 1802

(plerocercoid) (M)

Location: body cavity, viscera

Host: Salmo salar Dist.: Atl, NB, Nfld, NS, Que

Records: Heller 1949 (Atl); Sandeman and

Pippy 1967 (Nfld); Pippy 1969 (Atl, NB, NS); Power 1969 (Oue)

Trypanorhyncha of Uncertain Position

Rhynchobothrium sp. plerocercoid (M)

Location: intestinal wall

Host: Mola mola

Dist.: Atl

Record: Threlfall 1967

Remarks: This genus is no longer considered

valid.

Tetrarhynchus elongatus Wagener, 1901

(plerocercoid)

(M)

Location: liver Host: Mola mola

Dist.: Atl

Record: Threifall 1967

Remarks: This species was listed by Yama-

guti (1959) as species incertae sedis.

Trypanorhyncha gen.sp. plerocercoid (M)

Location: mesenteries

Host: Clupea harengus harengus

Dist.: Atl

Records: Sindermann 1957b, 1961

ORDER PSEUDOPHYLLIDEA

Family AMPHICOTYLIDAE

Abothrium gadi van Beneden, 1871 (M) Syn.: Dibothrium rugosum (Batsch, 1786) auct.

Abothrium rugosum (Batsch, 1786) auct.

Location: intestine, pyloric caeca Hosts: Gadus macrocephalus (7)

G. morhua (1,2,3,6)

Melanogrammus aeglefinus (2,5)

Tautogolabrus adspersus (3,4)¹³¹

Dist.: Atl, Pac

Records: 1. Linton 1891 (Atl); 2. Cooper 1919 (Atl), 3. 1921 (Atl); 4. Johansen 1925 (Atl); 5. Kuitunen-Ekbaum 1937b (Atl); 6. Heller 1949 (Atl); 7. Boyce 1976 (Pac)

Eubothrium crassum (Bloch, 1779) Nybelin,

22 (FW)

Syn.: Abothrium crassum (Bloch, 1779) Eubothrium oncorhynchi Wardle, 1932

Location: intestine, pyloric caeca Hosts: *Coregonus artedii* (6,8)

C. clupeaformis (1,6) Coregonus sp. (11)¹³²

Lota lota (1,6,7,8,9)

Morone americana (16)

Myoxocephalus quadricornis (4)

Oncorhynchus kisutch (3)

O. tshawytscha (3)

Salmo gairdneri (8)

S. salar (1,5,10,12,13,14,15,17,18,19) Salvelinus alpinus (2,4,5,18)^{133,134}

S. namaycush (1,2,18)

Dist.: Atl, Pac, Lab, Man, NB, Nfld, NS, NWT, Ont. Que

Records: 1. Cooper 1919 (Atl, Ont), 2. 1921 (NWT); 3. Wardle 1932a (Pac), 4. 1932b (Man, unspecified locality Hudson Bay); 5. Kuitunen-Ekbaum 1933b (NB, unspecified locality Hudson Bay); 6. Bangham and Hunter 1939 (Ont); 7. Bangham 1941 (Ont), 8. 1955 (Ont); 9. Bangham and Venard 1946 (Ont); 10. Heller 1949 (Atl); 11. Rawson 1951 (NWT); 12. Sandeman and Pippy 1967 (Nfld); 13. Templeman 1967b (Atl); 14.

Pippy 1969 (Atl, NB, NS, Que); 15. Power 1969 (Que); 16. Tedla and Fernando 1969e (Ont); 17. Nyman and Pippy 1972 (Atl); 18. Hicks and Threlfall 1973 (Lab); 19. Hanek and Molnar 1974 (Que)

Remarks: Kennedy (1978) concluded that E. crassum does not occur in North American fresh waters, except in anadromous S. salar and Oncorhynchus species returning from the sea. The validity of the cited records from other hosts is questionable. The records from Lota lota probably are referable to E. rugosum.

Eubothrium parvum Nybelin, 1922

(M)

Location: intestine

Hosts: Mallotus villosus (1,2)¹³⁵
Tautogolabrus adspersus (3)

Dist.: Atl

Records: 1. Templeman 1948, 2. 1968; 3. Sekhar S. and Threlfall 1970a

Eubothrium rugosum (Batsch, 1786) Nybelin, 1922 (FW)

Location: intestine, pyloric caeca

Host: Lota lota

Dist.: Alta, BC, Man, NWT, Ont

Records: Wardle 1932b (Man), 1933b (Ont); Kuitunen-Ekbaum 1933b (Man); Rawson 1951 (NWT); Bangham and Adams 1954 (BC); Dechtiar 1972c (Ont); Mudry and Anderson 1977 (Alta)

Eubothrium salvelini (Schrank, 1790) Nybelin, 1922 (FW)

Location: pyloric caeca, intestine

Hosts: Coregonus clupeaformis (9,39)

Mylocheilus caurinus (17)

Oncorhynchus kisutch (33)

O. nerka (3,19,21,22,23,28,30,34,35,38,41)

Prosopium cylindraceum (31,39) Ptychocheilus oregonensis (3,17)

Salmo clarki (17)

S. gairdneri (17,25,40)

S. salar (25,26,27)

S. trutta (25)

Salvelinus alpinus (3,20,31)¹³⁶

S. fontinalis (1,3,4,5,7,8,9,10,11,16,25, 27,31,32,40)

¹³¹The record of Cooper (1921) from *T. adspersus* was based on proglottids only and was considered to be accidental. The record of Johansen (1925) was a tentative parasite identification based on degenerated fragments and was also considered to be probably accidental.

¹³²This parasite was reported by Rawson (1951) as "Eubothrium crassum?"

¹³³The record of Wardle (1932b) involves a tentative host identification for *S. alpinus*.

¹³⁴The host was reported by Kuitunen-Ekbaum (1933b) as "... probably S. alpinus stagnalis, of Hudson Bay..." The material "... appeared to represent a mixture of both species, E. crassum and E. salvelini..."

¹³⁵The records of Templeman (1948, 1968) are tentative parasite identifications.

¹³⁶This host was reported by Kuitunen-Ekbaum (1933b) as "... probably S. alpinus stagnalis, of Hudson Bay..." The material "... appeared to represent a mixture of both species, E. crassum and E. salvelini..."

S. malma (1,37) S. namaycush (1,2,3,6,8,9,12,13,14,15, $17,18,29,31,37,39,40)^{137}$ Thymallus arcticus (39) Unspecified Salmonidae (33,36) Unspecified trout (24)

Dist.: Alta, BC, Lab, Man, NB, Nfld-b, Nfld, NWT, Ont, Que, Sask, YT

Records: 1. Wardle 1932b (Alta, Man, unspecified locality James Bay), 2. 1933b (Ont); 3. Kuitunen-Ekbaum 1933b (Alta, BC, Man, unspecified locality Hudson Bay); 4. Richardson 1936 (Que), 5. 1937b (Que), 6. 1942 (Que); 7. Lyster 1940a (Que); 8. MacLulich 1943b (Ont); 9. Bangham and Venard 1946 (Ont); 10. Choquette 1948a (Que); 11. Fantham and Porter 1948 (Que); 12. Miller 1946b (NWT); 13. Miller and Kennedy 1948 (NWT); 14. Rawson 1951 (NWT), 15. 1961 (Sask); 16. Worley and Bangham 1952 (Que); 17. Bangham and Adams 1954 (BC); 18. Bangham 1955 (Ont); 19. Dombroski 1955 (BC); 20. Andrews and Lear 1956 (Lab); 21. Margolis 1956b (BC), 22. 1957 (BC), 23. 1963 (BC); 24. Freeman 1964b (Ont); 25. Sandeman and Pippy 1967 (Nfld); 26. Pippy 1969 (NB, Nfld); 27. Threlfall and Hanek 1970c (Nfld-b, Nfld); 28. Smith and Margolis 1970 (BC); 29. Dechtiar 1972c (Ont); 30. Smith 1973 (BC); 31. Hicks and Threlfall 1973 (Lab); 32. Hanek and Molnar 1974 (Que); 33. Leong and Holmes 1974a (Alta); 34. Boyce 1974 (BC), 35. 1976 (BC); 36. Collins and Dechtiar 1974 (Ont); 37. Rawson (1939 MS) cited in Mudry and Anderson 1976 (Alta); 38. Bell and Margolis 1976 (BC); 39. Arthur et al. 1976 (YT); 40. Mudry and Anderson 1977 (Alta, BC); 41. Boyce and Yamada 1977 (BC)

Eubothrium spp.

(FW, M)

Location: intestine, pyloric caeca Hosts: Catostomus catostomus (4)

Coregonus clupeaformis (13)

Cottus asper (4)

Couesius plumbeus (4)

Cymatogaster aggregata (10)

Oncorhynchus gorbuscha (6,7)

O. nerka (4,6,7,8)

O. tshawytscha (14)

Prosopium cylindraceum (13)

P. williamsoni (4)

Richardsonius balteatus (4)

Salmo salar (13) Salvelinus alpinus (13) S. fontinalis (1,3,11,13)¹³⁸ S. namaycush (2,13) Sebastes marinus (9) S. mentella (9) Stenodus leucichthys (5) Tautogolabrus adspersus (12)

Dist.: Atl. Pac, BC-b, BC, Lab, Nfld-b?, Nfld, NWT, Que

Records: 1. Frost 1940 (Nfld); 2. Lyster 1940a (Que); 3. Munroe 1949 (Lab, Que); 4. Bangham and Adams 1954 (BC); 5. Fuller 1955 (NWT); 6. Margolis 1956b (Pac, BC-b, BC)¹³⁹, 7. 1957 (Pac, BC-b, BC), 8. 1963 (BC-b, BC); 9. Yanulov 1962 (Atl); 10. Arai 1967b (Pac); 11. Threlfall and Hanek 1970c (Nfld-b and/or Nfld); 12. Sekhar S. and Threlfall 1970a (Atl); 13. Hicks and Threlfall 1973 (Lab); 14. Hoskins et al. 1976 (Pac?)

Family BOTHRIOCEPHALIDAE

Bothriocephalus cestus Leidy, 1885 (FW)

Location: intestine Host: Salvelinus sp.

Dist.: Que

Record: Leidy 1885

Bothriocephalus claviceps (Goeze, 1782)

Rudolphi, 1810

Location: intestine

Hosts: Ambloplites rupestris (2,4,8) Anguilla rostrata (1,3,5,7,9)

Aplodinotus grunniens (2)

Lepomis gibbosus (4,5,8)

Micropterus dolomieui (2)

Percopsis omiscomaycus (2)

Pseudopleuronectes americanus (6)

(FW)

Stizostedion canadense (2)

Dist.: Atl, Lab, NB, Nfld-b, Ont, Que

Records: 1. Cooper 1919 (NB); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. Bangham and Venard 1946 (Ont); 6. Ronald 1958b (Atl);

¹³⁷The record of Rawson (1961) for S. namaycush was given as "... Eubothrium (probably salvelini)..."

¹³⁸This parasite was reported by Frost (1940) as "... Abothrium sp., probably Abothrium crassum (Bloch, 1779)."

¹³⁹ Material reported as Eubothrium sp. from O. nerka smolts by Margolis (1956b) was noted to consist of immature specimens "that may be E. salvelini" and that reported from O. gorbuscha adults from coastal waters was noted to consist of immature specimens "that may be E. oncorhynchi" (= E. crassum).

7. Hanek and Threlfall 1970c (Lab, Nfld-b); 8. Dechtiar 1972c (Ont); 9. Hanek and Molnar 1974 (Que)

Bothriocephalus cuspidatus Cooper, 1917 (FW) Syn.: Bothriocephalus cuspidatus luciopercae Wardle, 1932

> Bothriocephalus cuspidatus hiodontos Wardle, 1932

> Bothriocephalus cuspidatus cuspidatus Cooper, 1917

Location: pyloric caeca, intestine Hosts: Aplodinotus grunniens (3)

Coregonus sp. (2) Esox lucius (2,11,15)

 $Etheostoma\ exile\ (3)$

Hiodon alosoides (2,7,12)

H. tergisus (2,3)

Ictalurus nebulosus (10)

Morone chrysops (3)

Notropis atherinoides (3,10)

Perca flavescens (2,3,8,9,10)

Percina caprodes (3)

P. copelandi (3)

Percopsis omiscomaycus (3)140

Salvelinus malma (15)

S. namaycush (11,15)

Stizostedion canadense (2,3,6,10)

S. vitreum glaucum (3)

S. vitreum vitreum (1,2,3,4,5,6,10,13, 14,15,16)

Dist.: Alta, Man, NWT, Ont, Que

Records: 1. Cooper 1919 (Ont); 2. Wardle 1932b (unspecified localities Hudson Bay drainage); 3. Bangham and Hunter 1939 (Ont): 4. Rawson 1951 (NWT): 5. Worley and Bangham 1952 (Que); 6. Bangham 1955 (Ont); 7. Kennedy and Sprules 1967 (unspecified locality); 8. Tedla and Fernando 1969a (Ont), 9. 1972 (Ont); 10. Dechtiar 1972c (Ont); 11. Little (1954 MS) cited in Mudry and Anderson 1976 (Alta): 12. Donald and Kooyman (1974 MS) cited in Mudry and Anderson 1976 (Alta); 13. Anthony 1976 (Ont); 14. Stewart-Hay (1951a, b, 1952a, 1953b MS) cited in Lubinsky 1976 (Man); 15. Little (1954 MS) cited in Lubinsky 1976 (Man); 16. Dickson (1964 MS) cited in Lubinsky 1976 (Man)

Bothriocephalus formosus Mueller and Van Cleave, 1932 (FW)

Location: intestine

Hosts: Etheostoma exile (1,2) E. nigrum (1) Percina caprodes (2) Percopsis omiscomaycus (1,2)

Dist.: Ont

Records: 1. Bangham 1955; 2. Dechtiar 1972c

Bothriocephalus occidentalis (Linton, 1897) Lühe, 1899 (M)

Location: pyloric caeca Hosts: Leptocottus armatus Sebastes sp.

Dist.: Pac

Record: Wardle 1932a

Bothriocephalus scorpii (O. F. Müller, 1776)

Rudolphi, 1808

Location: intestine, pyloric caeca Hosts: Ammodytes dubius (10) Anguilla rostrata (8) Apodichthys flavidus (4) A prodon cortezianus (7) Artedius harringtoni (7)

Enophrys bison (3)

Gasterosteus aculeatus (6,7) Hemitripterus americanus (1) Hexagrammos decagrammus (3)

H. lagocephalus (4,6,7)

H. stelleri (11)

Leptocottus armatus (3)

Limanda ferruginea (5)

Liopsetta putnami (5)

Myoxocephalus polyacanthocephalus (4.6,7)

M. quadricornis (2)

Nautichthys oculofasciatus (6,7)

Scophthalmus aquosus (5)

Sebastes alutus (9)

Theragra chalcogramma (6,7)

Dist.: Atl, Pac, W Arc, Lab

Records: 1. Cooper 1919 (Atl), 2. 1921 (W Arc); 3. Wardle 1932a (Pac), 4. 1933b (Pac); 5. Ronald 1958b (Atl); 6. Arai 1967a (Pac), 7. 1969b (Pac); 8. Hanek and Threlfall 1970c (Lab); 9. Sekerak and Arai 1973 (Pac); 10. Scott 1973 (Atl); 11. Boyce 1976 (Pac)

Bothriocephalus spp. (FW, M)

Location: pyloric caeca, intestine Hosts: Anguilla rostrata (10) Aulorhynchus flavidus (8) Coregonus clupeaformis (4,5)

Cottus asper (6)

Fundulus diaphanus (14) Gasterosteus aculeatus (11) Ictalurus nebulosus (2)

(M)

¹⁴⁰ The record of Bangham and Hunter (1939) for B. cuspidatus from P. omiscomaycus is found only in their host-parasite list.

Dist.: Ont, Que I. punctatus (3) Records: 1. Vergeer 1928e (Ont); 2. Pritchard Labidesthes sicculus (1) Lepidopsetta bilineata (7.8) 1931 (Ont); 3. Hanek and Molnar 1974 Lepisosteus osseus (1) (Que) Lepomis gibbosus (1,2) Lota lota (3,6) Family DIPHYLLOBOTHRIIDAE Micropterus dolomieui (2) Notropis cornutus (4) Noturus gyrinus and/or N. miurus Diphyllobothrium cordiceps (Leidy, 1872) $(1)^{141}$ Meggitt, 1924 (plerocercoid) (FW) Location: [body cavity] Perca flavescens (2,3,4,13,15) Pholis laeta (7,8) Hosts: Oncorhynchus nerka Pomoxis nigromaculatus (12) Salmo gairdneri Salvelinus malma Salvelinus namaycush (6) Dist.: BC Sebastes alutus (7,8,16) S. babcocki (16) Record: Anthony (1967 MS) cited in Mudry and Anderson 1976 S. borealis (16) S. caurinus (16) S. paucispinis (16) Diphyllobothrium dendriticum (Nitzsch, 1824) Lühe, 1910 (plerocercoid) (FW) S. pinniger (16) S. proriger (16) Location: viscera Hosts: Coregonus zenithicus (1) S. reedi (16) S. ruberrimus (16) Salmo gairdneri (2) Salvelinus alpinus (3) S. variegatus (16) S. namaycush (1) S. zacentrus (16) Unspecified fishes (1) Tautogolabrus adspersus (9) Dist.: BC, NWT, Ont Dist.: Atl. Pac. BC. Lab. Man. Nfld-b, Nfld. NS, NWT, Ont Records: 1. Freeman and Thompson 1969 Records: 1. Bangham and Hunter 1939 (Ont); (Ont); 2. Anthony (1967 MS) cited in Mudry and Anderson 1976 (BC); 3. Free-2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. Bangham and Venard 1946 (Ont); 5. Rawman and Jamieson 1976 (NWT) son 1951 (NWT); 6. Bangham and Adams Diphyllobothrium ditremum (Creplin, 1825) 1954 (BC); 7. Arai 1967a (Pac), 8. 1969b (FW) (Pac); 9. Sekhar S. and Threlfall 1970a (Atl); Lühe, 1910 (plerocercoid) 10. Hanek and Threlfall 1970c (Lab, Nfld), Syn.: Diphyllobothrium osmeri (Linstow, 11. 1970e (Nfld-b, Nfld); 12. Dechtiar 1972c 1878) (Ont); 13. Cannon 1973 (Ont); 14. Wiles Location: [viscera] Hosts: Coregonus artedii (1) 1975b (NS); 15. Stewart-Hay (1952b MS) cited in Lubinsky 1976 (Man); 16. Sekerak Salmo gairdneri (2) and Arai 1977 (Pac) Dist.: BC, Ont Records: 1. Freeman and Thompson 1969 (FW) (Ont); 2. Anthony (1967 MS) cited in Bothriocephalidae gen.spp. Mudry and Anderson 1976 (BC) Location: intestine, encysted on stomach wall Hosts: Apeltes quadracus (3) Coregonus artedii (2) Diphyllobothrium latum (Linnaeus, 1758) (FW) Lühe, 1910 (plerocercoid) C. hovi (2)

141Bangham and Hunter (1939) recorded Bothriocephalus sp. from the tadpole catfish (Schilbeodes gyrinus (= Noturus g.)) in their parasite—host list, but in their host—parasite list recorded this parasite from S. miurus (= Noturus m.). Thus the correct host cannot be determined.

Gasterosteus aculeatus (3)

Pungitius pungitius (3)

C. kiyi (2)

C. nigripinnis (1)

Syn.: Dibothriocephalus latus (Linnaeus,

Diphyllobothrium sp. of Rawson,

1758)

1947142

¹⁴²Material reported only as Diphyllobothrium by Rawson (1947a) from the flesh of the pike (E. lucius) and pike-perch (S. vitreum vitreum) from the Northwest Territories and noted to be "...an important parasite of dog and man in this region." is referred to D. latum.

Location: musculature, body cavity

Hosts: Esox lucius (1,2,4,6,7,8,9,10,11,12,13,

14,15,16,17,18,20,21,22)

Lota lota (22)

Oncorhynchus nerka (19)

Perca flavescens (9,10,11,20,21,22)

Salmo gairdneri (19)

Salvelinus malma (19)

S. namaycush (20)

Stizostedion canadense (9,10,11)

S. vitreum vitreum (1,3,4,5,6,7,8,9,10, 11,12,13,14,15,16,17,18,22)

Dist.: Alta, Man, NWT, Ont, Sask

Records: 1. Nicholson 1928 (Man), 2. 1932b (Man); 3. Vergeer 1928a (Man), 4. 1928b (Alta, Man, Ont), 5. 1928c (Man), 6. 1928d (Alta, Man, Ont), 7. 1929a (Ont), 8. 1929b (Alta, Man, Ont); 9. Wardle 1932b (Man), 10. 1933c (Man), 11. 1935 (Man); 12. Rawson 1947a (NWT), 13. 1947b (Alta, Sask), 14. 1951 (Alta, Sask), 15. 1960 (Sask); 16. Lawler 1954a (Man)143; 17. Lawler and Watson 1958 (Man); 18. Paetz and Nelson 1970 (Alta); 19. Anthony (1967 MS) cited in Mudry and Anderson 1976 (Alta, BC); 20. Stewart-Hay (1952, 1953 MS) cited in Lubinsky 1976 (Man); 21. Harvey (1955 MS) cited in Lubinsky 1976 (Man); 22. Bajkov (1933 MS) cited in Lubinsky 1976 (Man)

Remarks: The records of *D. latum* from *Lota* lota by Wardle (1932b, 1933c) are referred to *Diphyllobothrium* sp. following Wardle (1935). The records of *D. latum* from salmonids require verification (R. S. Freeman, personal communication).

Diphyllobothrium spp. plerocercoid (FW, M) Syn.: Dibothriocephalus sp. auct.

Diphyllobothrium latum of Wardle, 1932 (partim), 1933 (partim)¹⁴⁴

Location: viscera, musculature, body cavity, blood vessels of heart

Hosts: Catostomus commersoni (13) Coregonus artedii (14,33)

C. clupeaformis (14,32,33,43)

C. hoyi (14)

C. zenithicus (34) Coregonus sp. (10) Culaea inconstans (25)145 Esox lucius (44) Gasterosteus aculeatus (30,31) Lepomis gibbosus (25)145 Lota lota (1,3,5,6,43) Oncorhynchus gorbuscha (16,17) O. kisutch (2,15,23,24,38) O. nerka (2,15,16,17,18,23,24,39,46) Osmerus mordax (36) Perca flavescens (13) Prosopium cylindraceum (43) P. williamsoni (15,41,45) Pungitius pungitius (29) Salmo clarki (9,15,41,45) S. gairdneri (11,14,15,22,28,40,45) S. salar (22,26,27,37) S. trutta (22) Salvelinus alpinus (1,36,42) S. fontinalis (4,13,19,21,22,35,36,45) S. fontinalis \times S. namaycush (45) S. malma (15) S. namaycush (7,8,10,12,20,25,43,44, Stizostedion vitreum vitreum (44) Thymallus arcticus (43) Unspecified Salmonidae (38) Dist.: Pac, Alta, BC-b, BC, Lab-b, Lab, Man, Nfld, NS, NWT, Ont, Que, YT Records: 1. Cooper 1921 (NWT, Ont); 2. Wardle 1932a (Pac, BC), 3. 1932b (Man, Que), 4. 1933b (NS), 5. 1933c (Man), 6. 1935 (Man); 7. Kuitunen-Ekbaum 1937a (Ont); 8. MacLulich 1943b (Ont)146; 9. Rawson 1947c (Alta), 10. 1951 (NWT), 11. 1953 (Alta); 12. Miller and Kennedy 1948 (NWT); 13. Fantham and Porter 1948

145Material from these hosts was reported as metacestodes indistinguishable from specimens taken from lake trout which were presumed to be Diphyllobothrium sp.

(Que); 14. Bangham 1955 (Ont); 15. Bang-

ham and Adams 1954 (BC); 16. Margolis 1956b (Pac, BC-b, BC), 17. 1957 (Pac, BC-b,

BC), 18. 1963 (Pac, BC-b, BC); 19. Hoff-

man and Dunbar 1961 (Que)147; 20. Free-

man 1964b (Ont); 21. Lagueux 1966 (Que);

146Material reported as *Diphyllobothrium* sp. from *Salvelinus namaycush* by MacLulich (1943b) was considered to be "... possibly *D. cordiceps...*"

147Hoffman and Dunbar (1961) reported an unidentified diphyllobothriid larva from Salvelinus fontinalis from Quebec. This material was later listed as Diphyllobothrium sp. by Hoffman (1967) who noted "... this is probably D. sebago."

¹⁴³Lawler (1954a) noted for reports of *D. latum* "Identification not verified."

¹⁴⁴Wardle (1935) noted that *Lota lota* from Lake Winnipeg, Manitoba, was infected with a plerocercoid similar to *Diphyllobothrium latum* but, based on rearing tests, this material did not appear to be *D. latum*. We have thus referred Wardle's earlier reports of *D. latum* from this host and locality to *Diphyllobothrium* sp.

22. Sandeman and Pippy 1967 (Nfld)¹⁴⁸; 23. Arai 1967a (Pac), 24. 1969b (Pac); 25. Freeman and Thompson 1969 (Ont); 26. Power 1969 (Que); 27. Pippy 1969 (Nfld); 28. Paetz and Nelson 1970 (Alta, BC); 29. Hanek and Threlfall 1970d (Lab-b, Nfld); 30. Lester 1971 (BC), 31. 1975 (BC); 32. Dechtiar 1972b (Ont), 33. 1972c (Ont); 34. Scott and Crossman 1973 (Ont); 35. Hicks and Threlfall 1973 (Lab); 36. Hanek and Molnar 1974 (Que); 37. Hare and Frantsi 1974 (NS); 38. Leong and Holmes 1974a (Alta); 39. Boyce 1976 (BC); 40. Hoskins et al. 1976 (BC); 41. Rawson (1939 MS) cited in Mudry and Anderson 1976 (Alta); 42. Freeman and Jamieson 1976 (NWT); 43. Arthur et al. 1976 (YT); 44. Stewart-Hay (1951, 1952, 1953 MS) cited in Lubinsky 1976 (Man); 45. Mudry and Anderson 1977 (Alta, BC); 46. Boyce and Yamada 1977 (BC)

Remarks: Material reported only as Diphyllobothrium from the flesh of Esox lucius and Stizostedion vitreum vitreum by Rawson (1947a) is referred to D. latum (Linnaeus, 1758).

Pyramicocephalus phocarum (Fabricius, 1780) Monticelli, 1890 (plerocercoid)¹⁴⁹ (M)

Location: intestine
Host: Gadus ogac
Dist.: E Arc

Record: Wardle 1932b

Diphyllobothriidae gen.spp. plerocercoid

(FW, M)

Location: musculature, viscera Hosts: Oncorhynchus nerka (3) Salvelinus fontinalis (1,2)

Dist.: Pac. BC-b. Que

Records: 1. Richardson 1936 (Que); 2. Choquette 1948a (Que); 3. Margolis 1963 (Pac, BC-b)

Remarks: Material reported only as diphyllobothriid larvae from S. fontinalis from Quebec by Hoffman and Dunbar (1961) is referred to Diphyllobothrium sp. following Hoffman (1967).

Family LIGULIDAE

Ligula intestinalis (Linnaeus, 1758) Gmelin, 1790 (plerocercoid) (FW) Location: body cavity

Hosts: Ambloplites rupestris (1)
Catostomus catostomus (2,9,17)

C. commersoni (2,4,6,10,11,12,14,15)

C. macrocheilus (9)
Chrosomus eos (7)
Couesius plumbeus (9)
Cyprinus carpio (13)

Gasterosteus wheatlandi (1)

Hybopsis storeriana (4) Micropterus dolomieui (1)

Mylocheilus caurinus (9)

Mylocheilus sp. (3)

Notropis cornutus (1,4,7)

N. emiliae (4)

N. heterolepis (5)

N. hudsonius (2,4,6,10,11,12,14,16)

N. spilopterus (4) N. stramineus (4)

Perca flavescens (1,2,7,9,11)

Pimephales notatus (4,5,7,14)

Prosopium williamsoni (9)

Ptychocheilus oregonensis (9)

Richardsonius balteatus (9) Salvelinus fontinalis (8,9)

Semotilus corporalis (7)
Dist.: Alta, BC, Man, NB, Ont, Que, Sask Records: 1. Cooper 1919 (NB, Ont); 2. Wardle 1932b (Man, Sask), 3. 1933a (BC); 4. Bangham and Hunter 1939 (Ont); 5. Bangham 1941 (Ont), 6. 1955 (Ont); 7. Bangham and Venard 1946 (Ont); 8. Choquette 1948a (Que); 9. Bangham and Adams 1954 (BC); 10. Lawler 1954a (Man), 11. 1964 (Man); 12. Lawler and Watson 1958 (Man); 13. Dechtiar 1972b (Ont), 14. 1972c (Ont); 15. Molnar et al. 1974 (Ont); 16. Mahon 1976 (Ont); 17. Mudry and Anderson 1977 (Alta)

Ligula sp. plerocercoid

(FW)

Location: body cavity

Hosts: Catostomus catostomus (3,4) C. commersoni (2,4) Culaea inconstans (4) Rhinichthys cataractae (4)

Dist.: Alta, Ont, Que

Records: 1. Ricker 1932 (Ont); 2. Fantham and Porter 1948 (Que); 3. Rawson and Elsey 1950 (Alta); 4. Nelson 1965 (Alta)

Salvelinus fontinalis (1,2)¹⁵⁰

Schistocephalus solidus (O. F. Müller, 1776) Steenstrup, 1857 (plerocercoid) (FW)

150 Material reported by Ricker (1932) as "...a cestode... which resembled *Ligula* in appearance" from the stomach of *S. fontinalis* was considered possibly the result of ingestion of small fish.

¹⁴⁸The material reported by Sandeman and Pippy (1967) was noted to be "... probably D. cordiceps..."

¹⁴⁹This record is a provisional identification.

Hosts: Cottus bairdi (15) C. cognatus (1,6,7,20)Cottus sp. (3) Culaea inconstans (6,7,19) Gasterosteus aculeatus (8,9,10,11,13, 14,16,17) G. wheatlandi (1,12) Perca flavescens (18) Pungitius pungitius (2,17) Salvelinus fontinalis (4,8)151 S. namaycush (5)151 Dist.: Pac, Alta, BC-b, BC, Lab, Man, NB, Nfld-b, Nfld, NWT, Ont, Que, YT Records: 1. Cooper 1919 (NB, Ont), 2. 1921 (NWT); 3. Wardle 1933a (BC), 4. 1933b (Que); 5. Rawson 1951 (NWT); 6. Lawler 1954a (Man); 7. Lawler and Watson 1958 (Man); 8. Sandeman and Pippy 1967 (Nfld); 9. Morris and Finnegan 1968 (BC-b); 10. Threlfall 1968 (Nfld); 11. Hanek and Threlfall 1970e (Lab, Nfld), 12. 1971 (Nfld-b); 13.

Lester 1971 (BC), 14, 1975 (Pac, BC); 15.

Dechtiar 1972c (Ont); 16. Scott and Cross-

man 1973 (Ont); 17. Hanek and Molnar

1974 (Que); 18. Molnar et al. 1974 (Ont);

19. Miller and Macdonald (1950 MS) cited

in Mudry and Anderson 1976 (Alta); 20.

Schistocephalus sp. plerocercoid (FW)

Location: body cavity

Arthur et al. 1976 (YT)

Location: body cavity

Hosts: Catostomus catostomus (3)

Coregonus clupeaformis (1)152 Cottus asper (3)

Culaea inconstans (3)

Gasterosteus aculeatus (2,3,5)

Notropis hudsonius (4) Oncorhynchus nerka (3)

Prosopium williamsoni (3)

Pungitius pungitius (6)

Richardsonius balteatus (3) Salmo gairdneri (3)

Dist.: Alta, BC, Man, Ont, Que

Records: 1. Bangham and Hunter 1939 (Ont); 2. Dunbar and Hildebrand 1952 (Que); 3. Bangham and Adams 1954 (BC); 4. Miller and Macdonald (1950 MS) cited in Mudry and Anderson 1976 (Alta); 5. Manzer 1976 (BC); 6. Stewart-Hay (1952a, b MS) cited in Lubinsky 1976 (Man)

Family HAPLOBOTHRIIDAE

Haplobothrium globuliforme Cooper,

1914

(FW)

Location: intestine

Hosts: Amia calva (1,2,3)

Ictalurus punctatus (4)

Dist.: Ont

Records: 1. Cooper 1915b; 2. Bangham and Hunter 1939; 3. Bangham 1955; 4. Dechtiar

1972b

Family PTYCHOBOTHRIIDAE

Clestobothrium crassiceps (Rudolphi, 1819)

Lühe, 1899 (M)

Location: intestine, pyloric caeca Hosts: *Hippoglossus hippoglossus* (3) Merluccius bilinearis (1) M. productus (2,4)

Dist.: Atl, Pac

Records: 1. Cooper 1919 (Atl); 2. Wardle 1933a (Pac); 3. Ronald 1958b (Atl); 4.

Boyce 1976 (Pac)

Family TRIAENOPHORIDAE

Anchistrocephalus microcephalus (Rudolphi, (M)

1819) Monticelli, 1890

Location: intestine

Host: Mola mola

Dist.: Atl

Record: Threlfall 1967

Fistulicola plicatus (Rudolphi, 1819) Lühe,

Location: intestine, pyloric caeca

Host: Xiphias gladius

Dist.: At1

Record: Iles 1971

Triaenophorus crassus Forel, 1868

(plerocercoid)

(FW)

(M)

Syn.: Triaenophorus robustus Olsson, 1893 Triaenophorus tricuspidatus of Newton, 1932 (partim)153

¹⁵¹This parasite was reported from the stomach of these hosts by Rawson (1951) and Sandeman and Pippy (1967). The latter authors considered the occurrence in S. fontinalis probably to be the result of ingestion of infected Gasterosteus aculeatus.

¹⁵²The record of Schistocephalus sp. from C. clupeaformis is found only in the host-parasite list of Bangham and Hunter (1939).

¹⁵³The material reported as larval T. tricuspidatus from the musculature of coregonine fishes by Newton (1932) is referable to T. crassus.

Triaenophorus sp. of Nicholson, 1932¹⁵⁴ Triaenophorus sp. type robustus of Cooper, 1919

Location: musculature

Hosts: Coregonus artedii (2,3,4,7,9,12,13,14, 19,20,26,27,29,37,41)¹⁵⁵

C. clupeaformis (3,4,6,7,8,9,11,14,16, 17,19,20,21,22,28,29,30,31,32,33,35, 36,37,39,41,42)

C. hoyi (2,4,29,37)

C. nigripinnis (4,20,26,27,29)¹⁵⁶

C. reighardi (29)

C. sardinella (6)

C. zenithicus (2,3,4,20,26,27,29)

Coregonus sp. (includes "cisco, lake herring, tullibee, and whitefish" of various authors) (1,8,12,14,15,18,19, 21,22,25,28,31,32,33,34,35,36,39)¹⁵⁷

Esox lucius (8)

Lampetra japonica (40)

Petromyzon marinus (31,37)

Prosopium cylindraceum (21,42)

P. williamsoni (8)

Prosopium sp. (7)

Salvelinus namaycush (8,11,19,20,21, 23,24,41,42)

Stenodus leucichthys (8,19,38)¹⁵⁸

Thymallus arcticus (10,11,21,42)

Unspecified coregonines (5)

Dist.: Alta, BC, Man, NWT, Ont, Sask, YT Records: 1. Cooper 1919 (Ont); 2. Bajkov 1932 (Man); 3. Newton 1932 (Man); 4. Nicholson 1932a (Man); 5. Ekbaum 1935b (unspecified locality); 6. Clemens et al. 1945 (BC, YT); 7. Miller 1943 (Alta), 8. 1945b (Alta, NWT), 9. 1945d (Alta), 10. 1946a (NWT), 11. 1947 (NWT), 12. 1948 (Alta), 13. 1950 (Alta), 14. 1952 (Alta, Man), 15. 1954 (Alta); 16. Doan 1945 (Man), 17. 1949 (Man); 18. Miller and Watkins 1946 (Alta); 19. Rawson 1947a (NWT), 20. 1947b (Alta, Sask), 21. 1951 (NWT), 22. 1960 (Sask), 23. 1961 (Sask); 24. Miller and Kennedy 1948

(NWT); 25. Oakland 1950 (Man)¹⁵⁹; 26. Keleher 1950 (Man), 27. 1952 (Man); 28. Welch 1950 (Ont), 29. 1952 (Ont); 30. Wheaton and Hazen 1951 (Sask); 31. Lawler and Scott 1954 (Man–NWT, Man, Ont); 32. Lawler 1954a (Man), 33. 1955 (Man), 34. 1959 (Man), 35. 1961 (Man), 36. 1970 (Man); 37. Bangham 1955 (Ont); 38. Fuller 1955 (NWT); 39. Lawler and Watson 1958 (Man); 40. Burchwald and Nursall 1969 (NWT); 41. Dechtiar 1972c (Ont); 42. Arthur et al. 1976 (YT)

Triaenophorus crassus Forel, 1868 (adult) (FW) Syn.: Triaenophorus robustus Olsson, 1893

Triaenophorus tricuspidatus morpha megadentatus Wardle, 1932

Triaenophorus tricuspidatus of Newton, 1932 (partim)¹⁶⁰

Triaenophorus sp. type robustus of Cooper, 1919

Location: intestine

Hosts: Esox lucius (1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19,20,21,22,23,24, 25,26,27,28,29,30,31,32,33,34)

E. masquinongy (33)

Lota lota (1)

Petromyzon marinus (32)

Stizostedion vitreum vitreum (35)

Dist.: Alta, BC-YT, Man, NWT, Ont, Sask, YT

Records: 1. Cooper 1919 (Ont); 2. Newton 1932 (Man); 3. Wardle 1932b (Man, unspecified localities Hudson Bay drainage); 4. Ekbaum 1935b (unspecified locality), 5. 1937 (Man, Ont); 6. Kuitunen-Ekbaum 1936 (Man, Ont); 7. Miller 1943 (Alta), 8. 1945b (Alta), 9, 1947 (NWT); 10. Clemens et al. 1945 (BC-YT); 11. Doan 1945 (Man), 12. 1949 (Man); 13. Miller and Watkins 1946 (Alta); 14. Rawson 1947a (NWT), 15. 1951 (NWT); 16. Libin 1951 (Alta); 17. Wheaton and Hazen 1951 (Sask); 18. Lawler 1954a (Man), 19. 1955 (Man), 20. 1956 (Man), 21. 1959 (Man), 22. 1961 (Man), 23. 1970 (Man); 24. Lawler and Scott 1954 (Ont); 25. Bangham 1955 (Ont); 26. Watson and Lawler 1956 (Man), 27. 1963 (Man), 28. 1965a (Man), 29. 1965b (Man); 30.

¹⁵⁴The parasite reported by Nicholson (1932a) as *Triaenophorus* sp. from coregonines is identifiable as *T. crassus*.

¹⁵⁵The record of Miller (1945d) from *C. artedii* involves a tentative host identification.

¹⁵⁶The record of Rawson (1947b) involves a tentative host identification for *C. nigripinnis*.

¹⁵⁷The record of Miller (1945b) involves a tentative host identification (as *Leucichthys* sp. (probably *tullibee*) (= C. *artedii*)).

¹⁵⁸The record of Miller (1945b) from S. leucichthys is a tentative parasite identification (the parasite was reported as ". . . almost certainly T. crassus.").

¹⁵⁹The parasite reported only as "cysts" from coregonines of Lake Winnipeg, Manitoba, by Oakland (1950) is referable to *T. crassus*.

¹⁶⁰The material reported as T. tricuspidatus from the intestine of E. lucius by Newton (1932) evidently consisted of a mixture of T. crassus and T. nodulosus (Pallas, 1760).

Lawler and Watson 1958 (Man); 31. Watson and Price 1960 (Man, NWT, Ont); 32. Wilson and Ronald 1967 (Ont); 33. Dechtiar 1972c (Ont); 34. Arthur et al. 1976 (YT); 35. Anthony 1976 (Ont)

Remarks: Miller (1945b) considered the report of Cooper (1919) of *T. crassus* from *L. lota* to be based on a liberated but moribund plerocercoid and concluded that *L. lota* was not an alternate host for this parasite. The record from *Petromyzon marinus* probably is of a similar nature.

Triaenophorus nodulosus (Pallas, 1760)

Rudolphi, 1819 (plerocercoid) (FW)

Syn.: Triaenophorus sp. type nodulosus of Cooper, 1919 (partim)

Location: liver, viscera

Hosts: Carassius auratus (19)

Catostomus commersoni (1,2,20,21) Cottus cognatus (8,9,10,11,14,23)

Lepomis gibbosus (20)

Lota lota (3,4,9,10,11,12,13,14,20)

Micropterus dolomieui (1)

Morone americana (16,17)

M. chrysops (19)

Moxostoma anisurum (19,20)

M. erythrurum (19)

Notropis cornutus (19)

Oncorhynchus kisutch (22)

O. nerka (21)

Perca flavescens (1,6,7,8,9,10,11,13,14, 15,16,18,20,21)

Percopsis omiscomaycus (21)

Stizostedion canadense (20)

Thymallus arcticus (5)

Unspecified Salmonidae (22)

Dist.: Alta, Man, NWT, Ont, YT

Records: 1. Cooper 1919 (Ont); 2. Bangham and Hunter 1939 (Ont)¹⁶¹; 3. Miller 1943 (Alta), 4. 1945a (Alta), 5. 1946a (NWT); 6. Keleher 1950 (unspecified locality); 7. Welch 1952 (Ont); 8. Lawler 1952 (Man), 9. 1953 (Man, Ont), 10. 1954a (Man), 11. 1955 (Man), 12. 1968 (Man), 13. 1969 (Man); 14. Lawler and Watson 1958 (Man) 15. Tedla and Fernando 1969a (Ont), 16. 1969c (Ont), 17. 1969e (Ont), 18. 1972 (Ont); 19. Dechtiar 1972b (Ont), 20. 1972c (Ont); 21. Collins and Dechtiar 1974 (Ont); 22. Leong and Holmes 1974a (Alta); 23. Arthur et al. 1976 (YT)

Triaenophorus nodulosus (Pallas, 1760)

Rudolphi, 1819 (adult) (FW)

Syn.: Triaenophorus tricuspidatus morpha microdentatus Wardle, 1932

Triaenophorus tricuspidatus of Newton, 1932 (partim)¹⁶²

Triaenophorus sp. type nodulosus of Cooper, 1919 (partim)

Location: intestine

Hosts: *Esox lucius* (2,3,4,5,6,7,8,9,11,12,13, 14,15,16,17,18,19,20,21,22,23,24,25) *E. masquinongy* (1,10,23)

E. masquinongy (1,10,23)
Stizostedion vitreum vitreum (26)

Dist.: Alta, Man, NWT, Ont, Que, YT

Records: 1. Cooper 1919 (Ont); 2. Nicholson 1928 (Man)¹⁶³; 3. Newton 1932 (Man); 4. Wardle 1932b (Man, unspecified localities Hudson Bay drainage); 5. Ekbaum 1935b (unspecified locality); 6. Miller 1943 (Alta), 7. 1945a (Alta); 8. Rawson 1951 (NWT); 9. Libin 1951 (Alta); 10. Choquette 1951c (Que); 11. Lawler 1953 (Man), 12. 1954a (Man), 13. 1955 (Man), 14. 1956 (Man), 15. 1969 (Man); 16. Watson and Lawler 1956 (Man), 17. 1963 (Man), 18. 1965a (Man), 19. 1965b (Man); 20. Lawler and Watson 1958 (Man); 21. Watson and Price 1960 (Man); 22. Dechtiar 1972b (Ont), 23. 1972c (Ont); 24. Collins and Dechtiar 1974 (Ont); 25. Arthur et al. 1976 (YT); 26. Anthony 1976 (Ont)

Remarks: Material reported as *Triaenophorus* sp. type *nodulosus* from *Stizostedion vitreum* vitreum by Cooper (1919) was tentatively referred to *T. stizostedionis* n.sp. by Miller (1945c).

Triaenophorus stizostedionis Miller, 1945 (plerocercoid)

(FW)

Syn.: Triaenophorus sp. of Miller, 1943

Location: liver

Hosts: Cottus cognatus (3,4,6)

Percopsis omiscomaycus (1,2,4,5,6,7,8)

Dist.: Alta, Man, Ont

Records: 1. Miller 1943 (Alta), 2. 1945c (Alta); 3. Lawler and Scott 1954 (Man); 4. Lawler 1954a (Man), 5. 1954b (Man); 6. Lawler and Watson 1958 (Man); 7. Dechtiar 1972b (Ont), 8. 1972c (Ont)

Triaenophorus stizostedionis Miller, 1945 (adult) (FW)

¹⁶¹Identification of this parasite to genus only is given in the parasite-host list of Bangham and Hunter (1939). For specific designation see their host-parasite list.

¹⁶²The material reported as *T. tricuspidatus* from *E. lucius* by Newton (1932) evidently consisted of a mixture of *T. nodulosus* and *T. crassus*.

 $^{^{163}\}mathrm{This}$ report involves a tentative parasite identification.

Syn.: Triaenophorus sp. of Miller, 1943
?Triaenophorus sp. type nodulosus of
Cooper, 1919 (partim)

Location: intestine

Host: Stizostedion vitreum vitreum Dist.: Alta, Man, NWT, Ont, Sask

Records: Cooper 1919 (Ont); Miller 1943 (Alta), 1945c (Alta, NWT); Rawson 1951 (Alta, Sask); Lawler 1954a (Man), 1954b (Man); Bangham 1955 (Ont); Lawler and Watson 1958 (Man); Watson and Lawler 1965a (Man), 1965b (Man); Dechtiar 1972c (Ont); Anthony 1976 (Ont); Stewart-Hay (1951a, 1953a MS) cited in Lubinsky 1976 (Man); Dickson (1964 MS) cited in Lubinsky 1976 (Man)

Triaenophorus spp. plerocercoid (FW)

Syn.: Triaenophorus tricuspidatus of Wardle, 1932 (partim)¹⁶⁴

Location: musculature, liver, viscera Hosts: Catostomus catostomus (3) Coregonus clupeaformis (4)

Coregonus sp. (1,4)

Esox lucius (1)

Micropterus dolomieui (2)

Perca flavescens (1,2)

Percopsis omiscomaycus (2)

Stizostedion canadense (2)

S. vitreum glaucum (2)

S. vitreum vitreum (2)

Dist.: Alta, Man, Ont

Records: 1. Wardle 1932b (Man, unspecified localities Hudson Bay drainage); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1955 (Ont); 4. Miller and Macdonald (1950 MS) cited in Mudry and Anderson 1976 (Alta)

Triaenophorus spp. adult (FW)

Syn.: Triaenophorus tricuspidatus of Wardle,

1933165

Location: intestine Hosts: Esox lucius (1)

Stizostedion canadense (2)

S. vitreum glaucum (2)

Dist.: Man, Ont

164The material reported as T. tricuspidatus by Wardle (1932b) from the liver of E. lucius and P. flavescens is probably referable to Triaenophorus nodulosus and that from the musculature of Coregonus sp. to T. crassus.

165 Material reported as *T. tricuspidatus* by Wardle (1933c) cannot be given a specific designation as this author considered *T. crassus* (as *T. tricuspidatus* morpha *macrodentatus*) and *T. nodulosus* (as *T. tricuspidatus* morpha *microdentatus*) to represent only variations of this species.

Records: 1. Wardle 1933c (Man); 2. Bangham and Hunter 1939 (Ont)

Unidentified Pseudophyllidea

Pseudophyllidea gen.sp.

(M)

(M)

(M)

Location: intestine

Host: Tautogolabrus adspersus

Dist.: Atl

Record: Sekhar S. and Threlfall 1970a

ORDER TETRAPHYLLIDEA

Family ONCHOBOTHRIIDAE

Acanthobothrium coronatum (Rudolphi, 1819) van Beneden, 1849 (M)

Location: [spiral valve] Hosts: Raja laevis

R. ocellata R. radiata

Dist.: Atl

Record: Myers 1959

Onchobothrium pseudouncinatum (Rudolphi,

1819) Beauchamp, 1905

Location: intestine

Host: Bathyraja richardsoni

Dist.: Atl

Record: Templeman 1973b

Family PHOREIOBOTHRIIDAE

Trilocularia acanthiae-vulgaris Olsson, 1867 (M)

Syn.: Trilocularia gracilis Olsson, 1869

Location: [spiral valve]
Hosts: Raja radiata
Squalus acanthias

Dist.: Atl

Record: Threlfall 1969

Remarks: Yamaguti (1959) listed T. gracilis

as the senior synonym.

Family PHYLLOBOTHRIIDAE

Anthobothrium cornucopia van Beneden, 1850

Location: stomach, spiral valve, intestine

Hosts: Raja ocellata (2)

R. radiata (1,2,3)

Dist.: Atl

Records: 1. Heller 1949; 2. Myers 1959; 3. Threlfall 1969

Phyllobothrium dagnallium Southwell, 1927 (M) Remarks: Riser (1955) considered A. cornucopia of Heller, 1949 to be an unspecified Location: stomach, spiral valve, intestine Hosts: Lamna nasus (2) species of Echeneibothrium. Baer (1956) Prionace glauca (3) considered Heller's material to be a synonym of Pseudanthobothrium hanseni, a $Raja\ laevis\ (1,2)$ species which he described from R. radiata. R. radiata (1) Dist.: Atl Records: 1. Heller 1949; 2. Myers 1959; 3. Anthobothrium variabile (Linton, 1889) Threlfall 1969 (M) Southwell, 1925 Location: [spiral valve] Phyllobothrium spp. plerocercoid Hosts: Raja ocellata Location: intestine, pyloric caeca, gall bladder R. radiata Hosts: Agonus acipenserinus (5,6) Dist.: Atl Ammodytes hexapterus (5,6) Record: Myers 1959 A prodon cortezianus (5,6) Aulorhynchus flavidus (5,6) Dinobothrium sp. (M) Blepsias cirrhosus (5,6) Location: not specified Clupea harengus pallasi (5,6) Host: Lamna nasus Coryphopterus nicholsi (6) Dist.: Atl Cymatogaster aggregata (5,6) Record: Myers 1959 Dasycottus setiger (6) Entosphenus tridentatus (1) Echeneibothrium variabile van Beneden, Gadus macrocephalus (5,6) (M) Gasterosteus aculeatus (5,6) Location: [spiral valve] Hexagrammos lagocephalus (5,6) Hosts: Raia ocellata H. stelleri (5,6) R. radiata Icelinus filamentosus (5,6) Dist.: Atl I. tenuis (5,6) Record: Myers 1959 Lepidopsetta bilineata (5,6) Limanda ferruginea (2) Pelichnibothrium sp. plerocercoid (M) Myoxocephalus polyacanthocephalus Location: stomach, intestine (5,6)Host: Salmo salar Oncorhynchus gorbuscha (3,4,5,6,)167 Dist.: NB, Nfld O. $keta (5,6)^{167}$ Records: Sandeman and Pippy 1967 (Nfld); O. kisutch (5,6)167 Pippy 1969 (NB) O. $nerka(1.5,6)^{167}$ O. tshawytscha (5,6)167 Ophiodon elongatus (5,6) Phyllobothrium caudatum (Zschokke and Heitz, Platichthys stellatus (5,6) 1914) Zmeev, 1936 (plerocercoid) Syn.: Phyllobothrium salmonis Fujita, 1922 Salvelinus malma (1,5,6) Sebastes alutus (7,8) Phyllobothrium sp. of Wardle, 1932 S. borealis (8) Location: intestine, stomach Hosts: Oncorhynchus gorbuscha (2,3,4) S. caurinus (8) O. nerka(3,4,5)S. crameri (8) *S. diploproa* (5,6) Oncorhynchus spp. $(1,2)^{166}$ S. elongatus (8) Dist.: Pac, BC-b, BC Records: 1. Wardle 1932a (Pac), 2. 1932b S. entomelas (8) S. maliger (5,6) (Pac); 3. Margolis 1956b (Pac, BC-b), 4. 1957 (Pac, BC-b, BC), 5. 1963 (Pac, BC-b) S. pinniger (8)

North Pacific.

Remarks: Williams (1968) discussed the syn-

onymy of Phyllobothrium plerocercoids re-

covered from Oncorhynchus species in the

Thaleichthys pacificus (5,6)

Syngnathus griseolineatus (5,6)

S. ruberrimus (8)

S. variegatus (8)

¹⁶⁶This species was reported from "...all species of Oncorhynchus..." by Wardle (1932a).

¹⁶⁷The plerocercoids from these hosts are probably *P. caudatum*.

Theragra chalcogramma (5,6) Triglops pingeli (5,6)

Xeneretmus latifrons (5,6)

Dist.: Atl, Pac, BC

Records: 1. Bangham and Adams 1954 (BC); 2. Ronald 1958b (Atl); 3. Boyce 1966 (Pac), 4. 1969 (Pac); 5. Arai 1967a (Pac), 6. 1969b (Pac); 7. Sekerak and Arai 1973 (Pac), 8.

1977 (Pac)

Phyllobothrium spp. (M)

Location: intestine

Hosts: Prionace glauca (2) Raja laevis (1) R. ocellata (1) R. radiata (1,2) Squalus acanthias (1,2)

Dist.: Atl

Records: 1. Myers 1959; 2. Threlfall 1969

Scyphophyllideum giganteum (van Beneden, 1858) Woodland, 1927 (M)

Location: intestine Host: Raja radiata Dist.: Atl

Records: Heller 1949; Threlfall 1969

Family PROSOBOTHRIIDAE

Platybothrium parvum Linton, 1901 (M)

Location: intestine

Hosts: Myoxocephalus scorpius Prionace glauca

Dist.: Atl

Record: Threlfall 1969

Tetraphyllidea of Uncertain Position

Scolex pleuronectis O. F. Müller, 1788

(plerocercoid) (M)

Location: stomach, pyloric caeca, intestine Hosts: Hippoglossoides platessoides Hippoglossus hippoglossus

Limanda ferruginea

Dist.: At1

Record: Ronald 1958b

Remarks: Scolex pleuronectis is a larval name under which plerocercoids of various tetraphyllidean species have been assigned. Gaevskaya and Umnova (1977) reported these metacestodes from a number of fishes from the Atlantic coast of Canada.

Scolex pleuronectis bilocularis (G. R. Wagener, 1854) Southwell, 1925 (plerocercoid)

Location: intestine

Host: Tautogolabrus adspersus

Record: Sekhar S. and Threlfall 1970a

(M)

Scolex sp. plerocercoid

Location: liver Host: Squalus acanthias

Dist.: Atl

Record: Threlfall 1969

Unidentified Tetraphyllidea

Tetraphyllidea gen, spp. plerocercoid (M)

Location: intestinal wall, intestine Hosts: Ammodytes dubius (2) Limanda ferruginea (1)

Dist.: Atl

Records: 1. Ronald 1958b; 2. Scott 1973

ORDER DIPHYLLIDEA

Family ECHINOBOTHRIIDAE

Echinobothrium raji Heller, 1949 (M)

Location: stomach, spiral valve

Host: Raja radiata

Dist.: Atl

Record: Heller 1949

Remarks: Wardle et al. (1974) considered Diphyllidea to be a nomen oblitum which they resurrected to contain the family Diphyllobothriidae. The same authors noted: "From its description and its location in an elasmobranch, Echinobothrium would seem to be a lecanicephalid."

ORDER PROTEOCEPHALIDEA

Family PROTEOCEPHALIDAE

Corallobothrium fimbriatum Essex, 1928 (FW)

Location: intestine

Hosts: Ictalurus melas (2,6)

I. nebulosus (1,3,4,5,7,8,9)168

I. punctatus (2) Noturus flavus (2)

N. gyrinus (8)

N. miurus (2)

Dist.: BC, Man, Ont, Que

¹⁶⁸The record of Wardle (1932b) is a provisional parasite identification.

| Records: 1. Wardle 1932b (Man); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. Bangham and Venard 1946 (Ont); 6. Worley and Bangham 1952 (Que); 7. Bangham and Adams 1954 (BC); 8. Dechtiar 1972c (Ont); 9. Molnar et al. 1974 (Ont) | Amia calva (3)169 Cottus bairdi (3,10) Culaea inconstans (10) Ictalurus melas (3) I. nebulosus (2,4,5,6,9,10,12) Labidesthes sicculus (3) Lepisosteus osseus (3) Lepomis gibbosus (3,4,5,6,9,10) |
|--|--|
| Corallobothrium parafimbriatum Befus and Freeman, 1973 (FW) Location: intestine Host: Ictalurus nebulosus Dist.: Ont | Leponis gibossis (3,4,5,6,7,10) L. macrochirus (3) Micropterus dolomieui (1,2,3,4,5,6,8,9,10) M. salmoides (3,7) Morone chrysops (3,5) |
| Records: Befus and Freeman 1973a, b | Notropis atherinoides (3) N. hudsonius (3) |
| Corallobothrium spp. (FW) Location: intestine Hosts: Ambloplites rupestris (2) Etheostoma exile (2) Ictalurus melas (1) I. nebulosus (1,2) Micropterus salmoides (2) Perca flavescens (2) Dist.: Ont Records: 1. Bangham and Hunter 1939; 2. | Noturus flavus (3) Perca flavescens (3,4,5,6,9,10,11) Pomoxis nigromaculatus (10) Semotilus atromaculatus (6,9) Stizostedion canadense (10) S. vitreum glaucum (3) S. vitreum vitreum (3,10) Dist.: BC, Ont, Que Records: 1. Cooper 1915c (Ont); 2. Wardle 1933b (Que); 3. Bangham and Hunter 1939 |
| Molnar et al. 1974 Corallotaenia minutia (Fritts, 1959) Befus and Freeman, 1973 (parenteral plerocercoid) (FW) Location: encysted in viscera Host: Ictalurus nebulosus | (Ont); 4. Bangham 1941 (Ont), 5. 1955 (Ont); 6. Bangham and Venard 1946 (Ont); 7. Bangham and Adams 1954 (BC); 8. Fischer and Freeman 1969 (Ont), 9. 1973 (Ont); 10. Dechtiar 1972c (Ont); 11. Tedla and Fernando 1972 (Ont); 12. Befus and Freeman 1973b (Ont) |
| Dist.: Ont Record: Befus and Freeman 1973b | Proteocephalus ambloplitis (Leidy, 1887) Benedict, 1900 (FW) |
| Corallotaenia minutia (Fritts, 1959) Befus and Freeman, 1973 (adult) (FW) Location: intestine Host: Ictalurus nebulosus Dist.: Ont Records: Befus and Freeman 1973a, b | Benedict, 1900 (FW) Location: intestine Hosts: Ambloplites rupestris (3) Amia calva (3) Lepisosteus osseus (3) ¹⁷⁰ Micropterus dolomieui (1,2,3,4,5,7,8,9,10,11) M. salmoides (3,5) |
| Megathylacoides giganteum (Essex, 1928) Freze, 1965 (FW) Syn.: Corallobothrium giganteum Essex, 1928 Location: digestive tract Host: Ictalurus punctatus Dist.: Ont Records: Bangham and Hunter 1939; Bangham 1955 | Perca flavescens (4,12) Salvelinus fontinalis (6) S. namaycush (6) Dist.: Ont, Que Records: 1. Cooper 1915c (Ont); 2. Wardle 1933b (Que); 3. Bangham and Hunter 1939 (Ont); 4. Bangham 1941 (Ont), 5. 1955 (Ont); 6. MacLulich 1943b (Ont); 7. |
| Proteocephalus ambloplitis (Leidy, 1887) Benedict, 1900 (parenteral plerocercoid) (FW) Syn.: Proteocephalus micropteri (Leidy, 1887) Location: encysted in viscera Hosts: Ambloplites rupestris (3,5,10) | Bangham and Venard 1946 (Ont); 8. Fischer 169The record of the plerocercoid of <i>P. ambloplitis</i> from <i>A. calva</i> is found only in the parasite—host list of Bangham and Hunter (1939). 170The record of <i>P. ambloplitis</i> from the intestine of this host is found in the parasite—host list only of Bangham and Hunter (1939). |

1968 (Ont); 9. Fischer and Freeman 1969 (Ont), 10. 1973 (Ont); 11. Dechtiar 1972c (Ont); 12. Tedla and Fernando 1972 (Ont)

Proteocephalus arcticus Cooper, 1921

Location: intestine

Hosts: Coregonus sp. (4)171

Oncorhynchus kisutch (3)

O. nerka (2)¹⁷² Salmo clarki (2)¹⁷²

Salvelinus alpinus (1)

Dist.: BC, NWT

Records: 1. Cooper 1921 (NWT); 2. Wardle 1933a (BC)¹⁷³, 3. 1933b (BC); 4. Rawson 1951 (NWT)

Proteocephalus coregoni Wardle, 1932 (FW)

Location: intestine

Host: Coregonus sp. 174

Dist.: unspecified locality Hudson Bay drain-

age

Record: Wardle 1932b

Proteocephalus exiguus La Rue, 1911 (FW)

Location: intestine

Hosts: Coregonus artedii (1,2,4,5)

C. clupeaformis (1,2,4,5,6)

C. hoyi (4)

Oncorhynchus nerka (3)

Prosopium cylindraceum (4)

P. williamsoni (3)

Dist: Alta, BC, Ont

Records: 1, Hunter and Bangham 1933 (Ont); 2. Bangham and Hunter 1939 (Ont); 3. Bangham and Adams 1954 (BC); 4. Bangham 1955 (Ont); 5. Dechtiar 1972c (Ont); 6. Leong and Holmes 1974a (Alta)

Proteocephalus filicollis (Rudolphi, 1802)

Weinland, 1858 (FW)

Location: intestine

Hosts: Coregonus artedii (2)
Gasterosteus aculeatus (1)

Dist.: Alta, Nfld

Records: 1. Hanek and Threlfall 1970e (Nfld); 2. Leong and Holmes 1974a (Alta)

171This parasite was reported by Rawson (1951) as "Proteocephalus arcticus?"

172The parasites reported by Wardle (1933a) were "... regarded provisionally as belonging to the species arcticus..."

173Freze (1965) considered the records of Wardle (1933a) to be questionable.

174The host was reported as "Coregonus sp. probably C. atikameg" (syn. of C. clupeaformis).

Proteocephalus fluviatilis Bangham, 1925 (FW)

Location: intestine

Hosts: Lepomis gibbosus (1)

Micropterus dolomieui (1,2,3,4,5)

M. salmoides (1)

Dist.: Ont

(FW)

Records: 1. Bangham and Hunter 1939; 2. Bangham 1941; 3. Bangham and Venard 1946; 4. Fischer 1968; 5. Dechtiar 1972c

Proteocephalus laruei Faust, 1920 (FW)

Syn.: Ichthyotaenia laruei (Faust, 1920)

Location: intestine

Hosts: Coregonus artedii (4,5,8)

C. clupeaformis (1,2,3,4,5,6,8)

C. hoyi (2,5)

C. zenithicus (2)

Oncorhynchus nerka (7)

Petromyzon marinus (5)

Prosopium cylindraceum (4)

Dist.: BC, Man, Ont, Sask

Records: 1. Hart 1931 (Ont)¹⁷⁵; 2. Wardle 1932b (Man, Sask), 3. 1933b (Ont); 4. Bangham 1941 (Ont), 5. 1955 (Ont); 6. Bangham and Venard 1946 (Ont); 7. Bangham and Adams 1954 (BC); 8. Dechtiar 1972c (Ont)

Proteocephalus luciopercae Wardle, 1932 (FW)

Location: intestine

Hosts: Stizostedion canadense (1)

S. vitreum vitreum (1,2,3,4,5,6)

Dist.: Man, Ont, Sask

Records: 1. Wardle 1932b (Man, Sask); 2. Lawler 1954a (Man); 3. Lawler and Watson 1958 (Man); 4. Anthony 1976 (Ont); 5. Stewart-Hay (1951a, b; 1952a, 1953a, b MS) cited in Lubinsky 1976 (Man); 6. Dickson (1964 MS) cited in Lubinsky 1976 (Man)

Proteocephalus macrocephalus (Creplin, 1825)

Nufer, 1905 (FW)

Location: intestine
Host: Anguilla rostrata

Dist.: Ont, Que

Records: Bangham 1941 (Ont); Bangham and Venard 1946 (Ont); Dechtiar 1972b (Ont); Hanek and Molnar 1974 (Que)

(FW)

Proteocephalus parallacticus MacLulich,

Location: intestine

Hosts: Salmo trutta (1,2)

¹⁷⁵This parasite was noted by Hart (1931) to be "... either *Ichthyotaenia laruei* Faust or some species extraordinarily similar to it."

Salvelinus fontinalis (1,2,3,4,6)S. fontinalis \times S. namaycush (6)S. namaycush (1,2,3,5,6,7,8)

Dist.: Alta, Ont, Que

Records: 1. MacLulich 1943a (Ont), 2. 1943b (Ont); 3. Bangham and Venard 1946 (Ont); 4. Choquette 1948a (Que); 5. Freeman 1961 (Ont), 6. 1964a (Ont); 7. Dechtiar 1972c (Ont); 8. Mudry and Anderson 1977 (Alta)

Proteocephalus pearsei La Rue, 1919 (FW)

Location: intestine

Hosts: Ambloplites rupestris (1,3)
A plodinotus grunniens (1)
Etheostoma nigrum (1)¹⁷⁶
Ictalurus nebulosus (3)
Lepomis gibbosus (3,4)
L. macrochirus (1)
Lota lota (3)
Micropterus dolomieui (1,2,5)
M. salmoides (1)
Morone chrysops (1,3)

Notropis atherinoides (8)
Perca flavescens (1,2,3,4,6,7,8,9)

Perca flavescens (1,2,3,4,6,7,8,9)
Percina caprodes (1)
Percopsis omiscomaycus (1)
Pomoxis annularis (3)
P. nigromaculatus (3,8)
Stizostedion vitreum vitreum (10)

Dist.: Ont

Records: 1. Bangham and Hunter 1939; 2. Bangham 1941, 3. 1955; 4. Bangham and Venard 1946; 5. Fischer 1968; 6. Tedla and Fernando 1969a, 7. 1972; 8. Dechtiar 1972c; 9. Cannon 1973; 10. Anthony 1976

Proteocephalus perplexus La Rue, 1911 (FW)

Location: [intestine]
Hosts: Amia calva (1)
Lepisosteus osseus (2)

Dist.: Ont

Records: 1. Bangham 1955; 2. Dechtiar 1972b

Proteocephalus pinguis La Rue, 1911 (FW)

Location: intestine

Hosts: Esox americanus vermiculatus (3,11) E. lucius (1,2,3,4,6,7,8,9,10,12,13,15)

E. masquinongy (5,9)

E. niger (6)

Notropis atherinoides (3)

N. hudsonius (3)

Perca flavescens (3)¹⁷⁷ Semotilus atromaculatus (3) Stizostedion vitreum vitreum (14)

Dist.: BC, Lab, Man, NWT, Ont, Que

Records: 1. Wardle 1932b (Man); 2. Richardson 1937b (Que); 3. Bangham and Hunter 1939 (Ont); 4. Rawson 1951 (NWT); 5. Choquette 1951c (Que); 6. Worley and Bangham 1952 (Que); 7. Lawler 1954a (Man); 8. Bangham and Adams 1954 (BC); 9. Bangham 1955 (Ont); 10. Lawler and Watson 1958 (Man); 11. Crossman 1962 (Ont); 12. Threlfall and Hanek 1970b (Lab); 13. Dechtiar 1972c (Ont); 14. Anthony 1976 (Ont); 15. Little (1954 MS) cited by Lubinsky 1976 (Man)

Proteocephalus ptychocheilus Faust, 1920 (FW)

Location: [intestine]

Hosts: Mylocheilus caurinus
Ptychocheilus oregonensis

Dist.: BC

Record: Bangham and Adams 1954

Proteocephalus pugetensis Hoff and Hoff,

1929 (FW)

Location: intestine

Host: Gasterosteus aculeatus

Dist.: Pac, BC

Records: Bangham and Adams 1954 (BC); Lester 1975 (Pac, BC)

Proteocephalus pusillus Ward, 1910 (FW)

Location: intestine, pyloric caeca Hosts: Coregonus artedii (2) Salvelinus namaycush (1)

Dist.: Man. Ont

Records: 1. MacLulich 1943b (Ont); 2. Little (1954 MS) cited in Lubinsky 1976 (Man)

Proteocephalus salmonidicola Alexander,

1951 (FW)

Location: intestine
Hosts: Salmo clarki
S. gairdneri
Salvelinus malma

Dist.: BC

Record: Bangham and Adams 1954

Proteocephalus singularis La Rue, 1911 (FW)

Location: intestine

Hosts: Coregonus clupeaformis (2,3,4)

¹⁷⁶Parasite identification to generic level only is given in the parasite—host list of Bangham and Hunter (1939) for *E. nigrum*. For specific identification see their host—parasite list.

¹⁷⁷Parasite identification to generic level only is given in the parasite-host list of Bangham and Hunter (1939) for this host. For specific identification see their host-parasite list.

Lepisosteus osseus (1) Catostomus catostomus (26) Dist.: Alta, Man, Ont C. commersoni (3) Records: 1. Bangham and Hunter 1939 (Ont); Chrosomus neogaeus (31) 2. Lawler 1954a (Man); 3. Lawler and Wat-Coregonus artedii (17) son 1958 (Man); 4. Little (1954 MS) cited C. clupeaformis (1,9,17,32) in Mudry and Anderson 1976 (Alta) Cottus asper (12) C. bairdi (2,28) Proteocephalus stizostethi Hunter and C. rhotheus (12) Bangham, 1933 (FW) Couesius plumbeus (12) Location: intestine Culaea inconstans (2) Hosts: Esox lucius (3) Esox lucius (27) Micropterus dolomieui (1) Fundulus diaphanus (2,38) Percina caprodes (2)178 F. heteroclitus (36) Stizostedion canadense (1,2,5) Gasterosteus aculeatus (24,35) S. vitreum glaucum (1,2) G. wheatlandi (25) S. vitreum vitreum (1,2,3,4,5,6) Hiodon tergisus (2) Dist.: Ont, Que Lota lota (6,17,28) Records: 1. Hunter and Bangham 1933 (Ont); Micropterus dolomieui (12) 2. Bangham and Hunter 1939 (Ont); 3. Notropis atherinoides (2) Worley and Bangham 1952 (Que); 4. Bang-N. heterolepis (4) ham 1955 (Ont); 5. Dechtiar 1972c (Ont); N. hudsonius (4) 6. Anthony 1976 (Ont) Oncorhynchus kisutch (12,19,20,34) O. nerka (12,14,15,16,43)179 Proteocephalus tumidocollus Wagner, Osmerus mordax (28,30,33) (FW) Petromyzon marinus (4,18) Location: intestine, pyloric caeca Prosopium cylindraceum (32) Hosts: Coregonus clupeaformis (1,3) P. williamsoni (12)179 Cottus cognatus (3) *Pungitius pungitius* (23,31,37) Esox lucius (3) Richardsonius balteatus (12) Prosopium cylindraceum (3) Salmo gairdneri (4,29) Salvelinus alpinus (1,2) S. salar (32,39,40) S. fontinalis (1,2) Salvelinus alpinus (32,41) S. namaycush (1,3) S. fontinalis (4,8,17,32) Thymallus arcticus (3) S. namaycush (5,7,10,17,32) Dist.: Lab, Que, YT Semotilus atromaculatus (6) Records: 1. Hicks and Threlfall 1973 (Lab); Stenodus leucichthys (13) 2. Hanek and Molnar 1974 (Que); 3. Arthur Stizostedion vitreum vitreum (9,11,42) et al. 1976 (YT) Unspecified Salmonidae (34) Dist.: Atl, Pac, Alta, BC, Lab-b, Lab, NB, Proteocephalus wickliffi Hunter and Bangham, Nfld-b, Nfld, NS, NWT, Ont, Que, Sask, YT 1933 (FW) Records: 1. Hart 1930 (Ont); 2. Bangham and Location: intestine Hunter 1939 (Ont); 3. Bangham 1941 (Ont), Host: Coregonus artedii 4. 1955 (Ont); 5. Richardson 1942 (Que); 6. Dist.: Ont Bangham and Venard 1946 (Ont); 7. Miller Records: Hunter and Bangham 1933; Bangand Kennedy 1948 (NWT); 8. Munroe 1949 ham and Hunter 1939 (Lab, Que); 9. Rawson 1951 (Alta, NWT, Sask), 10. 1961 (Sask); 11. Worley and (FW) Proteocephalus spp. Bangham 1952 (Que); 12. Bangham and Location: intestine, pyloric caeca Adams 1954 (BC); 13. Fuller 1955 (NWT); Hosts: Anguilla rostrata (22) 14. Margolis 1956b (Pac, BC), 15. 1957 A peltes quadracus (21) (BC), 16. 1963 (BC); 17. Freeman 1964a Carpiodes cyprinus (31) (Ont); 18. Wilson and Ronald 1967 (Ont); 19. Arai 1967a (Pac), 20. 1969b (Pac); 21.

¹⁷⁸Parasite identification to generic level only is given in the parasite—host list of Bangham and Hunter (1939) for this host. For specific identification see their host—parasite list.

¹⁷⁹Bangham and Adams (1954) noted that for O. nerka and P. williamsoni most Proteocephalus sp. appeared to be P. laruei.

Hanek and Threlfall 1970b (Nfld-b), 22. 1970c (Nfld), 23. 1970d (Lab-b), 24. 1970e (Atl, Lab, Nfld), 25. 1971 (Nfld-b); 26. Threlfall and Hanek 1970a (Lab), 27. 1970b (Lab), 28. 1971 (Lab); 29. Bell and Hoskins 1971 (BC); 30. Dechtiar 1972b (Ont), 31. 1972c (Ont); 32. Hicks and Threlfall 1973 (Lab); 33. Hanek and Molnar 1974 (Que); 34. Leong and Holmes 1974a (Alta); 35. Lester 1975 (Pac, BC); 36. Dickinson and Threlfall 1975 (Nfld), 37. 1976 (Nfld); 38. Wiles 1975b (NS); 39. Hare and Burt 1975a (NB), 40. 1975b (NB); 41. Mudry and McCart 1976 (YT); 42. Anthony 1976 (Ont); 43. Boyce and Yamada 1977 (BC)

Proteocephalidae gen.spp.

(FW)

Syn.: Ichthyotaeniidae

Location: intestine

Hosts: Salvelinus fontinalis (1,2,3)

S. namaycush (1)

Dist.: Oue

Records: 1. Lyster 1940a¹⁸⁰; 2. Choquette

1948a; 3. Hoffman and Dunbar 1961

ORDER CYCLOPHYLLIDEA

Family DILEPIDIDAE¹⁸¹

Dilepis unilateralis (Rudolphi, 1819) Clerc, (FW)

1906 (cysticercus)

Syn.: Cysticercus dilepis unilateralis (Rudol-

phi, 1819)

Location: gall bladder

Host: Micropterus salmoides

Dist.: Ont

Record: Molnar et al. 1974

Dilepis sp. cysticercus (FW)

Syn.: Cysticercus dilepis sp.

Location: gall bladder, body cavity

Hosts: Fundulus diaphanus (2)

Micropterus salmoides (1)

Dist.: NS. Ont

Records: 1. Molnar et al. 1974 (Ont); 2. Wiles

1975b (NS)

(FW) Parvitaenia sp. larva

Location: viscera

Host: Fundulus diaphanus

¹⁸⁰The parasites reported by Lyster (1940a) were noted to be larval cestodes "... probably ... referable to the family Ichthyotaeniidae . . ."

181Wardle et al. (1974) placed the Dilepididae in their newly created order Dilepididea.

Dist.: NS

Record: Wiles 1975b

Dilepididae gen.sp. larva

Location: encysted in liver and mesenteries

Host: Lepomis gibbosus

Dist.: Ont

Record: Cone and Anderson 1977b

Family HYMENOLEPIDIDAE¹⁸²

Hymenolepis spp. metacestode

(FW)

(FW)

Location: encysted in body cavity, liver

Hosts: Couesius plumbeus (2)

Etheostoma exile (3)

Fundulus diaphanus (4)

Lepomis gibbosus (1)

Dist.: BC, NS, Ont

Records: 1. Bangham and Venard 1946 (Ont);

2. Bangham and Adams 1954 (BC); 3.

Bangham 1955 (Ont); 4. Wiles 1975b (NS)

Unidentified Cestoda

Cestoda gen.spp. plerocercoid or

metacestode

(FW, M)

Location: encysted in musculature, mesen-

teries, viscera; free in intestine

Hosts: Coregonus artedii (1)

Ictalurus nebulosus (4)

Oncorhynchus gorbuscha (3)

O. nerka (3)

Perca flavescens (2)

Dist.: Pac, Ont, Que

Records: 1. Pritchard 1931 (Ont); 2. Fantham and Porter 1948 (Que); 3. Margolis 1956b

(Pac); 4. Befus and Freeman 1973b (Ont)

Cestoda gen.spp.

(FW, M)

Includes: "tapeworms" auct.

Location: intestine, stomach

Hosts: Ammodytes hexapterus (9)

Catostomus catostomus (1)

Coregonus clupeaformis (6,7)

Gasterosteus aculeatus (11)

Oncorhynchus nerka (8,9,10)

Osmerus mordax (3)

Rhinichthys osculus (1)

Salmo salar (4,5)

Salvelinus fontinalis (2,12)

S. malma (1,13)

¹⁸²Wardle et al. (1974) placed the Hymenolepididae in their newly created order Hymenolepididea.

Dist.: Pac, Alta, NB, Nfld, NS, Ont, Que-b, Que, Sask

Records: 1. Neave and Bajkov 1929 (Alta); 2. Ricker 1932 (Ont, Que); 3. Pigeon and Vallée 1937 (Que-b); 4. Hoar 1939 (NB); 5. Frost 1940 (Nfld); 6. Wheaton and Hazen 1951 (Sask); 7. Welch 1952 (Ont); 8. Barraclough and Fulton 1967 (Pac); 9. Barraclough 1967b (Pac); 10. Robinson et al. 1968b (Pac); 11. Threlfall 1968 (Nfld); 12. Frantsi et al. 1975 (NS); 13. Rawson (1939 MS) cited in Mudry and Anderson 1976 (Alta)

PHYLUM NEMATHELMINTHES

(FW)

CLASS NEMATODA

SUBCLASS ADENOPHOREA

ORDER ENOPLIDA

Superfamily DIOCTOPHYMATOIDEA

Family DIOCTOPHYMATIDAE

Dioctophyma renale (Goeze, 1782) Stiles, 1901

Location: viscera, mesenteries, musculature

Host: Ictalurus nebulosus

Dist.: Ont

Record: Mace and Anderson 1975

Dioctophyma sp. larva

Location: body cavity

Host: Micropterus salmoides 183

Dist.: Ont

Record: Bangham and Hunter 1939

(FW) Eustrongylides sp. larva

Location: viscera, musculature, body cavity,

ovarv

Hosts: Catostomus commersoni (1,2,3)

C. macrocheilus (3) Cottus asper (3)

Entosphenus tridentatus (3)

Gasterosteus aculeatus (3,7,9)

Lepomis gibbosus (11)

Mylocheilus caurinus (3)

Oncorhynchus kisutch (4)

Perca flavescens (5,6,8)

Prosopium williamsoni (3)

Salmo clarki (3,10)

S. gairdneri (10)

Salvelinus malma (3)

S. namaycush (3)

Stizostedion canadense (5.6)

S. vitreum vitreum (6)

Dist.: BC, Ont, Que-b

Records: 1. Bangham 1941 (Ont); 2. Bangham and Venard 1946 (Ont); 3. Bangham and Adams 1954 (BC); 4. Godfrey 1968 (BC); 5. Dechtiar 1972b (Ont), 6. 1972c (Ont); 7. Hanek and Molnar 1974 (Que-b); 8. Molnar et al. 1974 (Ont); 9. Lester 1975 (BC): 10. Hoskins et al. 1976 (BC); 11. Cone and Anderson 1977b (Ont)

Superfamily TRICHUROIDEA

Family CAPILLARIIDAE

Capillaria salvelini Polyansky, 1952 (FW) Location: intestine, pyloric caeca, stomach

Hosts: Coregonus clupeaformis (4)

Osmerus mordax (5)

Prosopium cylindraceum (4,9)

Salmo salar (1,5,6,7,8)

Salvelinus alpinus (4)

S. fontinalis (2,3,4,5)

S. namaycush (4,9)

Thymallus arcticus (9) Dist.: Lab, NB-b, NB, Nfld-b?, Nfld, NS, Que,

Records: 1. Pippy 1969 (NB, Nfld, NS); 2. Threlfall and Hanek 1969 (Nfld), 3. 1970c (Nfld-b and/or Nfld); 4. Hicks and Threlfall 1973 (Lab); 5. Hanek and Molnar 1974 (Que); 6. Hare and Burt 1975a (NB), 7. 1975b (NB), 8. 1976 (NB-b, NB); 9. Arthur et al. 1976 (YT)

Capillaria spp.

(FW, M)

Location: intestine, stomach

Hosts: A podichthys flavidus (3)

A prodon cortezianus (3) Artedius harringtoni (2)

Chitonotus pugetensis (3)

Hemilepidotus hemilepidotus (2)

Hexagrammos lagocephalus (2)

Ictalurus nebulosus (1)

Lepidopsetta bilineata (2,3)

Malacocottus kincaidi (3)

Micropterus dolomieui (1)

Myoxocephalus polyacanthocephalus

(2)

Oncorhynchus kisutch (3)

O. tshawytscha (3)

Salvelinus malma (2)

Sebastes alutus (4)

S. babcocki (4)

S. borealis (4)

S. caurinus (4)

¹⁸³ Bangham and Hunter (1939) recorded Dioctophyma sp. from the smallmouth black bass (M. dolomieui) only in their parasite-host list. Since this parasite is reported from M. salmoides (as Aplites s.) rather than M. dolomieui in both the text and the host-parasite list, the former record is considered to be an error in compilation.

S. maliger (4) S. nigrocinctus (4) ORDER ASCARIDIDA S. paucispinis (4) S. ruberrimus (4) Superfamily ASCARIDOIDEA Dist.: Pac. Ont Records: 1. Bangham 1941 (Ont): 2. Arai Family ACANTHOCHEILIDAE 1967a (Pac), 3, 1969b (Pac); 4, Sekerak and Arai 1977 (Pac) Pseudanisakis tricupola Gibson, 1973 Syn.: ?Eustoma rotundatum (Rudolphi, 1819) Skrjabinocapillaria bakeri (Mueller and Van auct. Location: stomach, spiral valve Cleave, 1932) Skrjabin and Schikhobalova, 1954 Hosts: Raia erinacea (1) Syn.: Capillaria bakeri (Mueller and Van R. laevis (2)Cleave, 1932) R. ocellata (2) Hepaticola bakeri Mueller and Van R. radiata(2,3)Cleave, 1932 Squalus acanthias (3) Location: intestine Dist.: Atl Records: 1. Heller 1949; 2. Myers 1959; 3. Hosts: Catostomus catostomus (1,4) Threlfall 1969 C. commersoni (1,2) C. macrocheilus (4) Remarks: According to Gibson (1973) the Cottus asper (4) records of Myers (1959) and Threlfall Couesius plumbeus (4) (1969) are probably P. tricupola. Heller's Lota lota (1,3,5) (1949) record of E, rotundatum is probably Mylocheilus caurinus (4) also referable to this species. Oncorhynchus kisutch (4) Pseudanisakis sp. 184 Prosopium williamsoni (4) (M) Syn.: Eustoma sp. Ptychocheilus oregonensis (4) Location: intestine, stomach Richardsonius balteatus (4) Host: Raja sp. Salmo clarki (4) Dist.: Atl S. gairdneri (4) Record: Scott and Black 1960 Salvelinus fontinalis (3,4) S. malma (4) Dist.: BC, Ont Records: 1. Bangham 1941 (Ont), 2. 1955 Family ANISAKIDAE (Ont); 3. Bangham and Venard 1946 (Ont); 4. Bangham and Adams 1954 (BC); 5. Anisakis simplex (Rudolphi, 1809) Dujardin, Dechtiar 1972c (Ont) Remarks: The validity of some of these rec-1845 (larva) (M) Location: body cavity, viscera, musculature ords, particularly from British Columbia, Hosts: Alosa pseudoharengus (4) is questionable. Clupea harengus harengus (2,4) Merluccius bilinearis (4) Thominx catenata (Van Cleave and Mueller, M. productus (3) 1932) Skrjabin and Schikhobalova, Salmo salar (1,2) Scomber scombrus (4) Syn.: Capillaria catenata Van Cleave and Dist.: Atl, Pac Mueller, 1932 Records: 1. Nyman and Pippy 1972 (Atl); Location: intestine 2. Beverley-Burton et al. 1977 (Atl); 3. Hosts: Ambloplites rupestris (2) Margolis and Beverley-Burton 1977 (Pac); Catostomus commersoni (1) 4. Gaevskaya and Umnova 1977 (Atl) Oncorhynchus nerka (3) Osmerus mordax (3) (M) Anisakis sp. larva Dist.: Ont, Que Includes: "Anisakis-type larva" auct. Records: 1. Fantham and Porter 1948 (Que); 2. Dechtiar 1972c (Ont); 3. Collins and 184This parasite was reported as ". . . probably Dechtiar 1974 (Ont) Eustoma sp. . . . "

SUBCLASS SECERNENTEA

S. flavidus (4)

Location: viscera, mesenteries, body cavity, musculature, stomach, intestine Hosts: Ammodytes hexapterus (15) Anoplarchus purpurescens (15) A podichthys flavidus (15) Aulorhynchus flavidus (15) Blepsias cirrhosus (15) Citharichthys stigmaeus (13,15) Clupea harengus harengus (1,2,7,21, 22,23)C. harengus pallasi $(3,13,15,25)^{185}$ Cymatogaster aggregata (14) Gadus macrocephalus (15) G. morhua (1,8,9,11)¹⁸⁶ Gasterosteus aculeatus (13,15) Gilbertidia sigalutes (15) Glyptocephalus cynoglossus (8) Hexagrammos lagocephalus (13,15) Hippoglossoides platessoides (8) Lepidopsetta bilineata (15) Leptocottus armatus (15) Mallotus villosus (8) Melanogrammus aeglefinus (8) Microgadus tomcod (1) Myoxocephalus polyacanthocephalus Oligocottus maculosus (15) Oncorhynchus gorbuscha (4,5,13,15, O. keta (13,15) O. kisutch (15,25) O. nerka (4,5,6,15) Ophiodon elongatus (15) Osmerus mordax (1) Pholis laeta (15) P. ornata (13,15) Platichthys stellatus (15) Pollachius virens (8) Raja laevis (10) R. ocellata (10) R. radiata (10,18) Ronquilus jordani (15) Salmo salar (1,16,17,19,24) Salvelinus alpinus (24) S. fontinalis (24) Scomber scombrus (1) Sebastes alutus (13,15) S. marinus (8,12) S. mentella (12) Squalus acanthias (10,18)

Syngnathus griseolineatus (13,15) Tautogolabrus adspersus (20) Theragra chalcogramma (15) Triglops pingeli (13,15) Urophycis chuss (1)

Dist.: Atl, Pac, BC-b, BC, Lab, NB, NS, Que Records: 1. Heller 1949 (Atl, Que); 2. Scott 1953 (Atl); 3. Bishop and Margolis 1955 (Pac); 4. Margolis 1956b (Pac, BC-b), 5. 1957 (Pac, BC-b, BC), 6. 1963 (Pac, BC-b); 7. Sindermann 1957b (Atl); 8. Templeman et al. 1957 (Atl); 9. Scott and Martin 1959 (Atl); 10. Myers 1959 (Atl); 11. Fleming 1960 (Atl); 12. Yanulov 1962 (Atl); 13. Arai 1967a (Pac), 14. 1967b (Pac), 15. 1969b (Pac); 16. Templeman 1967b (Atl); 17. Power 1969 (Que); 18. Threlfall 1969 (Atl); 19. Pippy 1969 (Atl, NB, NS, Que); 20. Sekhar S. and Threlfall 1970a (Atl); 21. Parsons and Hodder 1971 (Atl), 22. 1974 (Atl); 23. Dornheim 1973 (Atl); 24. Hicks and Threlfall 1973 (Lab); 25. Hoskins et al. 1976 (Pac); 26. Hoskins and Hulstein 1977 (BC)

Contracaecum spiculigerum (Rudolphi, 1809)
Ralliet and Henry, 1912 (larva) (FW)
Location: liver mesenteries

Location: liver, mesenteries Hosts: *Morone americana* (3)

Oncorhynchus nerka (1)
Perca flavescens (2,4)

Ptychocheilus oregonensis (1)

Dist.: BC, Ont

Records: 1. Bangham and Adams 1954 (BC); 2. Tedla and Fernando 1969a (Ont), 3. 1969e (Ont), 4. 1972 (Ont)

Contracaecum spp. adult and larva (FW, M) Syn.: Contracaecum clavatum of Templeman, 1948¹⁸⁷

Kathleena sp. of Clemens and Clemens, 1921

Location: intestine, stomach, viscera, mesenteries, musculature

Hosts: Agonus acipenserinus (17)
Ambloplites rupestris (4)
Ammodytes hexapterus (17)
Anguilla rostrata (22)

Anoplarchus purpurescens (18) Aprodon cortezianus (17,18)

Artedius harringtoni (17,18)

Aulorhynchus flavidus (17)

Blepsias cirrhosus (17)

Catostomus commersoni (24,27)

¹⁸⁵The material reported by Bishop and Margolis (1955) from *C. pallasi* was considered to be "... probably *A. simplex* (Rudolphi, 1809)..."

¹⁸⁶The material reported by Scott and Martin (1959) was noted to be "... tentatively identified as of the genus Anisakis."

¹⁸⁷Templeman (1968) indicated that the record of Templeman (1948) of *C. clavatum* from *Mallotus villosus* should be regarded as *Contracaecum* sp.

Chitonotus pugetensis (18) Citharichthys stigmaeus (2) Clupea harengus pallasi (2,17,18) Coryphopterus nicholsi (18) Cottus bairdi (27) Cymatogaster aggregata (18) Etheostoma exile (27) E. nigrum (27) Gasterosteus aculeatus (17,23) Glyptocephalus cynoglossus (14) Hexagrammos lagocephalus (17,18) Hippoglossoides platessoides (14) Hippoglossus hippoglossus (14) Hydrolagus colliei (2) Icelinus filamentosus (17,18) Ictalurus nebulosus (27) Jordania zonope (18) Lepomis gibbosus (27) Leptocottus armatus (17,18) Limanda ferruginea (14) Macrozoarces americanus (1)188 Malacocottus kincaidi (18) Mallotus villosus (5,6,7,25) Melanogrammus aeglefinus (3)189 Merluccius productus (2) Micropterus dolomieui (27) Myoxocephalus polyacanthocephalus (17,18)Notropis hudsonius (27) Oligocottus maculosus (17,18) Oncorhynchus gorbuscha (10,11,15, 16,18)O. keta (17,18,19) O. kisutch (17,18,19) O. nerka (9,10,11,12,17,18) O. tshawytscha (17,18,19) Oncorhynchus sp. (16) Ophiodon elongatus (2,17) Perca flavescens (8,27) Percina caprodes (27) Pholis laeta (18) P. ornata (17) Platichthys stellatus (17,18) Pseudopleuronectes americanus (14) Raja radiata and/or Squalus acanthias $(21)^{190}$

188The record of Clemens and Clemens (1921) for Contracaecum sp. (as "Kathleena sp.?") from the musculature of Macrozoarces americanus (as Zoarces anguillaris) is a tentative parasite identification.

189The record of Contracaecum sp. larva from M. aeglefinus was noted by Kuitunen-Ekbaum (1937b) to be "... probably C. clavatum." (syn. of Thynnascaris adunca).

190The correct host was not indicated for this record.

Salvelinus alpinus (28) S. fontinalis (28) S. malma (9,17,18) Scomber sp. (2) Scophthalmus aquosus (14) Sebastes aleutianus (30) S. alutus (29,30) S. babcocki (30) S. borealis (30) S. brevispinis (30) S. caurinus (18,30) S. crameri (30) S. diploproa (30) S. elongatus (30) S. entomelas (30) S. flavidus (30) S. goodei (30) S. helvomaculatus (30) S. maliger (30) S. marinus (13) S. mentella (13) S. nebulosus (30) S. nigrocinctus (30) S. paucispinis (30) S. pinniger (30) S. proriger (30) S. reedi (30) S. ruberrimus (30) S. variegatus (30) S. wilsoni (30) S. zacentrus (30) Sebastes sp. (2) Squalus acanthias (2) Stizostedion vitreum vitreum (8) Syngnathus griseolineatus (17,18) Tautogolabrus adspersus (26) Thaleichthys pacificus (17,18) Theragra chalcogramma (17,18) Triglops pingeli (17,18)

Salmo clarki (9)

S. salar (20)

Dist.: Atl, Pac, BC-b, BC, Lab, NB, Nfld, NS, Ont, PEI, Que

Records: 1. Clemens and Clemens 1921 (Atl); 2. Smedley 1934 (Pac); 3. Kuitunen-Ekbaum 1937b (Atl); 4. Bangham and Hunter 1939 (Ont); 5. Jeffers (1931 MS) cited in Templeman 1948 (Atl); 6. Templeman 1948 (Atl), 7. 1968 (Atl); 8. Worley and Bangham 1952 (Que); 9. Bangham and Adams 1954 (BC); 10. Margolis 1956b (Pac, BC-b), 11. 1957 (Pac, BC-b, BC), 12. 1963 (Pac, BC-b); 13. Yanulov 1962 (Atl); 14. Ronald 1963 (Atl); 15. Boyce 1966 (Pac), 16. 1969 (Pac); 17. Arai 1967a (Pac), 18. 1969b (Pac); 19. Godfrey 1968 (Pac); 20. Pippy 1969 (NB, NS, PEI); 21. Threlfall

1969 (Atl); 22. Hanek and Threlfall 1970c (Lab, Nfld-b, Nfld), 23. 1970e (Lab, Nfld); 24. Threlfall and Hanek 1970a (Lab); 25. Winters 1970 (Atl); 26. Sekhar S. and Threlfall 1970a (Atl); 27. Dechtiar 1972c (Ont); 28. Hicks and Threlfall 1973 (Lab); 29. Sekerak and Arai 1973 (Pac), 30. 1977 (Pac) Remarks: Many records of Contracaecum sp. from Canadian fishes are probably referable to the genus Thynnascaris. Much of the material from Pacific coast fishes reported as Contracaecum sp. larvae by Smedley (1934) was apparently Anisakis.

Phocanema decipiens (Krabbe, 1878) Myers, 1959 (larva) Syn.: Porrocaecum decipiens (Krabbe, 1878) Terranova decipiens (Krabbe, 1878) Location: musculature, viscera Hosts: Anoplopoma fimbria (17) Gadus morhua (2,3,4,5,6,7,9,11,12,15, 16) G. ogac (2,4,11) Glyptocephalus cynoglossus (2.4.12) Hemitripterus americanus (2,4,11) Hippoglossoides platessoides (2,3,4, 11,12) Hippoglossus stenolepis (17) Limanda ferruginea (4,11,18) Macrozoarces americanus (1,2,3,4, Myoxocephalus octodecemspinosus (4,11)M. scorpius (4,11) Ophiodon elongatus (17) Osmerus mordax(2,3,4,11)Pseudopleuronectes americanus (4) Raja sp. $(11)^{191}$ Sebastes alutus (13,14) $S. \ marinus (2,4,18)$ Triglops murrayi (4) T. pingeli (11)

Dist.: Atl, Pac

Records: 1. Olsen and Merriman 1946 (Atl); 2. Scott 1950 (Atl), 3. 1953 (Atl), 4. 1954 (Atl), 5. 1956 (Atl); 6. Scott and Martin 1957 (Atl), 7, 1959 (Atl); 8, Black 1957 (Atl); 9. Scott and Fisher 1958 (Atl); 10. Kohler 1959 (Atl); 11. Scott and Black 1960 (Atl); 12. Myers 1960 (Atl); 13. Liston et al. 1960 (Pac); 14. Liston and Hitz 1961

Urophycis tenuis (2,4)

Unspecified cod (8,10)

(Pac); 15. McCracken and Fitzgerald 1964 (Atl): 16. Wiles 1968 (Atl): 17. Hoskins et al. 1976 (Pac); 18. Gaevskaya and Umnova 1977 (Atl)

Phocanema sp. larva

(M)

Syn.: Porrocaecum sp.auct. Terranova sp.auct.

Includes: "Porrocaecum-type larva" and "Phocanema-type larva" auct.

Location: musculature, body cavity, mesen-

teries, viscera Hosts: Anoplarchus purpurescens (12) Gadus morhua $(1,2,3,8,10)^{192}$ G. ogac (3)Glyptocephalus cynoglossus (3,9) Hemitripterus americanus (3) Hippoglossoides platessoides (3,9) Hippoglossus hippoglossus (9) Limanda ferruginea (3,9) Liopsetta putnami (9) Lophius americanus (3) Melanogrammus aeglefinus (3) Microgadus tomcod (3) Myoxocephalus octodecemspinosus (3) M. polyacanthocephalus (12) Oncorhynchus nerka (4,5) Ophiodon elongatus (12) Osmerus mordax (3) Pseudopleuronectes americanus (9) Raja ocellata (6) R. radiata (11) Raja sp. (7)Rhamphocottus richardsoni (12) Scophthalmus aquosus (9) Sebastes marinus (3)

Theragra chalcogramma (12) Dist.: Atl. Pac. BC-b

Records: 1. Smedley 1934 (Atl); 2. Heller 1949 (Atl); 3. Templeman et al. 1957 (Atl); 4. Margolis 1957 (BC-b), 5. 1963 (Pac); 6. Myers 1959 (Atl), 7. 1960 (Atl); 8. Fleming 1960 (Atl); 9. Ronald 1963 (Atl); 10. Wiles 1968 (Atl); 11. Threlfall 1969 (Atl); 12. Arai 1969b (Pac); 13. Sekhar S. and Threlfall 1970a (Atl)

Tautogolabrus adspersus (13)

Squalus acanthias (11)

Remarks: All these records probably are referable to P. decipiens larva.

Phocascaris sp. larva

(M)

Location: digestive tract, viscera Host: Tautogolabrus adspersus

¹⁹¹The record of Olsen and Merriman (1946) for M. americanus and that of Scott and Black (1960) from Raja sp. are tentative parasite identifications.

¹⁹²The record of Smedley (1934) involves a provisional parasite identification.

Dist.: Atl 1970b (Lab); 4. Hare and Burt 1975a (NB). Record: Sekhar S. and Threlfall 1970a 5. 1975b (NB), 6. 1976 (NB-b, NB); 7. McLeod (1943 MS) cited in Lubinsky 1976 Raphidascaris acus (Bloch, 1779) Ralliet and (Man); 8. Stewart-Hay (1951, 1952 MS) Henry, 1915 (larva) (FW) cited in Lubinsky 1976 (Man) Location: viscera Hosts: Coregonus clupeaformis Thynnascaris adunca (Rudolphi, 1802) Cottus cognatus Hartwich, 1957 (larva and adult) (M)Esox lucius Syn.: Contracaecum aduncum (Rudolphi, Thymallus arcticus 1802) Dist.: YT Contracaecum clavatum (Rudolphi, Record: Arthur et al. 1976 1809) Contracaecum gadi (O. F. Müller, 1777) Raphidascaris acus (Bloch, 1779) Ralliet and Location: intestine, stomach, body cavity, Henry, 1915 (adult) viscera, musculature Syn.: Raphidascaris canadensis Smedley, 1933 Hosts: Agonus acipenserinus (6) Location: intestine Alosa pseudoharengus (12) Hosts: Esox lucius (1,2,4,5,6) Ammodytes dubius (9) E. masquinongy (3) Aulorhynchus flavidus (6) Stizostedion vitreum vitreum (5) Clupea harengus harengus (12) Dist.: Man, NWT, Oue, Sask, YT Gadus morhua (2,12) Records: 1. Smedley 1933 (Man, Sask); 2. Glyptocephalus cynoglossus (3,12) Rawson 1951 (NWT); 3. Choquette 1951c Hippoglossoides platessoides (3) (Que); 4. Arthur et al. 1976 (Sask, YT); Hippoglossus hippoglossus (3) 5. Stewart-Hay (1951, 1952, 1953 MS) cited Limanda ferruginea (3,12) in Lubinsky 1976 (Man); 6. McLeod (1943 Melanogrammus aeglefinus (1,12) MS) cited in Lubinsky 1976 (Man) Merluccius bilinearis (12) Microgadus tomcod (2) Raphidascaris alius Lyster, 1940 (FW) Myoxocephalus scorpius (2) Location: not specified Pseudopleuronectes americanus (2,3) Host: Salvelinus fontinalis Raja radiata (4,12) Dist.: Que Salmo salar (2,5,8) Record: Lyster 1940a Salvelinus alpinus (8) Remarks: The validity of R. alius requires S. namaycush (8) verification. Scomber scombrus (2,12) Sebastes aleutianus (11) Raphidascaris laurentianus Richardson, (FW) S. alutus (10,11) 1937 Location: intestine S. babcocki (11) Host: Salvelinus fontinalis S. brevispinis (11) S. caurinus (11) Dist.: Oue Record: Richardson 1937b S. crameri (11) S. diploproa (11) Remarks: The validity of R. laurentianus S. elongatus (11) requires verification. S. entomelas (11) Raphidascaris sp. larva and adult (FW) S. flavidus (11) Location: liver, digestive tract S. helvomaculatus (11) Hosts: Esox lucius (3,7,8) S. maliger (11) E. niger $(1)^{193}$ S. marinus (12) Perca flavescens (1,8)193 S. nebulosus (11) Salmo salar (2,4,5,6) S. paucispinis (11) Stizostedion vitreum vitreum (8) S. pinniger (11) Dist.: Lab, NB-b, NB, Que S. proriger (11) Records: 1, Richardson 1937b (Que); 2, Pippy S. reedi (11) 1969 (NB-b, NB); 3. Threlfall and Hanek S. ruberrimus (11) S. variegatus (11) ¹⁹³The report of Richardson (1937b) was given as S. zacentrus (11)

Squalus acanthias (4)

"... a raphidascarid nematode ..."

Tautogolabrus adspersus (2,7) Urophycis chuss (12)

Dist.: Atl, Pac, Lab, NS

Records: 1. Kuitunen-Ekbaum 1937b (Atl); 2. Heller 1949 (Atl)¹⁹⁴; 3. Ronald 1963 (Atl); 4. Threlfall 1969 (Atl); 5. Pippy 1969 (Atl, NS); 6. Arai 1969b (Pac); 7. Sekhar S. and Threlfall 1970a (Atl); 8. Hicks and Threlfall 1973 (Lab); 9. Scott 1973 (Atl); 10. Sekerak and Arai 1973 (Pac), 11. 1977 (Pac); 12. Gaevskaya and Umnova 1977 (Atl)

Remarks: The material reported as *Contra*caecum clavatum (syn. of *T. adunca*) by Templeman (1948) was referred to *Contra*caecum sp. by Templeman (1968).

Thynnascaris brachyura (Ward and Magath, 1917 sensu Van Cleave and Mueller, 1934) n.comb. (larva) (FW)

Syn.: Contracaecum brachyurum (Ward and Magath, 1917) Van Cleave and Mueller, 1934

Location: liver, mesenteries
Hosts: Ambloplites rupestris
Moxostoma anisurum
Stizostedion canadense

Dist.: Ont

Record: Dechtiar 1972c

Thynnascaris brachyura (Ward and Magath, 1917 sensu Van Cleave and Mueller, 1934) n.comb. (adult) (FW)

Syn.: Contracaecum brachyurum (Ward and Magath, 1917) Van Cleave and Mueller, 1934

Location: intestine

Hosts: Ambloplites rupestris (3)
Anguilla rostrata (4)
Esox lucius (3,5,7)
E. masquinongy (3,7)
Etheostoma exile (3)
Lepomis gibbosus (2)
Lota lota (4,6,7,8)

Micropterus dolomieui (2,3) M. salmoides (1,3)¹⁹⁵

194The records of Heller (1949) include larval forms which could not be specifically identified but were considered likely to be *Contracaecum aduncum* (syn. of *T. adunca*).

195Bangham and Hunter (1939) reported *T. brachyura* (as *Contracaecum b.*) from the smallmouth black bass (*M. dolomieui*) only in their parasite-host list. Since this species is reported from *M. salmoides* only (as *Aplites s.*) in both their text and host-parasite list, the former record is considered to be an error in compilation.

Notemigonus crysoleucas (3) Notropis atherinoides (7) Percopsis omiscomaycus (3,7) Salvelinus fontinalis (4) S. namaycush (8) Stizostedion canadense (7) S. vitreum vitreum (3,7)

Dist.: Alta, BC, Ont, Que

Records: 1. Bangham and Hunter 1939 (Ont);
2. Bangham 1941 (Ont), 3. 1955 (Ont);
4. Bangham and Venard 1946 (Ont); 5.
Worley and Bangham 1952 (Que); 6. Bangham and Adams 1954 (BC); 7. Dechtiar 1972c (Ont); 8. Mudry and Anderson 1977 (Alta)

Remarks: Thynnascaris Dollfus, 1933 has been accepted (Anderson et al., 1974, No. 2) as the generic home for "Contracaecum-like" nematodes that have the excretory pore at the level of the nerve ring and whose definitive hosts are fish. Gibson (1975) considered Hysterothylacium Ward and Magath, 1917 an older available name for such nematodes. However, until it can be substantiated that the original or topotypic material of Hysterothylacium brachyurum, the type of its genus, possesses an intestinal caecum as well as an esophageal appendix, we prefer to retain Thynnascaris. The nematodes described by Van Cleave and Mueller (1934) as Contracaecum brachyurum (Ward and Magath, 1917), which formed the basis for subsequent identifications of this species, may not be conspecific with the original H. brachyurum. Nevertheless, we are not proposing to rename Van Cleave and Mueller's species at this time.

Thynnascaris incurva (Rudolphi, 1819)

Dollfus, 1935 (M)

Syn.: Contracaecum incurvum (Rudolphi,

1819)

Location: stomach Host: Xiphias gladius

Dist.: Atl

Records: Tibbo et al. 1961; Iles 1971

Thynnascaris magna (Smedley, 1934)

n.comb. (M) Syn.: Contracaecum magnum Smedley, 1934

Location: not specified
Hosts: A podichthys flavidus
Leptocottus armatus
Ophiodon elongatus

Dist.: Pac

Record: Smedley 1934

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a synonym of T. adunca, Venard 1946 (Ont); 6. Worley and Bangham 1952 (Que); 7. Tedla and Fernando Thynnascaris melanogrammi (Smedley, 1934) 1969a (Ont), 8. 1969e (Ont), 9. 1972 (Ont); 10. Dechtiar 1972c (Ont); 11. Cannon 1973 Syn.: Contracaecum melanogrammi Smedley, (Ont) 1934 Remarks: Petter (1974) regarded Cuculla-Location: intestine nellus as a subgenus of Dichelyne. Amin Host: Melanogrammus aeglefinus (1977) revived Dacnitoides as a valid inde-Dist.: Atl pendent genus, of which D. cotylophora is Record: Smedley 1934 the type species. Remarks: In an unpublished manuscript report, Kuitunen-Ekbaum (1937b) regarded Cucullanellus kanabus Walder and Arai, this species as a synonym of C. clavatum (M) (syn. of Thynnascaris adunca). Syn.: Cucullanus sp. of Arai, 1967, 1969 (partim) Anisakinae gen. spp. larva (M) Location: intestine Includes: unidentified Stomachinae Host: Cymatogaster aggregata Location: viscera, body cavity, musculature Dist.: Pac Hosts: Clupea harengus harengus (1) Records: Arai 1967b, 1969b; Walder and Glyptocephalus cynoglossus (2) Arai 1974; Arai and Arthur 1977 Hippoglossoides platessoides (2) Hippoglossus hippoglossus (2) Cucullanellus minutus (Rudolphi, 1819) Limanda ferruginea (2) Tornquist, 1931 (M) Liopsetta putnami (2) Location: intestine Pseudopleuronectes americanus (2) Host: Tautogolabrus adspersus Scophthalmus aquosus (2) Dist.: Atl Dist.: Atl Record: Sekhar S. and Threlfall 1970a Records: 1. Sindermann 1961; 2. Ronald 1963 Cucullanus annulatus Margolis, 1960 (M) Syn.: Cucullanus sp. of Arai, 1967 (partim) Superfamily SEURATOIDEA Location: intestine Hosts: Parophrys vetulus (1) Family CUCULLANIDAE Platichthys stellatus (2,3) Dist.: Pac Cucullanellus cotylophora (Ward and Magath, Records: 1. Margolis 1960; 2. Arai 1967a, 1917) Petter, 1974 3. 1969b Syn.: Dichelyne cotylophora (Ward and Magath, 1917) Cucullanus cirratus O. F. Müller, 1777 (M) Dacnitoides cotylophora Ward and Location: intestine Magath, 1917 Hosts: Gadus morhua (2) Location: intestine Melanogrammus aeglefinus (1) Hosts: Ambloplites rupestris (4) Dist.: Atl A plodinotus grunniens (2) Records: 1. Kuitunen-Ekbaum 1937b; 2. lctalurus melas (2) Gaevskaya and Umnova 1977 I. nebulosus (3) Lepomis macrochirus (2) Cucullanus elongatus Smedley, 1933 Lota lota (10) Syn.: Cucullanus smedleyi Campana- Rouget, Micropterus dolomieui (2,4) 1957 M. salmoides (2,4) Location: intestine Morone americana (8) Hosts: Ophiodon elongatus (1) M. chrysops (2) Sebastes caurinus (2,3) *Perca flavescens* (1,2,3,4,5,6,7,9,10,11) S. maliger (3) Stizostedion vitreum vitreum (2,4) S. ruberrimus (3) Dist.: Ont, Que Dist.: Pac Records: 1. Smedley 1934 (Ont); 2. Bangham Records: 1. Smedley 1933; 2. Arai 1969b; and Hunter 1939 (Ont); 3. Bangham 1941 3. Sekerak and Arai 1977

(Ont), 4. 1955 (Ont); 5. Bangham and

Remarks: Thynnascaris magna is probably

Records: Bangham and Hunter 1939; Bang-(M) Cucullanus heterochrous Rudolphi, 1802 Location: intestine, stomach ham 1955: Anthony 1974 Hosts: Limanda ferruginea Pseudopleuronectes americanus Truttaedacnitis stelmioides (Vessichelli, 1910) Dist.: Atl Petter, 1974 Record: Ronald 1963 Svn.: Cucullanus stelmioides (Vessichelli, 1910) (FW, M) Location: viscera, gills Cucullanus spp. Location: intestine Host: Petromyzon marinus Hosts: Fundulus diaphanus (3) Dist.: Ont Record: Wilson and Ronald 1967 Lepidopsetta bilineata (1,2) Remarks: Moravec and Malmqvist (1977) Oncorhynchus kisutch (2) Ronquilus jordani (1,2) considered this species a synonym of Truttaedacnitis (as Cucullanus) truttae. Sebastes aleutianus (4) S. alutus (4) S. babcocki (4) Truttaedacnitis truttae (Fabricius, 1794) S. borealis (4) Petter, 1974 (FW) S. crameri (4) Syn.: Bulbodacnitis truttae (Fabricius, 1794) S. flavidus (4) Bulbodacnitis occidentalis Smedley, 1933 S. paucispinis (4) Bulbodacnitis globosa (Zeder, 1800) S. ruberrimus (4) Location: intestine Dist.: Pac. NS Hosts: Prosopium williamsoni (2,4) Records: 1. Arai 1967a (Pac), 2. 1969b (Pac); Salmo clarki (2) 3. Wiles 1975b (NS); 4. Sekerak and Arai S. gairdneri (1,2,3,4) 1977 (Pac) Salvelinus fontinalis (2) S. malma (2) Dichelyne robustus (Van Cleave and Mueller, S. namaycush (4) (FW) 1932) Mueller, 1933 Dist.: Alta, BC Records: 1. Smedley 1933 (BC); 2. Bangham Location: [intestine] and Adams 1954 (BC); 3. Mudry and Host: Ictalurus nebulosus McCart 1974 (BC); 4. Mudry and Anderson Dist.: Ont Record: Bangham 1955 1977 (Alta) (FW) (FW) Truttaedacnitis sp. Dichelyne sp. Location: not specified Syn.: Bulbodacnitis sp. Host: Etheostoma nigrum Location: not specified Hosts: Mylocheilus caurinus Dist.: Ont Rhinichthys cataractae Record: Bangham 1955 Richardsonius balteatus Salvelinus fontinalis Truttaedacnitis alpinus (Mudry and McCart, Dist.: BC 1974) Pybus, Anderson and Uhazy, Record: Bangham and Adams 1954 1978 (FW) Syn.: Bulbodacnitis alpinus Mudry and McCart, 1974 Location: pyloric caeca, intestine Family QUIMPERIIDAE Host: Salvelinus alpinus Dist.: YT Records: Mudry and McCart 1974, 1976 (FW) Haplonema hamulatum Moulton, 1931 Location: intestine Truttaedacnitis clitellarius (Ward and Magath, Host: Lota lota Dist.: Ont, YT 1917) Petter, 1974 (FW) Records: Moulton 1931 (Ont); Bangham and Syn.: Cucullanus clitellarius Ward and Magath, 1917 Hunter 1939 (Ont); Bangham 1941 (Ont), Location: digestive tract 1955 (Ont); Bangham and Venard 1946 (Ont); Arthur and Margolis 1975a (YT); Host: Acipenser fulvescens Arthur et al. 1976 (YT) Dist.: Ont

| Haplonema immutatum Ward and Magath, | N. heterodon (1) |
|--|--|
| 1917 (FW) Location: intestine | N. hudsonius (1) |
| Host: Amia calva | N. spilopterus (1) Noturus flavus (1) |
| Dist.: Ont | Perca flavescens (1,4) |
| Records: Bangham and Hunter 1939; Bang- | Percina caprodes (1,4) |
| ham 1955 | P. copelandi (1) |
| nam 1955 | P. maculata (1) |
| Haplonema sp. (FW) | Percopsis omiscomaycus (1) |
| Location: intestine | Pomoxis annularis (1,2) |
| Hosts: Cottus cognatus (1) | P. nigromaculatus (1,2) |
| Lota lota (2) | Rhinichthys cataractae (1) |
| Dist.: BC, Lab | Salmo salar (5) |
| Records: 1. Bangham and Adams 1954 (BC); | Stizostedion canadense (1,4) |
| 2. Threlfall and Hanek 1971 (Lab) | S. vitreum vitreum (1) |
| 2. Threman and Hanek 1971 (Lau) | Dist.: NS, Ont |
| Paraquim peria aditum (Mueller, 1934) | Records: 1. Bangham and Hunter 1939 (Ont); |
| Moravec, 1966 (FW) | 2. Bangham 1955 (Ont); 3. Dechtiar 1972b |
| Syn.: Haplonema aditum Mueller, 1934 | (Ont), 4. 1972c (Ont); 5. Hare and Frantsi |
| Location: intestine | 1974 (NS) |
| | 1374 (143) |
| Host: Anguilla rostrata Dist.: Lab, Nfld-b, Nfld, Ont, Que | |
| | Camallanus sp. (FW) |
| Records: Bangham and Venard 1946 (Ont); | Location: not specified |
| Hanek and Threlfall 1970c (Lab, Nfld-b, Nfld); Hanek and Molnar 1974 (Que) | Hosts: Esox lucius (1) |
| ivind), Hallek and Wolhai 1974 (Que) | Perca flavescens (2) |
| | Dist.: Lab, Ont |
| ORDER SPIRURIDA | Records: 1. Threlfall and Hanek 1970b (Lab); |
| | 2. Tedla and Fernando 1972 (Ont) |
| Superfamily CAMALLANOIDEA | |
| Family CAMALLANIDAE | Superfamily DRACUNCULOIDEA |
| a | Family PHILOMETRIDAE |
| Camallanus oxycephalus Ward and Magath, | |
| 1917 (FW) | Philometra americana Kuitunen-Ekbaum, |
| Location: intestine | 1933 (M) |
| Hosts: Ambloplites rupestris (1,2) | Syn.: <i>Philometra</i> sp. of Arai, 1967 (partim) |
| Ammocrypta pellucida (1) | Location: fins, musculature, subcutaneously |
| A plodinotus grunniens (1) | in head, body cavity, intestine (?) |
| Carpiodes cyprinus (3) | Hosts: Gobiesox maeandricus (1) |
| Catostomus commersoni (4) | Lepidopsetta bilineata (1) |
| Cottus bairdi (4) | Parophrys vetulus (4) |
| Culaea inconstans (4) | Pholis laeta (2,3) |
| Ericymba buccata (1) | P. ornata (1) |
| Etheostoma blennioides (1) | Platichthys stellatus (1) |
| E. exile (4) | Xiphister atropurpureus (1) |
| Hiodon tergisus (1) | Dist.: Pac |
| Ictalurus nebulosus (3) | Records: 1, Kuitunen-Ekbaum 1933d; 2, Arai |
| I. punctatus (1) | 1967a, 3. 1969b; 4. Margolis 1970 |
| Labidesthes sicculus (1) | 1907tt, 5. 1909b, 4. Witti golis 1970 |
| Lepomis gibbosus (1) | DL:1 |
| L. macrochirus (1) | Philometra cylindracea (Ward and Magath, |
| Lota lota (4) | 1917) Van Cleave and Mueller, 1934 |
| Micropterus dolomieui (1,2,4) | (larva and adult) (FW) |
| M. salmoides (1) | Location: peritoneum, body cavity |
| Morone chrysops (1,2) Notropis atherinoides (1) | Hosts: A plodinotus grunniens (1) |
| | PPROHIDDOCONCIL (/I 3 h / X) |

Philometroides nodulosa (Thomas, 1929) Salvelinus fontinalis (2)196 Stizostedion vitreum glaucum (1) Dailey, 1967 (FW) Dist.: Ont, Que Syn.: Philometra nodulosa Thomas, 1929 Location: [cheek galleries] Records: 1. Bangham and Hunter 1939 (Ont); 2. Fantham and Porter 1948 (Que); 3. Hosts: Carpiodes cyprinus (2) Bangham 1955 (Ont); 4. Tedla and Fer-Catostomus commersoni (1) Dist.: Ont, Que nando 1969a (Ont), 5. 1972 (Ont); 6. Dechtiar 1972c (Ont); 7. Molnar et al. 1974 Records: 1. Fantham and Porter 1948 (Que); 2. Dechtiar 1972b (Ont) (Ont); 8. Molnar and Fernando 1975a (Ont) Philonema agubernaculum Simon and Simon, Philometra kobuleji Molnar and Fernando, (FW) Syn.: Philonema salvelini Richardson, 1936 Location: under serosa of air bladder, body Location: body cavity Host: Catostomus commersoni Hosts: Coregonus clupeaformis (4) Gasterosteus aculeatus (5) Dist.: Ont Oncorhynchus kisutch (6) Record: Molnar and Fernando 1975b Osmerus mordax (5) (FW, M) Prosopium cylindraceum (4) Philometra spp. larva and adult Salmo gairdneri (3) Location: body cavity, intestine Hosts: A plodinotus grunniens (6) Salvelinus alpinus (4) S. fontinalis (1,2,4,5)Aulorhynchus flavidus (4) S. namaycush (4) Catostomus catostomus (8) Unspecified Salmonidae (6) C. commersoni (9) Dist.: Alta, BC, Lab, Nfld, Que-b, Que Coregonus artedii (2) Records: 1. Richardson 1936 (Que); 2. Sande-C. clupeaformis (2) man and Pippy 1967 (Nfld); 3. Ko and Esox niger (3) Adams 1969 (BC); 4. Hicks and Threlfall Lepomis gibbosus (1) 1973 (Lab); 5. Hanek and Molnar 1974 Micropterus dolomieui (7) (Que-b, Que); 6. Leong and Holmes 1974a Osmerus mordax (2) Perca flavescens (3,7)197 Remarks: Undescribed material reported as Platichthys stellatus (4,5) Philonema salvelini n.sp. by Richardson Prosopium cylindraceum (2) (1936) from Lake Edward, Quebec, was Salvelinus fontinalis (3)197 later indicated to be P. agubernaculum (see Dist.: Pac, Ont, Que Richardson 1942). Hoffman (1967) listed Records: 1. Bangham 1941 (Ont), 2. 1955 P. salvelini Richardson, 1936 as a synonym (Ont); 3. Fantham and Porter 1948 (Que); of P. oncorhynchi Kuitunen-Ekbaum 1933. 4. Arai 1967a (Pac), 5. 1969b (Pac); 6. Dechtiar 1972b (Ont), 7. 1972c (Ont); 8. It seems probable that Richardson's report was confused with P. salvelini Fujita, 1939, Hanek and Molnar 1974 (Que); 9. Molnar a recognized synonym of P. oncorhynchi. et al. 1974 (Ont) Philometroides huronensis Uhazy, 1976 Philonema oncorhynchi Kuitunen-Ekbaum, 1933 (larva and adult) Location: fins, peritoneum around swim Location: body cavity, wall of swim bladder bladder Host: Catostomus commersoni (larvae) Hosts: Coregonus artedii (2) Dist.: Ont C. clupeaformis (2) Records: Uhazy 1976, 1977a, b; Uhazy and Oncorhynchus gorbuscha (7) Anderson 1976 O. kisutch (4) 196Fantham and Porter (1948) initially referred O. nerka (1,2,3,4,5,6,7,8,9,10,11,13,14, to material from S. fontinalis from Fourth Lake, 15,16,17) Quebec, as Philometra sp. "... probably Philometra Salmo clarki (2,4) cylindracea." and later (p. 622) listed it as this S. gairdneri (4,12) species. Salvelinus alpinus (2)

197 Material from P. flavescens was considered to

be "... probably P. cylindracea ..." by Fantham

and Porter (1948).

S. fontinalis (2)

S. malma (4)

S. namaycush (2) C. macrocheilus (2) Dist.: Pac, BC-b, BC, NS, NWT, Ont Etheostoma nigrum (3) Records: 1. Kuitunen-Ekbaum 1933a (Pac), Fundulus diaphanus (5) 2. 1937c (BC, NS, NWT, Ont); 3. Smedley Lepomis gibbosus (2,6) 1933 (BC); 4. Bangham and Adams 1954 Notropis heterolepis (3) (BC); 5. Dombroski 1955 (BC); 6. Margolis Perca flavescens (3) 1956b (Pac, BC-b, BC), 7. 1957 (Pac, BC-b, Ptychocheilus oregonensis (2) BC), 8. 1963 (Pac, BC-b, BC); 9. Platzer Richardsonius balteatus (2) 1966 (BC); 10. Platzer and Adams 1967 Umbra limi (1) (BC); 11. Ko and Adams 1969 (BC); 12. Bell Dist.: BC, NS, Ont and Hoskins 1971 (BC); 13. Lewis 1973 Records: 1. Bangham and Hunter 1939 (Ont); (BC); 14. Smith 1973 (BC); 15. Lewis et al. 2. Bangham and Adams 1954 (BC); 3. 1974 (BC); 16. Bell and Margolis 1976 (BC); Bangham 1955 (Ont); 4. Dechtiar 1972c 17. Boyce and Yamada 1977 (BC) (Ont); 5. Wiles 1975b (NS); 6. Cone and Remarks: The identity of the species reported Anderson 1977b (Ont) by Kuitunen-Ekbaum (1937c) from fishes of Nova Scotia, the Northwest Territories, and Ontario requires reassessment. Superfamily HABRONEMATOIDEA Family CYSTIDICOLIDAE *Philonema* spp. larva and adult (FW) Location: body cavity, wall of swim bladder, stomach Ascarophis morrhuae van Beneden, 1871 (M) Hosts: Acrocheilus alutaceus (5) Location: [stomach or intestine] Coregonus sp. (4) Host: Gasterosteus aculeatus Esox lucius (4) Dist.: Atl, Lab-b, Lab, Nfld-b, Nfld Oncorhynchus kisutch (7,8) Record: Hanek and Threlfall 1970e O. tshawytscha (7,8) Prosopium williamsoni (5) Ascarophis sebastodis Olsen, 1952 (M) Salmo clarki (9) Location: intestine Salvelinus alpinus (6) Hosts: Anoplarchus purpurescens (1) S. fontinalis (3) Artedius harringtoni (1) S. namaycush (1,2,4) Aulorhynchus flavidus (1) Dist.: Pac, BC, Lab, Lab-Que, NWT, Ont Hemilepidotus hemilepidotus (1) Records: 1. MacLulich 1943b (Ont); 2. Miller Hexagrammos lagocephalus (1) and Kennedy 1948 (NWT); 3. Munroe 1949 Myoxocephalus polyacanthocephalus (Lab-Que); 4. Rawson 1951 (NWT); 5. (1) Bangham and Adams 1954 (BC); 6. An-Nautichthys oculofasciatus (1) drews and Lear 1956 (Lab); 7. Arai 1967a Oncorhynchus kisutch (1) (Pac), 8, 1969b (Pac); 9. Hoskins et al. O. nerka (1) 1976 (BC) Rhamphocottus richardsoni (1) Sebastes alutus (2) S. borealis (2) Superfamily GNATHOSTOMATOIDEA S. caurinus (1,2) S. diploproa (2) Family GNATHOSTOMATIDAE S. elongatus (1,2) S. flavidus (2) Spiroxys contortus (Rudolphi, 1819) Schneider, S. maliger (2) 1866 (larva) (FW) S. proriger (2) Location: intestinal serosa S. ruberrimus (2) Hosts: Ictalurus nebulosus S. variegatus (2) Perca flavescens S. zacentrus (2) Dist.: Ont Dist.: Pac Record: Molnar et al. 1974 Records: 1. Arai 1969b; 2. Sekerak and Arai 1977 Spiroxys sp. larva (FW) Location: viscera, mesenteries, digestive tract Ascarophis sp. (M)Hosts: Catostomus commersoni (4) Location: [stomach]

Host: Hexagrammos decagrammus

Dist.: Pac

Record: Margolis 1977

Caballeronema wardlei (Smedley, 1934)

Margolis, 1977 (M)

Syn.: Metabronema wardlei Smedley, 1934

Location: intestine, pyloric caeca Host: Scorpaenichthys marmoratus

Dist.: Pac

Records: Smedley 1934; Margolis 1977

Cystidicola cristivomeri White, 1941 (FW)

Syn.: Cystidicola sp. of White, 1940

Location: swim bladder Host: Salvelinus namaycush

Dist.: NWT, Ont

Records: White 1940 (Ont), 1941 (Ont); White and Cable 1942 (Ont); Boyes and Anderson 1961 (Ont); Margolis 1967a (Ont); Ko and Anderson 1969 (NWT, Ont); Dechtiar 1972c (Ont)

Cystidicola farionis Fischer, 1798 Syn.: Cystidicola canadensis Skinker, 1930198 Cystidicola stigmatura (Leidy, 1886)

Ancyracanthus cystidicola (Lamarck,

1801)

Location: swim bladder Hosts: Apeltes quadracus (18)

Catostomus catostomus (23)

Coregonus alpenae (17)

C. artedii (3,5,6,7,14,17,19)

C. clupeaformis (4,5,6,7,11,14,15,17,

19,20,23)

C. hoyi (3,14)

C. reighardi (3)

Coregonus sp. (16) Couesius plumbeus (8)

?Esox americanus americanus (2)199

Oncorhynchus kisutch (21)

O. nerka (20)

Osmerus mordax (20)

Prosopium cylindraceum (14,23)

P. williamsoni (13,26)

198Material reported as Cystidicola canadensis n.sp. by Skinker (1930) was later described as C. stigmatura (syn. of C. farionis) (Skinker 1931).

Salmo gairdneri (13,26) Salvelinus alpinus (22)

S. fontinalis (8,9,17)

S. fontinalis \times S. namaycush (20)

S. namaycush (1,8,9,10,11,12,17,23,24, 25,26

Thymallus arcticus (23)

Unspecified Salmonidae (21)

Dist.: Alta, BC, Man, Nfld-b, NWT, Ont,

Oue, Sask, YT

Records: 1. Wright 1879 (Ont?); 2. Walton 1928 (Ont); 3. Skinker 1930 (Ont); 4. Smedley 1933 (Man, Sask); 5. Hunter and Bangham 1933 (Ont); 6. Ekbaum 1936 (Man, Ont); 7. Bangham and Hunter 1939 (Ont); 8. Richardson 1942 (Que); 9. MacLulich 1943b (Ont); 10. Miller and Kennedy 1948 (NWT); 11. Rawson 1951 (NWT), 12. 1961 (Sask); 13. Bangham and Adams 1954 (BC); 14. Bangham 1955 (Ont); 15. Boyes and Anderson 1961 (Ont); 16. Margolis 1967a (Ont); 17. Ko and Anderson 1969 (Alta, BC, NWT, Ont, Sask); 18. Hanek and Threlfall 1970b (Nfld-b); 19. Dechtiar 1972c (Ont); 20. Collins and Dechtiar 1974 (Ont); 21. Leong and Holmes 1974a (Alta); 22. Mudry and McCart 1976 (YT); 23. Arthur et al. 1976 (YT); 24. Stewart-Hay (1953 MS) cited in Lubinsky 1976 (Man); 25. Dickson (1964 MS) cited in Lubinsky 1976 (Man); 26. Mudry and Anderson 1977 (Alta)

Cystidicola lepisostei Hunter and Bangham,

1933 species inquirenda (FW)

Location: intestine Host: Lepisosteus osseus

Dist.: Ont

Records: Hunter and Bangham 1933; Bang-

ham and Hunter 1939

Remarks: Ko and Anderson (1969) considered it probable that the above records are due to ingestion of salmonid fish by L. osseus.

Cystidicola serratus (Wright, 1879) Ralliet, (FW) 1916 species inquirenda

Syn.: Rhabdochona serrata (Wright, 1879) Ancyracanthus serratus Wright, 1879

Location: auricle of heart Host: Coregonus clupeaformis

Dist.: Ont?

Record: Wright 1879

Remarks: Ko and Anderson (1969) referred this species to the genus Rhabdochona. However, Moravec and Arai (1971) suggested it be retained in Cystidicola.

¹⁹⁹Walton (1928) reported C. farionis (as C. stigmatura) from the swim bladder of Lucioperca americana (syn. of Stizostedion vitreum vitreum) from Lake Ontario. In the text, however, he referred this material to the "pike" and erroneously listed "... (Lucioperca americana = Esox americanus)." Ko and Anderson (1969) in their revision of the genus referred this record to E. americanus.

Cystidicola spp. (FW) Location: swim bladder, body cavity Hosts: Coregonus artedii (1) C. clupeaformis (3) C. hoyi (1) C. kiyi (1) C. reighardi (1) Fundulus diaphanus (4) Oncorhynchus tshawytscha (2) Prosopium coulteri (6) Salmo gairdneri (3,5) Salvelinus malma (3) S. namaycush (6) Dist.: Pac, Alta, BC, NS, Ont Records: 1. Pritchard 1931 (Ont); 2. Godfrey 1968 (Pac); 3. Ko and Anderson 1969 (BC, Ont); 4. Wiles 1975b (NS); 5. Hoskins et al. 1976 (BC); 6. Mudry and Anderson 1977 (Alta, BC) Cystidicoloides prevosti (Choquette, 1951) Dollfus and Campana-Rouget, 1956 (FW) Syn.: Metabronema prevosti Choquette, 1951 Location: intestine Host: Ictalurus nebulosus Dist.: Que Record: Choquette 1951b Cystidicoloides tenuissima (Zeder, 1800) Rasheed, 1965 (FW) Syn.: Sterliadochona tenuissima (Zeder, 1800) Metabronema salvelini (Fujita, 1920) Metabronema canadense Skinker, 1931 Cystidicoloides harwoodi (Chandler, 1931) Location: intestine, pyloric caeca, stomach Hosts: Anguilla rostrata (15) Coregonus clupeaformis (14) Cottus asper (10) Esox masquinongy (7,8)200 Oncorhynchus kisutch (10) O. nerka (10) Prosopium williamsoni (10) Rhinichthys cataractae (10) Salmo clarki (10) S. gairdneri (10,11) S. salar (12,13,14,15,17,18,19,20) S. trutta (12) Salvelinus alpinus (6,14,15)²⁰¹ S. fontinalis (1,2,3,4,5,6,9,10,11,12,14, 15,16,20)

S. malma (10)S. namaycush (14) Unspecified dace (7)

Dist.: BC, Lab, NB-b, NB, Nfld, NS, Ont,

PEI, Que-b, Que

Records: 1. Skinker 1931 (Que); 2. Bangham and Hunter 1939 (Ont); 3. Lyster 1940a (Que); 4. Richardson 1942 (NB, Que); 5. Choquette 1948a (Que), 6. 1948b (Lab, Que), 7. 1951b (Que), 8. 1951c (Que), 9. 1955 (Que); 10. Bangham and Adams 1954 (BC); 11. Bangham 1955 (Ont); 12. Sandeman and Pippy 1967 (Nfld); 13. Pippy 1969 (Lab, NB-b, NB, Nfld, NS, PEI); 14. Hicks and Threlfall 1973 (Lab); 15. Hanek and Molnar 1974 (Que-b, Que); 16. Hare and Frantsi 1974 (NS); 17. Hare and Burt 1975a (NB), 18. 1975b (NB), 19. 1976 (NB-b, NB); 20. Frantsi et al. 1975 (NS)

Remarks: Maggenti and Paxman (1971) regarded C. harwoodi as an independent species.

Metabronema sp.

(FW)

Location: not specified Host: Thymallus arcticus

Dist.: BC

Record: Bangham and Adams 1954

Remarks: The above record is probably referable to the genus Cystidicoloides.

Salvelinema salmonicola (Ishii, 1916) Margolis, (FW)

Location: swim bladder Host: Salvelinus malma

Dist.: BC

Records: Margolis 1967a; Margolis and Kabata 1967

Remarks: Material tentatively identified as S. salmonicola by Margolis (1966) from Oncorhynchus kisutch was referred to S. walkeri by Margolis (1967a).

Salvelinema walkeri (Ekbaum, 1935) Margolis,

Syn.: Cystidicola walkeri Ekbaum, 1935

Location: swim bladder

Hosts: *Oncorhynchus kisutch* (1,2,3,4,5,6,7) O. tshawytscha (7)

Dist.: Pac

Records: 1. Ekbaum 1935a, 2. 1936; 3. Margolis 1966, 4. 1967a, 5. 1967b; 6. Margolis and Kabata 1967; 7. Godfrey 1968

Spinitectus carolini Holl, 1928

(FW)

Location: intestine

Hosts: Ambloplites rupestris (1,3,5)

²⁰⁰The report of this species from E. masquinongy by Choquette (1951c) was considered probably to be the result of ingestion of trout.

²⁰¹Choquette's (1948b) identification of the host as Salvelinus arcturus ($\equiv S$. alpinus) was tentative.

Ictalurus nebulosus (5) Lepomis gibbosus (1,2,3,4,)Micropterus dolomieui (1,2,3,4) M. salmoides (1,3)Morone chrysops (3)

Dist.: Ont

Records: 1. Bangham and Hunter 1939; 2. Bangham 1941, 3. 1955; 4. Bangham and Venard 1946; 5. Dechtiar 1972c

Spinitectus gracilis Ward and Magath,

Location: intestine

Hosts: Aplodinotus grunniens (1)

Coregonus artedii (6) C. clupeaformis $(2,3,4,8)^{202}$ Cyprinus carpio $(3)^{202}$

Esox americanus vermiculatus (1,5)²⁰³

Ictalurus nebulosus (2,3)

I. punctatus (1)

Lepomis gibbosus (2,4)

Lota lota (3,6)

Micropterus dolomieui (3)202

Moxostoma anisurum (6)

Notropis hudsonius (3)

Noturus flavus (1)

Oncorhynchus nerka (8)

Osmerus mordax (3)202

Perca flavescens (3,4,6,7,8)

Percopsis omiscomaycus (3,6,8)

Pomoxis annularis (1)

P. nigromaculatus (3,6)

Prosopium cylindraceum (4)

Salvelinus fontinalis \times S. namaycush

Stizostedion vitreum vitreum (1)

Dist.: Ont

Records: 1. Bangham and Hunter 1939; 2. Bangham 1941, 3. 1955; 4. Bangham and Venard 1946; 5. Crossman 1962; 6. Dechtiar 1972c; 7. Cannon 1973; 8. Collins and Dechtiar 1974

Spinitectus spp.

(FW)

Location: digestive tract

. Hosts: Acipenser fulvescens (4,5) Perca flavescens (1,3)

Stizostedion vitreum vitreum (2)

Dist.: Ont

202The records of Bangham (1955) for the indicated hosts refer to encysted larval forms.

203Bangham and Hunter (1939) recorded S. gracilis from E. a. vermiculatus (as E. americanus) in their host-parasite list and in the text. However, in their parasite-host list this parasite is reported from the northern pike (E. lucius). The latter record is considered to be an error in compilation.

Records: 1. Bangham 1941, 2. 1955; 3. Tedla and Fernando 1972; 4. Anthony 1974, 5. 1977

Family HEDRURIDAE

Hedruris sp.

(FW)

Location: intestine

Host: Fundulus diaphanus

Dist.: NS

(FW)

Record: Wiles 1975b

Superfamily THELAZIOIDEA

Family THELAZIIDAE

Rhabdochona canadensis Moravec and Arai, 1971 (FW)

Location: intestine

Hosts: Couesius plumbeus

Esox lucius²⁰⁴ Noturus flavus²⁰⁴

Platygobio gracilis

Rhinichthys cataractae

Stizostedion vitreum vitreum²⁰⁴

Dist.: Alta

Record: Moravec and Arai 1971

Rhabdochona cascadilla Wigdor, 1918 Syn.: Rhabdochona sp. of Bangham, 1941

(partim) and of Bangham and Venard, 1946

(partim)

Location: intestine

Hosts: Acipenser fulvescens (7)

Acrocheilus alutaceus (6)

Ambloplites rupestris (1,8)

Catostomus catostomus (5,6)

C. commersoni (2,4,9)

C. macrocheilus (6)

Chrosomus eos (4)

Couesius plumbeus (6)

Cyprinus carpio (6)

Etheostoma exile (3,8)

E. nigrum (3,8)

Hiodon tergisus (1)

Ictalurus nebulosus (2)

Lota lota (8)

Micropterus dolomieui (4)

Moxostoma macrolepidotum (1,6)

Mylocheilus caurinus (6) Notropis anogenus (8)

²⁰⁴Material from the indicated hosts consisted of macerated specimens only and was considered by Moravec and Arai (1971) probably to have been acquired while feeding on infected fish.

N. cornutus (2,3,4) Rhabdochona milleri Choquette, 1951 (FW) N. hudsonius (1,3,8)Location: intestine Hosts: Moxostoma erythrurum (2,3) N. spilopterus (1) N. volucellus (1) M. macrolepidotum (1,2,3) Oncorhynchus nerka (6,9) Prosopium coulteri (4) Perca flavescens (9) Salmo clarki (4) Percopsis omiscomaycus (9) S. gairdneri (4) Pimephales notatus (3,4) Salvelinus fontinalis (4) Prosopium williamsoni (6) S. malma (4) Ptychocheilus oregonensis (6) Dist.: Alta, BC, Ont, Que Rhinichthys atratulus (8) Records: 1. Choquette 1951a (Que); 2. Mora-R. cataractae (6) vec and Arai 1971 (Ont); 3. Dechtiar 1972b Richardsonius balteatus (6) (Ont); 4. Mudry and Anderson 1977 (Alta, Salmo clarki (6) BC) S. gairdneri (6) Salvelinus fontinalis (10) Rhabdochona ovifilamenta Weller, 1938 (FW) Syn.: Rhabdochona laurentiana Lyster, 1940 Semotilus atromaculatus (2,3,4,5) Rhabdochona fortunatowi of Kussat, S. corporalis (4) S. margarita (2,4,5) Thymallus arcticus (6) Rhabdochona sp. of Arai and Kussat, 1967 Dist.: Alta, BC, Ont, Que Location: intestine Records: 1. Bangham and Hunter 1939 (Ont): Hosts: Catostomus catostomus (3,5,6) 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. C. commersoni (1) Banghain and Venard 1946 (Ont); 5. Cho-C. platyrhynchus (3,5,6) quette 1951a (Que); 6. Bangham and Adams Perca flavescens (4) 1954 (BC); 7. Dechtiar 1972b (Ont), 8. 1972c Salvelinus fontinalis (2) (Ont); 9. Collins and Dechtiar 1974 (Ont); Dist.: Alta, Ont, Que 10. Mudry and Anderson 1977 (Alta) Records: 1. Lyster 1940a (Que); 2. Choquette Remarks: Material reported as Rhabdochona 1948a (Que); 3. Arai and Kussat 1967 sp. from Ictalurus nebulosus (as Ameiurus (Alta); 4. Tedla and Fernando 1969a (Ont); n.) by Bangham (1941) and from Catosto-5. Kussat 1969 (Alta); 6. Moravec and Arai mus commersoni by Bangham (1941) and 1971 (Alta) Bangham and Venard (1946) was identified Remarks: Rhabdochona sp. of Arai and Kusas R. cascadilla by Choquette (1951a). Moravec and Arai (1971) examined specisat (1967) was identified as R. ovifilamenta by Moravec and Arai (1971). The same mens labeled as R. cascadilla from C. commersoni from the collection of R. V. material was incorrectly identified as R. fortunatowi by Kussat (1969). Bangham and found them to be incorrectly identified. The correct identification was Rhabdochona spp. (FW) not indicated. Location: intestine Hosts: Catostomus catostomus (7) (FW) Rhabdochona cotti Gustafson, 1949 C. commersoni (3,7) Location: intestine Coregonus clupeaformis (4) Hosts: Cottus asper (1) Couesius plumbeus (3) C. bairdi (2) Fundulus diaphanus (1) C. cognatus (1,3) Ictalurus melas (5) Dist.: BC, Ont I. nebulosus (3) Records: 1. Bangham and Adams 1954 (BC); Lepomis gibbosus (2,3,4) 2. Dechtiar 1972c (Ont); 3. Mudry and L. macrochirus (1) Anderson 1977 (BC)

(FW)

²⁰⁵The record of Margolis (1957) is a tentative parasite identification (as? *Rhabdochona* sp.).

Micropterus dolomieui (5) Morone chrysops (1)

Oncorhynchus kisutch (5)

Perca flavescens (2,3,8)

O. nerka (6)205

Dist.: BC

Rhabdochona kisutchi Margolis, Moravec and

Location: intestine, pyloric caeca

Host: Oncorhynchus kisutch

Record: Margolis et al. 1975

McDonald, 1975

Pimephales promelas (4) Salmo clarki (9) Salvelinus fontinalis (5,9)

Dist.: Alta, BC, Lab, Ont

Records: 1. Bangham and Hunter 1939 (Ont); 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. Bangham and Venard 1946 (Ont); 5. Bangham and Adams 1954 (BC); 6. Margolis 1957 (BC); 7. Threlfall and Hanek 1970a (Lab); 8. Tedla and Fernando 1972 (Ont); 9. Mudry and Anderson 1977 (Alta) Remarks: Material from Catostomus commersoni reported as Rhabdochona sp. by Bangham (1941) and Bangham and Venard (1946) and from Ictalurus nebulosus (as Ameiurus n.) by Bangham and Venard (1946) was identified as R. cascadilla Wigdor, 1918 by Choquette (1951a) and is referred to this species. Material reported as Rhabdochona sp. from Fundulus diaphanus by Bangham and Hunter (1939) was found to belong to another genus by Choquette (1951a). The correct genus was not indicated. Material reported as Rhabdochona sp. from Alberta by Arai and Kussat (1967) from C. catostomus and C. platyrhynchus (as Pantosteus p.) is referred to C. ovifilamenta Weller, 1938.

Unidentified Nematoda

Nematoda gen.spp. larva and adult (FW, M) Includes: Agamonema sp.auct., Agamospirura sp.auct.

Location: viscera, musculature, mesenteries,

intestine, stomach

Hosts: Ambloplites rupestris (9)
Ammocrypta pellucida (9)
A plodinotus grunniens (9)
Carassius auratus (9)
Catostomus commersoni (9,16)²⁰⁶
Chrosomus eos (10,15)
C. neogaeus (10,15)
Clupea harengus pallasi (30)
Cololabis saira (32)

Coregonus clupeaformis (5) Culaea inconstans (9,31)²⁰⁷

Cyprinus carpio (9) Dorosoma cepedianum (9) Etheostoma exile (9) E. nigrum (9) Fundulus diaphanus (9) Gadus morhua (3) Hexagrammos decagrammus (28) Hippoglossoides platessoides (1) Hybopsis storeriana (9)207 Ictalurus nebulosus (9,10) I. punctatus (9) Labidesthes sicculus (9) Lepomis gibbosus (9,10,11,15) L. macrochirus (9) Lota lota (18) Macrozoarces americanus (2,13) Mallotus villosus (8) Micropterus dolomieui (9,10,31) M. salmoides (9) Morone chrysops (9) Myoxocephalus scorpius (20) Nocomis micropogon (9) Notemigonus crysoleucas (9) Notropis emiliae (9) N. heterodon (9)207 N. hudsonius (9) N. spilopterus (9) Oncorhynchus keta (29,30) O. kisutch (29) O. nerka (22,23,24,30)²⁰⁸ O. tshawytscha (29,30) Perca flavescens (9,10,15) Percina caprodes (9) Percopsis omiscomaycus (9,11)207 Pimephales notatus (10) Platichthys stellatus (30) Pomoxis annularis (9) Prosopium cylindraceum (33) P. williamsoni (34) Pseudopleuronectes americanus (3) Reinhardtius hippoglossoides (25) Salmo gairdneri (34) Salvelinus alpinus (20,21,33) S. fontinalis (6,7,12,16,17,33)²⁰⁹ S. namaycush (12,19,33) Sebastes marinus (27) Semotilus atromaculatus (9,10) Stizostedion vitreum vitreum (9) Tautogolabrus adspersus (4) Thymallus arcticus (14)

²⁰⁶Material reported as nematode larva by Fantham and Porter (1948) from *C. commersoni* from Ross Lake, Quebec, was noted to be morphologically identical with *Rhabdias bufonis*.

²⁰⁷The record of Bangham and Hunter (1939) of unidentified nematodes (as *Agamonema* sp.) from these hosts is found only in their host-parasite list.

²⁰⁸Larval nematodes reported by Margolis (1956b, 1957, 1963) from *O. nerka* were noted (Margolis 1963) to be possibly "... an early stage of *Philonema oncorhynchi*."

²⁰⁹The record of unidentified Nematoda from *S. fontinalis* by Fantham and Porter (1948) was based on the presence of ova only.

Xiphias gladius (26) Unspecified cod (2) Unspecified flounder (2)

Dist.: Atl, E Arc, Pac, Alta, BC, Lab, NWT, Ont. Oue-b. Oue. Sask

Records: 1. Huntsman 1918b (Atl); 2. Clemens 1920 (Atl); 3. Clemens and Clemens 1921 (Atl); 4. Johansen 1925 (Atl); 5. Hart 1931 (Ont); 6. Ricker 1932 (Ont, Que); 7. Richardson 1935 (Que); 8. Pigeon and Vallée 1937 (Que-b); 9. Bangham and Hunter 1939 (Ont); 10. Bangham 1941 (Ont), 11. 1955 (Ont); 12. MacLulich 1943b (Ont); 13. Olsen and Merriman 1946 (Atl); 14. Miller 1946a (NWT); 15. Bangham and

Venard 1946 (Ont); 16. Fantham and Porter 1948 (Que); 17. Choquette 1948a (Que); 18. Rawson 1951 (NWT), 19. 1961 (Sask); 20. Dunbar and Hildebrand 1952 (E Arc); 21. Andrews and Lear 1956 (Lab); 22. Margolis 1956b (Pac, BC), 23. 1957 (BC), 24. 1963 (BC); 25. Templeman et al. 1957 (Atl); 26. Tibbo et al. 1961 (Atl); 27. Yanulov 1962 (Atl); 28. Barraclough 1967a (Pac); 29. Godfrey 1968 (Pac); 30. Robinson et al. 1968b (Pac); 31. Dechtiar 1972c (Ont); 32. Hughes 1973 (Pac); 33. Hicks and Threlfall 1973 (Lab); 34. Mudry and Anderson 1977 (Alta)

PHYLUM ACANTHOCEPHALA

| ORDER EOACANTHOCEPHALA | Etheostoma nigrum (4) |
|--|--|
| Family NEOECHINORHYNCHIDAE | Lepomis gibbosus (4) Lota lota (4) |
| | Micropterus dolomieui (1,3,4,5,9) |
| Neoechinorhynchus carpiodi Dechtiar, | M. salmoides (1,4) |
| 1968 (FW) | Perca flavescens (4,7,8,10) |
| Location: intestine | Pomoxis nigromaculatus (4) |
| Host: Carpiodes cyprinus | Salvelinus fontinalis (2) |
| Dist.: Ont | Stizostedion canadense (4) |
| Records: Dechtiar 1968, 1972b | S. vitreum vitreum (1,4,10) |
| | Dist.: Man, Ont, Que |
| Veoechinorhynchus crassus Van Cleave, | Records: 1. Bangham and Hunter 1939 (Ont); |
| 1919 (FW) | 2. Lyster 1940a (Que); 3. Bangham 1941 |
| Location: intestine | (Ont), 4. 1955 (Ont); 5. Bangham and |
| Hosts: Carpiodes cyprinus (4) | Venard 1946 (Ont); 6. Choquette 1951c |
| Catostomus catostomus (3) | (Que); 7. Tedla and Fernando 1969a (Ont), |
| C. commersoni (1,3,5,6) | 8. 1972 (Ont); 9. Dechtiar 1972c (Ont); 10. |
| C. macrocheilus (2) | Dickson (1964 MS) cited in Lubinsky 1976 |
| Stizostedion vitreum vitreum (6) | (Man) |
| Dist.: BC, Man, Ont | |
| Records: 1. Bangham and Hunter 1939 (Ont); | Neoechinorhynchus notemigoni Dechtiar, |
| 2. Bangham and Adams 1954 (BC); 3. | 1967 (FW) |
| Bangham 1955 (Ont); 4. Dechtiar 1972b | Location: intestine |
| (Ont), 5. 1972c (Ont); 6. Stewart-Hay (1951 | Host: Notemigonus crysoleucas |
| MS) cited in Lubinsky 1976 (Man) | Dist.: Ont |
| | Record: Dechtiar 1967a |
| Neoechinorhynchus cristatus Lynch, 1936 (FW) | |
| Syn.: Neoechinorhynchus venustus Lynch, | Neoechinorhynchus pungitius Dechtiar, |
| 1936 | 1971 (FW) |
| Location: intestine | Location: intestine, stomach |
| Hosts: Catostomus catostomus (1,2,3,5) | Hosts: Culaea inconstans (1) |
| C. commersoni (2,3,6,7) | Oncorhynchus nerka (2) |
| C. macrocheilus (1) | Osmerus mordax (2) |
| Mylocheilus caurinus (1) | Perca flavescens (7) |
| Pungitius pungitius (4,8) | Pungitius pungitius (1) |
| Dist.: Alta, BC, Lab-b, Lab, Ont, Que | Dist.: Ont |
| Records: 1. Bangham and Adams 1954 (BC); | Records: 1. Dechtiar 1971b; 2. Collins and |
| 2. Arai and Kussat 1967 (Alta); 3. Kussat | Dechtiar 1974 |
| 1969 (Alta); 4. Hanek and Threlfall 1970d | Domina 1771 |
| (Lab-b); 5. Threlfall and Hanek 1970a | Neoechinorhynchus rutili (O. F. Mülleŕ, 1780) |
| (Lab); 6. Dechtiar 1972b (Ont), 7. 1972c | Hamann, 1892 (FW) |
| (Ont); 8. Hanek and Molnar 1974 (Que) | Location: intestine |
| Remarks: Golvan (1959) listed N. venustus | Hosts: Catostomus catostomus (2,20) |
| as a valid species. We follow Petrochenko | C. macrocheilus (2) |
| (1956) in considering it a synonym of N . | Cottus asper (2) |
| cristatus. | C. bairdi (10) |
| Cristatias. | C. cognatus (19) |
| Neoechinorhynchus cylindratus (Van Cleave, | C. rhotheus (2) |
| 1913) Van Cleave, 1919 (FW) | Couesius plumbeus (2) |
| Location: intestine | Culaea inconstans (3,10) |
| Hosts: Ambloplites rupestris (4,9) | Esox lucius (2,19) |
| Catostomus commersoni (2) | Fundulus heteroclitus (14) |
| Esox lucius (4) | |
| とうひん じんじんり (エ) | Gasterosteus aculeatus (1 2 g 12) |
| E. masquinongy (6) | Gasterosteus aculeatus (1,2,8,13) Ictalurus nebulosus (2) |

| Lota lota (2,3,19) Micropterus dolomieui (3) Mylocheilus caurinus (2) Notropis hudsonius (3,9) Oncorhynchus keta (7) O. kisutch (2,7) O. nerka (1,2,4,5,6,7,12) Osmerus mordax (12) Perca flavescens (3,9,12) Prosopium williamsoni (2) Ptychocheilus oregonensis (1,2) Pungitius pungitius (1,3,15) Richardsonius balteatus (2) Salmo clarki (1,2) S. gairdneri (2) S. salar (11,16,17,18) Salvelinus fontinalis (1,2) | Neoechinorhynchus tumidus Van Cleave and Bangham, 1949 (FW) Location: intestine Hosts: Coregonus artedii (1,4) Coregonus clupeaformis (1,3,4,5,6) Cottus cognatus (6) Esox lucius (6) Oncorhynchus nerka (5) Prosopium cylindraceum (2,6) Thymallus arcticus (6) Dist.: Ont, Sask, YT Records: 1. Van Cleave and Bangham 1949 (Sask); 2. Bangham 1955 (Ont); 3. Dechtiar 1972b (Ont), 4. 1972c (Ont); 5. Collins and Dechtiar 1974 (Ont); 6. Arthur et al. 1976 (YT) |
|---|---|
| S. malma (2) S. namaycush (19) Thymallus arcticus (19) Umbra limi (3) Dist.: Pac, Alta, BC, Lab-b, NB-b, NB, Nfld, NWT, Ont, YT Records: 1. Van Cleave and Lynch 1950 (BC, NWT); 2. Bangham and Adams 1954 (BC); 3. Bangham 1955 (Ont); 4. Margolis 1956b (BC), 5. 1957 (BC), 6. 1963 (BC); 7. Arai 1969b (Pac); 8. Hanek and Threlfall 1970e (Lab-b); 9. Dechtiar 1972b (Ont), 10. 1972c (Ont); 11. Hare and Frantsi 1974 (NB); 12. Collins and Dechtiar 1974 (Ont); 13. Lester 1975 (BC); 14. Dickinson and Threlfall 1975 (Nfld), 15. 1976 (Nfld); 16. Hare and Burt 1975a (NB), 17. 1975b (NB), 18. 1976 (NB-b, NB); 19. Arthur et al. 1976 (YT); 20. Mudry and Anderson 1977 (Alta) Neoechinorhynchus strigosus Van Cleave, 1949 (FW) | Neoechinorhynchus spp. (FW) Location: intestine Hosts: Catostomus catostomus (6) C. commersoni (3,9,10) Coregonus artedii (1) Fundulus diaphanus (2) Notropis atherinoides (8) N. hudsonius (8) Perca flavescens (7) Percopsis omiscomaycus (4) Pimephales notatus (8) Semotilus atromaculatus (3,5) Stizostedion canadense (2) S. vitreum vitreum (10) Dist.: Alta, Man, NWT, Ont Records: 1. Pritchard 1931 (Ont); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. Bangham and Venard 1946 (Ont); 6. Rawson 1951 (NWT); 7. Dechtiar 1972b (Ont), 8. 1972c (Ont); 9. Mudry and Arai 1973a (Alta); 10. Stewart-Hay (1952 MS) cited in Lubinsky |
| Location: intestine Hosts: Catostomus catostomus (1,2) C. commersoni (1,2,3) Dist.: Lab, Ont Records: 1. Bangham 1955 (Ont); 2. Threlfall and Hanek 1970a (Lab); 3. Dechtiar 1972c (Ont) Neoechinorhynchus tenellus (Van Cleave, 1913) Van Cleave, 1919 Location: intestine Hosts: Esox lucius (1,3) E. masquinongy (3) Stizostedion canadense (3) S. vitreum vitreum (2,3) Dist.: Ont Records: 1. Bangham and Hunter 1939; 2. Dechtiar 1972b, 3. 1972c | 1976 (Man) Octospinifer macilentus Van Cleave, 1919 (FW) Syn.: Octospinifer sp. of Mudry and Arai, 1973 Location: intestine Hosts: Catostomus catostomus (2) C. commersoni (1,2,3,4,5,6,7,8,9) Dist.: Alta, Ont Records: 1. Bangham and Hunter 1939 (Ont); 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. Bangham and Venard 1946 (Ont); 5. Arai and Kussat 1967 (Alta); 6. Kussat 1969 (Alta); 7. Dechtiar 1972c (Ont); 8. Mudry and Arai 1973a (Alta); 9. Beerman (1972 MS) cited in Mudry and Anderson 1976 (Alta) |

Remarks: J. R. Arthur (unpublished data) determined Octospinifer sp. of Mudry and Arai, 1973 to be O. macilentus.

Octospiniferoides sp.

(FW)

Location: intestine

Host: Fundulus diaphanus

Dist.: NS

Record: Wiles 1975b

Family TENUISENTIDAE

Tanaorhamphus sp.

(FW)

Location: intestine

Host: Catostomus commersoni

Dist.: Man

Record: Stewart-Hay (1952 MS) cited in

Lubinsky 1976

ORDER PALAEACANTHOCEPHALA

Superfamily ECHINORHYNCHOIDEA

Family ECHINORHYNCHIDAE

Acanthocephalus jacksoni Bullock, 1962 (FW)

Location: intestine

Hosts: Alosa pseudoharengus

Catostomus commersoni Coregonus clupeaformis Oncorhynchus nerka

Osmerus mordax Perca flavescens

Salvelinus fontinalis × S. namaycush

Dist.: Ont

Record: Collins and Dechtiar 1974

Acanthocephalus sp.

(FW)

Location: intestine

Host: Fundulus diaphanus

Dist.: NS

Record: Wiles 1975b

Echinorhynchus gadi Zoega in O. F. Müller,

Syn.: Echinorhynchus ekbaumi Golvan, 1969

(new synonym)

Location: intestine, mesenteries

Hosts: Agonus acipenserinus (12,13)

Ammodytes hexapterus (13)

A prodon cortezianus (12,13)

Cymatogaster aggregata (12,13)

Gadus macrocephalus (10)

G. morhua (1,5,6,19)

Glyptocephalus cynoglossus (11)

Hemilepidotus hemilepidotus (13)

Hippoglossoides platessoides (11)

Hippoglossus hippoglossus (11)

Icelinus filamentosus (12,13)

Leptocottus armatus (13)

Limanda ferruginea (11,19)

Liopsetta putnami (11)

Melanogrammus aeglefinus (3.5)

Microgadus proximus (1)

M. tomcod (3,6)

Myoxocephalus polyacanthocephalus

(12, 13)

M. quadricornis (16)

Oncorhynchus gorbuscha (4,5,7,8)

O. keta (4,5,12)

O. kisutch (4,5,12,13)

O. nerka (4,5,7,9,12)

O. tshawytscha (4,5,12,13)

Platichthys stellatus (12,13)

Pollachius virens (5)

Pseudopleuronectes americanus (11)

Salmo salar (14,17)

Salvelinus alpinus (17)

S. fontinalis (3,17)

S. malma (12,13)

Scophthalmus aquosus (11)

Sebastes alutus (18)

S. babcocki (18)

S. borealis (18)

S. caurinus (18)

S. diploproa (18)

S. flavidus (18) S. helvomaculatus (18)

S. proriger (18)

S. ruberrimus (18)

S. zacentrus (18)

Tautogolabrus adspersus (2.15)

Theragra chalcogramma (12)

Dist: Atl, Pac, W Arc, BC-b, Lab-b, NS,

Que-b, Que

Records: 1. Van Cleave 1920 (W Arc); 2. Johansen 1925 (Atl); 3. Kuitunen-Ekbaum 1937b (Atl), 4. 1937d (Pac, BC-b); 5.

Ekbaum 1938 (Atl, Pac, BC-b); 6. Heller 1949 (Atl); 7. Margolis 1956b (Pac, BC-b), 8. 1957 (Pac, BC-b), 9. 1963 (BC-b), 10. 1965 (Pac); 11. Ronald 1963 (Atl); 12. Arai

1967a (Pac), 13. 1969b (Pac); 14. Pippy 1969 (Atl, NS); 15. Sekhar S. and Threlfall

1970a (Atl); 16. Threlfall and Hanek 1971 (Lab-b); 17. Hanek and Molnar 1974

(Que-b, Que); 18. Sekerak and Arai 1977 (Pac); 19. Gaevskaya and Umnova 1977

(Atl) Remarks: Golvan (1969) considered records of E. gadi from Pacific salmon from Canada

to represent a distinct species for which he created the name E. ekbaumi. Echinorhynchus laurentianus Ronald, 1957 (M) Location: intestine Hosts: *Hippoglossoides platessoides* (1,2) Hippoglossus hippoglossus (1,2) Pseudopleuronectes americanus (1,2) Scophthalmus aquosus (1,2) Dist.: Atl Records: 1. Ronald 1957a, 2, 1963 Echinorh ynchus sp. (M) Location: intestine Host: Macrozoarces americanus Dist.: Atl Record: Clemens and Clemens 1921 Metechinorhynchus lageniformis (Ekbaum, 1938) Petrochenko, 1956 Syn.: Echinorhynchus lageniformis Ekbaum, 1938 Location: intestine Hosts: Lepidopsetta bilineata (1,2) Platichthys stellatus (1,2,3) Dist.: Pac Records: 1. Kuitunen-Ekbaum 1937d; 2. Ekbaum 1938; 3. Prakash and Adams 1960 Metechinorhynchus lateralis (Leidy, 1851) Golvan, 1969 Metechinorhynchus salmonis (O. F. Müller, Syn.: Acanthocephalus lateralis (Leidy, 1851) 1784) Petrochenko, 1956 Echinorhynchus lateralis Leidy, 1851 Location: intestine Hosts: Ambloplites rupestris (3) Anguilla rostrata (6) Catostomus commersoni (3) Coregonus clupeaformis (4,10,11,12) Esox lucius (9) Gasterosteus aculeatus (8) Micropterus dolomieui (3) Perca flavescens (3) Prosopium cylindraceum (12)

Pungitius pungitius (7)

Salvelinus alpinus (12)

S. salar (4,12,13,14,15,16)

S. fontinalis (1,2,3,4,5,10,12,13,16)

Dist.: Atl, Lab-b, Lab, NB-b, NB, Nfld-b,

Records: 1. Richardson 1936 (Que); 2. Cho-

quette 1948a (Que); 3. Fantham and Porter

1948 (Que); 4. Sandeman and Pippy 1967

(Nfld); 5. Pippy and Sandeman 1967 (Nfld);

Salmo gairdneri (4)

S. namaycush (12)

S. trutta (4,10)

Nfld, NS, Ont, Que

6. Hanek and Threlfall 1970c (Lab, Nfld-b), 7. 1970d (Nfld), 8. 1970e (Atl, Lab-b, Lab, Nfld-b, Nfld); 9. Threlfall and Hanek 1970b (Lab), 10. 1970c (Nfld-b?, Nfld); 11. Dechtiar 1972c (Ont); 12. Hicks and Threlfall 1973 (Lab); 13. Hare and Frantsi 1974 (NS); 14. Hare and Burt 1975a (NB), 15. 1976 (NB-b, NB); 16. Frantsi et al. 1975

Metechinorhynchus leidyi (Van Cleave, 1924) Golvan, 1969 (FW) Syn.: Echinorhynchus leidyi Van Cleave, Echinorhynchus salvelini Linkins in Ward and Whipple, 1918 Location: intestine, stomach Hosts: Catostomus catostomus (6) C. commersoni (6) Coregonus hovi (6) Lota lota (6) Salmo gairdneri (6) Salvelinus malma (1) S. namaycush (1,2,3,4,5,6)

Dist.: NWT, Ont, Que Records: 1. Van Cleave 1920 (NWT); 2. Cooper 1921 (NWT); 3. Richardson 1942 (Que); 4. Miller 1946b (NWT); 5. Miller and Kennedy 1948 (NWT); 6. Bangham 1955 (Ont)

(FW)

Syn.: Echinorhynchus salmonis O. F. Müller, Echinorhynchus coregoni Linkins in Van Cleave, 1919210 Location: intestine Hosts: Acipenser fulvescens (7) Alosa pseudoharengus (14) Ambloplites rupestris (7) Catostomus catostomus (7,18) C. commersoni (7,14,17,18) Coregonus alpenae (7) C. artedii (7,12,13,16,18) *C. clupeaformis* (3,7,12,13,14,16,17,18) C. hoyi (7) Coregonus sp. (6)211

210Golvan (1969) listed E. coregoni as a distinct species in Metechinorhynchus. We follow Van Cleave (in Bangham 1955) and Petrochenko (1956) in considering it a synonym of M. salmonis.

Cottus bairdi (13)

Couesius plumbeus (7)

211The report of Rawson (1951) was given as "... Echinorhynchus sp.nr. coregoni ..."

Esox lucius (7,12,13,16,18) E. masquinongy (13) Ictalurus nebulosus (13) Lepomis gibbosus (7) Lota lota (3,7,13,16,18)²¹² Micropterus dolomieui (7) M. salmoides (7) Myoxocephalus quadricornis (7) Notropis hudsonius (7) Oncorhynchus kisutch (15,16,18) O. nerka (14) Osmerus mordax (7,12,14)Perca flavescens (7,9,10,11,14) Percopsis omiscomaycus (7,14) Petromyzon marinus (7,8) Prosopium cylindraceum (7) Pungitius pungitius (16,18) Salmo gairdneri (7) Salvelinus alpinus (2) S. fontinalis \times S. namaycush (14) S. malma (1)

S. namaycush (1,2,5,7,13,15,16,17,18) Stizostedion canadense (7,13)

S. vitreum vitreum (13,18) Thymallus arcticus (4)²¹³

Unspecified Salmonidae (15)

Dist.: Alta, Man, NWT, Ont
Records: 1. Van Cleave 1920 (NWT); 2.
Cooper 1921 (NWT); 3. Bangham and
Hunter 1939 (Ont); 4. Miller 1946a (NWT);
5. Miller and Kennedy 1948 (NWT); 6.
Rawson 1951 (NWT); 7. Bangham 1955
(Ont); 8. Wilson and Ronald 1967 (Ont);
9. Tedla and Fernando 1969a (Ont), 10.
1970b (Ont), 11. 1972 (Ont); 12. Dechtiar
1972b (Ont), 13. 1972c (Ont); 14. Collins
and Dechtiar 1974 (Ont); 15. Leong and
Holmes 1974a (Alta), 16. 1974b (Alta); 17.
Stewart-Hay (1953 MS) cited in Lubinsky
1976 (Man); 18. Holmes et al. 1977 (Alta)

Metechinorhynchus spp.

(FW)

Syn.: Echinorhynchus sp.auct.

Location: intestine

Hosts: Coregonus clupeaformis (1,3)

C. reighardi (2)
Etheostoma exile (3)
Percina caprodes (3)
Salmo salar (5)
Salvelinus fontinalis (4)

Stizostedion vitreum glaucum (3)²¹⁴ S. vitreum vitreum (3)

Dist.: Lab, Lab-Que, NB, Nfld, NS, Ont, PEI Records: 1. Hart 1931 (Ont); 2. Pritchard 1931 (Ont); 3. Bangham and Hunter 1939 (Ont); 4. Munroe 1949 (Lab-Que); 5. Pippy 1969 (Lab, NB, Nfld, NS, PEI)

Remarks: All above records were originally given by their respective authors as *Echinorhynchus* sp. However, as the freshwater members of this genus occurring in Canadian fishes have all been transferred to *Metechinorhynchus*, the above records are considered referable to this genus.

Family LEPTORHYNCHOIDIDAE

Leptorhynchoides thecatus (Linton, 1891)

Kostylew, 1924 (FW)

Location: intestine, encysted in mesenteries

Hosts: Ambloplites rupestris (2,4,13)

Amia calva (2,4)

Anguilla rostrata (3,11)

A plodinotus grunniens (2)

Catostomus catostomus (4)

C. commersoni (13,15)

Coregonus clupeaformis (3,6)

Culaea inconstans (13)

Cyprinus carpio $(2)^{215}$

Esox lucius (4,8,13)

E. masquinongy (7,13)

Etheostoma exile $(2,13)^{215}$

E. flabellare (2)

E. nigrum (4,13)

Hybopsis storeriana (2)

Ictalurus melas (2)

I. nebulosus (3,4,13)

I. punctatus (2)

Lepisosteus osseus (2)

Lepomis gibbosus (2,3,4,6,13)

L. macrochirus (2)

Lota lota (3,6,13)

Microgadus tomcod (1)

Micropterus dolomieui (2,3,4,6,8,13)

M. salmoides (2,4)

Morone chrysops (4)

Moxostoma anisurum (13)

²¹²The record of *M. salmonis* from *L. lota* is found only in the host–parasite list of Bangham and Hunter (1939).

²¹³The record of Miller (1946a) is a tentative parasite identification (as "Echinorhynchus coregoni Linkins (?)").

²¹⁴Bangham and Hunter (1939) listed Leptorhynchoides sp. from S. v. glaucum (as S. glaucum) in their host-parasite list but recorded only Metechinorhynchus sp. (as Echinorhynchus sp.) in their parasite-host list. Whether these two records are based on the same material cannot be determined.

²¹⁵The record of Bangham and Hunter (1939) of *L. thecatus* for the indicated hosts is found only in their host-parasite list.

Notropis anogenus (13) N. hudsonius (4) Noturus flavus (2) N. gyrinus (13) Oncorhynchus nerka (15) Osmerus mordax (1,12) Perca flavescens (2,3,4,6,9,10,13,14,15) Percina caprodes (2,13) Percopsis omiscomaycus (2) Pomoxis annularis (2) P. nigromaculatus (2,13) Pungitius pungitius (13) Rhinichthys atratulus (13) Salvelinus fontinalis (6) S. namaycush (5,6) Stizostedion vitreum vitreum (4) Umbra limi (13) Dist.: Lab, Ont, Que-b, Que Records: 1. Pigeon and Vallée 1937 (Que-b);

2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. MacLulich 1943b (Ont); 6. Bangham and Venard 1946 (Ont); 7. Choquette 1951c (Que); 8. Worley and Bangham 1952 (Que); 9. Tedla and Fernando 1969a (Ont), 10. 1972 (Ont); 11. Hanek and Threlfall 1970c (Lab); 12. Threlfall and Hanek 1971 (Lab); 13. Dechtiar 1972c (Ont); 14. Cannon 1973 (Ont); 15. Collins and Dechtiar 1974 (Ont)

Leptorhynchoides sp.216

(FW)

Location: mesenteries

Host: Stizostedion vitreum glaucum

Dist.: Ont

Record: Bangham and Hunter 1939

Family POMPHORHYNCHIDAE

Pomphorhynchus bulbocolli Linkins in Van Cleave, 1919 (FW)

Location: intestine, encysted in mesenteries

Hosts: Ambloplites rupestris (3)

Amia calva (3)

A plodinotus grunniens (7) Carpiodes cyprinus (7,8)

Catostomus catostomus (6)

C. commersoni (1,2,3,4,5,6,8,10,13)

C. macrocheilus (6)

Chrosomus eos (2)

Cottus asper (6)

²¹⁶Bangham and Hunter (1939) listed Leptorhynchoides sp. from S. v. glaucum (as S. glaucum) in their host-parasite list but recorded only Echinorhynchus sp. in their parasite-host list. Whether these two records are based on the same material cannot be determined.

C. rhotheus (6) Cyprinus carpio (3,7) Esox lucius (3) Hiodon tergisus (7) Ictalurus nebulosus (2,3,5,7,8) Lepomis gibbosus (7) Lota lota (3,6,8) Micropterus dolomieui (3,7) Moxostoma anisurum (7) M. erythrurum (7) M. macrolepidotum (7) Mylocheilus caurinus (6) Notropis hudsonius (3) Noturus gyrinus (8) Oncorhynchus kisutch (6,12) O. nerka (10) Osmerus mordax (3) Perca flavescens (3,9) Percina caprodes (3,8) Percopsis omiscomaycus (3,10) Prosopium williamsoni (6) Ptychocheilus oregonensis (6) Richardsonius balteatus (6) Salmo clarki (6) S. gairdneri (6) S. salar (11) Salvelinus fontinalis \times S. namaycush (10)

Umbra limi (3) Unspecified Salmonidae (12)

Dist.: Alta, BC, Man, NS, Ont, Que Records: 1. Bangham and Hunter 1939 (Ont); 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. Richardson 1942 (Que); 5. Bangham and Venard 1946 (Ont); 6, Bangham and Adams 1954 (BC); 7. Dechtiar 1972b (Ont), 8. 1972c (Ont); 9. Tedla and Fernando 1972 (Ont); 10. Collins and Dechtiar 1974 (Ont); 11. Hare and Frantsi 1974 (NS); 12. Leong and Holmes 1974a (Alta); 13. Stewart-Hay (1951, 1952 MS) cited in Lubinsky 1976 (Man)

Pomphorhynchus rocci Cordonnier and Ward, 1967 (FW)

Location: [intestine]

Host: Ambloplites rupestris

Dist.: Ont

Record: Dechtiar 1972b

Pomphorhynchus sp. (FW)

Location: digestive tract Hosts: Carassius auratus (1)²¹⁷ Catostomus commersoni (2)

²¹⁷Bangham and Hunter (1939) recorded Pomphorhynchus sp. from these hosts only in their host-parasite list.

Ictalurus punctatus (1)²¹⁷ 2. 1937d (Pac); 3. Ekbaum 1938 (Pac); 4. Stizostedion vitreum vitreum (2) Margolis 1958d (Pac) Dist.: Man, Ont Records: 1. Bangham and Hunter 1939 (Ont); Corynosoma villosum Van Cleave, 1953 2. Stewart-Hay (1951, 1952 MS) cited in (iuvenile) (M) Lubinsky 1976 (Man) Location: mésenteries Hosts: Oncorhynchus nerka (1) Sebastes alutus (2) Family RHADINORHYNCHIDAE Dist.: Pac Records: 1. Margolis 1958d; 2. Sekerak and Rhadinorhynchus cololabis Laurs and Arai 1973 McCauley, 1964 (M) Location: intestine Corynosoma spp. juvenile Host: Cololabis saira Location: body cavity, intestine, mesenteries Dist.: Pac Hosts: Cymatogaster aggregata (2,3) Record: Hughes 1973 Glyptocephalus cynoglossus (1) Hippoglossoides platessoides (1) Rhadinorhynchus trachuri Harada, 1935 (M) Hippoglossus hippoglossus (1) Syn.: Nipporhynchus trachuri (Harada, 1935) Leptocottus armatus (2,3) Nipporhynchus sp. of Margolis, 1956, Limanda ferruginea (1) 1957 Myoxocephalus polyacanthocephalus Location: intestine, stomach Hosts: Oncorhynchus gorbuscha (1) Oncorhynchus kisutch (3) O. nerka (1,2,3) Pseudopleuronectes americanus (1) Dist.: Pac, BC-b Sebastes aleutianus (4) Records: 1. Margolis 1956b (BC-b), 2. 1957 S. alutus (4) (Pac, BC-b), 3. 1963 (Pac) S. borealis (4) S. brevispinis (4) S. caurinus (4) Superfamily POLYMORPHOIDEA S. elongatus (4) S. helvomaculatus (4) Family POLYMORPHIDAE S. maliger (4) S. ruberrimus (4) Bolbosoma caenoforme (Heitz, 1920) Meyer, Dist.: Atl, Pac 1933 (juvenile) (M)Records: 1. Ronald 1963 (Atl); 2. Arai 1967a Syn.: Bolbosoma sp. of Margolis, 1956, 1957 (Pac), 3. 1969b (Pac); 4. Sekerak and Arai Location: intestine 1977 (Pac) Hosts: Oncorhynchus gorbuscha (1,2) O. nerka(1,2,3)Dist.: Pac, BC-b Unidentified Acanthocephala Records: 1. Margolis 1956b (Pac, BC-b), 2. 1957 (Pac, BC-b), 3, 1963 (Pac, BC-b) (FW, M) Acanthocephala gen.spp. Remarks: The specimens reported as Bolbo-Location: intestine, stomach soma sp. by Margolis (1957) from O. nerka Hosts: Macrozoarces americanus (5) were later (Margolis 1963) identified as B. Notropis cornutus (4) caenoforme. N. heterolepis (4) Corynosoma strumosum (Rudolphi, 1802) Oncorhynchus tshawytscha (6) Lühe, 1904 (juvenile) (M) Platichthys stellatus (7) Location: encysted in liver, mesenteries, in-Salmo gairdneri (3) testinal wall S. salar (3) Hosts: Lepidopsetta bilineata (2,3) Salvelinus fontinalis (1,2,3) Melanogrammus aeglefinus (1) Dist.: Atl, Pac, Nfld, Ont, Que Oncorhynchus gorbuscha (4) Records: 1. Ricker 1932 (Ont, Que); 2. Richardson 1935 (Que); 3. Frost 1940 O. nerka (4) (Nfld); 4. Bangham 1941 (Ont); 5. Olsen Platichthys stellatus (2,3) and Merriman 1946 (Atl); 6. Godfrey 1968 Dist.: Atl. Pac Records: 1. Kuitunen-Ekbaum 1937b (Atl), (Pac); 7. Robinson et al. 1968b (Pac)

PHYLUM ANNELIDA

(FW)

CLASS HIRUDINOIDEA²¹⁸

ORDER GNATHOBDELLIDA

Family HIRUDINIDAE

Macrobdella decora (Say, 1824) Verrill,

Location: [body surface]

Hosts: Acipenser fulvescens (2)

Stizostedion vitreum vitreum (1)

Dist.: Ont, Sask

Records: 1. Moore 1922 (Sask), 2, 1924 (Ont)

Mollibdella grandis (Verrill, 1874) Richardson, 1969 (FW)

Syn.: Haemopis grandis (Verrill, 1874)

Location: [body surface] Hosts: Esox lucius (1)

Unspecified pickerel (2)

Dist.: Ont

Records: 1, Moore 1922, 2, 1936

Remarks: Some authors (see Klemm 1977) do not accept *Mollibdella* as distinct from *Haemopis*.

Percymoorensis marmorata (Say, 1824)

Richardson, 1969 (FW)

Syn.: Haemopis marmorata (Say, 1824)

Location: [body surface]

Host: Stizostedion vitreum vitreum

Dist.: Sask

Record: Moore 1922

Remarks: Some authors (see Klemm 1977) do not accept *Percymoorensis* as distinct

from Haemopis.

ORDER RHYNCHOBDELLIDA

Family GLOSSIPHONIIDAE

Actinobdella inequiannulata Moore, 1901 (FW) Syn.: Actinobdella triannulata Moore, 1924

Location: gill cavity, inner surface of oper-

culum

Hosts: Catostomus catostomus (2,4,9)

C. commersoni (1,2,3,5,6,7,8,9,10)

C. macrocheilus (4)

Unspecified fishes (9)

²¹⁸Only records in which the leeches were reported to have been taken from fishes are included. For a summary of the distribution of Canadian freshwater Hirudinoidea see Davies (1973).

Dist.: BC, Ont

Records: 1. Bangham 1941 (Ont), 2. 1955 (Ont); 3. Bangham and Venard 1946 (Ont); 4. Bangham and Adams 1954 (BC); 5. Meyer and Moore 1954 (Ont); 6. Dechtiar 1972c (Ont); 7. Molnar et al. 1974 (Ont); 8. Lester and Daniels 1976 (Ont); 9. Daniels and Freeman 1976 (Ont, unspecified locality); 10. Bower and Woo 1977a (Ont)

Remarks: Daniels and Freeman (1976) determined A. triannulata to be a synonym of

A. inequiannulata.

Actinobdella sp.

(FW)

(FW)

(M)

Location: not specified Host: Perca flavescens

Dist.: Que

Record: Worley and Bangham 1952

Placobdella montifera Moore, 1906

Location: body surface

Hosts: Lepisosteus osseus (1) Lepomis gibbosus (1)

Micropterus salmoides (2,3)

Dist.: Ont

Records: 1. Ryerson 1915; 2. Bangham 1933 (Ont?); 3. Bangham and Hunter 1939

Placobdella parasitica (Say, 1824) Moore,

cobdella parasitica (Say, 1824) Moore, 1901 (FW)

Location: [body surface] Host: Perca flavescens

Dist.: Ont

Record: Ryerson 1915

Family PISCICOLIDAE

Calliobdella nodulifera (Malm, 1863)

Johansson, 1898

Location: [body surface, fins, mouth]

Host: Squalus acanthias

Dist.: Atl

Record: Threlfall 1969

Remarks: Sawyer et al. (1975) considered *C. nodulifera* of Threlfall, 1969 to be a synonym of *C. vivida* (Verrill, 1872).

Cystobranchus mammillatus (Malm, 1863)

Johansson, 1896 (FW)

Location: inner surface of operculum

Host: Lota lota
Dist.: NWT

Record: Meyer and Roberts 1977

(FW) Location: fins, body surface, gill cavity Cystobranchus verrilli Meyer, 1940 Hosts: Myoxocephalus octodecemspinosus Location: opercular region Host: Lota lota M. scorpius (1,2,3,4,5,6) Dist.: Ont Record: Meyer and Moore 1954 Dist.: Atl Records: 1. Richardson 1970; 2. So 1972; 3. Mace and Davis 1972; 4. Sawyer et al. 1975; (FW) Illinobdella alba Meyer, 1940 5. Khan and Meyer 1976; 6. Khan and Location: [body surface] Cowan 1976 Hosts: Micropterus dolomieui (1) Perca flavescens (1,2) Dist.: Ont Malmiana diminuta Burreson, 1977 (M) Location: fins, body surface Records: 1. Meyer and Moore 1954; 2. Bangham 1955 Hosts: Enophrys bison Remarks: Sawyer et al. (1975) considered Hippoglossus stenolepis Myoxocephalus polyacanthocephalus Illinobdella a synonym of Myzobdella and regarded I. alba a synonym of Myzobdella Ophiodon elongatus lugubris Leidy, 1851. Sebastes sp. Dist.: B.C. aquarium Record: Burreson 1977 (FW) Illinobdella elongata Meyer, 1940 Location: [body surface] Host: Micropterus dolomieui Malmiana scorpii (Malm, 1863) Strand, Dist.: Ont (M) Record: Meyer and Moore 1954 Syn.: Abranchus scorpii Malm, 1863 Location: body surface Remarks: Sawyer et al. (1975) considered I. elongata a synonym of Myzobdella lugubris. Hosts: Myoxocephalus octodecemspinosus (2,3)M. scorpius (1,2,3)(FW) Illinobdella spp. Dist.: Atl, W Arc Location: fins Records: 1. Moore 1921 (W Arc); 2. Khan and Hosts: *Esox lucius* (7) Meyer 1976 (Atl); 3. Khan and Cowan 1976 Etheostoma exile (2) (Atl) E. nigrum (2)Micropterus dolomieui (2) Perca flavescens (1,3,4,7,8) Myzobdella moorei (Meyer, 1940) Meyer and (FW) Moore, 1954 Percopsis omiscomaycus (6) Syn.: Illinobdella moorei Meyer, 1940 Ptychocheilus oregonensis (5) Salmo gairdneri (5) Location: fins Dist.: BC, Ont, Que Hosts: Ambloplites rupestris (3) Ictalurus nebulosus (2) Records: 1. Bangham 1941 (Ont), 2. 1955 (Ont); 3. Bangham and Venard 1946 (Ont); 1. punctatus (5) Lepomis gibbosus (2) 4. Worley and Bangham 1952 (Que); 5. Perca flavescens (2,3) Bangham and Adams 1954 (BC); 6. Dechtiar 1972b (Ont), 7. 1972c (Ont); 8. Tedla Stizostedion canadense (6) S. vitreum vitreum (4,5,6) and Fernando 1972 (Ont) Dist.: Alta, Ont, Sask Records: 1. Meyer 1946 (Ont, Sask)²²⁰; 2. (M) Johanssonia sp. Meyer and Moore 1954 (Ont); 3. Bangham Syn.: Myzobdella sp. of Khan, 1974 1955 (Ont); 4. Moore 1964 (Alta); 5. Dech-Location: not specified tiar 1972b (Ont), 6. 1972c (Ont) Host: Gadus morhua Remarks: Sawyer et al. (1975) considered M. Dist.: Atl moorei a synonym of M. lugubris. Records: Khan 1974, 1976 Remarks: Khan (1976) referred Myzobdella sp. of Khan, 1974 to Johanssonia sp.

(M)

Malmiana brunnea (Johansson, 1896) Strand,

Syn.: Malmiana nuda Richardson, 1970219

1942

²¹⁹Synonymy according to Khan and Meyer (1976).

²²⁰Hosts reported by Meyer (1946) are not listed because he did not separate the Canadian and USA records by host.

| Oceanobdella microstoma (Johansson, 1896) | Stizostedion canadense (2) |
|--|---|
| Caballero, 1956 (M) | S. vitreum vitreum (3,6) |
| Location: head, mouth, gill cavity | Unspecified minnows (7) |
| Hosts: Lycodes reticulatus (1) | Dist.: BC, NB, Ont?, Que |
| Myoxocephalus octodecemspinosus | Records: 1. Ryerson 1915 (Ont); 2. Moore |
| (1,2) | 1924 (Ont), 3. 1936 (Ont); 4. Ricker 1932 |
| M. scorpius (1,2) | (Ont and/or Que); 5. Bangham 1933 |
| Dist.: Atl | (Ont?); 6. Bangham and Hunter 1939 (Ont); |
| Records: 1. Khan and Meyer 1976; 2. Khan | 7. Clemens et al. 1939 (BC); 8. Dechtiar |
| and Cowan 1976 | 1972c (Ont); 9. Hare and Burt 1975a (NB), |
| Wild Committee to | 10. 1975b (NB) |
| Oceanobdella sexoculata (Malm, 1863) | , , |
| Caballero, 1956 (M) | Piscicola salmositica Meyer, 1946 (FW) |
| Location: mouth, body surface, fins | Location: [body surface, gill cavity] |
| Host: Macrozoarces americanus | Hosts: Oncorhynchus kisutch (1,2) |
| Dist.: Atl | O. nerka (1) |
| Records: Khan and Meyer 1976; Khan and | Dist.: BC |
| Cowan 1976 | Records: 1. Becker and Katz 1965a; 2. Bell |
| 30 mai 1970 | and Margolis 1976 |
| Piscicola milneri (Verrill, 1874) Ryerson, | With Ham Both as 10 |
| 1915 (FW) | Piscicola zebra Moore, 1898 species |
| Location: body surface, fins | inquirenda ²²¹ (FW?) |
| Hosts: Catostomus commersoni (7) | Location: lips |
| Coregonus clupeaformis (3,8) | Host: Petromyzon marinus |
| Esox lucius (8) | Dist.: NS |
| Lota lota (8) | Record: Moore 1898 |
| Prosopium cylindraceum (8) | Record. Moore 1898 |
| Salvelinus namaycush (1,4,5,6,8) | Piscicola spp. (FW, M) |
| | |
| Unspecified whitefish (2) Unspecified fishes (5) | Location: body surface |
| | Hosts: Perca flavescens (1,2) |
| Dist.: Alta, NWT, Ont, Que, YT | Sebastes borealis (3) |
| Records: 1. Ryerson 1915 (Ont); 2. Moore | S. caurinus (3) |
| 1924 (Ont); 3. Meyer 1946 (Ont); 4. Miller | Dist.: Pac, Ont |
| and Kennedy 1948 (NWT); 5. Moore and | Records: 1. Tedla and Fernando 1969a (Ont), |
| Meyer 1951 (NWT); 6. Meyer and Moore | 2. 1972 (Ont); 3. Sekerak and Arai 1977 |
| 1954 (Que); 7. Moore 1964 (Alta); 8. Arthur et al. 1976 (YT) | (Pac) |
| ct al. 1970 (11) | |
| Piscicola punctata (Verrill, 1871) Moore, | Unidentified Hirudinoidea |
| 1912 (FW) | |
| Location: body surface, gills | Hirudinoidea gen.spp. (FW, M) |
| Hosts: Ambloplites rupestris (1) | Location: body surface |
| A plodinotus grunniens (6) | Hosts: Myoxocephalus octodecems pinosus (2) |
| Ictalurus melas (6) | M. scorpius (2) |
| Lepomis gibbosus (6) | Oncorhynchus gorbuscha (3) |
| L. macrochirus (6) | Salvelinus fontinalis (1) |
| Lota lota (6,8) | Dist.: Atl, BC, Nfld |
| Micropterus dolomieui (5,6) | Records: 1. Sandeman and Pippy 1967 (Nfld); |
| Notropis spilopterus (6) | 2. Sekhar S. and Threlfall 1970a (Atl); 3. |
| Perca flavescens (6) | Hoskins et al. 1976 (BC) |
| Percina caprodes (6,8) | |
| Ptychocheilus oregonensis (7) | |
| Salmo salar (9,10) | 221This species was considered a species inqui- |
| Salvelinus fontinalis (4) | renda by Sawyer et al. (1975). |
| | |

PHYLUM MOLLUSCA

(FW)

CLASS PELECYPODA

ORDER EULAMELLIBRANCHIA

Family UNIONIDAE

Anodonta cataracta cataracta Say, 1817

(glochidium) (FW)

Location: [gills]

Host: Catostomus commersoni

Dist.: NS

Record: Wiles 1975a

Anodonta spp. glochidium

Location: gills

Hosts: A peltes quadracus (3)

Gasterosteus aculeatus (3)

Perca flavescens (1,2) Pungitius pungitius (3)

Dist.: NS. Ont

Records: 1. Tedla and Fernando 1969d (Ont),

2. 1972 (Ont); 3. Wiles 1975a (NS)

Anodontoides ferussacianus Lea, 1834

(FW) (glochidium)

Location: gills

Host: Petromyzon marinus

Dist.: Ont

Record: Wilson and Ronald 1967

Elliptio complanata (Lightfoot, 1786)

Rafinesque, 1819 (glochidium) (FW)

Location: gills

Hosts: Fundulus diaphanus (5,6)

Perca flavescens (1,2,3,4)

Dist.: NS, Ont

Records: 1. Tedla and Fernando 1969a (Ont), 2. 1969d (Ont), 3. 1970a (Ont), 4. 1972

(Ont); 5. Wiles 1975a (NS), 6. 1975b (NS)

Lampsilis radiata (Gmelin, 1791)

(glochidium) (FW)

Includes: Lampsilis radiata siliquoidea

(Barnes, 1823)²²² Location: gills

Hosts: Ambloplites rupestris (6,7) Morone americana (3)

Perca flavescens (1,2,4,5)

Dist.: Ont

Records: 1. Tedla and Fernando 1969a, 2. 1969d, 3. 1969e, 4. 1970a, 5. 1972; 6. Hanek

and Fernando 1973b, 7. 1974

Unidentified Unionidae

(FW)

Unionidae gen.spp. glochidium

Location: fins, gills, skin

Hosts: Ambloplites rupestris (12)

A plodinotus grunniens (2)

Carpiodes cyprinus (9)

Catostomus commersoni (4,10) Coregonus clupeaformis (1)

Cottus asper (5)

C. bairdi (10)

Couesius plumbeus (5)

Cyprinus carpio (9)

Esox americanus vermiculatus (7)

Gasterosteus aculeatus (5,14)

Hybognathus hankinsoni (12)

Ictalurus nebulosus (10,12)

Lepomis gibbosus (18)

L. macrochirus (2)

Lota lota (10)

Micropterus salmoides (12)

Morone chrysops (2)

Mylocheilus caurinus (5)

Nocomis biguttatus (12)

Notemigonus crysoleucas (13)

Notropis atherinoides (9)

N. cornutus (12)

N. heterolepis (12,13) Oncorhynchus nerka (6)

Perca flavescens (3,4,8,10)

Pimephales notatus (12)

P. promelas (12)

Pomoxis nigromaculatus (2)

Ptychocheilus oregonensis (5)

Pungitius pungitius (10)

Richardsonius balteatus (5)

Salmo gairdneri (5)

S. salar (11,15,16,17)

Stizostedion canadense (2.10)

S. vitreum vitreum (4,10)

Dist.: BC, NB-b, NB, NS, Ont

Records: 1. Hart 1930 (Ont); 2. Bangham and Hunter 1939 (Ont); 3. Bangham 1941 (Ont), 4. 1955 (Ont); 5. Bangham and Adams 1954 (BC); 6. Margolis 1956b (BC); 7. Crossman 1962 (Ont); 8. Tedla and Fernando 1969a (Ont); 9. Dechtiar 1972b (Ont), 10. 1972c (Ont); 11. Hare and Frantsi 1974 (NB, NS); 12. Molnar et al. 1974 (Ont); 13. Wiles 1975a (NS); 14. Lester 1975 (BC); 15. Hare and Burt 1975a (NB), 16. 1975b (NB), 17. 1976 (NB-b, NB); 18. Cone and Anderson 1977b (Ont)

²²²Tedla and Fernando (1969a) reported the subspecies L. r. siliquoidea from P. flavescens but later (1969d) indicated that the glochidia of the two subspecies could not be distinguished.

PHYLUM ARTHROPODA

(M)

CLASS CRUSTACEA Argulus funduli Kroyer, 1863

| | Location: body surface, fins |
|---|---|
| SUBCLASS BRANCHIURA | Hosts: Fundulus heteroclitus (1,2) Menidia menidia (2) |
| ORDER ARGULOIDEA | Pseudopleuronectes americanus (1) Pungitius pungitius (1) |
| Family ARGULIDAE | Dist.: Atl Records: 1. Stock 1915; 2. Bere 1930a |
| Argulus alosae Gould, 1912 (M) | 4 4 6 14 1071 |
| Location: [body surface] | Argulus megalops Smith, 1874 (M) |
| Host: Microgadus tomcod Dist.: Atl | Syn.: Argulus megalops var. spinosus Wilson, 1944 |
| Records: Wilson 1920a (free swimming), 1924 | Location: body surface |
| Remarks: Wilson (1920a) considered the re- | Host: Pseudopleuronectes americanus |
| port of Argulus sp. from Gasterosteus sp. | Dist.: Atl |
| by Whiteaves (1901) to be referable to this | Record: Ronald 1958a |
| species and gave the host as G. biaculeatus | Argulus pugettensis Dana, 1852 (M) |
| (syn. of G . wheatlandi), | Location: [external surface] |
| 4 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Hosts: Cymatogaster aggregata (3) |
| Argulus appendiculosus Wilson, 1907 (FW) | Embiotoca lateralis (1,3) |
| Location: fins | Phanerodon furcatus (2,3) |
| Hosts: Cyprinus carpio (2) | Rhacochilus vacca (3) |
| Ictiobus cyprinellus (1) | Salmo gairdneri (1,2,3) |
| Stizostedion canadense (3) Dist.: Ont, Sask | Sebastes caurinus (3) |
| Records: 1. Johnson 1963 (Sask); 2. Dechtiar | Dist.: Pac |
| 1972b (Ont), 3. 1972c (Ont) | Records: 1. Wilson 1912; 2. Fraser 1920; 3. Bere 1930b |
| Argulus borealis Wilson, 1912 (M) | Argulus stizostethii Kellicott, 1880 (FW) |
| Location: body surface | , , |
| Hosts: Hippoglossoides elassodon (2) | Syn.: Argulus canadensis Wilson, 1916 Location: body surface, fins |
| Lepidopsetta bilineata (1,2,3) | Hosts: Acipenser fulvescens (1) |
| Sebastes caurinus (3) | Catostomus commersoni (6) |
| Dist.: Pac | Coregonus artedii (5) |
| Records: 1. Wilson 1912; 2. Fraser 1920; 3. | Coregonus sp. (1) |
| Bere 1930b | Gasterosteus aculeatus (4) |
| | Notropis hudsonius (5) |
| Argulus catostomi Dana and Herrick, 1837 (FW) | Perca flavescens (2,5) |
| Location: fins | Salmo salar (3) |
| Hosts: Catostomus commersoni (2) | Salvelinus fontinalis (2,3) |
| Etheostoma exile (2) | Stizostedion vitreum vitreum (5,6) |
| E. nigrum (2) | Unspecified stickleback (2) |
| Ictalurus melas (1) | Unspecified sucker (2) |
| Semotilus atromaculatus (3) Dist.: Ont | Dist.: Man, Nfld, NS, Ont |
| | Records: 1. Wilson 1916 (Ont), 2. 1936 (NS); |
| Records: 1. Bangham and Hunter 1939; 2. Dechtiar 1972c; 3. Molnar et al. 1974 | 3. Sandeman and Pippy 1967 (Nfld); 4. |
| Decitial 1972e, 3. Montal et al. 1974 | Threlfall 1968 (Nfld); 5. Dechtiar 1972c |
| Argulus flavascana Wilson 1016 | (Ont); 6. Stewart-Hay (1951 MS) cited in |
| Argulus flavescens Wilson, 1916 (FW) Syn.: Argulus piperatus Wilson, 1920 | Lubinsky 1976 (Man) |
| Location: free swimming | Argulus versicolor Wilson, 1902 (FW) |
| Dist.: NS | Argulus versicolor Wilson, 1902 (FW) Location: fins |
| Record: Wilson 1920a | Hosts: Percopsis omiscomaycus |
| | iiosis, i eleopsis omiscomuyens |

Stizostedion vitreum vitreum S. brevispinis (2) Dist.: Ont S. caurinus (2) Record: Dechtiar 1972c S. crameri (2) S. diploproa (2) (FW, M) S. elongatus (2) Argulus spp. Location: [external surface] S. entomelas (2) Hosts: Coregonus artedii (2) S. flavidus (2) Gasterosteus sp. (1)223 S. maliger (2) Percopsis omiscomaycus (2) S. nigrocinctus (2) Unspecified small fishes (1) S. pinniger (2) S. proriger (2) Dist.: Atl. Ont S. reedi (2) Records: 1. Whiteaves 1901 (Atl); 2. Bangham 1955 (Ont) S. ruberrimus (2) S. variegatus (2) S. zacentrus (2) SUBCLASS ENTOMOSTRACA Dist.: Pac Records: 1. Sekerak 1970; 2. Sekerak and Arai ORDER COPEPODA 1977 SUBORDER CYCLOPOIDA Sarcotaces arcticus Collett, 1874 Syn.: Copepoda gen.sp. of Liston, Peters and Family LERNAEIDAE Stern, 1960 Sarcotaces sp.auct. (FW) Location: encysted in body cavity, muscula-Lernaea cyprinacea Linnaeus, 1758 Location: [head embedded in musculature with body protruding externally Hosts: Sebastes aleutianus (6) Hosts: Carassius auratus (1) $S. \ alutus (2,3,5,6)$ S. brevispinis (6) Catostomus commersoni (2) S. ruberrimus (1,4,6) Cyprinus carpio (1) Lepomis gibbosus (1) Dist.: Pac. L. macrochirus (1) Records: 1. Kuitunen-Ekbaum 1949; 2. Liston et al. 1960: 3. Sekerak 1970: 4. Hoskins et Semotilus atromaculatus (1) Dist.: Ont al. 1976; 5. Hoskins and Hulstein 1977; 6. Sekerak and Arai 1977 Records: 1. Dechtiar 1972b; 2. Lester and Daniels 1976 SUBORDER POECILOSTOMATOIDA (FW) Lernaeidae gen.sp. Location: partially embedded in flesh Family BOMOLOCHIDAE Host: Micropterus dolomieui²²⁴ Dist.: Ont Record: Bangham and Hunter 1939 Bomolochus cuneatus Fraser, 1920 (M) Syn.: Parabomolochus cuneatus (Fraser, 1920) Location: gills Family PHYLICHTHYIDAE Hosts: Clupea harengus pallasi (1,2,4,6) Cymatogaster aggregata (1,3,4,5,6) Colobomatus kyphosus Sekerak, 1970 (M) Gasterosteus aculeatus (7) Location: cephalic sensory canals Rhacochilus vacca (7) Hosts: Sebastes aleutianus (2) Dist.: Pac S. alutus (1,2) Records: 1. Fraser 1920: 2. Vervoort 1964: S. babcocki (2) 3. Vervoort and Arai 1966; 4. Arai 1967a, S. borealis (2) 5. 1967b, 6. 1969b; 7. Kabata 1971 ²²³Wilson (1920a) considered the report of Bomolochus spp. (M) Argulus sp. from Gasterosteus sp. by Whiteaves

(1901) to be referable to A. alosae and gave the

host as *G. blaculeatus* (syn. of *G. wheatlandi*).

224This record is found only in the host-parasite

list of Bangham and Hunter (1939).

Location: not specified

Hosts: Cymatogaster aggregata

Embiotoca lateralis

Oncorhynchus tshawytscha

131

Parophrys vetulus and Umnova 1977 Phanerodon furcatus Remarks: As A. cornuta is not known to Platichthys stellatus occur on the Pacific coast, the report of this Dist.: Pac species (as C. depressus) from Hexagram-Record: Bere 1930b mos stelleri and an unspecified flounder (as Remarks: Without accompanying description "Flounder (?)") from this locality by Bere the material from Parophrys vetulus and (1930b) is considered to be a misidentifica-Platichthys stellatus was named Bomolotion (Z. Kabata personal communication). chus longisetus, and that from the other hosts, B. varians by Bere (1930b). The Acanthochondria deltoidea (Fraser, 1920) Ho, identity of this material remains unknown. 1970 (M)Syn.: Chondracanthus deltoideus Fraser, 1920 Holobomolochus occultus Kabata, 1971 Location: gill cavity (M) Location: gills, gill cavity Hosts: *Hexagrammos decagrammus* (1,2) Hosts: Hippoglossoides elassodon H. stelleri (2) Lyopsetta exilis Sebastes melanops (2) Dist.: Pac Dist.: Pac Record: Kabata 1971 Records: 1. Fraser 1920; 2. Bere 1930b Holobomolochus spinulus (Cressey, 1969) Acanthochondria holocephalarum Kabata, Kabata, 1971 (M) 1968 (M) Location: claspers Location: gills Hosts: Leptocottus armatus Host: Hydrolagus colliei Oligocottus maculosus Dist.: Pac Dist.: Pac Record: Kabata 1968 Record: Kabata 1971 Acanthochondria rectangularis (Fraser, 1920) Holobomolochus venustus Kabata, 1971 (M) Markevich, 1956 (M) Syn.: Chondracanthus rectangularis Fraser, Location: nasal cavities Hosts: Scorpaenichthys marmoratus (1) 1920 Sebastes caurinus (1,2) Location: gills S. elongatus (2) Hosts: Hydrolagus colliei (2) S. maliger (2) Parophrys vetulus (2) S. pinniger (2) Platichthys stellatus (1) S. ruberrimus (2) Pleuronichthys coenosus (2) Dist.: Pac Dist.: Pac Records: 1. Kabata 1971; 2. Sekerak and Arai Records: 1. Fraser 1920; 2. Bere 1930b 1977 Acanthochondrites annulatus (Olsson, 1869) Oakley, 1930 Family CHONDRACANTHIDAE Syn.: Chondracanthus inflatus Bainbridge, 1909 Acanthochondria cornuta (O. F. Müller, 1776) Location: gills Oakley, 1930 Host: Raja laevis Syn.: Chondracanthus cornutus (O. F. Müller, Dist.: Atl Record: Bere 1930a Chondracanthus depressus T. Scott, Chondracanthus cottunculi Rathbun, 1886 (M) Acanthochondria flurae (Krøyer, 1863) Location: gills Location: gill cavity Host: Cottunculus microps Hosts: Glyptocephalus cynoglossus (5) Dist.: Atl Hippoglossoides platessoides (3,4) Record: Tremblay and Lapointe 1938 Pseudopleuronectes americanus (1,3) Unspecified flounder (2) Chondracanthus gracilis Fraser, 1920 (M) Dist.: Atl Location: gill cavity Records: 1. Stock 1915; 2. Wilson 1920b; 3. Hosts: Hexagrammos decagrammus (2) Bere 1930a; 4. Ronald 1958a; 5. Gaevskaya Scorpaenichthys marmoratus (1,2,3)

| Dist.: Pac | S. diploproa (6) |
|---|---|
| Records: 1. Fraser 1920; 2. Bere 1930b; 3. | S. entomelas (6) |
| Kabata 1968 | S. flavidus (6) |
| | S. maliger (6) |
| Chondracanthus irregularis Fraser, 1920 (M) | S. melanops (3) |
| Location: gills, gill cavity | S. pinniger (2,6) |
| Hosts: Enophrys bison (1) | S. proriger (6) |
| Myoxocephalus polyacanthocephalus | S. reedi (6) |
| (2,3,4) | S. ruberrimus (6) |
| Dist.: Pac | S. zacentrus (6) |
| Records: 1. Fraser 1920; 2. Arai 1967a, 3. | Xiphister atropurpureus (2) |
| 1969b; 4. Kabata 1968 | Dist.: Pac |
| 19090, 4. Kabata 1900 | Records: 1. Wilson 1912; 2. Fraser 1920; 3. |
| CI I I I I I I I I I I I I I I I I I I | Bere 1930b; 4. Kabata 1968; 5. Sekerak |
| Chondracanthus merlucci (Holten, 1802) | 1970; 6. Sekerak and Arai 1977 |
| Krøyer, 1837 (M) | |
| Location: [gills, gill cavity] | Chondracanthus pusillus Kabata, 1968 (M) |
| Host: Merluccius bilinearis | |
| Dist.: Atl | Location: gills, gill cavity |
| Record: Stock 1915 | Host: Apodichthys flavidus Dist.: Pac |
| | |
| Chondracanthus narium Kabata, 1969 (M) | Records: Kabata 1968; Arai 1969b |
| Location: nasal cavities | |
| Host: Ophiodon elongatus | Chondracanthus triventricosus Sekerak, |
| Dist.: Pac | 1970 (M) |
| Record: Kabata 1969e | Location: nasal cavities |
| | Hosts: Sebastes aleutianus (2) |
| Chondracanthus nodosus O. F. Müller, 1776 (M) | S. alutus (1,2) |
| Syn.: Chondracanthopsis nodosus (O. F. | S. babcocki (2) |
| Müller, 1776) | S. brevispinis (2) |
| Location: gills | S. caurinus (2) |
| Hosts: Sebastes marinus (1,2,3) | S. crameri (2) |
| S. mentella (1,2) | S. diploproa (2) |
| Dist.: Atl | S. flavidus (2) |
| Records: 1. Yanulov 1962; 2. Templeman | S. helvomaculatus (2) |
| 1967a; 3. Gaevskaya and Umnova 1977 | S. maliger (2) |
| | S. proriger (2) |
| Chondracanthus palpifer Wilson, 1912 (M) | S. reedi (2) |
| Location: gill cavity | S. ruberrimus (2) |
| Hosts: Gadus macrocephalus (1,2) | S. variegatus (2) |
| Merluccius productus (3) | S. zacentrus (2) |
| Dist.: Pac | Dist: Pac |
| Records: 1. Wilson 1912; 2. Fraser 1920; 3. | Records: 1. Sekerak 1970; 2. Sekerak and Arai |
| Bere 1930b | 1977 |
| | Chondracanthus sp. (M) |
| Chondracanthus pinguis Wilson, 1912 (M) | -, |
| Location: gill cavity | Location: not specified Host: Unspecified sea perch |
| Hosts: Hexagrammos decagrammus (2,3) | Dist.: Atl |
| Scorpaenichthys marmoratus (2,3) | Record: Stock 1915 |
| Sebastes aleutianus (6) | Record: Slock 1913 |
| S. alutus (4,5,6) | DI II (O TE MUIII (MICO II |
| S. auriculatus (1) | Diocus gobinus (O. F. Müller, 1776) Krøyer, |
| S. babcocki (6) | 1864 (M) |
| S. borealis (6) | Location: fins |
| S. brevispinis (6) | Host: Gymnocanthus tricuspis |
| S. caurinus (3,6) | Dist.: Atl |
| S. crameri (6) | Record: Préfontaine and Brunel 1962 |

Family ERGASILIDAE

Ergasilus auritus Markevich, 1940 (FW, M) Syn.: Markewitschia aurita (Markevich, 1940) Location: gills, body surface, fins Hosts: Gasterosteus aculeatus (1,2,3,4,5,6,7, 10) Oncorhynchus kisutch (9) O. nerka (2) Salvelinus fontinalis (8) Unspecified Salmonidae (9) Dist.: Pac, Alta, BC-b, BC, Lab-b, Lab, Nfld, Que Records: 1. Markevich 1940 (BC-b); 2. Roberts 1963 (BC-b, BC), 3. 1970 (Pac); 4. Arai 1967a (Pac), 5. 1969b (Pac); 6. Hanek and Threlfall 1970a (Nfld), 7, 1970e (Lab-b, Lab, Nfld); 8. Hanek and Molnar 1974 (Que); 9. Leong and Holmes 1974a (Alta); 10. Lester 1975 (Pac) Remarks: Yamaguti (1963b) created the genus Markewitschia to contain this species. No Canadian records have been made under this name. Ergasilus caeruleus Wilson, 1911 (FW) Location: gills Hosts: Acrocheilus alutaceus (5) Ambloplites rupestris (3,10,13,14,16) Anguilla rostrata (9) Carpiodes cyprinus (9) Catostomus catostomus (2,8,10) C. commersoni (2,3,8,10,11) Coregonus artedii (2) C. clupeaformis (4,11) Cyprinus carpio (9) Esox masquinongy (9) Lepomis gibbosus (3,7,15) *Lota lota* (2,4,5) Micropterus dolomieui (3,5,10) Moxostoma anisurum (10) M. erythrurum (10) Notropis cornutus (4) Oncorhynchus nerka (11) Perca flavescens (3,10,11) Percina caprodes (10) Percopsis omiscomaycus (3,9,11) Petromyzon marinus (6) Pomoxis annularis (9) P. nigromaculatus (10) Prosopium cylindraceum (4) Salvelinus fontinalis × S. namaycush (11)Semotilus atromaculatus (12) S. corporalis (4)

Stizostedion canadense (1,10)

Dist.: BC, Lab, Ont Records: 1. Bangham and Hunter 1939 (Ont): 2. Bangham 1941 (Ont), 3. 1955 (Ont); 4. Bangham and Venard 1946 (Ont); 5. Bangham and Adams 1954 (BC); 6. Wilson and Ronald 1967 (Ont); 7. Tedla and Fernando 1969b (Ont); 8. Threlfall and Hanek 1970a (Lab); 9. Dechtiar 1972b (Ont), 10. 1972c (Ont); 11. Collins and Dechtiar 1974 (Ont); 12. Molnar et al. 1974 (Ont); 13. Hanek and Fernando 1973b (Ont), 14, 1974 (Ont), 15. 1975 (Ont); 16. Hanek 1977 (Ont) Remarks: Due to the taxonomic confusion of E. caeruleus with other members of the genus, many erroneous reports of this species have been made. Roberts (1963) reidentified as E. nerkae n.sp. much of the material reported as E. caeruleus by Bangham and Adams (1954). The same author (1970) examined specimens identified as E. caeruleus from the collection of R. V. Bangham, reidentifying those from Stizostedion vitreum vitreum from Lake Erie, Ontario, (collection of Bangham and Hunter 1939 [?]) as E. luciopercarum and a single specimen from Catostomus catostomus from South Bay, Ontario (collection of Bangham 1955) as E. centrarchidarum. Roberts (1970) noted that E. caeruleus is apparently more host specific than published reports would indicate, as large numbers have been obtained only from centrarchids. Host records prior to Roberts (1963) should be treated with caution. Ergasilus celestis Mueller, 1936 (FW) Syn.: Ergasilus osburni Tidd and Bangham, 1945 Location: gills Hosts: Anguilla rostrata (5) Lota lota (1,2,3,4) Unspecified fishes (3) Dist.: Ont, Que Records: 1. Tidd and Bangham 1945 (Ont); 2. Bangham and Venard 1946 (Ont); 3. Roberts 1970 (Ont, reexamination of material from R. V. Bangham collection); 4. Dechtiar 1972c (Ont); 5. Hanek and Molnar 1974 (Que) Ergasilus centrarchidarum Wright, 1882 (FW)

Hosts: Ambloplites rupestris (1,3,4,5,7,9,10,

Location: gills

12)

S. vitreum glaucum (1) S. vitreum vitreum (3,10) Catostomus catostomus (5)²²⁵
Lepomis auritus (1)
L. gibbosus (1,4,11)
L. macrochirus (3)
Microgadus tomcod (2)
Micropterus dolomieui (3,4,7)
M. salmoides (3,8)
Perca flavescens (1)
Stizostedion canadense (3)
S. vitreum glaucum (6)
S. vitreum vitreum (3,7)

Dist.: Atl, Ont?, Que
Records: 1. Wright 1882 (Ont?); 2. Bere 1930a
(Atl); 3. Bangham and Hunter 1939 (Ont);
4. Tedla and Fernando 1969b (Ont); 5.
Roberts 1970 (Ont, Que); 6. Dechtiar 1972b
(Ont), 7. 1972c (Ont); 8. Molnar et al. 1974
(Ont); 9. Hanek and Fernando 1973b (Ont),
10. 1974 (Ont), 11. 1975 (Ont); 12. Hanek

1977 (Ont)

Remarks: The report of *E. centrarchidarum* from *Microgadus tomcod* by Bere (1930a) was considered by Johnson and Rogers (1973) to be a probable misidentification.

Ergasilus cyprinaceus Rogers, 1969

(FW)

Location: gills

Hosts: Pimephales notatus

P. promelas

Dist.: Ont

Record: Molnar et al. 1974

Ergasilus funduli Krøyer, 1863

(M)

Syn.: Ergasilus manicatus Wilson, 1911

Location: [gills]

Hosts: Menidia menidia

Osmerus mordax

Dist.: Atl

Record: Bere 1930a

Ergasilus lizae Krøyer, 1863

(FW)

Location: gills

Host: Fundulus diaphanus

Dist.: NS

Record: Wiles 1975b

Ergasilus luciopercarum Henderson, 1926 (FW)

Syn.: Ergasilus confusus Bere, 1931

Location: gills

Hosts: Morone americana (7)

Perca flavescens (4,5,6,8,9,10)

Prosopium cylindraceum (12)

Salvelinus fontinalis (2)

Stizostedion vitreum vitreum (1,11)²²⁶

Dist.: Lab, Nfld, Ont, Que

Records: 1. Henderson 1926 (Que); 2. Sandeman and Pippy 1967 (Nfld); 3. Davis 1969 (Nfld, free living); 4. Tedla and Fernando 1969a (Ont)²²⁷, 5. 1969b (Ont), 6. 1969d (Ont), 7. 1969e (Ont), 8. 1970a (Ont), 9. 1970c (Ont), 10. 1972 (Ont); 11. Roberts 1970 (Ont?); 12. Hicks and Threlfall 1973 (Lab)

Ergasilus nerkae Roberts, 1963

(FW)

Syn.: Ergasilus caeruleus of Bangham and Adams, 1954 (partim)

Ergasilus sp. of Bangham and Adams,

1954 (partim)

Location: gills

Hosts: Catostomus catostomus (1)

C. macrocheilus (1)

Couesius plumbeus (1)

Mylocheilus caurinus (1)

Oncorhynchus kisutch (3)

O. nerka (1)

Prosopium williamsoni (1)

Ptychocheilus oregonensis (2)

Richardsonius balteatus (1)

Salmo gairdneri (1,4)

Salvelinus namaycush (4)

Unspecified Salmonidae (3)

Dist.: Alta, BC

Records: 1. Roberts 1963 (BC), 2. 1970 (BC); 3. Leong and Holmes 1974a (Alta); 4.

Mudry and Anderson 1977 (Alta)

Remarks: Roberts (1963, 1970) reidentified material from the collection of Bangham and Adams (1954) from all hosts listed above except *P. williamsoni*, which had originally been reported as *E. caeruleus*, specimens from the latter host having been reported as *Ergasilus* sp. New material reported by Roberts (1963) included specimens from *O. nerka* and material from *P. williamsoni* from the R. V. Bangham collection.

Ergasilus turgidus Fraser, 1920

(M)

Location: gills

²²⁶The record of Roberts (1970) from this host was based on material from the collection of R. V. Bangham and was considered likely to have been reported as *E. caeruleus* by Bangham and Hunter (1939).

²²⁷Tedla and Fernando (1969a) recorded *E. caeruleus* from *P. flavescens* in their table 1, but considered their material to be *E. confusus* (syn. of *E. luciopercarum*) in the text and footnote.

²²⁵This record is based on material reported as *E. caeruleus* by Bangham (1955) and reidentified by Roberts (1970).

Hosts: *Chitonotus pugetensis* (2) Cymatogaster aggregata (1,2,4,5,6, Gasterosteus aculeatus (3) Dist.: Pac, BC-b Records: 1. Fraser 1920 (Pac); 2. Bere 1930b (Pac); 3. Carl 1937 (BC-b); 4. Roberts 1963 (Pac), 5. 1970 (Pac); 6. Vervoort and Arai 1966 (Pac); 7. Arai 1967a (Pac), 8. 1967b (Pac), 9. 1969b (Pac) Remarks: Roberts (1963) considered it possible that the report of E. turgidus from G. aculeatus by Carl (1937) was actually a misidentification of E. auritus. Ergasilus versicolor Wilson, 1911 (FW) Syn.: Ergasilus elegans Wilson, 1916 Location: gills Hosts: Ictalurus nebulosus (2,3,4) I. punctatus (1) Noturus flavus or N. gyrinus (1)228 Dist.: Ont Records: 1. Bangham and Hunter 1939; 2. Bangham 1955; 3. Dechtiar 1972b, 4. 1972c Ergasilus spp. (FW, M) Location: gills Hosts: Ambloplites rupestris (5) Anguilla rostrata (7) Coregonus artedii (8,9) C. clupeaformis (1) Cottus asper (3) Hiodon alosoides (4) Ictalurus nebulosus (2) Lepomis gibbosus (5) Micropterus dolomieui (5)

Dist.: Alta, BC, Lab, Man, Nfld-b, Nfld?, Ont Records: 1. Bangham 1941 (Ont); 2. Bangham and Venard 1946 (Ont); 3. Bangham and

Moxostoma erythrurum (9)

Prosopium cylindraceum (1)

Notropis hudsonius (9.10)

Perca flavescens (10.11)

Pungitius pungitius (10)

Salvelinus fontinalis (6)²²⁹

Stizostedion vitreum vitreum (11)

Notropis sp. (10)

Salmo trutta (6)229

228Bangham and Hunter (1939) reported E. versicolor from Schilbeodes gyrinus (syn. of Noturus g.) in their host-parasite list but recorded only the yellow stonecat (N. flavus) as a host in their parasite—host list. It is thus impossible to determine to which host this record pertains.

229The material reported as *Ergasilus* sp. by Threlfall and Hanck (1970c) was noted to be "... likely... young forms of *E. luciopercarum*."

Adams 1954 (BC); 4. Kennedy and Sprules 1967 (Man); 5. Tedla and Fernando 1969d (Ont); 6. Threlfall and Hanek 1970c (Nfld-b and/or Nfld); 7. Hanek and Threlfall 1970c (Lab, Nfld-b); 8. Paetz and Nelson 1970 (Alta); 9. Dechtiar 1972c (Ont); 10. Stewart-Hay (1952 MS) cited in Lubinsky 1976 (Man); 11. McLeod (1943 MS) cited in Lubinsky 1976 (Man)

Remarks: Material reported as *Ergasilus* sp. from *Prosopium williamsoni* by Bangham and Adams (1954) was later identified as *E. nerkae* by Roberts (1963) and is listed under this species.

Norman, 1905 (FW, B)
Location: gill cavity, gills
Hosts: Gasterosteus aculeatus (1,2,4,6,7,8)
G. wheatlandi (2,5)
Pungitius pungitius (3)
Dist.: Atl, BC, Lab-b, Nfld-b, Nfld, Que-b
Records: 1. Threlfall 1968 (Nfld); 2. Hanek
and Threlfall 1969a (Nfld-b), 3. 1970d (Lab-b), 4. 1970e (Atl, Lab-b, Nfld-b), 5. 1971
(Nfld-b); 6. Hanek and Molnar 1974 (Que-b); 7. Lester 1975 (BC); 8. Dickinson and

Thersitina gasterostei (Pagenstecher, 1861)

SUBORDER SIPHONOSTOMATOIDA Family CALIGIDAE

Threlfall 1976 (Nfld)

Caligus clemensi Parker and Margolis, 1964 (M) Syn.: Caligus gurnardi of Fraser, 1920 and of Bere, 1930 Location: body surface Hosts: *Clupea harengus pallasi* (1,2,3,4,5) Gasterosteus aculeatus (3,6) Hexagrammos sp. (3) Hydrolagus colliei (2) Oncorhynchus gorbuscha (3) O. keta (1,3) O. kisutch (3,7) O. nerka (7) Oncorhynchus sp. (8) Salmo gairdneri (1) Sebastes caurinus (9) Sebastes sp. (1) Theragra chalcogramma (3)

Dist.: Pac

Records: 1. Fraser 1920; 2. Bere 1930b; 3.
Parker and Margolis 1964; 4. Arai 1967a,
5. 1969b; 6. Lester 1975; 7. Kennedy et al.
1976; 8. Bell and Margolis 1976; 9. Sekerak and Arai 1977

| Caugus curius O. F. Manier, 1783 (WI) | Records: 1. Fraser 1920; 2. Bere 1930b; 3 |
|--|--|
| Location: body surface | Kabata 1973 |
| Hosts: Gadus morhua (2,3,4) | |
| Melanogrammus aeglefinus (1,2,3) | Lepeophtheirus breviventris Fraser, 1920 (M) |
| Merluccius bilinearis (2) | Location: mouth |
| Microgadus tomcod (2,3) | Host: Ophiodon elongatus |
| Pollachius virens (2,3) | Dist.: Pac |
| Dist.: Atl | Records: Fraser 1920; Bere 1930b; Kabata |
| Records: 1. Brian 1914; 2. Stock 1915; 3. Bere | 1973 |
| 1930a; 4. Heller 1949 | Township to the town to the to |
| Caliana dana (a NTa dana a 1922) | Lepeophtheirus hippoglossi (Krøyer, 1837) |
| Caligus elongatus Nordmann, 1832 (M) | Baird, 1850 (M) Syn.: ?Caligus piscinus of Stimpson, 1854 |
| Syn.: Caligus rapax Edwards, 1840 auct. | Location: body surface |
| Location: body surface, fins Hosts: Clupea harengus harengus (2) | Host: Hippoglossus hippoglossus ²³⁰ |
| Conger oceanius (1) | Dist.: Atl |
| Cyclopterus lumpus (1) | Records: Stimpson 1854; Ronald 1958a, 1960a |
| Gadus morhua (1,2,5) | 10001 do. 50111/3011 105 1, 1001a1d 1750a, 1700a |
| Hippoglossus hippoglossus (3) | Lepeophtheirus hospitalis Fraser, 1920 (M) |
| Macrozoarces americanus (1) | Location: body surface |
| Melanogrammus aeglefinus (1,2) | Hosts: Gadus macrocephalus (1,2) |
| Merluccius bilinearis (1) | Lepidopsetta bilineata (2,3) |
| Microgadus tomcod (2) | Parophrys vetulus (2) |
| Pollachius virens (1,2) | Platichthys stellatus (1,2) |
| Raja laevis (2) | Pleuronichthys coenosus (1,2) |
| <i>Raja</i> sp. (1) | Dist.: Pac |
| Salmo gairdneri (4) | Records: 1. Fraser 1920; 2. Bere 1930b; 3. |
| Salvelinus fontinalis (4) | Kabata 1973 |
| Urophycis tenuis (2) | |
| Unspecified flounder (1) | Lepeophtheirus nanaimoensis Wilson, 1912 (M) |
| Dist.: Atl | Location: body surface |
| Records: 1. Stock 1915; 2. Bere 1930a; 3. | Host: Unspecified flounder |
| Tremblay and Lapointe 1938; 4. Sutterlin | Dist.: Pac |
| et al. 1976; 5. Gaevskaya and Umnova 1977 | Records: Wilson 1912; Fraser 1920 |
| Remarks: Parker (1969) erroneously attrib- | Tanas I do to a contraction Tales As |
| uted a record of C. elongatus from Menta- | Lepeophtheirus nordmanni Milne Edwards, |
| cirrus saxitilus to Bere (1930a). | 1840 (M) |
| Caliana magagnani Cugani 1051 | Location: body surface Host: <i>Mola mola</i> |
| Caligus macarovi Gussev, 1951 (M) Location: body surface | Dist.: Atl, Pac |
| Host: Cololabis saira | Records: Bere 1930b (Pac); Threlfall 1967 |
| Dist.: Pac | (Atl) |
| Record: Hughes 1973 | (1 ***) |
| 110001 41 11481105 1775 | Lepeophtheirus oblitus Kabata, 1973 (M) |
| Caligus spp. (M) | Location: body surface, gill cavity |
| Location: skin | Hosts: Hexagrammos decagrammus (1) |
| Hosts: Gadus morhua (1,2) | H. stelleri (1) |
| Merluccius productus (3) | Sebastes alutus (3) |
| Dist.: Atl, Pac | S. caurinus (2) |
| Records: 1. Stafford 1904 (Atl), 2. 1907 (Atl); | S. helvomaculatus (4) |
| 3. Lee 1975 (Pac) | S. maliger (1,2,4) |
| | Sebastes sp. (2) |
| Lepeophtheirus bifidus Fraser, 1920 (M) | Dist.: Pac |
| Location: body surface | |
| Hosts: Lepidopsetta bilineata (1,2,3) | 230Stimpson's (1854) record of C. piscinus (a com- |
| Parophrys vetulus (2) | posite species) is likely referable to L. hippoglossi, |
| Dist.: Pac | the common caligid found on this host. |

Records: 1. Bere 1930b; 2. Kabata 1973; 3. Lee 1975; 4. Sekerak and Arai 1977 Remarks: Kabata (1973) considered the manuscript name L. uncus used by Bere (1930b) to be referable to this species. Lepeophtheirus parvicruris Fraser, 1920 (M) Location: body surface Host: Platichthys stellatus Dist.: Pac Records: Fraser 1920; Bere 1930b; Kabata 1973 Lepeophtheirus parviventris Wilson, 1905 (M) Location: body surface, fins Hosts: *Anoplopoma fimbria* (3) Enophrys bison (2) Eopsetta jordani (3) Gadus macrocephalus (1,2) Hexagrammos decagrammus (2) Lepidopsetta bilineata (1,2) Myoxocephalus polyacanthocephalus (3)Raja binoculata (2) R. rhina(3)Scorpaenichthys marmoratus (2) Sebastes pinniger (2) Xiphister atropurpureus (2) Dist.: Pac Records: 1. Wilson 1912; 2. Fraser 1920; 3. Kabata 1973 Lepeophtheirus paulus Cressey, 1969 (M) Location: [body surface, buccal cavity, gills] Hosts: Sebastes diploproa (2) S. flavidus (1) S. maliger (1) S. nigrocinctus (1,2) S. ruberrimus (1,2) Dist.: Pac Records: 1. Kabata 1973; 2. Sekerak and Arai 1977 Lepeophtheirus pravipes Wilson, 1912 (M) Location: body surface Hosts: Hippoglossus stenolepis (3) Ophiodon elongatus (1,2,3,4) Raja binoculata (4) Dist.: Pac Records: 1. Wilson 1912; 2. Fraser 1920; 3. Bere 1930b; 4. Kabata 1973 Remarks: Kabata (1973) considered it likely

that records of this parasite from hosts

other than O. elongatus are a result of

fortuitous transfer during host collection.

Lepeophtheirus salmonis (Krøyer, 1837) Verrill, 1873 (M) Syn.: Caligidae gen.sp. of Margolis, 1956²³¹ Location: body surface Hosts: Acipenser transmontanus (21)232 Ammodytes hexapterus (21) Oncorhynchus gorbuscha (5,7,13,16, 22)233 O. keta (5,7) O. kisutch (3,5,7,22,25) O. nerka (5,7,13) O. tshawytscha (5,7) Oncorhynchus sp. (23) Ophiodon elongatus (7) Salmo clarki (14) S. gairdneri (5,7,24) $Salmo\ salar\ (1,2,4,6,8,9,10,11,12,17,18,$ $19,20)^{234}$ Salvelinus fontinalis (2,8,10,11,15,24) Dist.: Atl, Pac, BC-b, Lab, NB, Nfld, NS Records: 1. Rathbun 1885 (Lab); 2. Wilson 1905 (Lab, Nfld), 3, 1912 (Pac); 4. Huntsman 1918a (NB); 5, Fraser 1920 (Pac); 6. Bere 1930a (Atl, NB), 7. 1930b (Pac); 8. White 1940a (NS), 9, 1940b (NS), 10, 1942a (Atl, NS), 11. 1942b (NS); 12. Heller 1949 (Atl); 13. Margolis 1956b (Pac, BC-b), 14. 1958b (Pac)²³⁵: 15. Préfontaine and Brunel 1962 (Atl); 16. Parker and Margolis 1964 (Pac); 17. Sandeman and Pippy 1967 (Nfld); 18. Templeman 1967b (Atl): 19. Pippy 1969 (NB); 20. Power 1969 (Que); 21. Kabata 1973 (Pac); 22. Lee 1975 (Pac); 23. Bell and Margolis 1976 (Pac); 24. Sutterlin et al. 1976 (Atl); 25. Hoskins and Hulstein 1977

Lepeophtheirus spp. (M)
Location: body surface, gills
Hosts: Ammodytes hexapterus (3,4)

Lepidopsetta bilineata (2)

(Pac)

²³¹The material reported as unidentified Caligidae by Margolis (1956b, p. 11) was subsequently identified as *L. salmonis* (Margolis unpublished data).

 232 Kabata (1973) considered the infection of A. transmontanus with this parasite to be the result of parasite transfer from aquarium held salmon.

233The hosts reported by Bere (1930b) and by Fraser (1920) were given as "... all five species of Pacific salmon."

²³⁴The record of Rathbun (1885) involved a tentative host identification.

²³⁵Margolis (1958b) also noted *L. salmonis* from all five species of Pacific salmon, collected from various unspecified localities along the North American coast.

Microgadus proximus (2) Mola mola (1) Myoxocephalus polyacanthocephalus (3,4)Parophrys vetulus (2) Platichthys stellatus (3,4)

Dist.: Pac

Records: 1. de La Martinière 1787, 1797; 2. Bere 1930b; 3. Arai 1967a, 4. 1969b Remarks: de La Martinière (1787, 1797) reported as "... un insecte de genre de Oniscus de Linné ..." a species of Lepe-

Raja binoculata (2)

ophtheirus from the gills of Mola mola (reported as Diodon), which was taken from Nootka [Nootka Sound, B.C.?] to Monterey. This material is considered probably to be either L. nordmanni Milne Edwards, 1840 or L. haustatus Shiino, 1960 (Z. Kabata personal communication). The material of Bere (1930b) was reported as Lepeophtheirus rectangularis, but its description was not given. Its identity remains unknown.

Family CECROPIDAE

(M) Cecrops latreillii Leach, 1816

Location: gills Host: Mola mola Dist.: Atl, Pac

Records: de La Martinière, 1787, 1797 (Pac);

Threlfall 1967 (Atl)

Remarks: Specimens described by de La Martinière (1787, 1797) as "... un insecte d'un genre très rapproché des Oniscus de Linné..." taken from the gills of Mola mola (reported as Diodon), which were encountered from Nootka [Nootka Sound, B.C.?] to Monterey are identifiable as C. latreillii (Z. Kabata personal communication).

Orthagoriscola wilsoni Schuurmans Stekhoven and Schuurmans Stekhoven, 1956 (M)

Location: body surface Host: Mola mola Dist.: Atl Record: Threlfall 1967

Philorthagoriscus serratus (Krøyer, 1863)

Horst, 1897 Location: body surface

Host: Mola mola Dist.: Atl

Records: Threlfall 1967; Logan and Odense

1974

Family DICHELESTHIIDAE

Anthosoma crassum (Abildgaard, 1794)

Steenstrup and Lütken, 1861 (M)

Location: [mouth, gills] Host: Unspecified shark

Dist.: Pac

Record: Bere 1930b

Family EUDACTYLINIDAE

(M)Eudactylina acanthii Scott, 1901

Location: gills

Host: Squalus acanthias

Dist.: Atl, Pac

Records: Bere 1930a (Atl), 1930b (Pac)

(M) Eudactylina corrugata Bere, 1930

Location: gills Hosts: Raja erinacea R. radiata

Dist.: Atl

Record: Bere 1930a

Nemesis robusta (van Beneden, 1851) Brian,

(M)

Location: [gills]

Host: Odontaspis taurus

Dist.: Atl

Record: Stock 1915

Family HATSCHEKIIDAE

Hatschekia hippoglossi (Krøyer, 1837) Poche, (M) 1902

Location: gills

Host: Hippoglossus hippoglossus

Dist.: Atl

Record: Ronald 1958a

Family LERNAEOPODIDAE

(FW) Achtheres ambloplitis Kellicott, 1880

Location: gills

Hosts: Ambloplites rupestris (1,2,4,5,6,7) Coregonus clupeaformis (3) Lepomis gibbosus (6)

Micropterus dolomieui (1)236

Dist.: Ont

(M)

²³⁶The report of A. ambloplitis from this host is found only in the host-parasite list of Bangham and Hunter (1939).

Records: 1. Bangham and Hunter 1939; 2. S. crameri (5) Bangham 1955; 3. Dechtiar 1972b; 4. Hanek S. diploproa (5,7) and Fernando 1973b, 5. 1974, 6. 1975; 7. S. entomelas (7) Hanek 1977 S. flavidus (5,7) S. maliger (4,5,7) Achtheres corpulentus Kellicott, 1880 (FW) S. melanops (3,5)Location: gills S. pinniger (3,5,7) Host: Coregonus clupeaformis S. proriger (5,7) Dist.: Ont S. reedi (7) Records: Bangham 1955; Dechtiar 1972c S. ruberrimus (5,7) S. rubrivinctus (5) (FW) S. zacentrus (5,7) Achtheres micropteri Wright, 1882 Dist.: Pac Location: gills, mouth Records: 1. Wilson 1912, 2. 1915; 3. Fraser Hosts: Ambloplites rupestris (4) Micropterus dolomieui (2,3) 1920; 4. Bere 1930b; 5. Kabata 1970a; 6. M. salmoides $(1,2)^{237}$ Sekerak 1970; 7. Sekerak and Arai 1977 Dist.: Ont Charopinus dubius Scott, 1900 Records: 1. Wright 1882 (Ont?); 2. Bangham (M) Syn.: ?Thomsonella parkeri of Bere, 1930 and Hunter 1939; 3. Bangham 1955; 4. Dechtiar 1972c Location: spiracles Host: Raja laevis Dist.: Atl Achtheres pimelodi Krøyer, 1863 (FW) Location: gills Record: Bere 1930a Remarks: Z. Kabata (personal communica-Hosts: Ictalurus nebulosus²³⁸ tion) considered the record of T. parkeri by I. punctatus Bere (1930a) referable to C. dubius. Dist.: Ont Record: Bangham and Hunter 1939 Clavella adunca (Strøm, 1762) Dollfus, (M) (FW) Achtheres sp. Syn.: Clavella uncinata (O. F. Müller, 1776) Location: not specified Location: gills, gill cavity, anal region Host: Prosopium williamsoni Hosts: *Gadus macrocephalus* (1,2,5) Dist.: Alta G. morhua (3,4,6,7) Record: Thompson (1974 MS) cited in Mudry Melanogrammus aeglefinus (3) and Anderson 1976 Microgadus proximus (5) Pollachius virens (3) Brachiella robusta (Wilson, 1912) Kabata, Dist.: Atl, Pac (M) Records: 1. Wilson 1912 (Pac); 2. Fraser 1920 Syn.: Clavella robusta Wilson, 1912 (Pac); 3. Bere 1930a (Atl); 4. Heller 1949 Clavellopsis robusta (Wilson, 1912) (Atl); 5. Kabata 1970a (Pac); 6. Khan 1976 Location: gills (Atl); 7. Gaevskaya and Umnova 1977 (Atl) Hosts: Sebastes aleutianus (7) S. alutus (5,6,7) Clavella insolita Wilson, 1915 (M) S. auriculatus (1,2,3) Location: fins S. aurora (5) Host: Lycodes vahlii S. babcocki (7) Dist.: Atl S. borealis (7) Record: Tremblay and Lapointe 1938 S. brevispinis (7) S. caurinus (4,5,7)Clavella parva Wilson, 1912 (M) Location: fins ²³⁷The host for the record of Wright (1882) Hosts: Artedius harringtoni (3) is questionable since he gave the common name Chitonotus pugetensis (4)

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Embiotoca lateralis (3,4)

Phanerodon furcatus (4)

Rhacochilus vacca (4)

Sebastes alutus (5,6,7)

S. auriculatus (1,2,3)

[&]quot;small-mouthed black bass" in association with the scientific name Micropterus salmoides, which is the scientific name for largemouth bass.

²³⁸The report of A. pimelodi from this host is found only in the parasite-host list of Bangham and Hunter (1939).

| S. babcocki (7) S. caurinus (4,7) S. diploproa (5) S. elongatus (7) S. flavidus (7) S. maliger (4,7) S. pinniger (7) | Lernaeopoda centroscyllii Hansen, 1923 (M) Location: [gills] Host: Centroscyllium fabricii Dist.: Atl Record: Kabata 1964 Lernaeopoda sp. (M) |
|--|--|
| Dist.: Pac Records: 1. Wilson 1912, 2. 1915; 3. Fraser 1920; 4. Bere 1930b; 5. Kabata 1970a; 6. Sekerak 1970; 7. Sekerak and Arai 1977 | Location: cloacal region Host: Raja jenseni Dist.: Atl Record: Templeman 1965 |
| Clavella perfida Wilson, 1915 (M) Location: gills Hosts: Merluccius productus (2) Theragra chalcogramma (1) Dist.: Pac Records: 1. Kabata 1970a; 2. Lee 1975 | Lernaeopodae sp. (sic) Location: not specified Host: Raja laevis Dist.: Atl Record: Stock 1915 |
| Clavella pinguis Wilson, 1915 (M) Location: fins Hosts: Lycodes atlanticus (1) L. terranovae (2) Dist.: Atl Records: 1. Wilson 1915; 2. Kabata 1969a | Lernaeopodina longibrachia (Brian, 1912) Wilson, 1915 (M) Location: eye Host: Hydrolagus affinis Dist.: Atl Record: Kabata 1969a |
| Clavella sp. (M) Syn.: Anchorella sp. Location: not specified Hosts: Gadus morhua Melanogrammus aeglefinus Pollachius virens Dist.: Atl Record: Stock 1915 | Lernaeopodina longimana (Olsson, 1869) Wilson, 1915 (M) Syn.: Lernaeopoda cluthae Scott, 1900 Location: gills Hosts: Bathyraja richardsoni (3) Raja erinacea (1) R. laevis (1) R. radiata (1,2) Dist.: Atl |
| Clavellomimus macruri (Hansen, 1923) Kabata, 1969 (M) Location: fins | Records: 1. Bere 1930a; 2. Tremblay and Lapointe 1938; 3. Templeman 1973b ²³⁹ |
| Host: Macrourus berglax Dist.: Atl Record: Kabata 1969a Dendrapta cameroni cameroni (Heller, 1949) Kabata and Gussev, 1966 (M) Syn.: Charopinus cameroni Heller, 1949 | Lernaeopodina pacifica Kabata and Gussev, 1966 (M) Location: gills Host: Raja rhina Dist.: Pac Record: Kabata 1970a |
| Location: body surface Host: <i>Raja radiata</i> Dist.: Atl Record: Heller 1949 | Nectobrachia indivisa Fraser, 1920 (M) Location: gills Hosts: Lepidopsetta bilineata (2,4) Platichthys stellatus (1,2,3) Dist.: Pac |
| Dendrapta cameroni longiclavata Kabata and Gussev, 1966 (M) Location: body surface Host: Raja inornata | Records: 1. Fraser 1920; 2. Bere 1930b; 3. Markevich 1946; 4. Kabata 1970a |
| Dist.: Pac Record: Kabata 1970a | ²³⁹ The record of Templeman (1973b) involved a tentative parasite identification. |

Neobrachiella insidiosa f. pacifica Kabata, (M)Syn.: Brachiella lageniformis of Kabata, 1970 Location: gills Host: Merluccius productus Dist.: Pac Record: Kabata 1970b Neobrachiella rostrata (Krøyer, 1837) Kabata, 1978 Syn.: Parabrachiella rostrata (Krøyer, 1837) Location: gills Host: Hippoglossus hippoglossus Dist.: Atl Record: Ronald 1958a Ommatokoita elongata (Grant, 1827) Leigh-Sharpe, 1926 (M) Syn.: Lernaeopoda elongata (Grant, 1827) Location: attached to cornea Host: Somniosus microcephalus Dist.: E Arc Record: Dunbar and Hildebrand 1952 Pseudocharopinus dentatus (Wilson, 1912) Kabata, 1964 (M) Syn.: Brachiella dentata Wilson, 1912 Charopinus dentatus (Wilson, 1912) Location: gills, gill cavity, body surface, claspers Hosts: Raja binoculata (1,2,3,4,5) R. rhina (5)Dist.: Pac Records: 1. Wilson 1912, 2. 1915; 3. Fraser 1920; 4. Bere 1930b; 5. Kabata 1970a Salmincola californiensis (Dana, 1852) Wilson, 1915 (FW) Syn.: Salmincola bicauliculata (Wilson, 1908) Salmincola carpenteri (Packard, 1874) Salmincola falculata (Wilson, 1908) Location: gills, gill cavity, body, fins Hosts: Oncorhynchus kisutch (8,9) O. nerka (2,3,4,5,6,7,10,12) Salmo clarki (3) S. gairdneri (3,11) Salvelinus malma (1,3) Dist.: W Arc, Pac, BC, NWT Records: 1. Wilson 1920b (W Arc, NWT), 2. 1924 (BC); 3. Bere 1930b (BC); 4. Adams 1956 (BC)²⁴⁰; 5. Margolis 1956b (BC), 6. 1957 (BC), 7. 1963 (BC); 8. Arai 1967a (Pac), 9. 1969b (Pac); 10. Kabata 1969d

(BC); 11. Bell and Margolis 1976 (BC); 12. Kabata and Cousins 1977 (BC)

Salmincola carpionis (Krøyer, 1837) Wilson, 1915 (FW)

Syn.: Salmincola gibber (Wilson, 1908) Salmincola salvelini Richardson, 1938

Location: gills, mouth, fins, body Hosts: Oncorhynchus nerka (3) Salvelinus alpinus (2,4,5,6) S. fontinalis (4)

S. malma (1)

Dist.: W Arc, BC, Lab or Atl, NWT, Que, YT Records: 1. Wilson 1920b (W Arc), 2. 1924 (NWT); 3. Foerster 1929 (BC); 4. Richardson 1938 (Lab or Atl, Que); 5. Kabata 1969d (NWT); 6. Mudry and McCart 1976 (YT)

Salmincola edwardsii (Olsson, 1869) Wilson, 1915 (FW)

Syn.: Salmincola exsanguinata Sandeman and Pippy, 1967

> Lernaeopoda arcturi Miers, 1877 Lernaeopoda edwardsii Olsson, 1869

Location: gills, gill cavity, fins, body

Hosts: ?Salmo clarki (9) ?S. gairdneri (9)

Salvelinus alpinus (1,12,15)

S. fontinalis (2,3,4,5,6,7,8,10,11,12, 13,14)²⁴¹

S. malma (9,11)

S. namaycush (16)

Dist.: BC, Lab, NB, Nfld, NS, NWT or E Arc, Ont, PEI, Que, YT

Records: 1. Miers 1877 (NWT or E Arc); 2. Wright 1882 (Que?); 3. Bere 1930a (NB); 4. Ricker 1932 (Ont, Que); 5. Savage 1935a (unspecified locality); 6. Richardson 1938 (Que); 7. Frost 1940 (Nfld); 8. MacLulich 1943b (Ont); 9. Bangham and Adams 1954 (BC); 10. Sandeman and Pippy 1967 (Nfld); 11. Kabata 1969d (BC, Nfld, Ont); 12. Hicks and Threlfall 1973 (Lab); 13. Hanek and Molnar 1974 (Que); 14. Hare and Frantsi 1974 (NS, PEI); 15. Mudry and McCart 1976 (YT); 16. Arthur et al. 1976 (YT)

Remarks: According to Z. Kabata (personal communication) there are no authenticated records of S. edwardsii from members of the genus Salmo.

²⁴⁰The record of Adams (1956) is a tentative parasite identification of a specimen found in an unusual location (attached to the heart).

²⁴¹Copepods reported by Ricker (1932) were considered to be "... Salmincola edwardsii in all probability ..." Those reported by Frost (1940) were noted to be "... probably of the species Salmincola edwardsii."

Salmincola extensus (Kessler, 1868) Kabata, Kennedy 1948 (NWT); 4. Rawson 1951 (FW) (NWT), 5. 1961 (Sask); 6. Kabata 1969d Syn.: Salmincola wisconsinensis Tidd and (Ont, Que); 7. Dechtiar 1972c (Ont) Bangham, 1945 Achtheres coregoni Baumann, 1911 Salmincola thymalli (Kessler, 1868) Wilson, Location: body, fins 1915 (FW) Hosts: Coregonus artedii (3) Location: gills *C. clupeaformis* (1,4,5,6) Hosts: Prosopium cylindraceum (4) C. hoyi (3) Prosopium sp. (3) Prosopium cylindraceum (3) Thymallus arcticus (1,2,3,5) P. williamsoni (2) Dist.: Lab, NWT, YT Dist.: Alta, BC, Lab, Ont, YT Records: 1. Miller 1946a (NWT); 2. Rawson Records: 1. Hart 1931 (Ont); 2. Bangham and 1951 (NWT); 3. Kabata 1969d (NWT)²⁴³; Adams 1954 (BC); 3. Bangham 1955 (Ont); 4. Hicks and Threlfall 1973 (Lab); 5. Arthur 4. Hicks and Threlfall 1973 (Lab); 5. Leong et al. 1976 (YT) and Holmes 1974a (Alta); 6. Arthur et al. 1976 (YT) Salmincola spp. (FW) Location: body, gills, fins Salmincola extumescens (Gadd, 1901) Wilson, Hosts: Cottus asper (1) (FW) Oncorhynchus gorbuscha (6) Syn.: Salmincola inermis (Wilson, 1911) O. nerka (1,6) Location: gills, gill cavity Prosopium cylindraceum (2) Hosts: Coregonus artedii (2,4,5) P. williamsoni (1) C. clupeaformis (1,3,6) Salvelinus fontinalis (4) C. hoyi (2) S. namaycush (1.5) C. kiyi (2) Stenodus leucichthys (3) C. reighardi (2) Dist.: BC, Man, NWT, Ont, Que Coregonus sp. (5) Records: 1. Bangham and Adams 1954 (BC); Dist.: Alta, NWT, Ont, Que 2. Bangham 1955 (Ont); 3. Fuller 1955 Records: 1. Hart 1931 (Ont); 2. Pritchard (NWT); 4. Hanek and Molnar 1974 (Que); 1931 (Ont); 3. Rawson 1951 (NWT); 4. 5. Stewart-Hay (1953 MS) cited in Lubinsky Bangham 1955 (Ont); 5. Kabata 1969d 1976 (Man); 6. Hoskins and Hulstein 1977 (NWT, Ont, Que); 6. Leong and Holmes (BC) 1974a (Alta) Schistobrachia ramosa (Krøyer, 1863) Kabata, Salmincola salmoneus (Linnaeus, 1761) (M) (FW) Wilson, 1915 Syn.: Charopinus ramosus Krøyer, 1863 Location: gills, gill cavity Location: gills Host: Salmo salar Host: Raja radiata Dist.: Atl, Lab, NB, Nfld, NS, Que Dist.: Atl Records: Bere 1930a (NB); Sandeman and Records: Tremblay and Lapointe 1938; Threl-Pippy 1967 (Nfld); Pippy 1969 (Lab, NB, fall 1969 Nfld, NS, Que); Power 1969 (Que); Kabata 1969d (Atl, NB) (M)Schistobrachia tertia Kabata, 1970 Location: gills, buccal cavity Salmincola siscowet (Smith, 1874) Wilson, Hosts: Raja binoculata (FW) Location: gills, body, fins R. rhina Dist.: Pac Hosts: Salvelinus malma (1) S. namaycush $(1,2,3,4,5,6,7)^{242}$ Record: Kabata 1970a Dist.: W Arc?, NWT, Ont, Que, Sask

Records: 1. Wilson 1920b (W Arc?, NWT);

2. MacLulich 1943b (Ont); 3. Miller and

²⁴²The report of Miller and Kennedy (1948) involved a provisional parasite identification.

²⁴³Kabata (1969d), based on the label accompanying specimens from *Prosopium* sp. and *T. arcticus*, listed the locality as Nuetlin Lake, Alaska. The correct locality of this lake is in the Keewatin District, NWT.

| Family NAOBRANCHIIDAE | Haemobaphes diceraus Wilson, 1917 (M) Location: gills |
|--|---|
| Naobranchia occidentalis Wilson, 1915 (M) | Hosts: Cymatogaster aggregata (1,2,3,4) |
| Location: gills | Thaleichthys pacificus (5) |
| Hosts: Lepidopsetta bilineata (1) | Unspecified bass (5) |
| Myoxocephalus polyacanthocephalus | Dist.: Pac |
| (2,3) | Records: 1. Vervoort and Arai 1966 ²⁴⁴ , 2. |
| Parophrys vetulus (1) | Arai 1967b, 3. 1969b; 4. Kabata 1967b; 5. |
| Sebastes aleutianus (4) | Hoskins et al. 1976 |
| S. alutus (4) | |
| S. borealis (4) | Haamahanhan intanmadiya Vahata 1067 (M) |
| S. caurinus (1,4) | Haemobaphes intermedius Kabata, 1967 (M) Syn.: Haemobaphes cyclopterina (Fabricius, |
| S. diploproa (4) | 1780) auct. ²⁴⁵ |
| S. maliger (1,4) | Location: gills |
| S. nigrocinctus (4) | Hosts: Artedius harringtoni (4) |
| S. paucispinis (4) | Oligocottus maculosus (1,2,4,5) |
| S. pinniger (4) | Unspecified smelt (3) |
| S. proriger (4) | Dist.: Pac |
| Dist.: Pac | Records: 1. Wilson 1912; 2. Fraser 1920; 3. |
| Records: 1. Bere 1930b; 2. Arai 1967a, 3. 1969b; 4. Sekerak and Arai 1977 | Bere 1930b; 4. Kabata 1967b; 5. Arai 1969b |
| | Haemobaphes theragrae Yamaguti, 1939 (M) |
| Family PANDARIDAE | Location: gills |
| Estations of the transfer (Co. 1 in 1927) | Hosts: Sebastes alutus |
| Echthrogaleus coleoptratus (Guérin, 1837) | S. zacentrus |
| Steenstrup and Lütken, 1861 (M) Location: [body surface, fins] | Dist.: Pac |
| Hosts: Lamna nasus (2) | Record: Sekerak and Arai 1977 |
| Unspecified shark (1) | |
| Dist.: Pac | Haemobaphes spp. (M) |
| Records: 1. Fraser 1920; 2. Bere 1930b | Location: gills |
| | Hosts: Agonus acipenserinus (1,2,3) |
| Pandarus sinuatus Say, 1871 (M) | Ammodytes hexapterus (3) |
| Location: [fins, body surface] | Blepsias cirrhosus (1,2,3) |
| Host: Odontaspis taurus | Hexagrammos decagrammus (2) |
| Dist.: Atl | Lepidopsetta bilineata (1,2) |
| Record: Stock 1915 | Oligocottus maculosus (1,2,3) |
| | Syngnathus griseolineatus (2,3) |
| Family PENNELLIDAE | Triglops pingeli (2) |
| | Dist.: Pac |
| Haemobaphes cyclopterina (Fabricius, 1780) | Records: 1. Arai 1967a, 2. 1969b; 3. Kabata |
| Steenstrup and Lütken, 1861 (M) | 1967b |
| Location: gills | |
| Hosts: Artediellus uncinatus (4) | Lernaeocera branchialis (Linnaeus, 1767) |
| Lumpenus $lumpretae formis$ (5) | Wilson, 1917 (M) |
| Lycenchelys verrilli (1,2) | Syn.: Lernaea branchialis Linnaeus, 1767 |
| Lycodes vahlii (4) | Lernaea branchialis var. sigmoidea |
| Myoxocephalus scorpioides (3) | Steenstrup and Lütken, 1861 |
| Dist.: Atl, E Arc | |
| Records: 1. Rathbun 1885 (Atl); 2. Wilson 1917 (Atl), 3. 1920b (E Arc); 4. Préfontaine | 244This parasite was reported by Vervoort and |
| and Brunel 1962 (Atl); 5. Gooding and | Arai (1966) as an unidentified lernacid copepod. |
| Humes 1963 (Atl) | ²⁴⁵ Kabata (1967b) reexamined specimens re- |
| Departer Decords of U suclentaring from | ported as H. cyclopterina by Wilson (1912) and |

Remarks: Records of H. cyclopterina from

intermedius following Kabata (1967b).

the Canadian Pacific are referred to H.

²⁴⁵Kabata (1967b) reexamined specimens reported as *H. cyclopterina* by Wilson (1912) and concluded that the presence of this species in the North Pacific was not proved and referred previous records from this area to H. intermedius.

Location: gills Hosts: Cyclopterus lumpus (9,10,11)²⁴⁶ *Gadus morhua* (6,7,8,10,11,12) G. ogac (10,11) Hippoglossoides platessoides (11) M voxocephalus sp. $(11)^{247}$ Unspecified cod (1,2,3)248, 249 Unspecified fish (4,5) Dist.: Atl Records: 1. Stimpson 1854; 2. Packard 1867 (not seen, cited in Smith 1883b); 3. Verrill 1873 (repeated in Verrill and Smith 1874); 4. Smith 1883a, 5. 1883b; 6. Stock 1915; 7. Bere 1930a; 8. Heller 1949; 9. Kabata 1961; 10. Templeman and Fleming 1963; 11. Templeman et al. 1976; 12. Khan 1976 Peniculus asinus Kabata and Wilkes, 1978 (M)

Peniculus asinus Kabata and Wilkes, 1978 (M) Syn.: Peniculus sp. of Sekerak and Arai, 1977

Location: fins

Hosts: Sebastes alutus (1)

S. babcocki (1)

S. brevispinis (1,2)

S. crameri (1)

S. flavidus (2)

S. proriger (1,2)

S. reedi (1)

Dist.: Pac

Records: 1. Sekerak and Arai 1977; 2. Kabata and Wilkes 1978

Peniculus clavatus (O. F. Müller, 1779)

Nordmann, 1832 (M)

Location: fins

Hosts: Sebastes marinus (4)

S. mentella (3)

Triglops pingeli (1,2)

Dist.: Atl

Records: 1. Tremblay and Lapointe 1938; 2. Préfontaine and Brunel 1962; 3. Yanulov 1962; 4. Gaevskaya and Umnova 1977

Pennella fllosa (Linnaeus, 1758) Oken,

816 (M)

Syn.: Pennella orthagorisci Wright, 1870 Location: head embedded in musculature with body protruding externally

 246 Only larval *L. branchialis* have been recovered from *C. lumpus*.

²⁴⁷This host was reported as either the shorthorn sculpin (*M. scorpius*) or the longhorn sculpin (*M. octodecemspinosus*).

²⁴⁸The record of Stimpson (1854) was given as "Lernaea branchialis, (?) Lin."

²⁴⁹Smith (1883b) considered the record of Packard (1867) to be a probable parasite misidentification.

Hosts: Mola mola (1)

Xiphias gladius (2,3)

Dist.: Atl, Pac

Records: 1. de La Martinière 1787, 1797 (Pac); 2. Wilson 1917 (Atl); 3. Tibbo et al. 1961

 $(At1)^{250}$

Remarks: Specimens reported by de La Martinière as a species of "Pennatula" from the body of a "diodon" (Mola mola) taken in the vicinity of Nootka [Nootka Sound?, B.C.] are recognizable as P. filosa (Z. Kabata personal communication).

Pennella sp.

(M)

Location: head embedded in musculature with body protruding externally

Hosts: Cololabis saira (1)

Thunnus alalunga (2)

Dist.: Pac

Records: 1. Hughes 1973; 2. Hoskins et al.

1976

Phrixocephalus cincinnatus Wilson, 1908 (M)

Location: eve

Hosts: Atheresthes stomias (1,2,3)

Citharichthys sp. (1)

Dist.: Pac

Records: 1. Kabata 1967a, 2. 1969b; 3. Kabata and Forrester 1974

Family SPHYRIIDAE

Sphyrion lumpi Krøyer, 1845

(M)

Location: head embedded in musculature with

body protruding externally

Hosts: Anarhichas denticulatus (1)

A. lupus (1)

Macrourus berglax (1)

Sebastes marinus (1,3,5,6)

S. mentella (1,2,4,5)

Dist.: Atl

Records: 1. Templeman and Squires 1960; 2. Yanulov 1962; 3. Squires 1966; 4. Templeman 1967a, 5. 1973a; 6. Gaevskaya and Umnova 1977

Family TANYPLEURIDAE

Tanypleurus alcicornis Steenstrup and Lütken, 1861 (M)

Location: gills

²⁵⁰This parasite was reported by Tibbo et al. (1961) as "... a copepod belonging to the family Pennellidae, probably *Pennella filosa*."

Hosts: Lycodes lavalaei (2) L. reticulatus (1)

Dist.: Atl

Records: 1. Kabata 1969c; 2. Khan and Pitt

1974

Unidentified Copepoda

Copepoda gen.spp.

(FW)

Includes: "fish lice"

Location: gills, fins, mouth

Hosts: Gasterosteus aculeatus (4) Salmo gairdneri (2)

Saimo gairaneri (2) Salvelinus alpinus (3)

Stizostedion vitreum vitreum (1)

Dist.: BC, E Arc, Nfld, Ont

Records: 1. Moore 1936 (Ont); 2. Frost 1940 (Nfld); 3. Dunbar and Hildebrand 1952 (E Arc); 4. Bangham and Adams 1954 (BC)

Remarks: In their host-parasite list Bangham and Adams (1954) listed unidentified copepods from the gills of *G. aculeatus*. However, in their parasite-host list this material was apparently reported as *Salmincola* sp.

SUBCLASS MALACOSTRACA ORDER ISOPODA SUBORDER FLABELLIFERA

Family AEGIDAE

Rocinela belliceps (Stimpson, 1864)

Richardson, 1899 (M)

Location: gill cavity
Host: Sebastes maliger

Dist.: Pac

Record: Fee 1926

Rocinela propodialis Richardson, 1905 (M)

Location: gill cavity

Host: Hippoglossus stenolepis

Dist.: Pac

Record: Fee 1926

Family CYMOTHOIDAE

Lironeca californica Schioedte and

Meinert, 1884

•

Location: gill cavity

Host.: Cymatogaster aggregata

Dist.: Pac

Records: Fee 1926; Arai 1967b, 1969b

CLASS ARACHNOIDEA ORDER ACARINA SUBORDER TROMBIDIFORMES Family HYDRACHNIDAE

Hydrachna spp. larva

(FW)

(M)

Location: gills

Hosts: Alosa pseudoharengus (2) Oncorhynchus nerka (2) Perca flavescens (1)

Salmo salar (3)

Dist.: NB, Ont

Records: 1. Tedla and Fernando 1969a (Ont); 2. Collins and Dechtiar 1974 (Ont); 3. Hare

and Frantsi 1974 (NB)

Family TRHYPOCHTHONIIDAE

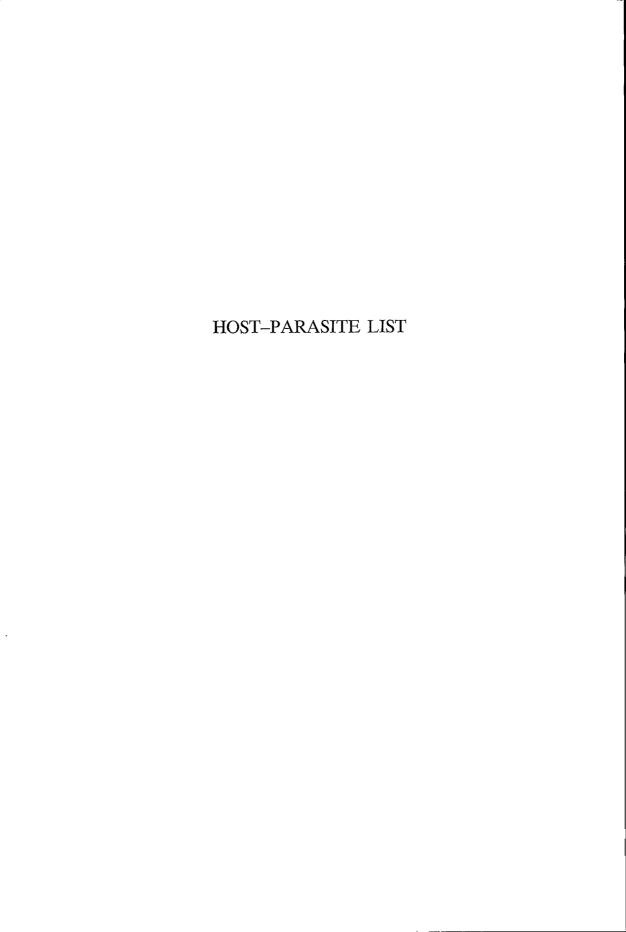
Trhypochthoniellus sp.

(FW)

Location: gills Host: Salmo salar

Dist.: NB

Record: Hare and Burt 1975a



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Host-Parasite List

CLASS AGNATHA

ORDER PETROMYZONTIFORMES

Family PETROMYZONTIDAE

Entosphenus tridentatus (Gairdner)

Pacific lamprey

Cestoidea

Phyllobothrium sp. plerocercoid (BC)

Nematoda

Eustrongylides sp. larva (BC)

Lampetra japonica (Martens) Arctic lamprey Cestoidea

Triaenophorus crassus plerocercoid (NWT)

Petromyzon marinus Linnaeus

sea lamprey

Trematoda

Diplostomulum sp. metacercaria (Ont)
Diplostomum spathaceum huronense
(Ont)

Podocotyle lepomis (Ont)

Cestoidea

Proteocephalus laruei (Ont)

Proteocephalus sp. (Ont)

Triaenophorus crassus plerocercoid (Ont)

T. crassus (Ont)

Nematoda

Truttaedacnitis stelmioides (Ont)

Acanthocephala

Metechinorhynchus salmonis (Ont)

Hirudinoidea

Piscicola zebra sp.inq (NS)

Mollusca

Anodontoides ferussacianus glochidium (Ont)

Copepoda

Ergasilus caeruleus (Ont)

CLASS CHONDRICHTHYES ORDER HEXANCHIFORMES

Family HEXANCHIDAE

Hexanchus griseus (Bonnaterre) sixgill shark Syn.: Hexanchus corinus Jordan and Gilbert Cestoidea

Grillotia heptanchi (Pac)

ORDER SQUALIFORMES

Family ODONTASPIDIDAE

Odontaspis taurus (Rafinesque)

sand tiger

Syn.: Carcharias taurus Rafinesque Carcharias littoralis (Mitchill)

Copepoda

Nemesis robusta (Atl) Pandarus sinuatus (Atl)

Family LAMNIDAE

Lamna nasus (Bonnaterre)

porbeagle

Syn.: Lamna cornubica (Gmelin)

Cestoidea

Dinobothrium sp. (Atl)

Phyllobothrium dagnallium (Atl)

Copepoda

Echthrogaleus coleoptratus (Pac)

Family CARCHARHINIDAE

Prionace glauca (Linnaeus)

blue shark

Cestoidea

Hepatoxylon squali plerocercoid (Atl)

Phyllobothrium dagnallium (Atl)

Phyllobothrium sp. (Atl)

Platybothrium parvum (Atl)

Family SQUALIDAE

Centroscyllium fabricii (Reinhart) black dogfish

Trematoda

Otodistomum cestoides (Atl)

Copepoda

Lernaeopoda centroscyllii (Atl)

Somniosus microcephalus (Block and

Schneider)

Greenland shark

Copepoda

Ommatokoita elongata (E Arc)

Squalus acanthias Linnaeus spiny dogfish Syn.: Squalus suckleyi (Girard)

Protozoa

Haemogregarina delagei (Atl)

Monogenea

Microbothrium apiculatum (Atl)

Squalonchocotyle abbreviata (Atl)

Trematoda

Derogenes varicus (Atl)

Hemiurus levinseni (Atl)***

Otodistomum veliporum (Atl)

Prosorhynchus squamatus (Atl)***

Steganoderma formosum (Atl)***

Cestoidea

Gilquinia squali (Atl, Pac)

Phyllobothrium sp. (Atl) Copepoda Scolex sp. plerocercoid (Atl) Lernaeopoda sp. (Atl) Trilocularia acanthiae-vulgaris (Atl) Nematoda Raja laevis Mitchill barndoor skate Anisakis sp. larva (Atl) Syn.: Raja stabuliforis Garman Contracaecum sp. (Atl?, Pac) Turbellaria Phocanema sp. larva (Atl) Micropharynx parasitica (Atl) Pseudanisakis tricupola (Atl)* Trematoda Thynnascaris adunca (Atl) Hemiurus levinseni (Atl)*** Hirudinoidea Otodistomum cestoides (Atl) Calliobdella nodulifera (Atl) Steganoderma formosum (Atl)*** Copepoda Cestoidea Eudactylina acanthii (Atl, Pac) Acanthobothrium coronatum (Atl) Grillotia erinaceus (Atl) Phyllobothrium dagnallium (Atl) ORDER RAJIFORMES Phyllobothrium sp. (Atl) Family RAJIDAE Nematoda Anisakis sp. larva (Atl) Pseudanisakis tricupola (Atl)* Bathyraja richardsoni (Garrick) deepwater skate Copepoda Trematoda Acanthochondrites annulatus (Atl) Otodistomum cestoides (Atl) Caligus elongatus (Atl) Cestoidea ?Charopinus dubius (Atl) Onchobothrium pseudouncinatum (Atl) Lernaeopodae sp. [sic] (Atl) Copepoda Lernaeopodina longimana (Atl) Lernaeopodina longimana (Atl)* Raja binoculata Girard big skate Raja ocellata Mitchill winter skate Copepoda Protozoa Lepeophtheirus parviventris (Pac) Trichodina oviducti (Atl) L. pravipes (Pac) Myxosporida Lepeophtheirus sp. (Pac) Chloromyxum leydigi (Atl) Pseudocharopinus dentatus (Pac) Trematoda Schistobrachia tertia (Pac) Otodistomum cestoides (Atl) Podocotyle atomon (Atl)*** Raja erinacea Mitchill little skate Cestoidea Protozoa Acanthobothrium coronatum (Atl) Caliperia brevipes (Atl) Anthobothrium cornucopia (Atl) Haemogregarina delagei (Atl) A. variabile (Atl) Trypanosoma rajae (Atl) Echeneibothrium variabile (Atl) Myxosporida Grillotia erinaceus (Atl) Chloromyxum leydigi (Atl) Phyllobothrium sp. (Atl) Leptotheca agilis (Atl) Nematoda Nematoda Anisakis sp. larva (Atl) Pseudanisakis tricupola (Atl)* Phocanema sp. larva (Atl) Copepoda Pseudanisakis tricupola (Atl)* Eudactylina corrugata (Atl) Lernaeopodina longimana (Atl) Raja radiata Donovan thorny skate Syn.: Raja scabrata Garman Raja inornata Jordan and Gilbert Protozoa California skate Haemogregarina delagei (Atl) Copepoda Trichodina oviducti (Atl) Dendraptra cameroni longiclavata (Pac) Trypanosoma rajae (Atl) Raja jenseni Bigelow and Schroeder Myxosporida Myxosporida gen.sp. (Atl) Jensen's skate

Turbellaria

Micropharynx parasitica (Atl)

Trematoda

Otodistomum cestoides (Atl)

Gyrocotyle abyssicola (Atl) Monogenea Pseudacanthocotyla verrilli (Atl) G. major (Atl) Trematoda Copepoda Otodistomum cestoides (Atl) Lernaeopodina longibrachia (Atl) Cestoidea Acanthobothrium coronatum (Atl) Hydrolagus colliei (Lay and Bennett) ratfish Anthobothrium cornucopia (Atl) Cestoidea A. variabile (Atl) Gyrocotyle fimbriata (Pac) Echeneibothrium variabile (Atl) G. parvispinosa (Pac) Echinobothrium raii (Atl) Nematoda Grillotia sp. (Atl) Contracaecum sp. (Pac) Phyllobothrium dagnallium (Atl) Copepoda Phyllobothrium sp. (Atl) Acanthochondria holocephalarum (Pac) Scyphophyllideum giganteum (Atl) A. rectangularis (Pac) Trilocularia acanthiae-vulgaris (Atl) Caligus clemensi (Pac) Nematoda Anisakis sp. larva (Atl) Contracaecum sp. (Atl?) **Chondrichthyes of Undetermined Species** Phocanema sp. larva (Atl) Pseudanisakis tricupola (Atl)* "Shark" Thynnascaris adunca (Atl) Copepoda Copepoda Anthosoma crassum (Pac) Dendraptra cameroni cameroni (Atl) Echthrogaleus coleoptratus (Pac) Eudactylina corrugata (Atl) Lernaeopodina longimana (Atl) Schistobrachia ramosa (Atl) CLASS OSTEICHTHYES Raja rhina Jordan and Gilbert longnose skate Copepoda ORDER ACIPENSERIFORMES Lepeophtheirus parviventris (Pac) Lernaeopodina pacifica (Pac) Family ACIPENSERIDAE Pseudocharopinus dentatus (Pac) Schistobrachia tertia (Pac) Acipenser fulvescens Rafinesque lake sturgeon Syn.: Acipenser rubicundus Lesueur Raia senta Garman smooth skate Monogenea Protozoa Diclybothrium armatum (Ont) Haemogregarina delagei (Atl) D. hammulatum (Ont) Raja sp. Paradiclybothrium sp. (Ont)* Nematoda Trematoda Phocanema decipiens larva (Atl)* Allocreadium sp. (Ont) Phocanema sp. larva (Atl) Bunodera luciopercae (Ont) Pseudanisakis sp. (Atl)* Crepidostomum lintoni (Ont, Que) Copepoda Crepidostomum sp. (Ont)* Caligus elongatus (Atl) ?Deropristis hispida (Que?) Diplostomulum sp. metacercaria (Ont) Homalometron armatum (Ont) Rajidae of Undetermined Species Skrjabinopsolus manteri (Ont) "Skate" Nematoda Rhabdochona cascadilla (Ont) Monogenea Spinitectus sp. (Ont) Monogenea gen.sp. (BC aquarium) Truttaedacnitis clitellarius (Ont) Acanthocephala ORDER CHIMAERIFORMES Metechinorhynchus salmonis (Ont) Hirudinoidea Family CHIMAERIDAE Macrobdella decora (Ont) Hydrolagus affinis (Capello) deepwater chimaera Branchiura

Cestoidea

Argulus stizostethii (Ont)

Acipenser transmontanus Richardson

white sturgeon

Copepoda

Lepeophtheirus salmonis (BC aquaria)***

ORDER SEMIONOTIFORMES

Family LEPISOSTEIDAE

Lepisosteus osseus (Linnaeus)

longnose gar

Trematoda

Apophallus venustus metacercaria (Que)

Macroderoides spiniferus (Ont)

Cestoidea

Bothriocephalus sp. (Ont)

Proteocephalus ambloplitis plerocercoid

(Ont)

P. ambloplitis (Ont)

P. perplexus (Ont)

P. singularis (Ont)

Nematoda

Cystidicola lepisostei sp.inq. (Ont)

Acanthocephala

Leptorhynchoides thecatus (Ont)

Hirudinoidea

Placobdella montifera (Ont)

ORDER AMIIFORMES

Family AMIIDAE

Amia calva Linnaeus

bowfin

Myxosporida

Henneguya amiae (Que)

Trematoda

Apophallus venustus metacercaria (Que)

Azygia longa (Ont)

Crepidostomum cornutum (Ont)

Diplostomulum sp. metacercaria (Ont)

Leuceruthrus micropteri (Ont)

Macroderoides typicus (Ont)

Microphallus opacus (Ont)

Cestoidea

Haplobothrium globuliforme (Ont)

Proteocephalus ambloplitis plerocercoid

(Ont)

P. ambloplitis (Ont)

P. perplexus (Ont)

Nematoda

Haplonema immutatum (Ont)

Acanthocephala

Leptorhynchoides thecatus (Ont)

Pomphorhynchus bulbocolli (Ont)

ORDER ANGUILLIFORMES

Family ANGUILLIDAE

Anguilla rostrata (Lesueur)

American eel

Syn.: Anguilla bostoniensis (Lesueur)

Anguilla chrysypa Rafinesque

Anguilla anguilla Linnaeus auct.

Protozoa

Eimeria anguillae (Que)

Trypanosoma murmanensis (Atl)

(experimental infection)

Myxosporida

Myxidium giardi (Que)

M. zealandicum (Ont, Que)

Myxobolus sp. (Ont. Que)

Trematoda

Azygia longa (Ont, Que)

Bunodera luciopercae (Ont)

Centrovarium lobotes (Ont)

Crepidostomum brevivitellum (Lab, Que)

C. cornutum (Ont, Que)

Derogenes varicus (Atl)

Deropristis inflata (Atl)

Diplostomum spathaceum metacercaria

(Lab, Nfld-b)

 $D.\ spathaceum\ in distinctum\ metacercaria$

(Ont)

?Hemiurus appendiculatus (Atl)

Microphallus opacus (Ont)

Podocotyle atomon (Lab, Nfld-b)

Cestoidea

Bothriocephalus claviceps (Lab, NB,

Nfld-b, Ont, Que)

B. scorpii (Lab)

Bothriocephalus sp. (Lab, Nfld)

Proteocephalus macrocephalus (Ont,

Que)

Proteocephalus sp. (Nfld)

Nematoda

Contracaecum sp. (Lab, Nfld-b, Nfld)

Cystidicoloides tenuissima (Que)

Paraquimperia aditum (Lab, Nfld-b, Nfld,

Ont, Que)

Thynnascaris brachyura (Ont)

Acanthocephala

Leptorhynchoides thecatus (Lab, Ont)

Metechinorhynchus lateralis (Lab,

Nfld-b)

Copepoda

Ergasilus caeruleus (Ont)

E. celestis (Que)

Ergasilus sp. (Nfld-b)

Anguilla sp.

Trematoda

Hemiurus sp. (Atl)

| Monogenea |
|--|
| Gyrodactyloidea gen.sp. (Pac) |
| Trematoda |
| Digenea gen.sp. (Pac) |
| Lecithaster gibbosus (Pac) |
| Parahemiurus merus (Pac) |
| Pseudopentagramma petrowi (Pac) Cestoidea |
| Phyllobothrium sp. plerocercoid (Pac) |
| Nematoda |
| Anisakis sp. larva (Pac) |
| Contracaecum sp. (Pac) |
| Nematoda gen.sp. (Pac) |
| Copepoda |
| Bomolochus cuneatus (Pac) |
| Caligus clemensi (Pac) |
| |
| Clupea sp. |
| Trematoda |
| Hemiurus sp. (Atl) |
| Dorogoma consdignum (Logueur) gizzord shad |
| Dorosoma cepedianum (Lesueur) gizzard shad Protozoa |
| Pleistophora ce pedianae (Ont) |
| Monogenea |
| Mazocraeoides olentangiensis (Ont) |
| Pseudomazocraeoides ontariensis (Ont) |
| Nematoda |
| Nematoda gen.sp. (Ont) |
| |
| OR DED ACTED OF ACCIENTAGE |
| ORDER OSTEOGLOSSIFORMES |
| Family HIODONTIDAE |
| • |
| Hiodon alosoides (Rafinesque) goldeye |
| Syn.: Hiodon chrysopsis Richardson |
| Trematoda |
| ?Bucephalus sp. (–) |
| Crepidostomum sp. (Man) |
| ?Heterophyes sp. (metacercaria?) (Man) |
| Paurorhynchus hiodontis (Alta, Sask) |
| Cestoidea |
| Bothriocephalus cuspidatus (Alta, |
| Hudson Bay drainage) |
| Copepoda |
| Ergasilus sp. (Man.) |
| Hiodon tergisus Lesueur mooneye |
| Monogenea moneye |
| Mazocraeoides sp. (Ont) |
| Trematoda |
| Crepidostomum illinoiense (Ont) |
| Plagioporus serratus (Que) |
| Tetracotyle sp. metacercaria (Ont) |
| Cestoidea |
| Bothriocephalus cuspidatus (Ont, |
| Hudson Bay drainage) |
| |

Proteocephalus sp. (Ont) Philometra sp. (Ont) Nematoda Philonema oncorhynchi (Ont) Camallanus oxycephalus (Ont) Spinitectus gracilis (Ont) Rhabdochona cascadilla (Ont) Acanthocephala Acanthocephala Metechinorhynchus salmonis (Alta, Ont) Pomphorhynchus bulbocolli (Ont) Neoechinorhynchus tumidus (Ont, Sask) Neoechinorhynchus sp. (Ont) Branchiura ORDER SALMONIFORMES Argulus stizostethii (Ont) Argulus sp. (Ont) Family SALMONIDAE Copepoda Ergasilus caeruleus (Ont) Coregonus alpenae (Koelz) longjaw cisco Ergasilus sp. (Atl. Ont) Syn.: Leucichthys alpenae Koelz Salmincola extensus (Ont) Trematoda S. extumescens (Ont) Diplostomulum sp. metacercaria (Ont) Nematoda Coregonus clupeaformis (Mitchill) Cystidicola farionis (Ont) Acanthocephala lake whitefish Syn.: Coregonus albus Lesueur Metechinorhynchus salmonis (Ont) Protozoa Coregonus artedii Lesueur cisco or lake herring Cryptobia gurneyorum (NWT) Syn.: Leucichthys artedi (Lesueur) Haemogregarina irkalukpiki (YT) Leucichthys harengus (Richardson) Hexamita salmonis (YT) Leucichthys tullibee (Richardson) Myxosporida Leucichthys nipigon Koelz Chloromyxum sp. (YT) Coregonus nipigon (Koelz) Henneguya zschokkei (YT) Myxosporida Myxobolus neurobius (YT) Henneguya sp. (Ont) Monogenea Myxosporida gen.sp. (Ont) Discocotyle sagittata (Lab, Ont, YT) Monogenea Trematoda Discocotyle sagittata (Ont) Cotylurus erraticus metacercaria (Alta) Trematoda Crepidostomum cooperi (Ont) Diplostomulum sp. metacercaria (Ont) C. farionis (Alta, Lab, Ont, YT) Phyllodistomum sp. (Ont) C. metoecus (YT) Tetracotyle intermedia metacercaria Digenea gen.sp. (Ont) Diplostomulum sp. metacercaria (Ont) Tetracotyle sp. metacercaria (Ont) Diplostomum spathaceum metacercaria Cestoidea (Lab, Ont, YT) Bothrimonus sturionis (E Arc, Man) D. spathaceum indistinctum metacercaria Bothriocephalidae gen.sp. (Ont) (Ont) Cestoda gen.sp. metacestode (Ont) Phyllodistomum coregoni (Alta, Ont) Cyathocephalus truncatus (Ont) P. limnosa (Lab) Diphyllobothrium ditremum plerocercoid Tetracotyle intermedia metacercaria (Ont) Diphyllobothrium sp. plerocercoid (Ont) Tetracotyle sp. metacercaria (YT) Eubothrium crassum (Ont) Cestoidea Proteocephalus exiguus (Ont) Bothrimonus sturionis (E Arc, Man) P. filicollis (Alta) Bothriocephalus sp. (NWT, Ont) P. laruei (Ont) Cestoda gen.sp. (Ont, Sask) P. pusillus (Man) Cyathocephalus truncatus (Man, NWT, P. wickliffi (Ont) Ont. YT) Proteocephalus sp. (Ont) Diphyllobothrium sp. plerocercoid Triaenophorus crassus plerocercoid (Ont, YT) (Alta, Man, NWT, Ont, Sask-Alta) Eubothrium crassum (Ont)

E. salvelini (Ont, YT)

Eubothrium sp. (Lab)

Proteocephalus exiguus (Alta, Ont)

Nematoda

Cystidicola farionis (Man, Ont)

Cystidicola sp. (Ont)

P. laruei (Man, Ont, Sask) Nematoda P. singularis (Alta, Man) Cystidicola farionis (Ont) Cystidicola sp. (Ont) P. tumidocollus (Lab, YT) Proteocephalus sp. (Lab, NWT, Ont) Acanthocephala Schistocephalus sp. plerocercoid (Ont) Metechinorhynchus leidyi (Ont) M. salmonis (Ont) Triaenophorus crassus plerocercoid (Alta, BC-YT, Man, NWT, Ont, Copenoda Sask, YT) Salmincola extensus (Ont) Triaenophorus sp. plerocercoid (Alta) S. extumescens (Ont) Nematoda Capillaria salvelini (Lab) Coregonus kiyi (Koelz) kivi Cystidicola farionis (Alta, Man, NWT, Syn.: Leucichthys kiyi Koelz Ont, Sask, YT) Cestoidea C. serratus sp.inq. (Ont?) Bothriocephalidae gen.sp. (Ont) Cystidicola sp. (Ont) Nematoda Cystidicoloides tenuissima (Lab) Cystidicola sp. (Ont) Nematoda gen.sp. (Ont) Copepoda Philometra sp. (Ont) Salmincola extumescens (Ont) Philonema agubernaculum (Lab) P. oncorhynchi (Ont) blackfin cisco Coregonus nigripinnis (Gill) Raphidascaris acus larva (YT) Syn.: Leucichthys nigripinnis (Gill) Rhabdochona sp. (Ont) Cestoidea Spinitectus gracilis (Ont) Bothriocephalidae gen.sp. (Ont) Acanthocephala Triaenophorus crassus plerocercoid Acanthocephalus jacksoni (Ont) (Alta-Sask, Man, Ont) Leptorhynchoides thecatus (Ont) Metechinorhynchus lateralis (Lab, Nfld, shortnose cisco Coregonus reighardi (Koelz) Syn.: Leucichthys reighardi Koelz M. salmonis (Alta, Man, Ont) Cestoidea *Metechinorhynchus* sp. (Ont) Triaenophorus crassus plerocercoid (Ont) Neoechinorhynchus tumidus (Ont, Sask, Nematoda Cystidicola farionis (Ont) Hirudinoidea Cystidicola sp. (Ont) Piscicola milneri (Ont, YT) Acanthocephala Mollusca Metechinorhynchus sp. (Ont) Unionidae gen.sp. glochidium (Ont) Copepoda Copepoda Salmincola extumescens (Ont) Achtheres ambloplitis (Ont) A. corpulentus (Ont) Coregonus sardinella Valenciennes least cisco Ergasilus caeruleus (Ont) Syn.: Leucichthys sardinella (Valenciennes) Ergasilus sp. (Ont) Cestoidea Salmincola extensus (Alta, Lab, Ont, YT) Triaenophorus crassus plerocercoid S. extumescens (Alta, NWT, Ont) (BC-YT) Coregonus hoyi (Gill) bloater Coregonus zenithicus (Jordan and Evermann) Syn.: Leucichthys hoyi (Gill) shortjaw cisco Monogenea Discocotyle sagittata (Ont) Syn.: Leucichthys zenithicus (Jordan and Evermann) Trematoda Diplostomulum sp. metacercaria (Ont) Cestoidea Cestoidea Cyathocephalus truncatus (Man) Bothriocephalidae gen.sp. (Ont) Diphyllobothrium dendriticum plerocer-Diphyllobothrium sp. plerocercoid (Ont) coid (Ont) Proteocephalus exiguus (Ont) Diphyllobothrium sp. plerocercoid (Ont) P. laruei (Man, Ont) Proteocephalus laruei (Man, Sask) Triaenophorus crassus plerocercoid Triaenophorus crassus plerocercoid (Man, Ont) (Alta-Sask, Man, Ont)

| Coregonus sp. | Nematoda |
|---|--|
| Syn.: Leucichthys sp. | Anisakis sp. larva (Pac, BC-b, BC) |
| Cestoidea | Contracaecum sp. (Pac, BC-b, BC) |
| Bothriocephalus cuspidatus (Hudson Bay | Philonema oncorhynchi (Pac) |
| drainage) | Acanthocephala |
| Diphyllobothrium sp. plerocercoid | Bolbosoma caenoforme juvenile (Pac, |
| (NWT) | BC-b) |
| Eubothrium crassum (NWT)* | Corynosoma strumosum juvenile (Pac) |
| Proteocephalus arcticus (NWT)* | Echinorhynchus gadi (Pac, BC-b) |
| P. coregoni (Hudson Bay drainage) | Rhadinorhynchus trachuri (BC-b) |
| Triaenophorus crassus plerocercoid | Hirudinoidea |
| (Alta, Man, NWT, Ont, Sask) | Hirudinoidea gen.sp. (BC) |
| Triaenophorus sp. plerocercoid (Alta, | Copepoda |
| Hudson Bay drainage) | Caligus clemensi (Pac) |
| Nematoda | Lepeophtheirus salmonis (Pac, BC-b) |
| Cystidicola farionis (Ont) | Salmincola sp. (BC) |
| Philonema sp. (NWT) | 1/ |
| Acanthocephala | Oncorhynchus keta (Walbaum) chum salmon |
| Metechinorhynchus salmonis (NWT)* | Protozoa |
| Branchiura | Hexamita sp. (BC) |
| Argulus stizostethii (Ont) | Myxosporida |
| Copepoda | Ceratomyxa shasta (Pac) |
| Salmincola extumescens (NWT, Que) | Henneguya salminicola (Pac) |
| , | Myxosoma squamalis (Pac) |
| Oncorhynchus gorbuscha (Walbaum) | Myxosporida gen.sp. (Pac) |
| pink salmon | Trematoda |
| Protozoa | Digenea gen.sp. (Pac) |
| Haplosporida gen.sp. (BC) | Galactosomum sp. metacercaria (Pac) |
| Myxosporida | Lecithaster gibbosus (Pac) |
| Henneguya salminicola (Pac) | Tubulovesicula lindbergi (Pac) |
| Myxidium sp. (BC) | Cestoidea |
| Monogenea | Phyllobothrium sp. plerocercoid (Pac) |
| Gyrodactyloides strelkowi (BC-b) | Nematoda |
| Trematoda | Anisakis sp. larva (Pac) |
| Allocreadioidea gen.sp. (BC-b) | |
| Brachyphallus crenatus (Pac, BC-b, BC) | Contracaecum sp. (Pac) Nematoda gen.sp. (Pac) |
| Derogenetinae gen.sp. (Pac, BC-b, BC) | Acanthocephala |
| Derogenes varicus (Pac, BC-b) | Echinorhynchus gadi (Pac, BC-b) |
| Genolinea oncorhynchi (Pac) | Neoechinorhynchus rutili (Pac) |
| Hemiurus levinseni (Pac, BC-b) | Copepoda |
| Lecithaster gibbosus (Pac, BC-b, BC) | Caligus clemensi (Pac) |
| Lecithophyllum botryophorum (BC) | |
| Parahemiurus merus (Pac, BC-b) | Lepeoptheirus salmonis (Pac) |
| Prosorhynchoides basargini (Pac, BC-b) | Onacubusahua kiautah (Wallaum) aaba salman |
| Pseudopentagramma petrovi (Pac) | Oncorhynchus kisutch (Walbaum) coho salmon |
| Syncoelium filiferum (Pac, BC-b) | Protozoa Cryptobia galmonitica (PC) |
| Tubulovesicula lindbergi (Pac, BC-b, BC) | Cryptobia salmositica (BC) |
| Cestoidea | Cryptobia sp. (BC) |
| Cestoda gen.sp. metacestode (Pac) | Haplosporida gen.sp. (BC) |
| Diphyllobothrium sp. plerocercoid | Ichthyophthirius sp. (BC) |
| (Pac, BC-b) | Myxosporida |
| Eubothrium sp. (Pac, BC-b, BC) | Ceratom yxa shasta (Pac) |
| | Henneguya salminicola (Pac, BC) |
| Nybelinia surmenicola plerocercoid (Pac, BC-b) | Myxidium sp. (BC) |
| Phyllobothrium caudatum plerocercoid | Myxosoma squamalis (Pac, BC) |
| | Monogenea |
| (Pac, BC-b, BC) | Discocotyle sagittata (Alta) |
| Phyllobothrium sp. plerocercoid (Pac) | Gyrodactyloidea gen.sp. (Pac, BC) |

| Monogenea gen.sp. (BC) | Unidentified flagellates (Pac) |
|---|--|
| Trematoda | Myxosporida |
| Crepidostomum farionis (Pac, Alta, BC) | Henneguya salminicola (Pac, BC-b) |
| Diplostomulum sp. metacercaria (BC) | Myxosporida gen.sp. (BC) |
| Lecithaster gibbosus (Pac) | Monogenea |
| Neascus sp. metacercaria (BC) | Gyrodactyloides strelkowi (Pac, BC-b) |
| Parahemiurus merus (Pac) | Gyrodactylus sp. (Pac) |
| Cestoidea | Trematoda |
| Cyathocephalus truncatus (Alta) | Brachyphallus crenatus (Pac, BC-b) |
| Diphyllobothrium sp. plerocercoid (Pac, | Crepidostomum farionis (BC, Ont) |
| Alta, BC) | Derogenetinae gen.sp. (Pac, BC-b) |
| Eubothrium crassum (Pac) | Derogenes varicus (BC-b) |
| E. salvelini (Alta) | Digenea gen.sp. (BC) |
| Phyllobothrium sp. plerocercoid (Pac) | Diplostomulum sp. metacercaria (BC) |
| $?Proteocephalus\ arcticus\ (BC)$ | Diplostomum spathaceum metacercaria |
| Proteocephalus sp. (Pac, Alta, BC) | (Ont) |
| Triaenophorus nodulosus plerocercoid | Genolinea laticauda (Pac) |
| (Alta) | Hemiurus levinseni (Pac, BC-b) |
| Nematoda | Lecithaster gibbosus (Pac, BC-b, BC) |
| Anisakis sp. larva (Pac) | Lecithophyllum botryophorum (Pac, |
| Ascarophis sebastodis (Pac) | BC-b) |
| Capillaria sp. (Pac) | Parahemiurus merus (Pac, BC-b) |
| Contracaecum sp. (Pac) | Syncoelium filiferum (BC-b) |
| Cucullanus sp. (Pac) | Tetracotyle intermedia metacercaria |
| Cystidicola farionis (Alta) | (Ont) |
| Cystidi c oloides tenuissima (BC) | Tetracotyle sp. metacercaria (BC) |
| Eustrongylides sp. larva (BC) | Tubulovesicula lindbergi (Pac, BC-b, BC) |
| Nematoda gen.sp. (Pac) | Cestoidea |
| Philonema agubernaculum (Alta) | Cestoda gen.sp. plerocercoid (Pac) |
| P. oncorhynchi (BC) | Cestoda gen.sp. (Pac) |
| Philonema sp. (Pac) | Diphyllobothriidae gen.sp. plerocercoid |
| Rhabdochona kisutchi (BC) | (Pac, BC-b) |
| Rhabdochona sp. (BC) | Diphyllobothrium cordiceps plerocercoid |
| Salvelinema walkeri (Pac) | (BC) |
| Skrjabinocapillaria bakeri (BC) | ?D. latum plerocercoid (BC) |
| Acanthocephala | Diphyllobothrium sp. plerocercoid |
| Corynosoma sp. juvenile (Pac) | (Pac, BC-b, BC) |
| Echinorhynchus gadi (Pac, BC-b) | Eubothrium salvelini (BC) |
| Metechinorhynchus salmonis (Alta) | Eubothrium sp. (BC-b, BC) |
| Neoechinorhynchus rutili (Pac, BC) | Nybelinia surmenicola plerocercoid |
| Pomphorhynchus bulbocolli (Alta, BC) | (BC-b) |
| Hirudinoidea | Phyllobothrium caudatum plerocercoid |
| Piscicola salmositica (BC) | (Pac, BC-b) |
| Copepoda | Phyllobothrium sp. plerocercoid |
| Caligus clemensi (Pac) | (Pac, BC) |
| Ergasilus auritus (Alta) | ?Proteocephalus arcticus (BC)* |
| E. nerkae (Alta) | P. exiguus (BC) |
| Lepeophtheirus salmonis (Pac) | P. laruei (BC) |
| Salmincola californiensis (Pac) | Proteocephalus sp. (Pac, BC) |
| Outside the second of the second | Schistocephalus sp. plerocercoid (BC) |
| Oncorhynchus nerka (Walbaum) | Triaenophorus nodulosus plerocercoid |
| sockeye salmon | (Ont) |
| Syn.: Oncorhynchus nerka kennerlyi Suckley | Nematoda |
| Protozoa Cryptobia ralmonitica (PC) | Anisakis sp. larva (Pac, BC-b) |
| Cryptobia salmositica (BC) | Ascarophis sebastodis (Pac) |
| Ichthyobodo necatrix (BC) Unidentified amoebae (BC) | Contracaecum spiculigerum larva (BC) |
| omucinined amocoae (BC) | Contracaecum sp. (Pac, BC-b, BC) |

| Cystidicola farionis (Ont) | Nematoda |
|---|---|
| Cystidicoloides tenuissima (BC) | Capillaria sp. (Pac) |
| Nematoda gen.sp. (Pac, BC) | Contracaecum sp. (Pac) |
| Philonema oncorhynchi (Pac, BC-b, BC) | Cystidicola sp. (Pac) |
| Phocanema sp. larva (Pac, BC-b) | Nematoda gen.sp. (Pac) |
| Rhabdochona cascadilla (BC, Ont) | Philonema sp. (Pac) |
| | |
| Rhabdochona sp. (BC)* | Salvelinema walkeri (Pac) |
| Spinitectus gracilis (Ont) | Acanthocephala |
| Thominx catenata (Ont) | Acanthocephala gen.sp. (Pac) |
| Acanthocephala | Echinorhynchus gadi (Pac) |
| A canthocephalus jacksoni (Ont) | Copepoda |
| Bolbosoma caenoforme juvenile (Pac, | Bomolochus sp. (Pac) |
| BC-b) | Lepeophtheirus salmonis (Pac) |
| Corynosoma strumosum juvenile (Pac) | Oncorhynchus sp. |
| C. villosum juvenile (Pac) | |
| Echinorhynchus gadi (Pac, BC-b) | Myxosporida |
| Leptorhynchoides thecatus (Ont) | Henneguya salminicola (Pac) |
| Metechinorhynchus salmonis (Ont) | Trematoda |
| Neoechinorhynchus pungitius (Ont) | Lecithaster gibbosus (Pac) |
| N. rutili (Pac, BC, Ont) | Cestoidea |
| N. tumidus (Ont) | Nybelinia surmenicola plerocercoid (Pac) |
| Pomphorhynchus bulbocolli (Ont) | Phyllobothrium caudatum plerocercoid |
| Rhadinorhynchus trachuri (Pac, BC-b) | (Pac) |
| Hirudinoidea | Nematoda |
| Piscicola salmositica (BC) | Contracaecum sp. (Pac) |
| Mollusca | Copepoda |
| Unionidae gen.sp. glochidium (BC) | Caligus clemensi (Pac) |
| Copepoda | Lepeophtheirus salmonis (Pac) |
| Caligus clemensi (Pac) | Bussenium sentani (Cisanmana and |
| | Prosopium coulteri (Eigenmann and Eigenmann) pigmy whitefish |
| Ergasilus auritus (BC-b, BC) | |
| E. caeruleus (Ont) | Monogenea |
| E. nerkae (BC) | Tetraonchus variabilis (BC) |
| Lepeophtheirus salmonis (Pac, BC-b) | Nematoda (BC) |
| Salmincola californiensis (BC) | Cystidicola sp. (BC) |
| S. carpionis (BC) | Rhabdochona milleri (BC) |
| Salmincola sp. (BC) | Prosopium cylindraceum (Pallas) |
| Acarina | round whitefish |
| Hydrachna sp. larva (Ont) | Syn.: Prosopium cylindraceum quadrilaterale |
| | (Richardson) |
| | Protozoa |
| Oncorhynchus tshawytscha (Walbaum) | Haemogregarina irkaluk piki (YT) |
| chinook salmon | Hexamita salmonis (YT) |
| Protozoa | Myxosporida |
| Cryptobia salmositica (BC) | Henneguya zschokkei (YT) |
| Hexamita sp. (BC) | Myxobolus neurobius (YT) |
| Ichthyophthirius sp. (BC) | Monogenea |
| Myxosporida | Discocotyle sagittata (Lab, Ont, YT) |
| Henneguya salminicola (Pac) | Tetraonchus variabilis (Lab, Ont, YT) |
| Henneguya sp. (BC) | |
| | Transatada |
| | Trematoda |
| Trematoda | Bunodera lucio percae (Lab) |
| Trematoda Digenea gen.sp. (Pac) | Bunodera luciopercae (Lab) Crepidostomum cooperi (Ont) |
| Trematoda Digenea gen.sp. (Pac) Lecithaster gibbosus (Pac) | Bunodera luciopercae (Lab) Crepidostomum cooperi (Ont) C. farionis (Ont, YT) |
| Trematoda Digenea gen.sp. (Pac) Lecithaster gibbosus (Pac) Cestoidea | Bunodera luciopercae (Lab) Crepidostomum cooperi (Ont) C. farionis (Ont, YT) Diplostomulum sp. metacercaria (Ont) |
| Trematoda Digenea gen.sp. (Pac) Lecithaster gibbosus (Pac) Cestoidea Eubothrium crassum (Pac) | Bunodera luciopercae (Lab) Crepidostomum cooperi (Ont) C. farionis (Ont, YT) Diplostomulum sp. metacercaria (Ont) Diplostomum spathaceum metacercaria |
| Trematoda Digenea gen.sp. (Pac) Lecithaster gibbosus (Pac) Cestoidea | Bunodera luciopercae (Lab) Crepidostomum cooperi (Ont) C. farionis (Ont, YT) Diplostomulum sp. metacercaria (Ont) |

| Cestoidea | Nematoda |
|---|--|
| Cyathocephalus truncatus (YT) | Cystidicola farionis (Alta, BC) |
| Diphyllobothrium sp. plerocercoid (YT) | Cystidicoloides tenuissima (BC) |
| Eubothrium salvelini (Lab, YT) | Eustrongylides sp. larva (BC) |
| Eubothrium sp. (Lab) | Nematoda gen.sp. (Alta) |
| Proteocephalus exiguus (Ont) | Philonema sp. (BC) |
| P. laruei (Ont) | Rhabdochona cascadilla (BC) |
| P. tumidocollus (YT) | Skrjabinocapillaria bakeri (BC) |
| Proteocephalus sp. (Lab) | Truttaedacnitis truttae (Alta, BC) |
| Triaenophorus crassus plerocercoid | Acanthocephala |
| (NWT, YT) | Neoechinorhynchus rutili (BC) |
| Nematoda | Pomphorhynchus bulbocolli (BC) |
| Capillaria salvelini (Lab, YT) | Copepoda |
| Cystidicola farionis (Ont, YT) | Achtheres sp. (Alta) |
| Nematoda gen.sp. (Lab) | Ergasilus nerkae (BC) |
| Philometra sp. (Ont) | Salmincola extensus (BC) |
| Philonema agubernaculum (Lab) | Salmincola extensus (BC) Salmincola sp. (BC) |
| Spinitectus gracilis (Ont) | Saimineola sp. (BC) |
| | Prosopium sp. |
| Acanthocephala <i>Metechinorhynchus lateralis</i> (Lab) | Cestoidea |
| | Triaenophorus crassus plerocercoid |
| M. salmonis (Ont) | (Alta) |
| Neoechinorhynchus tumidus (Ont, YT) | Copepoda |
| Hirudinoidea | Salmincola thymalli (NWT) |
| Piscicola milneri (YT) | · |
| Copepoda | Salmo clarki Richardson cutthroat trout |
| Ergasilus caeruleus (Ont) | Protozoa |
| E. luciopercarum (Lab) | Ichthyophthirius sp. (BC) |
| Ergasilus sp. (Ont) | Myxosporida |
| Salmincola extensus (Ont) | Myxosporida gen.sp. (BC) |
| S. thymalli (Lab) | Monogenea |
| Salmincola sp. (Ont) | Gyrodactyloidea gen.sp. (BC) |
| | Gyrodactylus sp. (BC) |
| | Trematoda |
| Prosopium williamsoni (Girard) | Clinostomum sp. metacercaria (BC) |
| mountain whitefish | Crepidostomum farionis (Alta, BC) |
| Syn.: Prosopium oregonium (Jordan and | Diplostomulum sp. metacercaria (BC) |
| Snyder) | Neascus sp. metacercaria (BC) |
| Myxosporida | Cestoidea |
| Myxosporida gen.sp. (BC) | Diphyllobothrium sp. plerocercoid |
| Monogenea | (Alta, BC) |
| Discocotyle sagittata (BC) | Eubothrium salvelini (BC) |
| Gyrodactyloidea gen.sp. (BC) | ?Proteocephalus arcticus (BC)* |
| Trematoda | P. salmonidicola (BC) |
| Allocreadium lobatum (BC) | Nematoda |
| Crepidostomum farionis (Alta, BC) | Contracaecum sp. (BC) |
| Diplostomulum sp. metacercaria (BC) | Cystidicoloides tenuissima (BC) |
| Tetracotyle sp. metacercaria (BC) | Eustrongylides sp. larva (BC) |
| Cestoidea | Philonema oncorhynchi (BC) |
| Diphyllobothrium sp. plerocercoid | Philonema sp. (BC) |
| (Alta, BC) | Rhabdochona cascadilla (BC) |
| Eubothrium sp. (BC) | R. milleri (Alta) |
| Ligula intestinalis plerocercoid (BC) | Rhabdochona sp. (Alta) |
| Proteocephalus exiguus (BC) | Skrjabinocapillaria bakeri (BC) |
| Proteocephalus sp. (BC) | Truttaedacnitis truttae (BC) |
| Schistocephalus sp. plerocercoid (BC) | Acanthocephala |
| Triaenophorus crassus plerocercoid | Neoechinorhynchus rutili (BC) |
| (Alta) | Pomphorhynchus bulbocolli (BC) |

Copepoda Pomphorhynchus bulbocolli (BC) Lepeophtheirus salmonis (Pac) Hirudinoidea Salmincola californiensis (BC) Illinobdella sp. (BC) ?S. edwardsii (BC) Mollusca Unionidae gen.sp. glochidium (BC) Salmo gairdneri Richardson rainbow trout Branchiura Syn.: Salmo irideus Gibbons Argulus pugettensis (Pac) Salmo gairdneri irideus Gibbons Copepoda Caligus clemensi (Pac) Salmo gairdneri kamloops (Jordan) Protozoa C. elongatus (Atl) Ichthyophthirius sp. (BC) Copepoda gen.sp. (Nfld) Ergasilus nerkae (Alta, BC) Trichophrya piscium (Nfld) Urceolariidae gen.sp. (BC) Lepeophtheirus salmonis (Atl, Pac) Monogenea Salmincola californiensis (BC) Discocotyle sagittata (Ont) ?S. edwardsii (BC) Gyrodactylus sp. (BC, NS) Trematoda Allocreadium lobatum (BC) Salmo salar Linnaeus Atlantic salmon Bunodera luciopercae (Alta) Syn.: Salmo salar sebago Girard Clinostomum sp. metacercaria (Man) Protozoa Crepidostomum farionis (Alta, BC, Nfld, Ichthyophthirius multifiliis (NS) Trichodina sp. (NB-b, NB) Digenea gen.sp. metacercaria (Alta) Trichophrya piscium (Nfld, NS) Diplostomulum sp. metacercaria (BC, Myxosporida Henneguya salmonis (Que?) Neascus sp. metacercaria (BC) Monogenea Cestoidea Discocotyle sagittata (Lab, NB-b, NB, Diphyllobothrium cordiceps plerocercoid Nfld, NS) Discocotyle sp. (Que) D. dendriticum plerocercoid (BC) Gyrodactylus sp. (NB, NS) D. ditremum plerocercoid (BC) Trematoda ?D. latum plerocercoid (BC) A pophallus brevis metacercaria (Lab, Diphyllobothrium sp. plerocercoid NB-b, NB, Nfld) (Alta, BC, Nfld, Ont) Azygia longa (NB-b) Brachyphallus crenatus (Atl, Lab, NB, Eubothrium crassum (Ont) E. salvelini (Alta, BC, Nfld) Nfld-b, Nfld, NS, PEI, Que) Proteocephalus salmonidicola (BC) Bunodera luciopercae (Lab) Proteocephalus sp. (BC, Ont) Crepidostomum farionis (Lab, NB-b, NB, Schistocephalus sp. plerocercoid (BC) Nfld, NS, PEI) Nematoda Derogenes varicus (Atl, Lab, NB, Nfld, Cystidicola farionis (Alta, BC) NS, Que) Cystidicola sp. (BC, Ont) Digenea gen.sp. metacercaria (Que) Cystidicoloides tenuissima (BC, Ont) Diplostomulum sp. metacercaria (Atl, Eustrongylides sp. larva (BC) Lab, NB, Nfld, NS, PEI) Nematoda gen.sp. (Alta) Diplostomum spathaceum metacercaria Philonema agubernaculum (BC) (Lab, NB-b, NB, NS) P. oncorhynchi (BC) Hemiurus levinseni (Atl) Rhabdochona cascadilla (BC) Lampritrema miescheri (Atl) R. milleri (BC) Lecithaster gibbosus (Atl, Lab, NB, Skrjabinocapillaria bakeri (BC) Nfld-b, NS) Truttaedacnitis truttae (Alta, BC) Phyllodistomum limnosa (Nfld) Acanthocephala Podocotyle simplex (Atl) Acanthocephala gen.sp. (Nfld) Tetracotyle sp. metacercaria (Nfld, NS) Metechinorhynchus lateralis (Nfld) Cestoidea M. leid yi (Ont) Bothrimonus sturionis (Atl, Nfld) M. salmonis (Ont) Cestoda gen.sp. (NB, Nfld) Neoechinorhynchus rutili (BC) Cyathocephalus truncatus (Nfld)

Diphyllobothrium sp. plerocercoid Monogenea Discocotyle sagittata (Nfld-b?, Nfld, Ont) (Nfld, NS, Que) Eubothrium crassum (Atl, Lab, NB, Trematoda A pophallus brevis metacercaria (Nfld) Nfld, NS, Que) E. salvelini (NB, Nfld-b, Nfld) Crepidostomum farionis (Nfld-b?, Nfld) Eubothrium sp. (Lab) Cestoidea Diphyllobothrium sp. plerocercoid (Nfld) Hepatoxylon trichiuri plerocercoid Eubothrium salvelini (Nfld) (Atl, Lab, NB, NS) Proteocephalus parallacticus (Ont) Pelichnibothrium sp. plerocercoid Nematoda (NB, Nfld) Cystidicoloides tenuissima (Nfld) Proteocephalus sp. (Lab, NB) Acanthocephala Tentacularia coryphaenae plerocercoid Metechinorhynchus lateralis (Nfld-b?, (Atl, NB, Nfld, NS, Que) Nfld) Nematoda Anisakis simplex larva (Atl) Copepoda Ergasilus sp. (Nfld-b &/or Nfld) Anisakis sp. larva (Atl, Lab, NB, NS, Que) Camallanus oxycephalus (NS) Salmo sp. Capillaria salvelini (NB-b, NB, Nfld, NS, Trematoda Hemiurus sp. (Atl) Contracaecum sp. (NB, NS, PEI) Cystidicoloides tenuissima (Lab, NB-b, NB, Nfld, NS, PEI, Que) Salvelinus alpinus (Linnaeus) Arctic char Raphidascaris sp. (NB-b, NB) Syn.: Salvelinus marstoni (Garman) Salvelinus oquassa marstoni (Garman) Thynnascaris adunca (Atl, Lab, NS) Acanthocephala Salvelinus arcturus (Günther) Acanthocephala gen.sp. (Nfld) Salmo arcturus Günther Echinorhynchus gadi (Atl, NS, Que) Salmo carpio Includes: Salvelinus alpinus alipes Metechinorhynchus lateralis (Lab, NB-b, NB, Nfld, NS) (Richardson) Salvelinus alpinus stagnalis Metechinorhynchus sp. (Lab, NB, Nfld, NS, PEI) (Fabricius) Neoechinorhynchus rutili (NB-b, NB) Protozoa Haemogregarina irkalukpiki (NWT, Que) Pomphorhynchus bulbocolli (NS) Hirudinoidea Monogenea Tetraonchus alaskensis (YT) Piscicola punctata (NB) Mollusca Trematoda Unionidae gen.sp. glochidium (NB-b, Brachyphallus crenatus (Lab, YT) Bunodera luciopercae (Lab) NB, NS) Branchiura Crepidostomum cooperi (Que) Argulus stizostethii (Nfld) C. farionis (Lab) Derogenes varicus (Lab) Copepoda Digenea gen.sp. metacercaria (Que) Lepeophtheirus salmonis (Atl, Lab, NB, Diplostomum spathaceum metacercaria Nfld, NS, Que) Salmincola salmoneus (Atl, Lab, NB, (Lab) Nfld, NS, Que) Phyllodistomum limnosa (Lab) Acarina Cestoidea Hydrachna sp. larva (NB) Bothrimonus sturionis (E Arc, Lab, Man) Trh ypochthoniellus sp. (NB) Cyathocephalus truncatus (YT) Diphyllobothrium dendriticum plerocercoid (NWT) Diphyllobothrium sp. plerocercoid Salmo trutta Linnaeus brown trout (NWT, Que) Syn.: Salmo fario Linnaeus Eubothrium crassum (Lab, NWT, Protozoa Ichthyophthirius sp. (BC) Hudson Bay area) E. salvelini (Lab, Hudson Bay area) Microsporida gen.sp. (Ont) Eubothrium sp. (Lab) Trichophrya piscium (Nfld)

| Proteocephalus arcticus (NWT) | C. truttae (Que-b, Que) |
|--|--|
| P. tumidocollus (Lab, Que) | Henneguya fontinalis (Que) |
| Proteocephalus sp. (Lab, YT) | Myxobolus ovoidalis (Que) |
| Nematoda | Myxobolus sp. (Que) |
| Anisakis sp. larva (Lab) | Myxosporida gen.sp. (Ont) |
| Capillaria salvelini (Lab) | Zschokkella salvelini (Que) |
| Contracaecum sp. (Lab) | Monogenea |
| Cystidicola farionis (YT) | Discocotyle sagittata (Lab, Nfld-b?, |
| Cystidicoloides tenuissima (Lab, Que) | Nfld, NS, Ont) |
| Nematoda gen.sp. (E Arc, Lab) | Discocotyle sp. (Que) |
| Philonema agubernaculum (Lab) | Gyrodactylus avalonia (Nfld-b) |
| P. oncorhynchi (NWT) | Gyrodactylus sp. (Lab, NS) |
| Philonema sp. (Lab) | Tetraonchus variabilis (Lab) |
| Thynnascaris adunca (Lab) | Trematoda |
| Truttaedacnitis alpinus (YT) | Allocreadiidae gen.sp. (Lab, Nfld) |
| Acanthocephala | A pophallus brevis metacercaria (Nfld) |
| Echinorhynchus gadi (Que) | A. imperator metacercaria (NB, NS, |
| Metechinorhynchus lateralis (Lab) | Ont, Que) |
| M. salmonis (NWT) | Apophallus sp. metacercaria (Ont) |
| Copepoda | Azygia longa (Nfld) |
| Copepoda gen.sp. (E Arc) | Brachyphallus crenatus (Lab, Que) |
| Salmincola carpionis (Lab or Atl, NWT, | Bunodera luciopercae (Alta, BC, Lab, |
| Que, YT) | Nfld) |
| S. edwardsii (Lab, NWT or E Arc, YT) | Clinostomum complanatum metacercaria (Ont, Que)*** |
| | Crepidostomum cooperi (Nfld-b &/or |
| Salvelinus fontinalis (Mitchill) brook trout | Nfld, Que-b, Que) |
| Syn.: Salvelinus salvelinus (Linnaeus) auct. | C. cornutum (Que) |
| Salvelinus timagamensi Henn and | C. farionis (Alta, BC, Lab, Nfld-b?, Nfld, |
| Rinkenbach | NS, Ont, Que) |
| Salmo fontinalis Mitchill | Crepidostomum sp. (Que) |
| Protozoa | Derogenes varicus (Lab) |
| A piosoma sp. (Que) | Digenea gen.sp. metacercaria (Alta, Ont) |
| Balantidium sp. (Que) | Digenea gen.sp. (Ont, Que) |
| Chilodonella sp. (Que) | Diplostomulum sp. metacercaria (BC, |
| Dactylosoma salvelini (Que) | NS, Ont) |
| Dactylosoma sp. (Que)* | Diplostomum spathaceum metacercaria |
| Eimeria salvelini (Que) | (Lab, NS) |
| E. truttae (Que) | Gorgoderidae gen.sp. (Nfld) |
| Eimeria sp. (Que) | Heterophyidae gen.sp. (Nfld) |
| Haemogregarina salvelini (Que) | Neascus sp. metacercaria (BC) |
| Haemogregarina sp. (Que) | Phyllodistomum lachancei (Que) |
| Hexamita salmonis (Que, PEI) | P. limnosa (Lab, Nfld) |
| Ichthyobodo necatrix (-) | P. superbum (Que) |
| Ichthyobodo sp. (Que) | Pleurogenes sp. (Que)*** |
| lchthyophthirius multifiliis (Nfld) | Podocotyle atomon (Lab) |
| Ichthyophthirius sp. (Que) | Posthodiplostomum minimum metacer- |
| Microsporida gen.sp. (Ont) | caria (Ont) |
| Pleistophora salmonae (Que) | Ptychogonimus fontanus (Que) |
| Sarcocystis salvelini (–) | Tetracotyle sp. metacercaria (Nfld) |
| Trichodina sp. (Ont, Que) | Cestoidea |
| Trichophrya piscium (Nfld, NS) | Bothrimonus sturionis (E Arc, Lab) |
| Trypanosoma percae var, canadensis | Cestoda gen.sp. (NS, Ont, Que) |
| (Que) | Diphyllobothriidae gen.sp. plerocercoid |
| Trypanosoma sp. (Que) | (Que) |
| Myxosporida | Diphyllobothrium sp. plerocercoid |
| Chloromyxum leydigi (Que) | (Alta, BC, Lab, Nfld, NS, Que) |

Eubothrium salvelini (BC, Lab, Nfld-b?, Ergasilus sp. (Nfld-b &/or Nfld) Lepeophtheirus salmonis (Atl, Lab, NS) Nfld, Ont, Que, Hudson and James Salmincola carpionis (Que) bays) Eubothrium sp. (Lab, Lab-Que, Nfld-b?, S. edwardsii (BC, Lab, NB, Nfld, NS, Ont, PEI, Que) Nfld) Ligula intestinalis plerocercoid (BC, Que) Salmincola sp. (Que) Ligula sp. plerocercoid (Ont, Que) Proteocephalidae gen.sp. (Que) Salvelinus fontinalis (Mitchill) \times S. namaycush Proteocephalus ambloplitis (Ont) (Walbaum) splake P. parallacticus (Ont, Que) Trematoda P. tumidocollus (Lab, Que) Crepidostomum farionis (Alta, Ont) Proteocephalus sp. (Lab, Lab-Que, Ont) Diplostomum spathaceum metacercaria Schistocephalus solidus plerocercoid (Nfld, Que) Tetracotyle intermedia metacercaria Nematoda (Ont) Anisakis sp. larva (Lab) Cestoidea Capillaria salvelini (Lab, Nfld-b?, Nfld, Diphyllobothrium sp. plerocercoid (Alta) Que) Proteocephalus parallacticus (Ont) Contracaecum sp. (Lab) Cystidicola farionis (Ont, Que) Cystidicola farionis (Ont) Cystidicoloides tenuissima (BC, Lab, NB, Spinitectus gracilis (Ont) Nfld, NS, Ont, Que-b, Que) Acanthocephala Nematoda gen.sp. (Lab, Ont, Que) Acanthocephalus jacksoni (Ont) Philometra cylindracea (Que) Metechinorhynchus salmonis (Ont) Philometra sp. (Que) Pomphorhynchus bulbocolli (Ont) Philonema agubernaculum (Lab, Nfld, Copepoda Que-b, Que) Ergasilus caeruleus (Ont) P. oncorhynchi (NS) Philonema sp. (Lab-Que) Salvelinus malma (Walbaum) Dolly Varden Raphidascaris alius (Que) Syn.: Salvelinus alpinus malma (Walbaum) R. laurentianus (Que) Rhabdochona cascadilla (Alta) Myxosporida Myxosporida gen.sp. (BC) R. milleri (Alta, BC) Monogenea R. ovifilamenta (Que) Rhabdochona sp. (Alta, BC) Discocotyle sagittata (BC) Skrjabinocapillaria bakeri (BC, Ont) Gyrodactyloidea gen.sp. (BC) Trematoda Thynnascaris brachyura (Ont) Truttaedacnitis truttae (BC) Brachyphallus crenatus (BC) Bunodera luciopercae (BC) Truttaedacnitis sp. (BC) Crepidostomum farionis (Pac, BC) Acanthocephala Diplostomulum sp. metacercaria (BC) Acanthocephala gen.sp. (Nfld, Ont, Que) Lecithaster gibbosus (Pac, BC) Echinorhynchus gadi (Atl, Que-b, Que) Neascus sp. metacercaria (BC) Leptorhynchoides thecatus (Ont) Prosorhynchoides ozakii (BC) Metechinorhynchus lateralis (Lab. Tetracotyle sp. metacercaria (BC) Nfld-b?, Nfld, NS, Que) Tubulovesicula lindbergi (Pac) Metechinorhynchus sp. (Lab-Que) Cestoidea Neoechinorhynchus cylindratus (Que) Bothrimonus sturionis (W Arc) N. rutili (BC) Bothriocephalus cuspidatus (Man) Hirudinoidea Cestoda gen.sp. (Alta) Hirudinoidea gen.sp. (Nfld) Cyathocephalus truncatus (Alta) Piscicola punctata (Ont &/or Que) Diphyllobothrium cordiceps plerocercoid Branchiura (BC) Argulus stizostethii (Nfld, NS) ?D. latum plerocercoid (BC) Copepoda Diphyllobothrium sp. plerocercoid (BC) Caligus elongatus (Atl) Eubothrium salvelini (Alta) Ergasilus auritus (Que) ?Glaridacris terebrans (Alta) E. luciopercarum (Nfld)

Phyllobothrium sp. plerocercoid (Pac, Diphyllobothrium dendriticum plero-BC) cercoid (Ont) Proteocephalus salmonidicola (BC) D. latum plerocercoid (Man) Nematoda Diphyllobothrium sp. plerocercoid (Alta, Man, NWT, Ont, YT) Capillaria sp. (Pac) Contracaecum sp. (Pac, BC) Eubothrium crassum (Lab, NWT, Ont) E. salvelini (Alta, BC, Lab, Man, NWT, Cystidicola sp. (BC) Cystidicoloides tenuissima (BC) Ont, Que, Sask, YT) Eustrongylides sp. larva (BC) Eubothrium sp. (Lab, Que) Philonema oncorhynchi (BC) Proteocephalidae gen.sp. (Que)* Rhabdochona milleri (BC) Proteocephalus ambloplitis (Ont) P. parallacticus (Alta, Ont) Salvelinema salmonicola (BC) Skrjabinocapillaria bakeri (BC) P. pusillus (Ont) Truttaedacnitis truttae (BC) P. tumidocollus (Lab, YT) Acanthocephala Proteocephalus sp. (Lab, NWT, Ont, Echinorhynchus gadi (Pac) Que, Sask) Metechinorhynchus leidyi (NWT) Schistocephalus solidus plerocercoid M. salmonis (NWT) (NWT) Neoechinorhynchus rutili (BC) Triaenophorus crassus plerocercoid Copepoda (Alta, NWT, Ont, Sask, YT) Salmincola californiensis (W Arc, BC, Nematoda NWT) Capillaria salvelini (Lab, YT) S. carpionis (W Arc) Cystidicola cristivomeri (NWT, Ont) S. edwardsii (BC) C. farionis (Alta, BC, Man, NWT, Ont, S. siscowet (W Arc?, NWT) Que, Sask, YT) Cystidicola sp. (Alta) Cystidicoloides tenuissima (Lab) Eustrongylides sp. larva (BC) Salvelinus namaycush (Walbaum) lake trout Syn.: Cristivomer namaycush (Walbaum) Nematoda gen.sp. (Lab, Ont, Sask) Philonema agubernaculum (Lab) Salmo siscowet Agassiz Includes: Salvelinus namaycush siscowet P. oncorhynchi (Ont) Agassiz Philonema sp. (NWT, Ont) Protozoa Thynnascaris adunca (Lab) Cryptobia gurneyorum (NWT) T. brachyura (Alta) Hexamita salmonis (YT) Truttaedacnitis truttae (Alta) Acanthocephala Microsporida gen.sp. (Ont) Leptorhynchoides thecatus (Ont) Myxosporida Myxobolus neurobius (YT) Metechinorhynchus lateralis (Lab) M. leidyi (NWT, Ont, Que) Monogenea Discocotyle sagittata (Lab, YT) M. salmonis (Alta, Man, NWT, Ont) Trematoda Neoechinorhynchus rutili (YT) Hirudinoidea Apophallus sp. metacercaria (Ont) Azygia angusticauda (Ont) Piscicola milneri (NWT, Ont, Que, YT) A. longa (Ont) Copepoda Brachyphallus crenatus (Lab) Ergasilus nerkae (Alta) Bunodera luciopercae (BC, Lab) Salmincola edwardsii (YT) Crepidostomum farionis (Alta, BC, Lab, S. siscowet (NWT, Ont, Que, Sask) Ont, YT) Salmincola sp. (BC, Man) C. metoecus (YT) Diplostomulum sp. metacercaria (Ont) Salvelinus sp. Diplostomum spathaceum metacercaria Cestoidea (Lab, YT) Bothriocephalus cestus (Que) Tetracotyle sp. metacercaria (YT) Cestoidea Stenodus leucichthys (Güldenstadt) inconnu Bothriocephalus cuspidatus (Alta, Man) Includes: Stenodus leucichthys mackenzii Bothriocephalus sp. (BC) (Richardson)

Cestoidea

Cyathocephalus truncatus (NWT, YT)

Eubothrium sp. (NWT) Crepidostomum farionis (Alta) Proteocephalus sp. (NWT) Diplostomulum sp. metacercaria (BC) Cestoidea Triaenophorus crassus plerocercoid (Alta, NWT) Cyathocephalus truncatus (Alta) Diphyllobothrium sp. plerocercoid (Alta) Copepoda Eubothrium salvelini (Alta, Ont) Salmincola sp. (NWT) Proteocephalus sp. (Alta) Thymallus arcticus (Pallas) Arctic grayling Triaenophorus nodulosus plerocercoid Syn.: Thymallus signifer (Richardson) (Alta) Nematoda Salmo signifer (Richardson) Cystidicola farionis (Alta) Protozoa Hexamita salmonis (YT) Philonema agubernaculum (Alta) Acanthocephala Myxosporida Metechinorhynchus salmonis (Alta) Chloromyxum sp. (YT) Myxobolus neurobius (YT) Pomphorhynchus bulbocolli (Alta) Copepoda Monogenea Discocotyle sagittata (YT) Ergasilus auritus (Alta) Gyrodactyloidea gen.sp. (BC) E. nerkae (Alta) Tetraonchus borealis (Sask, YT) Trematoda "Trout" Allocreadium isoporum (YT) Trematoda Crepidostomum farionis (BC, YT) Clinostomum marginatum metacercaria C. metoecus (YT) Crepidostomum sp. (BC) Clinostomum sp. metacercaria (BC) Diplostomum spathaceum metacercaria Digenea gen.sp. metacercaria (NB) Cestoidea Tetracotyle sp. metacercaria (YT) Eubothrium salvelini (Ont) Cestoidea Cyathocephalus sp. (NWT) Coregoninae gen.sp. Diphyllobothrium sp. plerocercoid (YT) Cestoidea Eubothrium salvelini (YT) Triaenophorus crassus plerocercoid (-) Proteocephalus tumidocollus (YT) Triaenophorus crassus plerocercoid "Whitefish" (NWT, YT) Hirudinoidea T. nodulosus plerocercoid (NWT) Piscicola milneri (Ont) Nematoda Capillaria salvelini (YT) Cystidicola farionis (YT) Family OSMERIDAE Metabronema sp. (BC) Nematoda gen.sp. (NWT) Hypomesus pretiosus (Girard) silver smelt Raphidascaris acus larva (YT) Trematoda Rhabdochona cascadilla (BC) Lecithaster gibbosus (Pac) Acanthocephala Pseudopentagramma petrowi (Pac) Metechinorhynchus salmonis (NWT)* Neoechinorhynchus rutili (YT) capelin N. tumidus (YT) Mallotus villosus (Müller) Protozoa Copepoda Salmincola thymalli (NWT, YT) Glugea sp. (Atl) Trematoda Digenea gen.sp. (Que-b) Salmonidae of Undetermined Species Pseudopentagramma petrowi (Pac) Cestoidea Salmonidae gen.sp. Eubothrium parvum (Atl)* Monogenea Nematoda Discocotyle sagittata (Alta) Anisakis sp. larva (Atl) Contracaecum sp. (Atl) Tetraonchus variabilis (Ont) Nematoda gen.sp. (Que-b) Trematoda

| Osmerus mordax (Mitchill) rainbow smelt | Lecithaster gibbosus (Pac) |
|---|---|
| Syn.: Osmerus eperlanus mordax (Mitchill) | Pseudopentagramma petrowi (Pac) |
| Protozoa | Cestoidea |
| Eimeria osmeri (Ont) | Phyllobothrium sp. plerocercoid (Pac) |
| Glugea hertwigi (Ont, Que) | Nematoda |
| Glugea sp. (Que) | Contracaecum sp. (Pac) |
| Trematoda | |
| Brachyphallus crenatus (Atl, Lab, Que) | Copepoda |
| Derogenes varicus (Atl, Lab, Que) | Haemobaphes diceraus (Pac) |
| Digenea gen.sp. (Que-b) | |
| Diplostomulum sp. metacercaria (Ont) | |
| Diplostomum sp. metacercana (Ont) | Osmeridae of Undetermined Species |
| Diplostomum spathaceum metacercaria (Ont) | • |
| | "Smelt" |
| D. spathaceum indistinctum metacercaria | |
| (Ont) | Copepoda |
| Hemiurus appendiculatus (Atl) | Haemobaphes intermedius (Pac) |
| Lecithaster confusus (Que) | |
| Tetracotyle intermedia metacercaria | |
| (Ont) | Family ARGENTINIDAE |
| Tetracotyle sp. metacercaria (Ont) | • |
| Cestoidea | Amount in a stank and the stank as the stank at |
| Cestoda gen.sp. (Que-b) | Argentina silus Ascanius Atlantic argentine |
| Diphyllobothrium sp. plerocercoid (Que) | Trematoda |
| Proteocephalus sp. (Lab, Ont, Que) | Derogenes varicus (Atl) |
| Nematoda | Hemiurus levinseni (Atl) |
| Anisakis sp. larva (Que) | Lampritrema miescheri (Atl) |
| Capillaria salvelini (Que) | Lecithophyllum botryophorum (Atl) |
| Cystidicola farionis (Ont) | |
| Philometra sp. (Ont) | |
| Philonema agubernaculum (Que) | Family BATHYLAGIDAE |
| Phocanema decipiens larva (Atl) | , |
| Phocanema sp. larva (Atl) | Laura alaman atilbina adamidi Dana |
| Spinitectus gracilis (Ont) | Leuroglossus stilbius schmidti Rass |
| Thominx catenata (Ont) | northern smoothtongue Trematoda |
| Acanthocephala | |
| Acanthocephalus jacksoni (Ont) | Digenea gen.sp. (Pac) |
| Leptorhynchoides thecatus (Lab, Que-b) | |
| Metechinorhynchus salmonis (Ont) | |
| Neoechinorhynchus pungitius (Ont) | Family UMBRIDAE |
| N. rutili (Ont) | |
| Pomphorhynchus bulbocolli (Ont) | Umbra limi (Kirtland) central mudminnow |
| Copepoda | Protozoa |
| Ergasilus funduli (Atl) | Eimeria hoffmani (Ont) |
| ,, | Monogenea |
| O auto anno a su | Gyrodactylus limi (Ont) |
| Osmerus sp. | Trematoda |
| Trematoda | Bunoderina eucaliae (Ont) |
| Hemiurus sp. (Atl) | Creptotrema funduli (Ont) |
| | Diplostomulum sp. metacercaria (Ont) |
| Spirinchus thaleichthys (Ayres) longfin smelt | Neascus sp. metacercaria (Ont) |
| Syn.: Spirinchus dilatus Schultz and Chapman | |
| Trematoda | Tetracotyle sp. metacercaria (Ont) |
| Pseudopentagramma petrowi (Pac) | Nematoda |
| . , , | Spiroxys sp. larva (Ont) |
| Thaleichthys pacificus (Richardson) eulachon | Acanthocephala |
| Trematoda | Leptorhynchoides thecatus (Ont) |
| Digenea gen.sp. (Pac) | Neoechinorhynchus rutili (Ont) |
| Discred genisp. (Tac) | Pomphorhynchus bulbocolli (Ont) |

| Family ESOCIDAE | Diplostomum spathaceum metacercaria (YT) |
|---|--|
| Esox americanus americanus Gmelin | Microphallus opacus (Que) |
| redfin pickerel | Phyllodistomum folium (Que?) |
| Syn.: Esox americanus Gmelin | P. superbum (Que) |
| Nematoda | Posthodiplostomum minimum |
| ?Cystidicola farionis (Ont) | metacercaria (Ont) |
| | Tetracotyle parvula metacercaria (Que?)*** |
| Esox americanus vermiculatus Lesueur grass pickerel | Tetracotyle sp. metacercaria (Ont) |
| Syn.: Esox vermiculatus Lesueur | Uvulifer ambloplitis metacercaria (Ont) |
| Protozoa | Cestoidea |
| Scyphidia micropteri (Ont) | Bothriocephalus cuspidatus (Alta, |
| Vauchomia renicola (Ont) | Hudson Bay drainage, Man) |
| Vorticellidae gen.sp. (Ont) | Diphyllobothrium latum plerocercoid |
| Myxosporida | (Alta, Man, NWT, Ont, Sask) |
| Myxosporida gen.sp. (Ont) | Diphyllobothrium sp. plerocercoid (Man) |
| Trematoda | Proteocephalus pinguis (BC, Lab, Man, |
| Azygia angusticauda (Ont) | NWT, Ont, Que) |
| Centrovarium lobotes (Ont) | P. stizostethi (Que) |
| Crassiphiala bulboglossa metacercaria | P. tumidocollus (YT) |
| (Ont) | Proteocephalus sp. (Lab) |
| Macroderoides flavus (Ont) | Triaenophorus crassus plerocercoid |
| Cestoidea | (Alta) |
| Proteocephalus pinguis (Ont) | T. crassus adult (Alta, BC-YT, Man, |
| Nematoda | NWT, Ont, Sask, YT) |
| Spinitectus gracilis (Ont) | T. nodulosus adult (Alta, Man, NWT, |
| Mollusca | Ont, YT) |
| Unionidae gen.sp. glochidium (Ont) | Triaenophorus sp. plerocercoid (Hudson |
| Omomette gen.sp. glochterum (Ont) | Bay drainage) |
| | <i>Triaenophorus</i> sp. adult (Man) |
| Esox lucius Linnaeus northern pike | Nematoda |
| Syn.: Lucius lucius (Linnaeus) | Camallanus sp. (Lab) |
| Esox estor Lesueur | Philonema sp. (NWT) |
| Protozoa | Raphidascaris acus (Man, NWT, Sask, |
| Cryptobia gurneyorum (NWT) | YT) |
| Trichodina sp. (Ont) | R. acus larva (YT) |
| Myxosporida | Raphidascaris sp. (Lab, Man) |
| Chloromyxum esocinum (YT) | Rhabdochona canadensis (Alta)*** |
| Myxidium lieberkuehni (Ont, YT) | Thynnascaris brachyura (Ont, Que) |
| Monogenea | Acanthocephala |
| Gyrodactyloidea gen.sp. (Ont) | Leptorhynchoides thecatus (Ont, Que) |
| Tetraonchus monenteron (Alta, Lab, | Metechinorhynchus lateralis (Lab) |
| Ont, YT) | M. salmonis (Alta, Ont) |
| Trematoda | Neoechinorhynchus cylindratus (Ont) |
| Allocreadium isoporum (YT) | N. rutili (BC, YT) |
| A pophallus venustus metacercaria (Que) | N. tenellus (Ont) |
| Azygia angusticauda (Ont) | N. tumidus (YT) |
| A. longa (Ont, Que) | Pomphorhynchus bulbocolli (Ont) |
| Bunodera luciopercae (Lab) | Hirudinoidea |
| Centrovarium lobotes (Ont, Que) | Illinobdella sp. (Ont) |
| Clinostomum complanatum metacercaria | Mollibdella grandis (Ont) |
| (Que) | Piscicola milneri (YT) |
| C. marginatum metacercaria (Ont) | |
| Crepidostomum metoecus (YT) | Esox masquinongy Mitchill muskellunge |
| Digenea gen.sp. metacercaria (Que) | Syn.: Lucius masquinongy (Mitchill) |
| Diplostomulum sp. metacercaria (Ont) | Myxosporida |

Henneguya acuta (Ont) Neascus sp. metacercaria (BC) Posthodiplostomum minimum Myxobolus dentium (Que) metacercaria (BC) Monogenea Gyrodactyloidea gen.sp. (Ont) Cestoidea Tetraonchus loftusi (Ont) Caryophyllidea gen.sp. (BC) Trematoda Nematoda Azygia angusticauda (Ont, Que) Philonema sp. (BC) A. longa (Ont, Que) Rhabdochona cascadilla (BC) Diplostomulum sp. metacercaria (Ont) Copepoda Diplostomum spathaceum indistinctum Ergasilus caeruleus (BC) metacercaria (Ont) Phyllodistomum staffordi (Que) Campostoma anomalum (Rafinesque) Cestoidea stoneroller Proteocephalus pinguis (Ont, Que) Trematoda Triaenophorus crassus adult (Ont) Neascus sp. metacercaria (Ont) T. nodulosus adult (Ont, Que) Posthodiplostomum minimum Nematoda metacercaria (Ont) Cystidicoloides tenuissima (Que)*** goldfish Raphidascaris acus (Que) Carassius auratus (Linnaeus) Thynnascaris brachyura (Ont) Monogenea Acanthocephala Dactylogyrus anchoratus (Ont) Leptorhynchoides thecatus (Ont, Que) D. vastator (Ont) Metechinorhynchus salmonis (Ont) Cestoidea Neoechinorhynchus cylindratus (Que) Triaenophorus nodulosus plerocercoid N. tenellus (Ont) (Ont) Nematoda Copenoda Ergasilus caeruleus (Ont) Nematoda gen.sp. (Ont) Acanthocephala Esox niger Lesueur chain pickerel Pomphorhynchus sp. (Ont) Protozoa Copepoda Vauchomia renicola (Que) Lernaea cyprinacea (Ont) Myxosporida Chrosomus eos Cope northern redbelly dace Henneguya esocis (Que) Henneguva sp. (Oue) Syn.: Phoxinus eos (Cope) Myxidium lieberkuehni (Que)* Monogenea Trematoda Dactylogyrus chrosomi (Ont) Crepidostomum cooperi (Que) D. eos (Ont) Macroderoides flavus (Que) Gyrodactyloidea gen.sp. (Ont) Trematoda Macrophallus opacus (Que) Phyllodistomum superbum (Que) Digenea gen.sp. metacercaria (Ont) Cestoidea Diplostomulum sp. metacercaria (Ont) Proteocephalus pinguis (Que) Neascus sp. metacercaria (Ont) Nematoda Posthodiplostomum minimum Philometra sp. (Que) metacercaria (Ont) Raphidascaris sp. (Que) Tetracotyle sp. metacercaria (Ont) Uvulifer ambloplitis metacercaria (Ont) Cestoidea ORDER CYPRINIFORMES Ligula intestinalis plerocercoid (Ont) Nematoda Family CYPRINIDAE Nematoda gen.sp. (Ont) Rhabdochona cascadilla (Ont) Acrocheilus alutaceus Agassiz and Pickering Acanthocephala chiselmouth Pomphorhynchus bulbocolli (Ont)

finescale dace

Chrosomus neogaeus (Cope)

Myxosporida

Syn.: *Phoxinus neogaeus* Cope

Monogenea

Trematoda

Dactylogyrus vancleavei (BC)

Gyrodactyloidea gen.sp. (BC)

Myxobolus conspicuus (Ont) Mollusca Myxosoma parellipticoides (Que) Unionidae gen.sp. glochidium (BC) M. pfrille (Que) Copepoda Ergasilus nerkae (BC) Thelohanellus notatus (Que) Monogenea Gyrodactylidae gen.sp. (Ont) Cyprinus carpio Linnaeus carp Protozoa Octomacrum semotili (Ont) Urocleidus brachus (Ont) Trichodina sp. (BC) Trematoda Monogenea Dactylogyrus anchoratus (BC, Ont) Cotylurus communis metacercaria (Ont) Neascus sp. metacercaria (Ont) D. extensus (BC, NS, Ont) Posthodiplostomum minimum Gyrodactyloidea gen.sp. (BC) Pseudacolpenteron pavlovskii (Ont) metacercaria (Ont) Uvulifer ambloplitis metacercaria (Ont) Trematoda A pophallus venustus metacercaria (Que) Cestoidea Crepidostomum cooperi (NS) Proteocephalus sp. (Ont) Diplostomulum sp. metacercaria (Ont) Nematoda Nematoda gen.sp. (Ont) Diplostomum spathaceum indistinctum lake chub Neascus sp. metacercaria (Ont) Couesius plumbeus (Agassiz) Syn: Hybopsis plumbea (Agassiz) Cestoidea Includes: C. plumbeus dissimilis (Girard) Atractolytocestus huronensis (BC) Khawia iowensis (Ont) C. plumbeus greeni Jordan Ligula intestinalis plerocercoid (Ont) Myxosporida Myxobolus couesii (Que) Nematoda Myxosporida gen.sp. (BC) Nematoda gen.sp. (Ont) Rhabdochona cascadilla (BC) Monogenea Dactylogyrus banghami (BC) Spinitectus gracilis (Ont) D. mylocheilus (BC, Ont) Acanthocephala Leptorhynchoides thecatus (Ont) Gyrodactyloidea gen.sp. (BC) Gyrodactylus aldrichi (Lab) Pomphorhynchus bulbocolli (Ont) G. couesius (BC) Mollusca Unionidae gen.sp. glochidium (Ont) G. plumbea (Lab) Octomacrum sp. (BC, Ont) Branchiura Argulus appendiculosus (Ont) Urocleidus brachus (Lab) Trematoda Copepoda Allocreadium lobatum (BC, Lab) Ergasilus caeruleus (Ont) Diplostomulum sp. metacercaria (BC, Lernaea cyprinacea (Ont) Ont) Neascus sp. metacercaria (BC, Ont) Ericymba buccata Cope silverjaw minnow Posthodiplostomum minimum Trematoda Allocreadiidae gen.sp. (Ont) metacercaria (BC, Ont) Tetracotyle sp. metacercaria (BC) Crassiphiala bulboglossa metacercaria Cestoidea (Ont) Nematoda Eubothrium sp. (BC) Hymenolepis sp. larva (BC) Camallanus oxycephalus (Ont) Ligula intestinalis plerocercoid (BC) Hybognathus hankinsoni Hubbs brassy minnow Proteocephalus sp. (BC) Protozoa Nematoda Cystidicola farionis (Que) Eimeria hybognathi (Ont) Rhabdochona canadensis (Alta) Trichodina sp. (Ont) Myxosporida R. cascadilla (BC) Rhabdochona sp. (Ont) Myxobolus transversalis (Ont) Myxobolus sp. (Ont) Skrjabinocapillaria bakeri (BC) Acanthocephala Monogenea Dactylogyrus hankinsoni (Ont) Metechinorhynchus salmonis (Ont) Neoechinorhynchus rutili (BC) Dactylogyrus sp. (Ont)

| Octomacrum sp. (Ont)* Trematoda Diplostomum spathaceum metacercaria (Ont) Neascus sp. metacercaria (Ont) Pomphorhynchus bulbocolli (BC) Mollusca Unionidae gen.sp. glochidium (BC) Copepoda Ergasilus nerkae (BC) | E) |
|---|------------|
| Diplostomum spathaceum metacercaria Unionidae gen.sp. glochidium (BC (Ont) | :) |
| (Ont) Copepoda | :) |
| | |
| | |
| Ornithodiplostomum ptychocheilus | |
| metacercaria (Ont) Mylocheilus sp. | |
| Posthodiplostomum minimum minimum Cestoidea | |
| metacercaria (Ont) Ligula intestinalis plerocercoid (B | C) |
| Rhipidocotyle sp. metacercaria (Ont) | |
| Tetracotyle sp. metacercaria (Ont) Nocomis biguttatus (Kirtland) hornyhe | ad club |
| Uvulifer ambloplitis metacercaria (Ont) Protozoa | |
| Mollusca Eimeria iroquoina (Ont) | |
| Unionidae gen.sp. glochidium (Ont) Trichodina sp. (Ont) | |
| Myxosporida | |
| Hybopsis storeriana (Kirtland) silver chub Myxobolus sp. (Ont) | |
| Syn.: Erinemus storerianus (Kirtland) Monogenea | |
| Trematoda Dactylogyrus sp. (Ont) | |
| Neascus sp. metacercaria (Ont) Gyrodactylus sp. (Ont) | |
| Plagioporus cooperi (Ont) Trematoda | |
| Strigeidae gen.sp, metacercaria (Ont) Allocreadium lobatum (Ont) Dislocation of metacercaria (Ont) | Ont) |
| Cestoidea Diplostomulum sp. metacercaria (| |
| Ligula intestinalis plerocercoid (Ont) Nematoda Diplostomum spathaceum metaces (Ont) | Carra |
| · · | |
| Nematoda gen.sp. (Ont) Acanthocephala Ornithodiplostomum ptychocheilu metacercaria (Ont) | 23 |
| Leptorhynchoides thecatus (Ont) Plagioporus sinitsini (Ont) | |
| Posthodiplostomum minimum | |
| Mylocheilus caurinus (Richardson) peamouth metacercaria (Ont) | |
| Myxosporida P. minimum minimum metacercan | ia |
| Myxosporida gen.sp. (BC) (Ont) | |
| Monogenea Uvulifer ambloplitis metacercaria | (Ont) |
| Dactylogyrus mylocheilus (BC) Mollusca | ` ' |
| Gyrodactyloidea gen.sp. (BC) Unionidae gen.sp. glochidium (On | t) |
| Octomacrum lanceatum (BC) | |
| | r chub |
| Allocreadium lobatum (BC) Monogenea | |
| Clinostomum marginatum metacercaria Dactylogyrus aviunguis (Ont) | |
| (BC) D. flagristylus (Ont) | |
| Diplostomulum sp. metacercaria (BC) D. lachneri (Ont) | |
| Neascus sp. metacercaria (BC) D. reciprocus (Ont) | |
| Posthodiplostomum minimum Trematoda | |
| metacercaria (BC) Neascus sp. metacercaria (Ont) | |
| Tetracotyle sp. metacercaria (BC) Posthodiplostomum minimum | |
| Cestoidea metacercaria (Ont) | |
| Edlintonia ptychocheila (BC) Nematoda Nematoda | |
| Eubothrium salvelini (BC) Nematoda gen.sp. (Ont) | |
| Ligula intestinalis plerocercoid (BC) Proteocephalus ptychocheilus (BC) Notemigonus crysoleucas (Mitchill) | |
| Proteocephalus ptychocheilus (BC) Nematoda Notemigonus crysoleucas (Mitchill) golden | chinar |
| - | Sillie |
| Eustrongylides sp. larva (BC) Myxosporida Rhabdochona cascadilla (BC) Myxosporida gen.sp. (Ont) | |
| Skrjabinocapillaria bakeri (BC) Myxosporida gen.sp. (Ont) Myxosporida gen.sp. (Ont) | |
| Truttaedacnitis sp. (BC) Nonogenea Nonogenea Nonogenea Dactylogyrus aureus (Ont) | |
| Acanthocephala D. parvicirrus (Ont) | |
| Neoechinorhynchus cristatus (BC) Syrodactyloidea gen.sp. (Ont) | |

Octomacrum microconfibula (Ont) Neoechinorhynchus sp. (Ont) Mollusca Trematoda Unionidae gen.sp. glochidium (Ont) Diplostomulum sp. metacercaria (Ont) Neascus sp. metacercaria (Ont) Notropis cornutus (Mitchill) common shiner Posthodiplostomum minimum metacercaria (Ont) Syn.: Luxilus cornutus (Mitchill) Protozoa Uvulifer ambloplitis metacercaria (Ont) A piosoma sp. (Ont) Nematoda Eimeria degiustii (Ont) Nematoda gen.sp. (Ont) Thynnascaris brachyura (Ont) E. freemani (Ont) Acanthocephala E. iroquoina (Ont) Glugea sp. (Ont) Neoechinorhynchus notemigoni (Ont) Trichodina sp. (Ont) Mollusca Myxosporida Unionidae gen.sp. glochidium (NS) Chloromyxum catostomi (Ont) Notropis anogenus Forbes pugnose shiner Henneguya fontinalis var. notropis (Que) Myxidium sp. (Ont) Monogenea Myxobolus grandis (Que) Gyrodactylus sp. (Ont) M. notropis (Que) Trematoda M. transversalis (Ont, Que) Diplostomulum sp. metacercaria (Ont) Myxobolus sp. (Ont) Neascus sp. metacercaria (Ont) Nematoda Myxosoma media (Que) M. notropis (Que) Rhabdochona cascadilla (Ont) M. orbitalis (Que) Acanthocephala Leptorhynchoides thecatus (Ont) Sphaerospora notropis (Que) Sphaerospora sp. (Ont) Thelohanellus notatus (Que) Notropis atherinoides Rafinesque emerald shiner Monogenea Dactylogyrus banghami (Ont) Myxosporida D. bulbus (Ont) Myxosporida gen.sp. (Ont) D. bullosus (Ont) Monogenea D. cornutus (Ont) Dactylogyrus sp. (Ont) D. dubius (Ont) Gyrodactyloidea gen.sp. (Ont) D. luxili (Ont) Trematoda D. perlus (Ont) Digenea gen.sp. (Ont)** D. pollex (Ont) Diplostomulum sp. metacercaria (Ont) Dactylogyrus sp. (Ont) Diplostomum spathaceum indistinctum Gyrodactylidae gen.sp. (Ont) metacercaria (Ont) Gyrodactyloidea gen.sp. (Ont) Leuceruthrus sp. (Ont) Gyrodactylus sp. (Ont) Plagioporus cooperi (Ont) Octomacrum lanceatum (Ont) Posthodiplostomum cuticola Trematoda metacercaria (Ont) Allocreadium lobatum (Ont) P. minimum metacercaria (Ont) A pophallus venustus metacercaria (Que) P. minimum minimum metacercaria Bunoderina sacculata (Ont) (Ont) Clinostomum marginatum metacercaria Strigeidae gen.sp. (Ont) Cestoidea (Ont) Crepidostomum sp. (Que) Bothriocephalus cuspidatus (Ont) Diplostomum spathaceum metacercaria Proteocephalus ambloplitis plerocercoid (Ont) D. spathaceum indistinctum P. pearsei (Ont) metacercaria (Ont) P. pinguis (Ont) Neascus pyriformis metacercaria (Ont) Proteocephalus sp. (Ont) Neascus sp. metacercaria (Ont) Nematoda Ornithodiplostomum ptychocheilus Camallanus oxycephalus (Ont) Thynnascaris brachyura (Ont) metacercaria (Ont) Plagioporus cooperi (Ont) Acanthocephala

| P. sinitsini (Ont) | Gyrodactylidae gen.sp. (Ont) |
|--|--|
| Posthodiplostomum cuticola | Gyrodactyloidea gen.sp. (Ont) |
| metacercaria (Ont) | Octomacrum lanceatum (Ont) |
| P. minimum metacercaria (Ont) | Trematoda |
| P. minimum minimum metacercaria | Diplostomulum sp. metacercaria (Ont) |
| (Ont) | Diplostomum spathaceum metacercaria |
| Tetracotyle sp. metacercaria (Ont) | (Ont) |
| Uvulifer ambloplitis metacercaria (Ont) | Neascus sp. metacercaria (Ont) |
| Cestoidea | Ornithodiplostomum ptychocheilus |
| Bothriocephalus sp. (Ont) | metacercaria (Ont) |
| Ligula intestinalis plerocercoid (Ont) | Posthodiplostomum minimum |
| Triaenophorus nodulosus plerocercoid | metacercaria (Ont) |
| (Ont) | Uvulifer ambloplitis metacercaria (Ont) |
| Nematoda | Cestoidea |
| Rhabdochona cascadilla (Ont) | Ligula intestinalis plerocercoid (Ont) |
| Acanthocephala | Proteocephalus sp. (Ont) |
| Acanthocephala gen.sp. (Ont) | Nematoda |
| Mollusca | Spiroxys sp. larva (Ont) |
| Unionidae gen.sp. glochidium (Ont) | Acanthocephala |
| Copepoda | Acanthocephala gen.sp. (Ont) |
| Ergasilus caeruleus (Ont) | Mollusca |
| | Unionidae gen.sp. glochidium (NS, Ont) |
| Notropis emiliae (Hay) pugnose minnow | benefit Biodinaram (115, Only) |
| Syn.: Opsopoeodus emiliae Hay | Notropis hudsonius (Clinton) spottail shiner |
| Trematoda | Includes: Notropis hudsonius selene Jordan |
| Neascus sp. metacercaria (Ont) | Myxosporida |
| Plagioporus cooperi (Ont) | Myxosoma grandis (Ont) |
| Cestoidea | Myxosporida gen.sp. (Ont) |
| Ligula intestinalis plerocercoid (Ont) | Thelohanellus sp. (Ont) |
| Nematoda | Monogenea |
| Nematoda gen.sp. (Ont) | Dactylogyrus sp. (Ont) |
| | Gyrodactyloidea gen.sp. (Ont) |
| Notropis heterodon (Cope) blackchin shiner | Gyrodactylus sp. (Ont) |
| Trematoda | Trematoda |
| Diplostomulum sp. metacercaria (Ont) | Allocreadium lobatum (Ont) |
| Neascus sp. metacercaria (Ont) | Bucephalus sp. (Ont) |
| Posthodiplostomum minimum | Centrovarium lobotes metacercaria (Ont) |
| metacercaria (Ont) | Clinostomum marginatum metacercaria |
| Nematoda | (Ont) |
| Camallanus oxycephalus (Ont) | Cryptogonimus chili metacercaria (Ont) |
| Nematoda gen.sp. (Ont) | Diplostomulum sp. metacercaria (Ont) |
| | Lissorchis sp. (Ont) |
| Notropis heterolepis Eigenmann and | Neascus sp. metacercaria (Ont) |
| Eigenmann blacknose shiner | Plagioporus cooperi (Ont) |
| Protozoa | Posthodiplostomum minimum |
| Eimeria iroquoina (Ont) | metacercaria (Ont) |
| Spironucleus sp. (Ont) | P. minimum minimum metacercaria |
| Trichodina sp. (Ont) | (Ont) |
| Myxosporida | Sanguinicola sp. (Ont) |
| Chloromyxum catostomi (Ont) | Tetracotyle sp. metacercaria (Ont) |
| Henneguya fontinalis var. notropis (Que) | Cestoidea |
| Myxidium sp. (Ont) | Ligula intestinalis plerocercoid (Man, |
| Myxobolus notropis (Que) | Ont, Sask) |
| M. transversalis (Ont) | Proteocephalus ambloplitis plerocercoid |
| Monogenea | (Ont) |
| Dactylogyrus heterolepis (Ont) | P. pinguis (Ont) |
| Dactylogyrus sp. (Ont) | Proteocephalus sp. (Ont) |

Schistocephalus sp. plerocercoid (Alta) Notropis sp. Spartoides wardi (Man) Copepoda Nematoda Ergasilus sp. (Man) Camallanus oxycephalus (Ont) Contracaecum sp. (Ont) Pimephales notatus (Rafinesque) Nematoda gen.sp. (Ont) bluntnose minnow Rhabdochona cascadilla (Ont) Syn.: *Hyborhynchus notatus* (Rafinesque) Spinitectus gracilis (Ont) Protozoa Acanthocephala Apiosoma sp. (Ont) Leptorhynchoides thecatus (Ont) Eimeria degiustii (Ont) Metechinorhynchus salmonis (Ont) E. iroquoina (Ont) Neoechinorhynchus rutili (Ont) Nosema pimephales (Ont) Neoechinorhynchus sp. (Ont) Spironucleus sp. (Ont) Pomphorhynchus bulbocolli (Ont) Myxosporida Branchiura Myxobolus hyborhynchi (Ont, Que) Myxobolus sp. (Ont) Argulus stizostethii (Ont) Copepoda Myxosporida gen.sp. (Ont) Ergasilus sp. (Man, Ont) Thelohanellus notatus (Ont, Que) Monogenea Notropis rubellus (Agassiz) rosyface shiner Dactylogyrus bifurcatus (Ont) D. bychowskyi (Ont) Monogenea Gyrodactyloidea gen.sp. (Ont) Dactylogyrus rubellus (Ont) Trematoda spotfin shiner Notropis spilopterus (Cope) Centrovarium lobotes metacercaria (Ont) Syn.: Notropis whipplii (Girard) Clinostomum marginatum metacercaria Trematoda Neascus sp. metacercaria (Ont) Diplostomulum sp. metacercaria (Ont) Plagioporus cooperi (Ont) Diplostomum spathaceum metacercaria Cestoidea (Ont) Ligula intestinalis plerocercoid (Ont) Neascus sp. metacercaria (Ont) Ornithodiplostomum ptychocheilus Nematoda Camallanus oxycephalus (Ont) metacercaria (Ont) Nematoda gen.sp. (Ont) Plagioporus cooperi (Ont) Posthodiplostomum minimum Rhabdochona cascadilla (Ont) Hirudinoidea metacercaria (Ont) P. minimum minimum metacercaria Piscicola punctata (Ont) (Ont) Notropis stramineus (Cope) sand shiner Sanguinicola sp. (Ont) Syn.: Notropis deliciosus stramineus (Cope) Tetracotyle sp. metacercaria (Ont) Myxosporida Uvulifer ambloplitis metacercaria (Ont) Ceratom yxa sp. (Ont) Cestoidea Myxosporida gen.sp. (Ont) Ligula intestinalis plerocercoid (Ont) Trematoda Nematoda Neascus sp. metacercaria (Ont) Nematoda gen.sp. (Ont) Rhabdochona cascadilla (Ont) Plagioporus cooperi (Ont) Acanthocephala Neoechinorhynchus sp. (Ont) Ligula intestinalis plerocercoid (Ont) Mollusca Notropis volucellus (Cope) mimic shiner Unionidae gen.sp. glochidium (Ont) Trematoda Copepoda Centrovarium lobotes metacercaria (Ont) Ergasilus cyprinaceus (Ont) Diplostomulum sp. metacercaria (Ont) Plagioporus cooperi (Ont) Pimephales promelas Rafinesque fathead minnow Posthodiplostomum minimum metacercaria (Ont) Protozoa Eimeria degiustii (Ont) Nematoda Rhabdochona cascadilla (Ont) E. iroquoina (Ont)

Glugea sp. (Ont) Allocreadium lobatum (BC) Nosema pimephales (Ont, Que) Diplostomulum sp. metacercaria (BC) Trichodina sp. (Ont) Neascus sp. metacercaria (BC) Posthodiplostomum minimum Myxosporida Myxobolus hyborhynchi (Ont) metacercaria (BC) Myxobolus sp. (Ont) Tetracotyle sp. metacercaria (BC) Myxosporida gen.sp. (Ont) Cestoidea Monogenea Eubothrium salvelini (BC) Dactylogyrus bifurcatus (Ont) Ligula intestinalis plerocercoid (BC) D. bychowskyi (Ont) Proteocephalus ptychocheilus (BC) Dactylogyrus sp. (Ont) Nematoda Gyrodactylus hoffmani (Ont) Contracaecum spiculigerum larva (BC) Trematoda Rhabdochona cascadilla (BC) Allocreadium lobatum (Ont) Skrjabinocapillaria bakeri (BC) Clinostomum marginatum metacercaria Spiroxys sp. larva (BC) Acanthocephala Diplostomulum sp. metacercaria (Ont) Neoechinorhynchus rutili (BC) Diplostomum spathaceum metacercaria Pomphorhynchus bulbocolli (BC) (Ont) Hirudinoidea Illinobdella sp. (BC) Neascus sp. metacercaria (Ont) Ornithodiplostomum ptychocheilus Piscicola punctata (BC) metacercaria (Ont) Mollusca Plagioporus sinitsini (Ont) Unionidae gen.sp. glochidium (BC) Posthodiplostomum minimum Copepoda metacercaria (Ont) Ergasilus nerkae (BC) P. minimum minimum metacercaria (Ont.) Rhinichthys atratulus (Hermann) Sanguinicola sp. (Ont) blacknose dace Uvulifer ambloplitis metacercaria (Ont) Syn.: Rhinichthys atronasus (Mitchill) Cestoidea Protozoa Biacetabulum sp. (Ont) Eimeria iroquoina (Ont) Nematoda Myxosporida Rhabdochona sp. (Ont) Myxobolus rhinichthidis (Que) Mollusca Monogenea Unionidae gen.sp. glochidium (Ont) Dactylogyrus banghami (Ont) Copepoda D. cheloideus (Ont) Ergasilus cyprinaceus (Ont) Gyrodactylus atratuli (Ont) G. avalonia (Ont) Platygobio gracilis (Richardson) flathead chub G. dechtiari (Ont) Syn.: *Hybopsis gracilis* (Richardson) G. stunkardi (Ont) Monogenea Trematoda Dactylogyrus albertensis (Alta) Neascus rhinichthysi metacercaria (Ont) Urocleidus brachus (Alta) Posthodiplostomum minimum Nematoda metacercaria (Ont) Rhabdochona canadensis (Alta) Nematoda Rhabdochona cascadilla (Ont) Ptychocheilus oregonensis (Richardson) Acanthocephala northern squawfish Leptorhynchoides thecatus (Ont) Myxosporida Myxosporida gen.sp. (BC) Rhinichthys cataractae (Valenciennes) Monogenea longnose dace Dactylogyrus columbiensis (BC) Myxosporida D. ptychocheilus (BC) Myxobolus sp. (Ont) D. tridactylus (BC) Myxosporida gen.sp. (BC) D. vancleavei (BC) Monogenea Gyrodactyloidea gen.sp. (BC) Dactylogyrus banghami (Alta, BC, Ont) Trematoda Gyrodactyloidea gen.sp. (BC)

Gyrodactylus cheloideus (Ont) Neoechinorhynchus rutili (BC) Pomphorhynchus bulbocolli (BC) G. dechtiari (Ont) Mollusca G. stunkardi (Lab, Ont) Unionidae gen.sp. glochidium (BC) Trematoda Copepoda Allocreadium lobatum (Ont) Ergasilus nerkae (BC) Diplostomulum scheuringi metacercaria Semotilus atromaculatus (Mitchill) creek chub Diplostomulum sp. metacercaria (Ont) Protozoa Neascus rhinichthysi metacercaria (Ont) Eimeria iroquoina (Ont) Neascus sp. metacercaria (BC, Ont) Trichodina sp. (Ont) Plagioporus cooperi (Ont) Myxosporida Posthodiplostomum minimum Chloromyxum catostomi (Ont) metacercaria (BC, Ont) Myxobolus sp. (Ont) Tetracotyle sp. metacercaria (Ont) Myxosoma pendula (Ont) Cestoidea Myxosporida gen.sp. (Ont) Ligula sp. plerocercoid (Alta) Monogenea Nematoda Dactylogyrus attenuatus (Ont) Camallanus oxycephalus (Ont) D. microphallus (Ont) Cystidicoloides tenuissima (BC) Dactylogyrus sp. (Ont) Rhabdochona canadensis (Alta) Gyrodactylidae gen.sp. (Ont) R. cascadilla (BC) Gyrodactyloidea gen.sp. (Ont) Truttaedacnitis sp. (BC) Octomacrum semotili (Ont) Octomacrum sp. (Ont) Rhinichthys osculus (Girard) speckled dace Urocleidus brachus (Ont) Syn.: Agosia nubila (Girard) Trematoda Cestoidea Allocreadium lobatum (Ont) Cestoda gen.sp. (Alta) Clinostomum marginatum metacercaria Richardsonius balteatus (Richardson) Crassiphiala bulboglossa metacercaria redside shiner (Ont) Myxosporida Diplostomulum sp. metacercaria (Ont) Myxosporida gen.sp. (BC) Diplostomum spathaceum metacercaria Monogenea (Ont) Dactylogyrus banghami (BC) Lissorchis attenuatum (Ont) D. richardsonius (BC) Lissorchis sp. (Ont) Gyrodactyloidea gen.sp. (BC) Neascus pyriformis metacercaria (Ont) Octomacrum sp. (BC) Neascus sp. (Ont) Trematoda Ornithodiplostomum ptychocheilus Allocreadium lobatum (BC) metacercaria (Ont) Clinostomum marginatum metacercaria Posthodiplostomum cuticola metacercaria (Ont) Diplostomulum sp. metacercaria (BC) P. minimum metacercaria (Ont) Neascus sp. metacercaria (BC) P. minimum minimum metacercaria Posthodiplostomum minimum metacercaria (BC) Uvulifer ambloplitis metacercaria (Ont) Tetracotyle sp. metacercaria (BC) Cestoidea Cestoidea Caryophyllidea gen.sp. (Ont) Eubothrium sp. (BC) Proteocephalus amblo plitis plerocercoid Ligula intestinalis plerocercoid (BC) (Ont) Proteocephalus sp. (BC) Schistocephalus sp. plerocercoid (BC) P. pinguis (Ont) Proteocephalus sp. (Ont) Nematoda Rhabdochona cascadilla (BC) Nematoda Skrjabinocapillaria bakeri (BC) Nematoda gen.sp. (Ont) Rhabdochona cascadilla (Ont, Que) Spiroxys sp. larva (BC) Acanthocephala Truttaedacnitis sp. (BC) Acanthocephala Neoechinorhynchus sp. (Ont)

| Branchiura | Family CATOSTOMIDAE |
|--|--|
| Argulus catostomi (Ont) | |
| Copepoda | Carpiodes cyprinus (Lesueur) quillback |
| Ergasilus caeruleus (Ont) | Protozoa |
| Lernaea cyprinacea (Ont) | Trichodina sp. (Ont) |
| | Myxosporida |
| Semotilus corporalis (Mitchill) fallfish | Myxosoma rotundum (Ont) |
| Syn.: Leucosomus corporalis (Mitchill) | Monogenea |
| Semotilus bullaris (Rafinesque) | Acolpenteron catostomi (Ont) |
| Trematoda | Anonchohaptor anomalus (Ont) |
| Allocreadium isoporum (Que?)* | Anonchohaptor sp. (Ont) |
| A. lobatum (Ont) | Icelanonchohaptor fyviei (Ont) |
| Clinostomum marginatum metacercaria | Neodiscocotyle carpioditis (Ont) |
| (Ont) | Pellucidhaptor sp. (Ont) |
| Diplostomulum sp. metacercaria (-) | Trematoda |
| Neascus sp. metacercaria (Ont) | Lissorchis attenuatum (Ont) |
| Posthodiplostomum minimum | Posthodiplostomum minimum minimum |
| metacercaria (Ont) | metacercaria (Ont) |
| Tetracotyle parvula metacercaria (Que?) | Sanguinicola sp. (Ont) |
| Cestoidea | Cestoidea |
| Ligula intestinalis plerocercoid (Ont) | Glaridacris confusus (Ont) |
| Nematoda | Hypocaryophyllaeus paratarius (Ont) |
| Rhabdochona cascadilla (Ont) | Proteocephalus sp. (Ont) |
| Copepoda | Spartoides wardi (Man, Ont) |
| Ergasilus caeruleus (Ont) | Nematoda |
| • • | Camallanus oxycephalus (Ont) |
| Semotilus margarita (Cope) pearl dace | Philometroides nodulosa (Ont) |
| Syn.: Margariscus margarita nachtriebi (Cox) | Acanthocephala |
| Includes: Semotilus margarita nachtriebi | Neoechinorhynchus carpiodi (Ont) |
| (Cox) | N. crassus (Ont) |
| Myxosporida | Pomphorhynchus bulbocolli (Ont) |
| Myxobolus sp. (Ont) | Mollusca |
| Monogenea | Unionidae gen.sp. glochidium (Ont) |
| Octomacrum semotili (Ont) | Copepoda |
| Octomacrum sp. (Ont) | Ergasilus caeruleus (Ont) |
| Trematoda | |
| Crepidostomum sp. (Ont) | Catostomus catostomus (Forster) |
| Neascus sp. metacercaria (Ont) | longnose sucker |
| Uvulifer ambloplitis metacercaria (Ont) | Protozoa |
| Nematoda | Apiosoma sp. (Que) |
| Rhabdochona cascadilla (Ont, Que) | Cryptobia catostomi (Ont) |
| ` , ` , | Hexamita sp. (Que) |
| | Myxosporida |
| Cyprinidae of Undetermined Species | Myxobolus catostomi (Que) |
| of primary of onactormined Species | Myxosoma bibullatum (Que) |
| "Dace" | Myxosoma sp. (YT) |
| Nematoda | Myxosporida gen.sp. (BC, Ont) |
| Cystidicoloides tenuissima (Que) | Monogenea |
| Cystiateorotaes tertaissima (Que) | Acolpenteron catostomi (Que) |
| "Minnow" | Anonchohaptor anomalus (Lab, Ont, |
| Trematoda | YT) |
| | Gyrodactyloidea gen.sp. (BC) |
| Digenea gen.sp. metacercaria (Ont) | Gyrodactylus aquilinus (Lab) |
| Rhipidocotyle papillosa metacercaria | G. atratuli (Lab) |
| (Ont) Hirudinoidea | G. spathulatus (Lab) |
| Piscicola punctata (BC) | Octomacrum lanceatum (BC) |
| · sectora panerara (BC) | Pellucidhaptor catostomi (Ont) |

| Trematoda | Copepoda |
|---|---|
| Allocreadium lobatum (BC, Que) | Ergasilus caeruleus (Lab, Ont) |
| Cotylurus communis metacercaria (Ont) | E. centrarchidarum (Ont) |
| Diplostomulum sp. metacercaria (BC, | E. nerkae (BC) |
| Lab) | |
| Diplostomum spathaceum metacercaria | Catostomus commersoni (Lacépède) |
| (Lab, YT) | white sucker |
| D. spathaceum indistinctum metacercaria | Syn.: Catostomus teres (Mitchill) |
| (Ont) | Protozoa |
| Lissorchis attenuatum (BC) | Cryptobia catostomi (Ont) |
| L. gullaris (Lab) | Eimeria catostomi (Ont) |
| L. simeri (Ont) | E. fernandoae (Ont) |
| Lissorchis sp. (Ont) | Eimeria sp. (Ont) |
| Metorchis conjunctus metacercaria | Hexamitidae gen.sp. (Que) |
| (Sask) | Ichthyophthirius multifiliis (Ont) |
| Neascus sp. metacercaria (BC) | Trichodina sp. (Ont) |
| Phyllodistomum sp. (Ont) | Myxosporida |
| Plagiocirrus sp. (BC) | Chloromyxum catostomi (Ont) |
| Plagioporus sinitsini (Ont) | Myxidium sp. (Ont) |
| Posthodiplostomum minimum | Myxobolus catostomi (Que) |
| metacercaria (BC, Ont) | M. subcircularis (Que) |
| Tetracotyle sp. metacercaria (BC) | Myxobolus sp. (Ont) |
| Cestoidea | Myxosoma bibullatum (Ont) |
| Caryophyllidea gen.sp. (Ont) | M. catostomi (Ont, Que) |
| Cestoda gen.sp. (Alta) | M. commersonii (Que) |
| Eubothrium sp. (BC) | M. ellipticoides (Que) |
| Glaridacris catostomi (Alta, BC, NWT, | Myxosporida gen.sp. (BC, Ont) |
| Ont, Que, Sask, YT) | Sphaerospora notropis (Que) |
| ?G. terebrans (BC) | Thelohanellus notatus (Que) |
| Hunterella nodulosa (Lab) | Monogenea |
| Isoglaridacris calentinei (BC) | Acolpenteron catostomi (Ont) |
| Ligula intestinalis plerocercoid (Alta, | Anonchohaptor anomalus (Lab, Ont) |
| BC, Man, Sask) | Dactylogyrus sp. (Ont) |
| Ligula sp. plerocercoid (Alta) | Gyrodactylidae gen.sp. (Ont) |
| Proteocephalus sp. (Lab) | Gyrodactylus commersoni (Lab) |
| Schistocephalus sp. plerocercoid (BC) | G. spathulatus (Ont) |
| Triaenophorus sp. plerocercoid (Ont) | G. stunkardi (Ont) |
| Nematoda | Octomacrum lanceatum (Ont) |
| Cystidicola farionis (YT) | Pellucidhaptor nasalis (Ont) |
| Philometra sp. (Que) | Pseudomurraytrema copulatum (Ont) |
| Rhabdochona cascadilla (BC, Que) | P. muelleri (Alta) |
| R. ovifilamenta (Alta) | Trematoda |
| Rhabdochona sp. (Lab) | Allocreadium lobatum (Ont) |
| Skrjabinocapillaria bakeri (BC, Ont) | Amphimerus elongatus metacercaria |
| Acanthocephala | (Que) |
| Leptorhynchoides thecatus (Ont) | A. pseudofelineus metacercaria (Man) |
| Metechinorhynchus leidyi (Ont) | A pophallus venustus metacercaria (Que) |
| M. salmonis (Alta, Ont) Neoechinorhynchus crassus (Ont) | Clinostomum complanatum metacercaria |
| | (Que) |
| N. cristatus (Alta, BC, Lab) | C. marginatum metacercaria (Ont) |
| N. rutili (Alta, BC) | Cotylurus communis metacercaria (Ont) |
| N. strigosus (Lab, Ont) Neoechinorhynchus sp. (NWT) | Crepidostomum cooperi (Ont, Que) |
| Octospinifer macilentus (Ont) | Crepidostomum sp. (Que) |
| Pomphorhynchus bulbocolli (BC) | Diplostomulum sp. metacercaria (BC) |
| Hirudinoidea | Diplostomum spathaceum metacercaria |
| Actinobdella inequiannulata (BC, Ont) | (Lab, Ont) |
| | , |

D. spathaceum indistinctum metacercaria Neoechinorhynchus sp. (Alta, Man, Ont) (Onf) Octospinifer macilentus (Alta, Ont) Lissorchis attenuatum (Ont) Pomphorhynchus bulbocolli (BC, Man. L. simeri (Ont) Ont, Oue) Metorchis conjunctus metacercaria Pomphorhynchus sp. (Man) (Man, Oue) Tanaorhamphus sp. (Man) Neascus sp. metacercaria (Ont) Hirudinoidea Phyllodistomum lysteri (Ont, Que) Actinobdella inequiannulata (Ont) P. superbum (Que) Piscicola milneri (Alta) Plagioporus serotinus (Que) Mollusca P. sinitsini (Ont) Anodonta cataracta cataracta Posthodiplostomum minimum glochidium (NS) metacercaria (Ont) Unionidae gen.sp. glochidium (Ont) Tetracotyle intermedia metacercaria Branchiura (Ont) Argulus catostomi (Ont) Tetracotyle sp. metacercaria (Ont) A. stizostethii (Man) Uvulifer ambloplitis metacercaria (Ont) Copepoda Cestoidea Ergasilus caeruleus (Lab, Ont) Biacetabulum biloculoides (Ont) Lernaea cyprinacea (Ont) Diphyllobothrium sp. plerocercoid (Que) Glaridacris catostomi (Man, Ont) Catostomus macrocheilus Girard G. confusus (Ont, Que) largescale sucker G. laruei (Ont, Que) Myxosporida Glaridacris sp. (Man) Myxosporida gen.sp. (BC) Hunterella nodulosa (Alta, Lab, Ont) Monogenea Ligula intestinalis plerocercoid (Man, Gyrodactyloidea gen.sp. (BC) Ont, Sask) Octomacrum lanceatum (BC) Ligula sp. plerocercoid (Alta, Que) Trematoda Monobothrium hunteri (BC)* Diplostomulum sp. metacercaria (BC) Proteocephalus sp. (Ont) Lissorchis attenuatum (BC) Triaenophorus nodulosus plerocercoid Neascus sp. metacercaria (BC) (Ont) Posthodiplostomum minimum Nematoda metacercaria (BC) Camallanus oxycephalus (Ont) Tetracotyle sp. metacercaria (BC) Contracaecum sp. (Lab. Ont) Cestoidea Eustrongylides sp. larva (BC, Ont) Glaridacris catostomi (BC) Nematoda gen.sp. (Ont, Que) ?G. terebrans (BC) Philometra kobuleji (Ont) G. vogei (BC) Philometra sp. (Ont) Hunterella nodulosa (BC) Philometroides huronensis (Ont) Ligula intestinalis plerocercoid (BC) P. nodulosa (Que) Nematoda Rhabdochona cascadilla (Ont) Eustrongylides sp. larva (BC) R. ovifilamenta (Que) Rhabdochona cascadilla (BC) Rhabdochona sp. (Lab, Ont) Skrjabinocapillaria bakeri (BC) Skrjabinocapillaria bakeri (Ont) Spiroxys sp. larva (BC) Spiroxys sp. larva (Ont) Acanthocephala Thominx catenata (Que) Neoechinorhynchus crassus (BC) Acanthocephala N. cristatus (BC) Acanthocephalus jacksoni (Ont) N. rutili (BC) Leptorhynchoides thecatus (Ont) Pomphorhynchus bulbocolli (BC) Metechinorhynchus lateralis (Que) Hirudinoidea M. leidyi (Ont) Actinobdella inequiannulata (BC) M. salmonis (Alta, Man, Ont) Copepoda Neoechinorhynchus crassus (Man, Ont) Ergasilus nerkae (BC) N. cristatus (Alta, Ont) N. cylindratus (Que) Catostomus platyrhynchus (Cope) N. strigosus (Lab, Ont) mountain sucker

Myxosporida Syn.: Pantosteus platyrhynchus (Cope) Myxobolus sp. (Ont) Nematoda Monogenea Rhabdochona ovifilamenta (Alta) Anonchohaptor anomalus (Ont) Catostomus sp. Dactylogyrus urus (Ont) Cestoidea Dactylogyrus sp. (Ont) Glaridacris catostomi (Alta) Pseudomurraytrema copulatum (Ont) Pseudomurraytrema sp. (Ont) Hypentelium nigricans (Lesueur) Trematoda northern hog sucker Diplostomum spathaceum indistinctum Protozoa (Ont) Eimeria catostomi (Ont) Phyllodistomum sp. (Ont) E. fernandoae (Ont) Sanguinicola sp. (Ont) Myxosporida Cestoidea Myxosporida gen.sp. (Ont) Triaenophorus nodulosus plerocercoid Monogenea (Ont) Dactylogyrus apos (Ont) Nematoda Rhabdochona milleri (Ont) Ictiobus cyprinellus (Valenciennes) Acanthocephala bigmouth buffalo Pomphorhynchus bulbocolli (Ont) Myxosporida Copepoda Myxosporida gen.sp. (Sask) Ergasilus caeruleus (Ont) Branchiura Ergasilus sp. (Ont) Argulus appendiculosus (Sask) Moxostoma macrolepidotum (Lesueur) Moxostoma anisurum (Rafinesque) shorthead redhorse silver redhorse Syn.: Moxostoma aureolum (Lesueur) Myxosporida Moxostoma lesueurii (Richardson) Myxobolus conspicuus (Ont) Myxosporida Myxobolus sp. (Ont) Myxobolus conspicuus (Que) Monogenea Myxosporida gen.sp. (Ont) Anonchohaptor anomalus (Ont) Monogenea Dactylogyrus urus (Ont) Anonchohaptor anomalus (Ont) Gyrodactylus spathulatus (Ont) Dactylogyrus sp. (Ont) Gyrodactylus sp. (Ont) Gyrodactylus sp. (Ont) Pseudomurraytrema copulatum (Ont) Pellucidhaptor sp. (Ont) Pseudomurraytrema sp. (Ont) Pseudomurraytrema copulatum (Ont) Trematoda P. moxostomi (nomen nudum) (Ont) Diplostomum spathaceum indistinctum Trematoda metacercaria (Ont) Apophallus venustus metacercaria (–) Lissorchis attenuatum (Ont) Diplostomum spathaceum indistinctum Neascus sp. metacercaria (Ont) metacercaria (Ont) Sanguinicola sp. (Ont) Neascus sp. metacercaria (Ont) Cestoidea Phyllodistomum sp. (Ont) Biacetabulum infrequens (Ont) Plagioporus serotinus (Que) Triaenophorus nodulosus plerocercoid Sanguinicola sp. (Ont) (Ont) Nematoda Nematoda Rhabdochona cascadilla (BC, Ont) Spinitectus gracilis (Ont) R. milleri (Ont, Que) Thynnascaris brachyura larva (Ont) Acanthocephala Acanthocephala Pomphorhynchus bulbocolli (Ont) Leptorhynchoides thecatus (Ont) Pomphorhynchus bulbocolli (Ont) Catostomidae of Undertermined Species Copepoda Ergasilus caeruleus (Ont) "Sucker"

Branchiura

Argulus stizostethii (NS)

golden redhorse

Moxostoma erythrurum (Rafinesque)

ORDER SILURIFORMES

Family ICTALURIDAE

Ictalurus melas (Rafinesque) black bullhead Syn.: Ameiurus melas (Rafinesque) Monogenea Cleidodiscus pricei (Ont) Trematoda Clinostomum marginatum metacercaria Crepidostomum cornutum (Ont) Leuceruthrus micropteri (Ont) Megalogonia ictaluri (Ont) Phyllodistomum staffordi (BC) Polylekithum ictaluri (Que) Cestoidea Corallobothrium fimbriatum (Ont, Que) Corallobothrium sp. (Ont) Proteocephalus ambloplitis plerocercoid (Ont) Nematoda Cucullanellus cotylophora (Ont) Rhabdochona sp. (BC) Acanthocephala Leptorhynchoides thecatus (Ont) Hirudinoidea Piscicola punctata (Ont) Branchiura Argulus catostomi (Ont) Ictalurus nebulosus (Lesueur) brown bullhead Syn.: A meiurus nebulosus (Lesueur) Protozoa A piosoma sp. (Ont) Bodomonas concava (Ont) Eimeria ictaluri (Ont) Ichthyophthirius multifiliis (Ont)

Trichodina sp. (Ont) Trichophrya sp. (Ont) Myxosporida Henneguya exilis (Ont) Myxobolus sp. (Ont) Myxosporida gen.sp. (Ont) Monogenea Cleidodiscus floridanus (Ont) C. pricei (Ont) Gyrodactylidae gen.sp. (Ont) Gyrodactyloidea gen.sp. (BC, Ont) Gyrodactylus nebulosus (Ont) Trematoda Acetodextra amiuri (Ont, Que) Alloglossidium corti (BC, Ont) A pophallus venustus metacercaria (Que) Azygia angusticauda (Ont) Centrovarium lobotes (Ont, Que)

Crepidostomum cornutum (Ont) Digenea gen.sp. metacercaria (-) Diplostomulum sp. metacercaria (Ont. Diplostomum spathaceum metacercaria (Ont) Glossidium geminum (Ont. Que) Homalometron armatum (Que) Megalogonia ictaluri (Ont) Microphallus opacus (Ont) Phyllodistomum folium (–) P. staffordi (BC, Ont) P. superbum (Ont, Que?) Phyllodistomum sp. (Ont) Polylekithum ictaluri (Ont) Posthodiplostomum minimum metacercaria (Ont) Rhipidocotyle sp. metacercaria (Ont) Tetracotyle sp. metacercaria (Ont) Vietosoma parvum (Ont) Cestoidea Bothriocephalus cuspidatus (Ont) Bothriocephalus sp. (Ont) Cestoda gen.sp. metacestode (Ont) Corallobothrium fimbriatum (BC, Man, Ont) C. parafimbriatum (Ont) Corallobothrium sp. (Ont) Corallotaenia minutia plerocercoid & adult (Ont) Proteocephalus ambloplitis plerocercoid (Ont, Que) P. pearsei (Ont) Nematoda Camallanus oxycephalus (Ont) Capillaria sp. (Ont) Contracaecum sp. (Ont) Cucultanellus cotylophora (Ont) Cystidicoloides prevosti (Que) Dichelyne robustus (Ont) Dioctophyma renale larva (Ont) Nematoda gen.sp. (Ont) Rhabdochona cascadilla (Ont) Rhabdochona sp. (Ont) Spinitectus carolini (Ont) S. gracilis (Ont) Spiroxys contortus larva (Ont) Acanthocephala Leptorhynchoides thecatus (Ont) Metechinorhynchus salmonis (Ont) Neoechinorhynchus rutili (BC) Pomphorhynchus bulbocolli (Ont) Hirudinoidea Myzobdella moorei (Ont) Mollusca

Clinostomum marginatum metacercaria

Unionidae gen.sp. glochidium (Ont) Cestoidea Corallobothrium fimbriatum (Ont) Copepoda Proteocephalus ambloplitis plerocercoid Achtheres pimelodi (Ont) (Ont) Ergasilus versicolor (Ont) Nematoda Ergasilus sp. (Ont) Camallanus oxycephalus (Ont) Rhabdochona canadensis (Alta)*** Ictalurus punctatus (Rafinesque) channel catfish Spinitectus gracilis (Ont) Syn.: Ictalurus lacustris lacustris (Walbaum) Acanthocephala Villarius lacustris (Walbaum) Leptorhynchoides thecatus (Ont) Ameiurus lacustris (Walbaum) Copepoda Ameiurus nigricans (Lesueur) Ergasilus versicolor (Ont)** Myxosporida Henneguya exilis (Ont) Myxosporida gen.sp. (Ont) tadpole madtom Noturus gyrinus (Mitchill) Monogenea Syn.: Schilbeodes gyrinus (Mitchill) Cleidodiscus floridanus (Ont) Myxosporida C. pricei (Ont) Myxobolus sp. (Ont) Gyrodactyloidea gen.sp. (Ont) Monogenea Trematoda Cleidodiscus floridanus (Ont) Acetodextra amiuri (Ont) C. pricei (Ont) Alloglossidium corti (Ont, Que) Gyrodactylus sp. (Ont) Apophallus venustus metacercaria (Que) Trematoda Azygia angusticauda (Ont) Acetodextra amiuri (Ont) A. longa (Que?) Alloglossidium corti (Ont) Crepidostomum cornutum (Ont) Crepidostomum cornutum (Ont) Diplostomulum sp. metacercaria (Ont) Neascus sp. metacercaria (Ont) Macroderoides sp. (Ont) Cestoidea Megalogonia ictaluri (Ont, Que) Bothriocephalus sp. (Ont)** Microphallus opacus (Ont) Corallobothrium fimbriatum (Ont) Parastiotrema ottawanensis (Que) Acanthocephala Phyllodistomum lacustri (Ont) Leptorhynchoides thecatus (Ont) Phyllodistomum sp. (Ont) Pomphorhynchus bulbocolli (Ont) Vietosoma parvum (Ont, Que) Copepoda Cestoidea Ergasilus versicolor (Ont)** Bothriocephalus sp. (Ont) Corallobothrium fimbriatum (Ont) Noturus miurus Jordan brindled madtom Haplobothrium globuliforme (Ont) Syn.: Schilbeodes miurus (Jordan) Megathylacoides giganteum (Ont) Trematoda Nematoda Megalogonia ictaluri (Ont) Camallanus oxycephalus (Ont) Neascus sp. metacercaria (Ont)** Nematoda gen.sp. (Ont) Cestoidea Spinitectus gracilis (Ont) Bothriocephalus sp. (Ont)** Acanthocephala Corallobothrium fimbriatum (Ont) Leptorhynchoides thecatus (Ont) Pomphorhynchus sp. (Ont) Hirudinoidea ORDER PERCOPSIFORMES Myzobdella moorei (Ont) Copepoda Family PERCOPSIDAE Achtheres pimelodi (Ont) Ergasilus versicolor (Ont) Percopsis omiscomaycus (Walbaum) trout-perch Noturus flavus Rafinesque stonecat Protozoa Trichodina sp. (Ont) Monogenea Myxosporida Cleidodiscus pricei (Ont) Myxobolus sp. (Ont) Trematoda Myxosoma procerum (Ont) Acetodextra amiuri (Ont) Myxosporida gen.sp. (Ont) Megalogonia ictaluri (Ont)

Monogenea

Cleidodiscus baldwini (Ont)

Cleidodiscus sp. (Ont)

Gyrodactyloidea gen.sp. (Ont)

Gyrodactylus sp. (Ont)

Trematoda

Bucephalus sp. (Ont)

Centrovarium lobotes (Ont)

Cotylurus communis metacercaria (Ont)

Crepidostomum isostomum (Ont)

Diplostomulum sp. metacercaria (Ont)

Diplostomum spathaceum metacercaria (Ont)

D. spathaceum indistinctum (Ont)

Neascus sp. metacercaria (Ont)

Posthodiplostomum minimum

metacercaria (Ont)

Tetracotyle diminuta metacercaria (Ont)

T. intermedia metacercaria (Ont)

Tetracotyle sp. metacercaria (Ont)

Cestoidea

Bothriocephalus claviceps (Ont)

B. cuspidatus (Ont)

B. formosus (Ont)

Proteocephalus pearsei (Ont)

Triaenophorus nodulosus plerocercoid (Ont)

T. stizostedionis plerocercoid (Alta, Man, Ont)

Triaenophorus sp. plerocercoid (Ont)

Nematoda

Camallanus oxycephalus (Ont)

Nematoda gen.sp. (Ont)

Rhabdochona cascadilla (Ont)

Spinitectus gracilis (Ont)

Thynnascaris brachyura (Ont)

Acanthocephala

Leptorhynchoides thecatus (Ont)

Metechinorhynchus salmonis (Ont)

Neoechinorhynchus sp. (Ont)

Pomphorhynchus bulbocolli (Ont)

Hirudinoidea

Illinobdella sp. (Ont)

Branchiura

Argulus versicolor (Ont)

Argulus sp. (Ont)

Copepoda

Ergasilus caeruleus (Ont)

ORDER BATRACHOIDIFORMES

Family BATRACHOIDIDAE

Porichthys notatus Girard plainfin midshipman Trematoda

Tematoda

Tubulovesicula lindbergi (Pac)

ORDER GOBIESOCIFORMES

Family GOBIESOCIDAE

Gobiesox maeandricus (Girard)

northern clingfish

Syn.: Caularchus maeandricus (Girard)

Nematoda

Philometra americana (Pac)

ORDER LOPHIIFORMES

Family LOPHIIDAE

Lophius americanus Valenciennes goosefish Syn.: Lophius piscatorius Linnaeus auct.

Protozoa

Urceolariidae gen.sp. (Atl)

Trematoda

Derogenes varicus (Atl)

Digenea gen.sp. metacercaria (Atl)

Digenea gen.sp. (Atl)

Leptosoma obscurum sp. inq. (Atl)

Otodistomum sp. metacercaria (Atl)

Stephanostomum baccatum metacercaria (Atl)***

Nematoda

Phocanema sp. larva (Atl)

ORDER GADIFORMES

Family GADIDAE

Brosme brosme (Müller)

Syn.: Brosmius brosme (Müller)

Trematoda

Prosorhynchus squamatus (Atl)

Enchelyopus cimbrius (Linnaeus)

fourbeard rockling

Protozoa

Eimeria gadi (Atl)

Urceolariidae gen.sp. (Atl)

Gadus macrocephalus Tilesius

Pacific cod

cusk

Protozoa

Microsporida gen.sp. (Pac)

Pleistophora sp. (Pac)

Myxosporida

Kudoa sp. (Pac)

Trematoda

Lecithaster gibbosus (Pac)

Parahemiurus merus (Pac)

Cestoidea

Abothrium gadi (Pac)

| Phyllobothrium sp. plerod Nematoda Anisakis sp. larva (Pac) Acanthocephala Echinorhynchus gadi (Pa | | Nematoda <i>Phocanema decipiens</i> larva (Atl) <i>Phocanema</i> sp. larva (Atl) Copepoda <i>Lernaeocera branchialis</i> (Atl) | |
|--|--|---|-----------------------|
| Copepoda Chondracanthus palpifer Clavella adunca (Pac) Lepeophtheirus hospitalis L. parviventris (Pac) | | Gadus sp. Trematoda Hemiurus sp. (Atl) | |
| Gadus morhua Linnaeus Syn.: Gadus callarias Linnaeus Protozoa Eimeria gadi (Atl) Haemogregarina aeglefin Glugea branchiale (Atl)* Trypanosoma murmanen Trypanosoma sp. (Atl) Myxosporida Kudoa sp. (Atl) Zschokkella hildae (Atl)* Monogenea Udonella caligorum (Atl) Trematoda Derogenes varicus (Atl) Dihemistephanus fragilis Gonocerca macroformis Hemiurus levinseni (Atl) Podocotyle atomon (Atl) Cestoidea Abothrium gadi (Atl) Hepatoxylon trichiuri ple (E Arc) Nematoda Anisakis sp. larva (Atl) Cucullanus cirratus (Atl) Phocanema decipiens larva Phocanema sp. larva (Atl) | i (Atl) sis (Atl) (Atl)* (Atl) crocercoid | Syn.: Lota lota lacustris (Walbaum) Lota lota maculosa (Lesueur) Lota maculosa (Lesueur) Protozoa Hexamita salmonis (YT) Trichodina sp. (Ont) Myxosporida Chloromyxum dubium (YT) Myxobolus sp. (Ont) Myxosporida gen.sp. (BC) Sphaerospora cristata (YT) Trematoda Azygia angusticauda (Ont, Que?) A. longa (Que?) Bunodera luciopercae (Ont)*** Bunoderina sacculata (Ont)*** Crepidostomum farionis (Alta, Bo C. metoecus (YT) Crepidostomum sp. (BC) Diplostomulum sp. metacercaria (Ont) Diplostomum spathaceum metace (YT) Microphallidae gen.sp. (Ont) Neascus sp. metacercaria (Ont) Posthodiplostomum minimum metacercaria (BC) Tetracotyle sp. metacercaria (Ont) | C) (BC, ercaria |
| Thynnascaris adunca (At Acanthocephala Echinorhynchus gadi (At Hirudinoidea | 1) | Cestoidea Bothriocephalus sp. (BC, Ont) Diphyllobothrium latum plerocer (Man) | coid |
| Johanssonia sp. (Atl) Copepoda Caligus curtus (Atl) C. elongatus (Atl) Caligus sp. (Atl) Clavella adunca (Atl) Clavella sp. (Atl) Lernaeocera branchialis | (Atl) | Diphyllobothrium sp. plerocercoic Ont, YT) Eubothrium crassum (Ont) E. rugosum (Alta, BC, Man, NW' Proteocephalus pearsei (Ont) Proteocephalus sp. (Lab, Ont) Triaenophorus crassus (Ont) T. nodulosus plerocercoid (Alta, I | T, Ont) |
| Gadus ogac Richardson Cestoidea Pyramicocephalus phoca. plerocercoid (E Arc)* | Greenland cod | Nematoda Camallanus oxycephalus (Ont) Cucullanellus cotylophora (Ont) Haplonema hamulatum (Ont. YT | ") |

Haplonema sp. (Lab) Melanogrammus sp. Nematoda gen.sp. (NWT) Trematoda Rhabdochona cascadilla (Ont) Hemiurus sp. (Atl) Skrjabinocapillaria bakeri (Ont) Spinitectus gracilis (Ont) Merluccius bilinearis (Mitchill) silver hake Thynnascaris brachyura (Alta, BC, Ont) Monogenea Acanthocephala Anthocotyle merlucii (Atl) Leptorhynchoides thecatus (Ont) Cestoidea Metechinorhynchus leidyi (Ont) Clestobothrium crassiceps (Atl) M. salmonis (Alta, Ont) Nematoda Neoechinorhynchus cylindratus (Ont) Anisakis simplex larva (Atl) N. rutili (BC, Ont, YT) Thynnascaris adunca larva (Atl) Pomphorhynchus bulbocolli (BC, Ont) Copepoda Hirudinoidea Caligus curtus (Atl) Cystobranchus mammillatus (NWT) C. elongatus (Atl) C. verrilli (Ont) Chondracanthus merlucci (Atl) Piscicola milneri (YT) P. punctata (Ont) Pacific hake Merluccius productus (Ayres) Mollusca Myxosporida Unionidae gen.sp. glochidium (Ont) Conispora renalis (Pac) Copepoda Trematoda Ergasilus caeruleus (BC, Ont) A porocotyle margolisi (Pac) E. celestis (Ont) Lecithophyllum botryophorum (Pac) Cestoidea Melanogrammus aeglefinus (Linnaeus) liaddock Clestobothrium crassiceps (Pac) Syn.: Gadus aeglefinus Linnaeus Nematoda Aeglefinus melanogrammus of Stock, Anisakis simplex larva (Pac) 1915 Contracaecum sp. (Pac) Protozoa Copepoda Eimeria gadi (Atl) Caligus sp. (Pac) Glugea branchiale (Atl) Chondracanthus palpifer (Pac) Haemogregarina aeglefini (Atl) Clavella perfida (Pac) Haemohormidium terraenovae (Atl) Neobrachiella insidiosa f. pacifica (Pac) Myxosporida Myxidium bergense (Atl) Microgadus proximus (Girard) Pacific tomcod M. gadi (Atl) Acanthocephala Trematoda Echinorhynchus gadi (W Arc) Derogenes varicus (Atl) Copepoda Lepidapedon rachion (Atl) Clavella adunca (Pac) Cestoidea Lepeophtheirus sp. (Pac) Abothrium gadi (Atl) Grillotia erinaceus plerocercoid (Atl) Microgadus tomcod (Walbaum) Nematoda Atlantic tomcod Anisakis sp. larva (Atl) Protozoa Contracaecum sp. (Atl) Trypanosoma murmanensis (Atl) Cucullanus cirratus (Atl) (experimental infection) Phocanema sp. larva (Atl) Myxosporida Thynnascaris adunca (Atl) Zschokkella hildae (Atl) T. melanogrammi (Atl) Trematoda Acanthocephala Podocotyle olssoni (Atl) Corynosoma strumosum juvenile (Atl) P. reflexa (Atl) Echinorhynchus gadi (Atl) Cestoidea Copepoda Bothrimonus sturionis (Atl) Caligus curtus (Atl) Nematoda C. elongatus (Atl) Anisakis sp. larva (Atl) Clavella adunca (Atl) Phocanema sp. larva (Atl) Clavella sp. (Atl) Thynnascaris adunca (Atl)

Acanthocephala Theragra sp. Cestoidea Echinorhynchus gadi (Atl) Grillotia heptanchi plerocercoid (Pac) Leptorhynchoides thecatus (Que-b) Branchiura Nybelinia surmenicola plerocercoid (Pac) Argulus alosae (Atl) Urophycis chuss (Walbaum) red hake Copepoda Caligus curtus (Atl) Syn.: Phycis chuss (Walbaum) Protozoa C. elongatus (Atl) ?Ergasilus centrarchidarum (Atl) Haemogregarina aeglefini (Atl) Myxosporida Ceratomyxa acadiensis (Atl) Pollachius virens (Linnaeus) pollock Myxosporida gen.sp. (Atl) Syn.: Gadus virens Linnaeus Monogenea Protozoa Diclidophora maccallumi (Atl) Haemogregarina aeglefini (Atl) Trematoda Urceolariidae gen.sp. (Atl) Podocotyle simplex (Atl) Monogenea Nematoda Diclidophora denticulata (Atl) Anisakis sp. larva (Atl) Trematoda Thynnascaris adunca larva (Atl) Derogenes varicus (Atl) ?Hemiurus appendiculatus (Atl) white hake *Urophycis tenuis* (Mitchill) Nematoda Protozoa Anisakis sp. larva (Atl) Haemogregarina aeglefini (Atl) Acanthocephala Haemohormidium terraenovae (Atl) Echinorhynchus gadi (Atl) Myxosporida Copepoda Ceratomyxa acadiensis (Atl) Caligus curtus (Atl) C. urophysis (Atl) C. elongatus (Atl) Myxidium bergense (Atl) Clavella adunca (Atl) Trematoda Clavella sp. (Atl) Podocotyle reflexa (Atl) Nematoda Pollachius sp. Phocanema decipiens larva (Atl) Trematoda Copepoda Hemiurus sp. (Atl) Caligus elongatus (Atl) Theragra chalcogramma (Pallas) Gadidae of Undetermined Species walleye pollock Protozoa Microsporida gen.sp. (Pac) "Cod" Nematoda Trematoda Aporocotyle sp. (Pac) Nematoda gen.sp. (Atl) Lecithaster gibbosus (Pac) Phocanema decipiens larva (Atl) Lepidapedon microcotyleum (Pac) Copepoda Podocotyle sinusacca (Pac) Lernaeocera branchialis (Atl) Cestoidea Bothriocephalus scorpii (Pac) Family ZOARCIDAE Nybelinia surmenicola plerocercoid (Pac) Phyllobothrium sp. plerocercoid (Pac) Nematoda Aprodon cortezianus Gilbert bigfin eelpout Trematoda Anisakis sp. larva (Pac) Contracaecum sp. (Pac) Lecithaster gibbosus (Pac) Phocanema sp. larva (Pac) Parahemiurus merus (Pac) Acanthocephala Podocotyle sp. (Pac) Echinorhynchus gadi (Pac) Cestoidea Copepoda Bothriocephalus scorpii (Pac) Nybelinia surmenicola plerocercoid (Pac) Caligus clemensi (Pac) Clavella perfida (Pac) Phyllobothrium sp. plerocercoid (Pac)

Nematoda Pleistophora macrozoarcidis (Atl) Sarcocystis sp. (Atl) Capillaria sp. (Pac) Myxosporida Contracaecum sp. (Pac) Acanthocephala Ceratomyxa acadiensis (Atl) Kudoa sp. (Atl) Echinorhynchus gadi (Pac) Trematoda Lycenchelys verrilli (Goode and Bean) Lepidophyllum steenstrupi (Atl) wolf eelpout Cestoidea Syn.: Lycodes verrillii Goode and Bean Bothrimonus sturionis (Atl) Nematoda Copenoda Haemobaphes cyclopterina (Atl) Contracaecum sp. (Atl)* Nematoda gen.sp. (Atl) Lycodes atlanticus Jensen Atlantic eelpout Phocanema decipiens (Atl) Syn.: Lycodes frigidus Collett Acanthocephala Copepoda Acanthocephala gen.sp. (Atl) Clavella pinguis (Atl) Echinorhynchus sp. (Atl) Hirudinoidea Lycodes lavalaei Vladykov and Tremblay Oceanobdella sexoculata (Atl) Newfoundland eelpout Copepoda Protozoa Caligus elongatus (Atl) Trichodina sp. (Atl) Copepoda Family MACROURIDAE Tanypleurus alcicornis (Atl) Lycodes reticulatus Reinhardt Arctic eelpout Coryphaenoides acrolepis (Bean) Protozoa roughscale rattail Trypanosoma murmanensis (Atl) Myxosporida Hirudinoidea Ceratomyxa hokarari (Pac) Oceanobdella microstoma (Atl) Davisia coryphaenoidia (Pac) Copepoda Myxoproteus abyssus (Pac) Tanypleurus alcicornis (Atl) Sinuolinea magna (Pac) Lycodes terraenovae Collett Coryphaenoides cinereus (Gilbert) popeye Copepoda Myxosporida Clavella pinguis (Atl) Ceratomyxa coryphaenoida (Pac) Lycodes vahlii Reinhardt Vahl's eelpout Coryphaenoides filifera (Gilbert) Syn.: Lycenchelys vahli (Reinhardt) filamented rattail Includes: Lycodes vahli maculatus Vladykov Myxosporida and Tremblay Auerbachia pulchra (Pac) Protozoa Leptotheca informis (Pac) Trypanosoma murmanensis (Atl) Myxidium coryphaenoidium (Pac) (experimental infection) Myxoproteus rosenblatti (Pac) Copepoda Clavella insolita (Atl) Coryphaenoides rupestris Gunnerus Haemobaphes cyclopterina (Atl) rock grenadier Syn.: Macrourus rupestris (Gunnerus) Lycodes sp. Trematoda Trematoda Dolichoenterum sp. metacercaria (Atl) Stephanostomum baccatum (Atl) Gonocerca crassa (Atl) Macrozoarces americanus (Bloch and roughhead grenadier Macrourus berglax Schneider) ocean pout Protozoa Syn.: Zoarces anguillaris (Peck) Eimeria sp. (Atl) Protozoa Glugea berglax (Atl) Haemogregarina bigemina (Atl)* Myxosporida H. mavori (Atl) Auerbauchia pulchra (Atl)

Davisia newfoundlandia (Atl) Bothriocephalus sp. (NS) Dilepis sp. cysticercus (NS) Zschokkella kudoi (Atl) Hymenolepis sp. larva (NS) Copepoda Parvitaenia sp. larva (NS) Clavellomimus macruri (Atl) Proteocephalus sp. (NS, Ont) Sphyrion lumpi (Atl) Nematoda Cucullanus sp. (NS) Nezumia bairdi (Goode and Bean) marlin-spike Myxosporida Cystidicola sp. (NS) Auerbachia pulchra (Atl) Hedruris sp. (NS) Zschokkella globulosa (Atl) Nematoda gen.sp. (Ont) Rhabdochona sp. (Ont) Spiroxys sp. larva (NS) ORDER ATHERINIFORMES Acanthocephala A canthocephalus sp. (NS) Family SCOMBERESOCIDAE Neoechinorhynchus sp. (Ont) Octospiniferoides sp. (NS) Cololabis saira (Brevoort) Pacific saury Mollusca Nematoda Elliptio complanata glochidium (NS) Copepoda Nematoda gen.sp. (Pac) Acanthocephala Ergasilus lizae (NS) Rhadinorhynchus cololabis (Pac) Copepoda Fundulus heteroclitus (Linnaeus) mummichog Caligus macarovi (Pac) Protozoa Pennella sp. (Pac) Eimeria sp. (NS) Urceolariidae gen.sp. (Atl) Myxosporida Family CYPRINODONTIDAE Sphaerospora sp. (NS) Monogenea Fundulus diaphanus (Lesueur) banded killifish Gyrodactylus prolongus (Nfld) G. stephanus (Nfld) Includes: Fundulus diaphanus menona Jordan Gyrodactylus sp. (Atl) and Copeland Myxosporida Urocleidus angularis (Nfld) Trematoda Myxobolus funduli (NS) Myxobolus sp. (NS) Crepidostomum cooperi (NS) Myxosoma diaphana (NS) Digenea gen.sp. metacercaria (Nfld) M. subtecalis (NS) Digenea gen.sp. (Atl) Homalometron pallidum (Atl, Nfld, NS) Myxosporida gen.sp. (NS, Ont) Monogenea Cestoidea Gyrodactylus avalonia (Ont) Proteocephalus sp. (Nfld) G. prolongis (Ont) Acanthocephala Urocleidus angularis (Nfld, NS) Neoechinorhynchus rutili (Nfld) U. fundulus (Ont) Branchiura Trematoda Argulus funduli (Atl) Allocreadium sp. (NS) Clinostomum sp. metacercaria (NS) Family POECILIIDAE Crassiphiala bulboglossa metacercaria (NS) Creptotrema funduli (NS, Ont?) Poecilia reticulata Peters guppy Syn.: Lebistes reticulatus (Peters) Digenea gen.sp. (Ont) Diplostomulum sp. metacercaria (NS) Monogenea Neascus sp. metacercaria (NS) Gyrodactylus bullatarudis (Ont Ornithodiplostomum ptychocheilus aquarium) metacercaria (NS) Posthodiplostomum minimum Family ATHERINIDAE metacercaria (Ont) P. minimum minimum metacercaria (NS)

Labidesthes sicculus (Cope)

Cestoidea

brook silverside

Trematoda Protozoa Allacanthochasmus varius metacercaria Eimeria haneki (Ont) Monogenea Allocreadium sp. (Ont) Dactylogyrus eucalius (Ont) Cestoidea Gyrodactyloidea gen.sp. (BC, Ont) Bothriocephalus sp. (Ont) Gyrodactylus eucaliae (Ont) Proteocephalus ambloplitis plerocercoid Gyrodactylus sp. (Ont) (Ont) Trematoda Nematoda Apatemon gracilis metacercaria (Que) Camallanus oxycephalus (Ont) Bunoderina eucaliae (BC, Ont, Que) Nematoda gen.sp. (Ont) Digenea gen.sp. (Ont) Diplostomulum sp. metacercaria (Ont) Menidia menidia (Linnaeus) Atlantic silverside Diplostomum scudderi metacercaria Syn.: Menidia notata (Mitchill) (Ont) Branchiura Neascus sp. metacercaria (Ont) Argulus funduli (Atl) Posthodiplostomum minimum Copepoda metacercaria (Ont) Ergasilus funduli (Atl) Tetracotyle sp. metacercaria (BC, Ont) Cestoidea Diphyllobothrium sp. plerocercoid ORDER GASTEROSTEIFORMES (Ont)* Ligula sp. plerocercoid (Alta) Family GASTEROSTEIDAE Proteocephalus ambloplitis plerocercoid (Ont) Apeltes quadracus (Mitchill) Proteocephalus sp. (Ont) fourspine stickleback Schistocephalus solidus plerocercoid Monogenea (Alta, Man) Gyrodactylus avalonia (Nfld-b) Schistocephalus sp. plerocercoid (BC) G. cameroni (Nfld-b) Nematoda G. canadensis (Nfld-b) Camallanus oxycephalus (Ont) Trematoda Nematoda gen.sp. (Ont) Podocotyle atomon (Nfld-b) Acanthocephala Cestoidea Leptorhynchoides thecatus (Ont) Bothrimonus sturionis (Atl) Neoechinorhynchus pungitius (Ont) Bothriocephalidae gen.sp. (Que) N. rutili (Ont) Proteocephalus sp. (Nfld-b) Nematoda Gasterosteus aculeatus Linnaeus Cystidicola farionis (Nfld-b) threespine stickleback Mollusca Includes: Gasterosteus aculeatus trachurus Anodonta sp. glochidium (NS) Cuvier and Valenciennes Gasterosteus aculeatus leiurus Aulorhynchus flavidus Gill tube-snout Cuvier and Valenciennes Trematoda Gasterosteus aculeatus semiarmatus Lecithaster gibbosus (Pac) Cuvier and Valenciennes Podocotyle atomon (Pac) Protozoa Cestoidea Apiosoma sp. (Pac, BC, Que) Bothriocephalus sp. (Pac) Eimeria gasterostei (BC) Phyllobothrium sp. plerocercoid (Pac) Epistylis lwoffi (BC) Nematoda Glugea anomala (Atl, BC) Anisakis sp. larva (Pac) Hexamita salmonis (BC) Ascarophis sebastodis (Pac) Ichthyobodo necatrix (BC) Contracaecum sp. (Pac) Ichthyophthirius multifiliis (BC) Philometra sp. (Pac) Ichthyophthirius sp. (Nfld) Thynnascaris adunca (Pac) Trichodina domerguei (Pac, BC) T. tenuidens (Atl, Pac, BC)

Trichodina sp. (Atl, Nfld-b, Nfld, Que-b,

Que)

Culaea inconstans (Kirtland) brook stickleback

Syn.: Eucalia inconstans (Kirtland)

Unidentified sporozoites (Pac &/or BC) Proteocephalus sp. (Atl, Pac, BC, Lab, Myxosporida Ceratomyxa sp. (Pac) Schistocephalus solidus plerocercoid (Pac, BC-b, BC, Lab, Nfld, Ont, Que) Henneguya pungitii (Que) Myxidium gasterostei (BC) Schistocephalus sp. plerocercoid (BC, Myxobilatus gasterostei (BC) Que) Myxobilatus sp. (Pac) Nematoda Sphaerospora elegans (Pac, BC, Que) Anisakis sp. larva (Pac) Monogenea Ascarophis morrhuae (Atl, Lab-b, Lab. Dactylogyrus sp. (BC) Nfld-b, Nfld) Gyrodactyloidea gen.sp. (Pac, BC) Contracaecum sp. (Pac, Lab, Nfld) Gyrodactylus alexanderi (Pac, BC) Eustrongylides sp. larva (BC, Que-b) G. avalonia (Atl, Lab-b, Lab, Nfld-b, Philonema agubernaculum (Que) Nfld, Ont, Que-b, Que) Acanthocephala G. canadensis (Atl, Nfld-b, Nfld, Que-b, Metechinorhynchus lateralis (Atl, Lab-b, Que) Lab, Nfld-b, Nfld) Neoechinorhynchus rutili (BC, Lab-b) G. lairdi (Atl, Nfld-b) G. memorialis (Atl, Nfld-b, Nfld) Mollusca Anodonta sp. glochidium (NS) Trematoda Allobunodera mediovitellata (BC) Unionidae gen.sp. glochidium (BC) A patemon gracilis metacercaria (BC) Branchiura Argulus stizostethii (Nfld) A pophallus brevis metacercaria (Oue) Brachyphallus crenatus (Atl, Lab-b, Copepoda Nfld-b, Nfld) Bomolochus cuneatus (Pac) Bunodera luciopercae (Lab-b, Nfld-b, Caligus clemensi (Pac) Nfld) Copepoda gen.sp. (BC) Bunoderina eucaliae (BC) Ergasilus auritus (Pac, BC-b, BC, Lab-b, Crepidostomum cooperi (Nfld) Lab, Nfld) C. farionis (Nfld) ?E. turgidus (BC-b) Thersitina gasterostei (Atl, BC, Lab-b, Derogenes varicus (Pac, Nfld-b) Nfld-b, Nfld, Que-b) Digenea gen.sp. metacercaria (Pac &/or BC) Gasterosteus wheatlandi Putnam Diplostomulum sp. metacercaria (BC, blackspotted stickleback Ont) Syn.: Gasterosteus bispinosus atkensi Bean Diplostomum scudderi metacercaria (BC) Gasterosteus biaculeatus Shaw D. spathaceum metacercaria (BC, Lab, Monogenea Nfld-b, Nfld) Gyrodactylus avalonia (Nfld-b) Lecithaster gibbosus (Pac, Nfld-b) G. lairdi (Nfld-b) Podocotyle atomon (Atl, Lab-b, Lab, G. memorialis (Nfld-b) Nfld-b, Nfld, Que-b) G. terranovae (Nfld-b) P. simplex (Atl) Trematoda P. sinusacca (Pac) Podocotyle atomon (Nfld-b) P. staffordi (Atl) Cestoidea Posthodiplostomum minimum Ligula intestinalis plerocercoid (NB) metacercaria (BC) Proteocephalus sp. (Nfld-b) Tetracotyle sp. metacercaria (BC) Schistocephalus solidus plerocercoid Cestoidea (NB, Nfld-b) Bothriocephalidae gen.sp. (Que) Copepoda Bothriocephalus scorpii (Pac) Thersitina gasterostei (Nfld-b) Bothriocephalus sp. (Nfld-b, Nfld) Cestoda gen.sp. (Nfld) Gasterosteus sp. Cyathocephalus truncatus (BC) Branchiura Diphyllobothrium sp. plerocercoid (BC) Argulus sp. (Atl) Phyllobothrium sp. plerocercoid (Pac) Proteocephalus filicollis (Nfld) Pungitius pungitius (Linnaeus) P. pugetensis (Pac, BC) ninespine stickleback

Syn.: Pygosteus pungitius (Linnaeus) Monogenea Protozoa Gyrodactyloidea gen.sp. (Pac) Eimeria pungitii (Que) Trematoda Eimeria sp. (Oue) Lecithaster gibbosus (Pac) Trichodina sp. (Que) Opechona occidentalis (Pac) Myxosporida Parahemiurus merus (Pac) Henneguya pungitii (Que) Podocotyle atomon (Pac) Myxobolus sp. (Ont) P. endophrysi (Pac) Sphaerospora elegans (Que) P. reflexa (Pac) Monogenea P. sinusacca (Pac) Gyrodactylus avalonia (Lab-b, Nfld, Que) Podocotyle sp. (Pac) G. canadensis (Lab-b, Nfld, Que) Tubulovesicula lindbergi (Pac) G. stephanus (Nfld) Cestoidea Trematoda Phyllobothrium sp. plerocercoid (Pac) Brachyphallus crenatus (Nfld) Nematoda Bunodera luciopercae (Nfld) Anisakis sp. larva (Pac) Bunoderina eucaliae (Ont) Contracaecum sp. (Pac) Derogenes varicus (Lab-b) Copepoda Diplostomum spathaceum metacercaria Haemobaphes sp. (Pac) Hemiurus appendiculatus (Nfld-b) Podocotyle atomon (Que) ORDER PERCIFORMES Tetracotyle sp. metacercaria (Ont) Family PERCICHTHYIDAE Bothriocephalidae gen.sp. (Que) Diphyllobothrium sp. plerocercoid Morone americana (Gmelin) white perch (Lab-b, Nfld) Syn.: Roccus americanus (Gmelin) Proteocephalus sp. (Lab-b, Nfld, Ont) Protozoa Schistocephalus solidus plerocercoid Eimeria glenorensis (Ont) (NWT, Que) E. moronei (Ont) Schistocephalus sp. plerocercoid (Man) Myxosporida Acanthocephala Henneguya sp. (Ont) Leptorhynchoides thecatus (Ont) Monogenea Metechinorhynchus lateralis (Nfld) Cleidodiscus sp. (Ont) M. salmonis (Alta) Urocleidus rogersi (Ont) Neoechinorhynchus cristatus (Lab-b, Trematoda Oue) Apophallus venustus metacercaria (Ont) N. pungitius (Ont) Clinostomum marginatum metacercaria N. rutili (Nfld, NWT, Ont) (Ont) Mollusca Diplostomum spathaceum huronense Anodonta sp. glochidium (NS) metacercaria (Ont) Unionidae gen.sp. glochidium (Ont) Cestoidea Branchiura Eubothrium crassum (Ont) Argulus funduli (Atl) Triaenophorus nodulosus plerocercoid Copepoda (Ont) Ergasilus sp. (Man) Nematoda Thersitina gasterostei (Lab-b) Contracaecum spiculigerum larva (Ont) Cucullanellus cotylophora (Ont) Mollusca Gasterosteidae of Undetermined Species Lampsilis radiata glochidium (Ont) "Stickleback" Copepoda Branchiura Ergasilus luciopercarum (Ont) Argulus stizostethii (NS) Morone chrysops (Rafinesque) white bass Syn.: Lepibema chrysops (Rafinesque)

Protozoa

Ichthyophthirius multifiliis (Ont)

Family SYNGNATHIDAE

bay pipefish

Syngnathus griseolineatus Ayres

Trematoda Trichodina sp. (Ont) Azygia angusticauda (Ont) Trichophrya sp. (Ont) A. longa (Que) Monogenea Bunodera luciopercae (Ont) Gyrodactyloidea gen.sp. (Ont) Centrovarium lobotes (Ont, Que) Urocleidus chrysops (Ont) Clinostomum complanatum metacercaria Trematoda Allacanthochasmus artus (Ont) C. marginatum metacercaria (Ont) A. varius (Ont) Clinostomum sp. metacercaria (Man) Bucephalus sp. (Ont) Digenea gen.sp. (Ont) Crepidostomum cooperi (Ont) Diplostomulum sp. metacercaria (Ont) C. cornutum (Ont, Que) Cryptogonimus chili metacercaria (Ont) Leuceruthrus sp. (Ont) C. chili (Ont, Que) Neascus sp. metacercaria (Ont) Cestoidea C. diaphanus (Que?) Digenea gen.sp. metacercaria (Que) Bothriocephalus cuspidatus (Ont) Proteocephalus ambloplitis plerocercoid Diplostomulum scheuringi metacercaria (Ont) (Ont) Diplostomulum sp. metacercaria (Ont) P. pearsei (Ont) Diplostomum spathaceum metacercaria Triaenophorus nodulosus plerocercoid (Ont) Leuceruthrus micropteri (Ont) Nematoda Camallanus oxycephalus (Ont) Microphallus opacus (Ont) Cucullanellus cotylophora (Ont) Neascus sp. metacercaria (Ont) Nematoda gen.sp. (Ont) Phyllodistomum sp. (Ont) Rhabdochona sp. (Ont) Posthodiplostomum cuticola metacercaria (Oue?) Spinitectus carolini (Ont) P. minimum metacercaria (Ont, Que) Acanthocephala Leptorhynchoides thecatus (Ont) P. minimum centrarchi metacercaria Mollusca Unionidae gen.sp. glochidium (Ont) Posthodiplostomum sp. metacercaria (Que) Proterometra macrostoma (Ont) Family SERRANIDAE Rhipidocotyle papillosa metacercaria (Ont) Centropristis striata (Linnaeus) black sea bass Ribeiroia ondatrae metacercaria (Ont) Protozoa Tetracotyle sp. metacercaria (Ont) Haemogregarina bigemina (Atl)* Uvulifer ambloplitis metacercaria (Ont) Cestoidea Bothriocephalus claviceps (Ont) Family CENTRARCHIDAE Corallobothrium sp. (Ont) Ligula intestinalis plerocercoid (Ont) rock bass Ambloplites rupestris (Rafinesque) Proteocephalus ambloplitis plerocercoid Protozoa Apiosoma sp. (Ont) (Ont) Myxosporida P. ambloplitis (Ont) Myxobolus sp. (Ont) P. pearsei (Ont) Nematoda Monogenea Cleidodiscus glenorensis (Ont) Camallanus oxycephalus (Ont) Contracaecum sp. (Ont) C. stentor (Ont) Cleidodiscus sp. (Ont) Cucullanellus cotvlophora (Ont) Gyrodactyloidea gen.sp. (Ont) Nematoda gen.sp. (Ont) Rhabdochona cascadilla (Ont) Gyrodactylus goerani (Ont) Gyrodactylus sp. (Ont) Spinitectus carolini (Ont) Lyrodiscus minimus (Ont) Thominx catenata (Ont) Thynnascaris brachyura (Ont) L. rupestris (Ont)

Urocleidus alatus (Ont)

U. megalonchus (Ont)

U. chautauquaensis (Ont)

T. brachyura larva (Ont)

Leptorhynchoides thecatus (Ont)

Acanthocephala

Metechinorhynchus lateralis (Que) A pophallus brevis metacercaria (Ont) M. salmonis (Ont) A. venustus metacercaria (Que) Neoechinorhynchus cylindratus (Ont) Azveia angusticauda (Ont) Bunoderina sacculata (Ont) Pomphorhynchus bulbocolli (Ont) P. rocci (Ont) Clinostomum marginatum metacercaria Hirudinoidea (Ont) Crepidostomum cooperi (Ont) Myzobdella moorei (Ont) Piscicola punctata (Ont) C. cornutum (Ont) Crepidostomum sp. (Ont) Lampsilis radiata glochidium (Ont) ?Cryptogonimus chili metacercaria (Ont) Unionidae gen.sp. glochidium (Ont) Digenea gen.sp. (Ont) Copepoda Diplostomulum scheuringi metacercaria Achtheres ambloplitis (Ont) (Ont) A. micropteri (Ont) Diplostomulum sp. metacercaria (Ont) Ergasilus caeruleus (Ont) Diplostomum spathaceum huronense E. centrarchidarum (Ont, Que) metacercaria (Ont) Ergasilus sp. (Ont) Heterophyidae gen.sp. metacercaria (Ont) Lepomis auritus (Linnaeus) redbreast sunfish Homalometron armatum (Ont, Que) Copepoda Neascus sp. metacercaria (BC, Ont) Ergasilus centrarchidarum (Ont?) Posthodiplostomum cuticola metacercaria (Ont) P. minimum metacercaria (BC, Ont) Lepomis gibbosus (Linnaeus) pumpkinseed Syn.: Eupomotis gibbosus (Linnaeus) P. minimum centrarchi metacercaria Eupomotis aureus (Walbaum) (Ont) Protozoa Proterometra macrostoma (Ont) Trichodina sp. (Ont) Tetracotyle sp. metacercaria (Ont) Myxosporida Uvulifer ambloplitis metacercaria (Ont, Chloromyxum gibbosum (Ont) Oue) Myxobilatus ohioensis (Ont) Cestoidea Myxobolus dechtiari (Ont) Bothriocephalus claviceps (Ont) M. magnaspherus (Ont) Bothriocephalus sp. (Ont) M. osburni (Ont) Dilepididae gen.sp. larva (Ont) M. uvuliferis (Ont) Diphyllobothrium sp. plerocercoid (Ont)* Myxobolus sp. (Ont) Hymenolepis sp. larva (Ont) Myxosporida gen.sp. (Ont) Proteocephalus ambloplitis plerocercoid Monogenea (Ont) Actinocleidus gibbosus (Ont) P. fluviatilis (Ont) A. incus (Ont) P. pearsei (Ont) A. oculatus (Ont) Triaenophorus nodulosus plerocercoid A. recurvatus (Ont) (Ont) A. scapularis (Ont) Nematoda A. sigmoideus (Ont) Camallanus oxycephalus (Ont) Cleidodiscus robustus (Ont) Contracaecum sp. (Ont) Gyrodactylidae gen.sp. (Ont) Eustrongylides sp. larva (Ont) Gyrodactyloidea gen.sp. (BC, Ont) Nematoda gen.sp. (Ont) Gyrodactylus avalonia (Ont) Philometra sp. (Ont) G. macrochiri (Ont) Rhabdochona sp. (Ont) Urocleidus acer (Ont) Spinitectus carolini (Ont) U. attenuatus (Ont) S. gracilis (Ont) U. dispar (Ont) Spiroxys sp. larva (BC, Ont) U. ferox (Ont) Thynnascaris brachyura (Ont) U. megalonchus (Ont) Acanthocephala U. procax (Ont) Leptorhynchoides thecatus (Ont) U. similis (Ont) Metechinorhynchus salmonis (Ont) Trematoda Neoechinorhynchus cylindratus (Ont) Allocreadium sp. (Ont) Pomphorhynchus bulbocolli (Ont)

Mollusca Lernaea cyprinacea (Ont) Unionidae gen.sp. glochidium (Ont) Lepomis megalotis (Rafinesque) longear sunfish Copepoda Syn.: Xenotis megalotis (Rafinesque) Achtheres ambloplitis (Ont) Ergasilus caeruleus (Ont) Trematoda Posthodiplostomum minimum E. centrarchidarum (Ont) metacercaria (Ont) Ergasilus sp. (Ont) Lernaea cyprinacea (Ont) Lepomis sp. Hirudinoidea Trematoda Myzobdella moorei (Ont) Piscicola punctata (Ont) Digenea gen.sp. metacercaria (Que) Placobdella montifera (Ont) Micropterus dolomieui Lacépède Lepomis macrochirus Rafinesque bluegill smallmouth bass Syn.: Lepomis pallidus (Mitchill) Protozoa Chilodonella dentata (Que) Helioperca incisor (Cuvier and Valenciennes) Eimeria micropteri (Ont) Haemogregarina sp. (Que) Monogenea Actinocleidus bakeri (Ont) Ichthyophthirius multifiliis (Ont) A. gibbosus (Ont) ?Trichodina domerguei (Ont) ?Vorticellidae gen.sp. (Ont) A. unguis (Ont) Cleidodiscus robustus (Ont) Myxosporida C. venardi (Ont) Myxidium sp. (NS) Myxobolus osburni (Ont) Cleidodiscus sp. (Ont) Gyrodactyloidea gen.sp. (Ont) Myxosporida gen.sp. (Ont) Lyrodiscus longibasus (Ont) Monogenea L. seminolensis (Ont) Ancyrocephalus sp. (NS) Cleidodiscus banghami (Ont) Lyrodiscus sp. (Ont) Urocleidus dispar (Ont) C. glenorensis (Ont) Cleidodiscus sp. (Ont) U. ferox (Ont) Dactylogyrus extensus (NS) Trematoda Gyrodactylidae gen.sp. (Ont) Bunodera luciopercae (Ont) Gyrodactyloidea gen.sp. (Ont) Clinostomum marginatum metacercaria (Ont) Gyrodactylus macrochiri (Ont) Posthodiplostomum minimum ?G. medius (Ont) Syncleithrium fusiformis (Ont) metacercaria (Ont) P. minimum centrarchi metacercaria Urocleidus dispar (Ont) U. ferox (Ont) (Ont) U. megalonchus (Ont) Tetracotyle sp. metacercaria (Ont) U. principalis (Ont) Uvulifer ambloplitis metacercaria (Ont) Trematoda Cestoidea Proteocephalus ambloplitis plerocercoid A pophallus venustus metacercaria (Que) (Ont) Azygia angusticauda (Ont, Que) P. pearsei (Ont) A. longa (Ont) Caecincola parvulus (Ont) Nematoda Centrovarium lobotes (Ont) Camallanus oxycephalus (Ont) Clinostomum complanatum metacercaria Cucullanellus cotylophora (Ont) (Man, Que) Nematoda gen.sp. (Ont) Rhabdochona sp. (Ont) C. marginatum metacercaria (Ont) Acanthocephala Clinostomum sp. metacercaria (Man) Crepidostomum cooperi (Ont, Que) Leptorhynchoides thecatus (Ont) C. cornutum (NS, Ont, Que) Hirudinoidea Cryptogonimus chili metacercaria (Ont) Piscicola punctata (Ont) C. chili (Ont, Que) Mollusca Unionidae gen.sp. glochidium (Ont) Diplostomulum sp. metacercaria (Ont) Copepoda Diplostomum spathaceum metacercaria Ergasilus centrarchidarum (Ont) (Ont)

| Leuceruthrus micropteri (Ont) | Achtheres ambloplitis (Ont) |
|--|---|
| Lissorchis sp. (Ont) | A. micropteri (Ont) |
| Maritreminoides obstipus (Ont)*** | Ergasilus caeruleus (BC, Ont) |
| Microphallidae gen.sp. (Ont) | E. centrarchidarum (Ont) |
| Microphallus opacus (Ont, Que) | Ergasilus sp. (Ont) |
| Neascus sp. metacercaria (Ont) | Lernaeidae gen.sp. (Ont) |
| Neochasmus umbellus (Ont) | |
| Phyllodistomum superbum (Que) | Micropterus salmoides (Lacépède) |
| Posthodiplostomum minimum | largemouth bass |
| metacercaria (Ont, Que) | Syn.: A plites salmoides (Lacépède) |
| Posthodiplostomum sp. metacercaria | Huro salmoides (Lacépède) |
| (Que) | Protozoa |
| Rhipidocotyle papillosa metacercaria | Apiosoma sp. (Ont) |
| (Ont) | Eimeria micropteri (Ont) |
| R. papillosa (Ont) | Eimeria sp. (Ont) |
| Tetracotyle sp. metacercaria (Ont) | Ichthyophthirius multifiliis (Ont) |
| Uvulifer ambloplitis metacercaria | Spironucleus sp. (Ont) |
| (Ont, Que) | ?Trichodina domerguei (Ont) |
| Cestoidea | Trichodina sp. (Ont) |
| Bothriocephalus claviceps (Ont) | ?Vorticellidae gen.sp. (Ont) |
| Bothriocephalus sp. (Ont) | Myxosporida |
| Ligula intestinalis plerocercoid (Ont) | Myxobolus sp. (Ont) |
| Proteocephalus ambloplitis plerocercoid | Monogenea |
| (Ont, Que) | Actinocleidus mizellei (Ont) |
| P. ambloplitis (Ont, Que) | Gyrodactyloidea gen.sp. (BC, Ont) |
| P. fluviatilis (Ont) P. pearsei (Ont) | Gyrodactylus macrochiri (Ont) |
| • • | Syncleithrium fusiformis (Ont) |
| P. stizostethi (Ont) Proteocephalus sp. (BC) | Urocleidus dispar (Ont) |
| | U. furcatus (Ont) |
| Triaenophorus nodulosus plerocercoid (Ont) | U. helicis (Ont) |
| Triaenophorus sp. plerocercoid (Ont) | U. principalis (Ont) Urocleidus sp. (Ont) |
| Nematoda | Trematoda |
| Camallanus oxycephalus (Ont) | |
| Capillaria sp. (Ont) | Azygia angusticauda (Ont) |
| Contracaecum sp. (Ont) | Bunodera luciopercae (Ont) Caecincola parvulus (Ont) |
| Cucullanellus cotylophora (Ont) | Crepidostomum cornutum (Ont) |
| Nematoda gen.sp. (Ont) | Cryptogonimus chili (Ont) |
| Philometra sp. (Ont) | Diplostomulum scheuringi metacercaria |
| Rhabdochona cascadilla (Ont) | (Ont) |
| Rhabdochona sp. (BC) | Diplostomulum sp. metacercaria |
| Spinitectus carolini (Ont) | (BC, Ont) |
| S. gracilis (Ont) | Leuceruthrus micropteri (Ont) |
| Thynnascaris brachyura (Ont) | Microphallus opacus (Ont) |
| Acanthocephala | Neascus sp. metacercaria (BC) |
| Leptorhynchoides thecatus (Ont, Que) | Posthodiplostomum minimum |
| Metechinorhynchus lateralis (Que) | metacercaria (Ont) |
| M. salmonis (Ont) | P. minimum centrarchi metacercaria |
| Neoechinorhynchus cylindratus (Ont) | (Ont) |
| N. rutili (Ont) | Tetracotyle sp. metacercaria (Ont) |
| Pomphorhynchus bulbocolli (Ont) | Cestoidea |
| Hirudinoidea | Corallobothrium sp. (Ont) |
| Illinobdella alba (Ont) | Dilepis unilateralis cysticercus (Ont) |
| I. elongata (Ont) | Dilepis sp. cysticercus (Ont) |
| Illinobdella sp. (Ont) | Proteocephalus ambloplitis plerocercoid |
| Piscicola punctata (Ont) | (BC, Ont) |
| Copepoda | P. ambloplitis (Ont) |
| | |

C. vancleavei (Ont) P. fluviatilis (Ont) Gyrodactyloidea gen.sp. (BC, Ont) P. pearsei (Ont) Lyrodiscus longibasus (Ont) Nematoda Lyrodiscus sp. (Ont) Camallanus oxycephalus (Ont) Trematoda Cucullanellus cotylophora (Ont) Diplostomulum scheuringi metacercaria Dioctophyma sp. (Ont) Nematoda gen.sp. (Ont) Diplostomulum sp. metacercaria (Ont) Spinitectus carolini (Ont) Neascus sp. metacercaria (Ont) Thynnascaris brachyura (Ont) Posthodiplostomum minimum Acanthocephala metacercaria (Ont) Leptorhynchoides thecatus (Ont) Tetracotyle sp. metacercaria (Ont) Metechinorhynchus salmonis (Ont) Cestoidea Neoechinorhynchus cylindratus (Ont) Bothriocephalus sp. (Ont) Hirudinoidea Proteocephalus ambloplitis plerocercoid Placobdella montifera (Ont) Mollusca P. pearsei (Ont) Unionidae gen.sp. glochidium (Ont) Nematoda Copepoda Camallanus oxycephalus (Ont) Achtheres micropteri (Ont) Spinitectus gracilis (Ont) Ergasilus centrarchidarum (Ont) Acanthocephala Leptorhynchoides thecatus (Ont) Micropterus sp. Neoechinorhynchus cylindratus (Ont) Trematoda Digenea gen.sp. metacercaria (Que) Unionidae gen.sp. glochidium (Ont) Copepoda white crappie Pomoxis annularis Rafinesque Ergasilus caeruleus (Ont) Myxosporida Myxosporida gen.sp. (Ont) Monogenea Family PERCIDAE Cleidodiscus capax (Ont) C. longus (Ont) Ammocrypta pellucida (Putnam) C. uniformis (Ont) eastern sand darter Lyrodiscus longibasus (Ont) Trematoda Trematoda Neascus sp. metacercaria (Ont) Tetracotyle sp. metacercaria (Ont) Plagioporus cooperi (Ont)* Cestoidea Plagioporus sp. (Ont) Proteocephalus pearsei (Ont) Tetracotyle sp. metacercaria (Ont) Nematoda Camallanus oxycephalus (Ont) Nematoda Camallanus oxycephalus (Ont) Nematoda gen.sp. (Ont) Nematoda gen.sp. (Ont) Spinitectus gracilis (Ont) Acanthocephala Etheostoma blennioides Rafinesque Leptorhynchoides thecatus (Ont) greenside darter Copepoda Trematoda Ergasilus caeruleus (Ont) Allocreadium sp. (Ont) Tetracotyle sp. metacercaria (Ont) Pomoxis nigromaculatus (Lesueur) black crappie Nematoda Camallanus oxycephalus (Ont) Svn.: Pomoxis sparoides (Lacépède) Protozoa Iowa darter Etheostoma exile (Girard) Trichodina sp. (Ont) Syn.: Etheostoma iowae Jordan and Meek Myxosporida Poecilichthys exilis (Girard) Myxobolus intestinalis (Ont) Protozoa Myxobolus sp. (Ont) A piosoma sp. (Ont) Monogenea Eimeria etheostomae (Ont) Cleidodiscus capax (Ont) Eimeria sp. (Ont) C. longus (Ont)

| Epistylis sp. (Ont) | Gyrodactyloidea gen.sp. (Ont) |
|---|---|
| Myxosporida | Gyrodactylus etheostomae (Ont) |
| Myxobolus poecilichthidis (Que) | G. stunkardi (Ont) |
| Myxobolus sp. (Ont) | Gyrodactylus sp. (Ont) |
| Monogenea | Urocleidus hargisi (Ont) |
| Gyrodactylus etheostomae (Ont) | Trematoda |
| | |
| Gyrodactylus sp. (Ont) | A pophallus brevis metacercaria (Ont) |
| Trematoda | Azygia angusticauda (Ont) |
| Allocreadium sp. (Ont) | Clinostomum marginatum metacercaria |
| A pophallus brevis metacercaria (Ont) | (Ont) |
| Azygia angusticauda (Ont) | Crepidostomum isostomum (Ont) |
| Crepidostomum isostomum (Ont)* | Diplostomulum sp. metacercaria (Ont) |
| Diplostomulum sp. metacercaria (Ont) | Leuceruthrus sp. (Ont) |
| Diplostomum spathaceum metacercaria | Neascus sp. metacercaria (Ont) |
| (Ont) | Plagioporus cooperi (Ont) |
| Neascus sp. metacercaria (Ont) | Posthodiplostomum minimum |
| Plagioporus sp. (Ont) | metacercaria (Ont) |
| | |
| Posthodiplostomum minimum | Rhipidocotyle papillosa (Ont) |
| metacercaria (Ont) | Tetracotyle sp. metacercaria (Ont) |
| Tetracotyle sp. metacercaria (Ont) | Cestoidea |
| Uvulifer ambloplitis metacercaria (Ont) | Bothriocephalus formosus (Ont) |
| Cestoidea | Proteocephalus pearsei (Ont) |
| Bothriocephalus cuspidatus (Ont) | Nematoda |
| B. formosus (Ont) | Contracaecum sp. (Ont) |
| Corallobothrium sp. (Ont) | Dichelyne sp. (Ont) |
| Hymenolepis sp. larva (Ont) | Nematoda gen.sp. (Ont) |
| Nematoda | Rhabdochona cascadilla (Ont) |
| Camallanus oxycephalus (Ont) | Spiroxys sp. larva (Ont) |
| | |
| Contracaecum sp. (Ont) | Acanthocephala |
| Nematoda gen.sp. (Ont) | Leptorhynchoides thecatus (Ont) |
| Rhabdochona cascadilla (Ont) | Neoechinorhynchus cylindratus (Ont) |
| Thynnascaris brachyura (Ont) | Hirudinoidea |
| Acanthocephala | <i>Illinobdella</i> sp. (Ont) |
| Leptorhynchoides thecatus (Ont) | Branchiura |
| Metechinorhynchus sp. (Ont) | Argulus catostomi (Ont) |
| Hirudinoidea | |
| Illinobdella sp. (Ont) | Perca flavescens (Mitchill) yellow perc |
| Branchiura | Syn.: Perca fluviatilis Linnaeus auct. |
| Argulus catostomi (Ont) | Protozoa |
| m garas carostomi (Ont) | Balantidium sp. (Que) |
| Etheostoma flabellare Rafinesque fantail darter | |
| • | Eimeria laureleus (Ont) |
| Syn.: Catonotus flabellaris (Rafinesque) | E. tedlai (Ont) |
| Trematoda | Ichthyophthirius multifiliis (Ont) |
| Clinostomum marginatum metacercaria | Spironucleus sp. (Ont) |
| (Ont) | Trichodina sp. (Ont, Que) |
| Cotylurus communis metacercaria (Ont) | Trypanosoma percae var. canadensis |
| Neascus sp. metacercaria (Ont) | (Que) |
| Acanthocephala | Myxosporida |
| Leptorhynchoides thecatus (Ont) | Henneguya doori (Ont) |
| (, | H. percae (Que) |
| Etheostoma nigrum Rafinesque johnny darter | Henneguya sp. (Ont) |
| Syn.: Boleosoma nigrum (Rafinesque) | Myxidium percae (Que) |
| Protozoa | Myxobolus percae (Que) |
| | |
| Eimeria etheostomae (Ont) | Myxosoma scleroperca (Ont) |
| Myxosporida | Monogenea |
| Myxobolus sp. (Ont) | Cleidodiscus sp. (Ont) |
| Monogenea | Gyrodactylidae gen.sp. (Ont) |
| | |

Gyrodactyloidea gen.sp. (Ont) Corallobothrium sp. (Ont) Gyrodactylus freemani (Ont) Cyathocephalus truncatus (Ont) Urocleidus adspectus (Ont) Diphyllobothrium latum plerocercoid Trematoda (Man) A pophallus brevis metacercaria (Ont) Diphyllobothrium sp. plerocercoid (Que) A. venustus metacercaria (Ont, Que) Ligula intestinalis plerocercoid (BC, Azygia angusticauda (Ont, Que) Man, Ont, Sask) Proteocephalus ambloplitis plerocercoid A. longa (Ont)* Bucephalus elegans (Ont) Bunodera luciopercae (Ont, Que) P. ambloplitis (Ont) Bunodera sp. (Que) P. pearsei (Ont) Bunoderina sacculata (Ont, Que) P. pinguis (Ont) Centrovarium lobotes (Ont) Schistocephalus solidus plerocercoid Clinostomum complanatum metacercaria (Ont) (Man, Que) Triaenophorus nodulosus plerocercoid C. marginatum metacercaria (Man, (Man, Ont) Ont, Que) Triaenophorus sp. plerocercoid (Ont, Clinostomum sp. metacercaria (Man) Hudson Bay drainage) Crassiphiala bulboglossa metacercaria Nematoda Camallanus oxycephalus (Ont) Crepidostomum cooperi (Man, Ont, Que) Camallanus sp. (Ont) C. farionis (Ont) Contracaecum spiculigerum larva (Ont) C. isostomum (Que) Contracaecum sp. (Ont, Que) Cryptogonimus chili (Ont) Cucullanellus cotylophora (Ont, Que) Diplostomulum scheuringi metacercaria Eustrongylides sp. larva (Ont) Nematoda gen.sp. (Ont) (Ont) Diplostomulum sp. metacercaria (Ont) Philometra cylindracea (Ont) Diplostomum adamsi metacercaria (Ont) Philometra sp. (Ont, Que) D. spathaceum metacercaria (Ont) Raphidascaris sp. (Man, Que) D. spathaceum huronense metacercaria Rhabdochona cascadilla (Ont) (Ont) R. ovifilamenta (Ont) Leuceruthrus sp. (Ont) Rhabdochona sp. (Ont) Metorchis conjunctus metacercaria Spinitectus gracilis (Ont) Spinitectus sp. (Ont) (Man) Microphallidae gen.sp. (Ont) Spiroxys contortus larva (Ont) Microphallus opacus (Ont, Que) Spiroxys sp. larva (Ont) Neascus pyriformis metacercaria (Ont) Acanthocephala Neascus sp. metacercaria (BC, Ont) Acanthocephalus jacksoni (Ont) Phyllodistomum superbum (Ont, Que?) Leptorhynchoides thecatus (Ont) Posthodiplostomum minimum Metechinorhynchus lateralis (Que) metacercaria (Ont) M. salmonis (Ont) P. minimum centrarchi metacercaria Neoechinorhynchus cylindratus (Man, Ont) (Ont) N. pungitius (Ont) Ptychogonimus fontanus (Que) Rhipidocotyle papillosa metacercaria N. rutili (Ont) Neoechinorhynchus sp. (Ont) Sanguinicola occidentalis (Ont) Pomphorhynchus bulbocolli (Ont) Strigeidae gen.sp. (Que) Hirudinoidea Tetracotyle diminuta metacercaria (Ont) Actinobdella sp. (Que) Illinobdella alba (Ont) T. intermedia metacercaria (Ont) Illinobdella sp. (Ont, Que) Tetracotyle sp. metacercaria (Ont) Uvulifer ambloplitis metacercaria (Ont) Myzobdella moorei (Ont) Cestoidea Piscicola punctata (Ont) Bothriocephalus cuspidatus (Ont, Piscicola sp. (Ont) Hudson Bay drainage) Placobdella parasitica (Ont) Bothriocephalus sp. (Man, Ont) Mollusca Anodonta sp. glochidium (Ont) Cestoda gen.sp. metacestode (Que)

Elliptio complanata glochidium (Ont) Plagioporus cooperi (Ont)* Lampsilis radiata glochidium (Ont) Plagioporus sp. (Ont) Unionidae gen.sp. glochidium (Ont) Cestoidea Branchiura Bothriocephalus cuspidatus (Ont) Argulus stizostethii (NS, Ont) Nematoda Copepoda Camallanus oxycephalus (Ont) Ergasilus caeruleus (Ont) E. centrarchidarum (Ont?) Percina maculata (Girard) blackside darter E. luciopercarum (Ont) Syn.: Hadropterus maculatus (Girard) Ergasilus sp. (Man) Nematoda Acarina Camallanus oxycephalus (Ont) Hydrachna sp. larva (Ont) Stizostedion canadense (Smith) sauger Percina caprodes (Rafinesque) logperch Syn.: Lucioperca canadense (Smith) Protozoa Stizostedion canadense griseum (DeKay) Trichodina sp. (Ont) Myxosporida Myxosporida Myxosporida gen.sp. (Ont) Myxobolus sp. (Ont) Monogenea Myxosporida gen.sp. (Ont) Urocleidus aculeatus (Ont) Monogenea Trematoda Gyrodactyloidea gen.sp. (Ont) Centrovarium lobotes (Ont) Urocleidus malleus (Ont) Clinostomum marginatum metacercaria Trematoda (Ont) Clinostomum marginatum metacercaria Cotylurus communis metacercaria (Ont) Diplostomulum sp. metacercaria (Ont) Crepidostomum isostomum (Ont) Neascus sp. metacercaria (Ont) Diplostomulum scheuringi metacercaria Prosorhynchoides pusilla (Ont) (Ont) Phyllodistomum superbum (Ont) Diplostomulum sp. metacercaria (Ont) Tetracotyle sp. metacercaria (Ont) Leuceruthrus sp. (Ont) Cestoidea Neascus sp. metacercaria (Ont) Bothriocephalus claviceps (Ont) Podocotyle boleosomi (Ont) B. cuspidatus (Ont, Hudson Bay Posthodiplostomum minimum drainage) metacercaria (Ont) Diphyllobothrium latum plerocercoid Tetracotyle sp. metacercaria (Ont) (Man) Cestoidea Proteocephalus ambloplitis plerocercoid Bothriocephalus cuspidatus (Ont) (Ont) B. formosus (Ont) P. luciopercae (Man, Sask) Proteocephalus pearsei (Ont) P. stizostethi (Ont) P. stizostethi (Ont) Triaenophorus nodulosus plerocercoid Nematoda Camallanus oxycephalus (Ont) Triaenophorus sp. plerocercoid (Ont) Contracaecum sp. (Ont) Triaenophorus sp. adult (Ont) Nematoda gen.sp. (Ont) Nematoda Acanthocephala Camallanus oxycephalus (Ont) Leptorhynchoides thecatus (Ont) Eustrongylides sp. larva (Ont) Metechinorhynchus sp. (Ont) Thynnascaris brachyura (Ont) Pomphorhynchus bulbocolli (Ont) T. brachyura larva (Ont) Hirudinoidea Acanthocephala Piscicola punctata (Ont) Metechinorhynchus salmonis (Ont) Copepoda Neoechinorhynchus cylindratus (Ont) Ergasilus caeruleus (Ont) N. tenellus (Ont) Neoechinorhynchus sp. (Ont) Percina copelandi (Jordan) channel darter Hirudinoidea Syn.: Rheocrypta copelandi Jordan Myzobdella moorei (Ont) Trematoda Piscicola punctata (Ont) Neascus sp. metacercaria (Ont) Mollusca

Unionidae gen.sp. glochidium (Ont) Diplostomulum sp. metacercaria (Ont) Neascus sp. metacercaria (Ont) Branchiura Phyllodistomum superbum (Ont) Argulus appendiculosus (Ont) Posthodiplostomum minimum Copepoda metacercaria (Ont) Ergasilus caeruleus (Ont) Prosorhynchoides pusilla (Man, Ont, E. centrarchidarum (Ont) Sanguinicola occidentalis (Ont) Stizostedion vitreum glaucum Hubbs blue pike Syn.: Stizostedion glaucum Hubbs Cestoidea Bothriocephalus cuspidatus (Man, NWT, Monogenea Ont. Oue, Hudson Bay drainage) Urocleidus aculeatus (Ont) Diphyllobothrium latum plerocercoid Trematoda (Alta, Man, NWT, Ont, Sask) Azygia angusticauda (Ont) Centrovarium lobotes (Ont) Diphyllobothrium sp. plerocercoid (Man) Prosorhynchoides pusilla (Ont) Proteocephalus ambloplitis plerocercoid Cestoidea P. luciopercae (Man, Ont, Sask) Bothriocephalus cuspidatus (Ont) P. pearsei (Ont) Proteocephalus ambloplitis plerocercoid P. pinguis (Ont) (Ont) P. stizostethi (Ont, Que) P. stizostethi (Ont) Triaeno phorus sp. plerocercoid (Ont) Proteocephalus sp. (Alta-Sask, Ont, Que) Triaenophorus crassus adult (Ont) Triaenophorus sp. adult (Ont) T. nodulosus adult (Ont) Nematoda Philometra cylindracea (Ont) T. stizostedionis adult (Alta, Man, NWT, Ont, Sask) Acanthocephala Triaenophorus sp. plerocercoid (Ont) Leptorhynchoides sp. (Ont) Metechinorhynchus sp. (Ont) Nematoda Copepoda Camallanus oxycephalus (Ont) Ergasilus caeruleus (Ont) Contracaecum sp. (Que) Cucullanellus cotylophora (Ont) E. centrarchidarum (Ont) Eustrongylides sp. larva (Ont) Nematoda gen.sp. (Ont) Stizostedion vitreum vitreum (Mitchill) walleye Raphidascaris acus (Man) Syn.: Lucioperca vitreum (Mitchill) Stegostedion vitreum (Mitchill) Raphidascaris sp. (Man) Rhabdochona canadensis (Alta)*** Stizostedion vitreum (Mitchill) Myxosporida Spinitectus gracilis (Ont) Myxosporida gen.sp. (Ont) Spinitectus sp. (Ont) Thynnascaris brachyura (Ont) Monogenea Urocleidus aculeatus (Ont) Acanthocephala Cleidodiscus sp. (Ont) Leptorhynchoides thecatus (Ont) Metechinorhynchus salmonis (Alta, Ont) Gyrodactyloidea gen.sp. (Ont) Trematoda Metechinorhynchus sp. (Ont) Apophallus venustus metacercaria (Que) Neoechinorhynchus crassus (Man) N. cylindratus (Man, Ont) Azygia angusticauda (Ont, Que) N. tenellus (Ont) Azygia sp. (Ont) Bunoderina sacculata (Ont) Neoechinorhynchus sp. (Man) Centrovarium lobotes (Man, Ont, Que) Pomphorhynchus sp. (Man) Hirudinoidea Clinostomum com planatum metacercaria (Man) Macrobdella decora (Sask) Myzobdella moorei (Alta, Ont) C. marginatum metacercaria (Man, Ont) Percymoorensis marmorata (Sask) Clinostomum sp. metacercaria (Man) Piscicola punctata (Ont) Cotylurus communis metacercaria (Ont) Mollusca Crepidostomum cooperi (Que?) Unionidae gen.sp. glochidium (Ont) Crepidostomum sp. (Ont) Digenea gen.sp. metacercaria (Que) Branchiura Argulus stizostethii (Man, Ont) Diplostomulum scheuringi metacercaria

(Ont)

A. versicolor (Ont)

Copepoda

Copepoda gen.sp. (Ont) Ergasilus caeruleus (Ont) E. centrarchidarum (Ont) E. luciopercarum (Ont?, Que)

Ergasilus sp. (Man)

Stizostedion sp.

Syn.: Lucioperca sp. Trematoda

Azygia longa (Ont)**

Family BRAMIDAE

Brama japonica Hilgendorf Pacific pomfret Syn.: Brama rayi (Bloch)

Trematoda

Lampritrema miescheri (Pac) Syncoelium sp. (Pac)

Family SCIAENIDAE

A plodinotus grunniens Rafinesque

freshwater drum

Protozoa

Ichthyophthirius multifiliis (Ont)

Myxosporida

Myxosporida gen.sp. (Ont)

Monogenea

Lintaxine cokeri (Ont)

Microcotyle eriensis (Ont)

M. spinicirrus (Ont)

Trematoda

Bunodera luciopercae (Ont) Cotylogaster occidentalis (Ont)

Crepidostomum sp. (Ont)

Homalometron armatum (Ont)

Neascus sp. metacercaria (Ont)

Phyllodistomum sp. (Ont)

Sanguinicola sp. (Ont)

Tetracotyle sp. metacercaria (Ont)

Cestoidea

Bothriocephalus claviceps (Ont)

B. cuspidatus (Ont)

Proteocephalus pearsei (Ont)

Nematoda

Camallanus oxycephalus (Ont) Cucullanellus cotylophora (Ont)

Nematoda gen.sp. (Ont)

Philometra cylindracea (Ont)

Philometra sp. (Ont)

Spinitectus gracilis (Ont)

Acanthocephala

Leptorhychoides thecatus (Ont) Pomphorhynchus bulbocolli (Ont) Hirudinoidea

Piscicola punctata (Ont)

Mollusca

Unionidae gen.sp. glochidium (Ont)

Family EMBIOTOCIDAE

Brachvistius frenatus Gill

kelp perch

Trematoda

Lecithaster gibbosus (Pac)

Cymatogaster aggregata Gibbons shiner perch

Monogenea

Gyrodactyloidea gen.sp. (Pac)

Gyrodactylus sp. (Pac)

Trematoda

Galactosomum sp. metacercaria (Pac)

Lecithaster gibbosus (Pac)

Neozoogonus californicus (Pac)

Telolecithus pugetensis (Pac)

Tubulovesicula lindbergi (Pac)

Cestoidea

Eubothrium sp. (Pac)

Phyllobothrium sp. plerocercoid (Pac)

Nematoda

Anisakis sp. larva (Pac)

Contracaecum sp. (Pac)

Cucullanellus kanabus (Pac)

Acanthocephala

Corynosoma sp. juvenile (Pac)

Echinorhynchus gadi (Pac)

Branchiura

Argulus pugettensis (Pac)

Copepoda

Bomolochus cuneatus (Pac)

Bomolochus sp. (Pac)

Ergasilus turgidus (Pac)

Haemobaphes diceraus (Pac)

Isopoda

Lironeca californica (Pac)

Embiotoca lateralis Agassiz striped seaperch

Syn.: Taeniotoca lateralis (Agassiz)

Branchiura

Argulus pugettensis (Pac)

Copepoda

Bomolochus sp. (Pac)

Clavella parva (Pac)

Phanerodon furcatus Girard

white seaperch

Branchiura

Argulus pugettensis (Pac)

Copepoda

Bomolochus sp. (Pac)

Clavella parva (Pac)

Nematoda Rhacochilus vacca (Girard) pile perch Syn.: Damalichthys argyrosomus Girard Anisakis sp. larva (Pac) Cucullanus sp. (Pac) Damalichthys vacca Girard Myxosporida Henneguya sp. (Pac) Family STICHAEIDAE Branchiura Argulus pugettensis (Pac) Anoplarchus purpurescens Gill high cockscomb Copepoda Trematoda Bomolochus cuneatus (Pac) Lecithaster gibbosus (Pac) Clavella parva (Pac) Nematoda Anisakis sp. larva (Pac) Family LABRIDAE Ascarophis sebastodis (Pac) Contracaecum sp. (Pac) Phocanema sp. larva (Pac) Tautogolabrus adspersus (Walbaum) cunner Syn.: Ctenolabrus adspersus (Walbaum) Lumpenus lumpretaeformis (Walbaum) Protozoa snakeblenny Trypanosoma murmanensis (Atl) Copepoda (experimental infection) Haemobaphes cyclopterina (Atl) Trematoda Cryptocotyle lingua metacercaria (Atl) Lumpenus sagitta Wilimovsky Derogenes varicus (Atl) snake prickleback Digenea gen.sp. metacercaria (Atl) Trematoda Digenea gen.sp. (Atl) Lecithaster gibbosus (Pac) Hemiurus levinseni (Atl) Lecithaster gibbosus (Atl) Ulvaria subbifurcata (Storer) radiated shanny Lepidapedon elongatum (Atl) Protozoa Metadena sp. (Atl) Trichodina elizabethae (Atl) Microphallus sp. (Atl) Podocotyle atomon (Atl) Xiphister atropurpureus (Kittlitz) P. reflexa (Atl) black prickleback Ptychogonimus megastomus (Atl) Syn.: Anoplarchus atropurpureus (Kittlitz) Cestoidea Epigeichthys atropurpureus (Kittlitz) Abothrium gadi (Atl)*** Trematoda Bothriocephalus sp. (Atl) Podocotyle atomon (Pac) Eubothrium parvum (Atl) Nematoda Eubothrium sp. (Atl) Philometra americana (Pac) Pseudophyllidea gen.sp. (Atl) Copepoda Scolex pleuronectis bilocularis Chondracanthus pinguis (Pac) plerocercoid (Atl) Lepeophtheirus parviventris (Pac) Nematoda Anisakis sp. larva (Atl) Contracaecum sp. (Atl) Family PHOLIDAE Culcullanellus minutus (Atl) Nematoda gen.sp. (Atl) A podichthys flavidus Girard penpoint gunnel Phocanema sp. larva (Atl) Cestoidea Phocascaris sp. larva (Atl) Bothriocephalus scorpii (Pac) Thynnascaris adunca (Atl) Nematoda Acanthocephala Anisakis sp. larva (Pac) Echinorhynchus gadi (Atl) Capillaria sp. (Pac) Thynnascaris magna (Pac) Copepoda Family BATHYMASTERIDAE Chondracanthus pusillus (Pac)

Pholis gunnellus (Linnaeus) Ronquilus jordani (Gilbert) northern ronquil Protozoa Trematoda Lecithaster gibbosus (Pac)

rock gunnel

Haemogregarina sp. (Atl)

Microsporida gen.sp. (Atl) Trematoda Myxosporida Derogenes varicus (Atl) Kudoa sp. (Atl) Fellodistomum furcigerum (Atl) Stephanostomum baccatum (Atl) Trematoda Podocotyle simplex (Atl) Cryptacanthodes sp. Pholis laeta (Cope) crescent gunnel Trematoda Trematoda Hemiurus sp. (Atl) Podocotyle sp. (Pac) Cestoidea Lyconectes aleutensis Gilbert dwarf wrymouth Bothriocephalus sp. (Pac) Trematoda Nematoda Lecithaster gibbosus (Pac) Anisakis sp. larva (Pac) Contracaecum sp. (Pac) Family AMMODYTIDAE Philometra americana (Pac) Pholis ornata (Girard) saddleback gunnel Ammodytes americanus DeKay Monogenea American sand lance Gyrodactyloidea gen.sp. (Pac) Syn.: Ammodytes tobianus Linnaeus auct. Trematoda Protozoa Lecithaster gibbosus (Pac) Haemohormidium terraenovae (Atl) Podocotyle pedunculata (Pac) Trematoda Nematoda ?Hemiurus appendiculatus (Atl) Anisakis sp. larva (Pac) Contracaecum sp. (Pac) Ammodytes dubius Reinhardt Philometra americana (Pac) northern sand lance Trematoda Brachyphallus crenatus (Atl) Family ANARHICHADIDAE Derogenes varicus (Atl) Lecithaster gibbosus (Atl) Anarhichas denticulatus Krøyer Cestoidea northern wolffish Bothriocephalus scorpii (Atl) Copepoda Tetraphyllidea gen.sp. plerocercoid (Atl) Sphyrion lumpi (Atl) Nematoda Thynnascaris adunca (Atl) Anarhichas lupus Linnaeus Atlantic wolffish Protozoa Ammodytes hexapterus Pallas Trypanosoma murmanensis (Atl) Pacific sand lance Trematoda Syn.: Ammodytes tobianus personatus Girard Derogenes plenus (Atl) auct. Digenea gen.sp. (Atl) Monogenea Fellodistomum agonotum (Atl) Gyrodactyloidea gen.sp. (Pac) F. fellis (Atl) Trematoda Lepidophyllum steenstrupi (Atl) Galactosomum sp. metacercaria (Pac) Neophasis pusilla (Atl) Lecithaster gibbosus (Pac) Copepoda Cestoidea Sphyrion lumpi (Atl) Cestoda gen.sp. (Pac) Phyllobothrium sp. plerocercoid (Pac) Anarhichas minor Olafsen spotted wolffish Nematoda Protozoa Anisakis sp. larva (Pac) Trypanosoma murmanensis (Atl) Contracaecum sp. (Pac) Acanthocephala Family CRYPTACANTHODIDAE Echinorhynchus gadi (Pac) Copepoda Cryptacanthodes maculatus Storer wrymouth Haemobaphes sp. (Pac) Myxosporida Lepeophtheirus salmonis (Pac) Ceratomyxa acadiensis (Atl)* Lepeophtheirus sp. (Pac)

Family GOBIIDAE

Coryphopterus nicholsi (Bean) blackeye goby

Trematoda

Lecithaster gibbosus (Pac)

Pseudopentagramma petrowi (Pac)

Cestoidea

Phyllobothrium sp. plerocercoid (Pac)

Nematoda

Contracaecum sp. (Pac)

Family SCOMBRIDAE

Scomber scombrus Linnaeus Atlantic mackerel

Monogenea

Kuhnia scombri (Atl)

Trematoda

Podocotyle atomon (Atl)

P. simplex (Atl)

Nematoda

Anisakis simplex larva (Atl) Anisakis sp. larva (Atl)

Thynnascaris adunca (Atl)

Scomber sp.

Nematoda

Contracaecum sp. (Pac)

Thunnus alalunga (Bonnaterre)

Copepoda

Pennella sp. (Pac)

Thunnus thynnus (Linnaeus)

Trematoda

Hirudinella ventricosa (Atl)

Scombridae of Undetermined Species

"Tuna"

Trematoda

Didymozoidae gen.sp. (-)

Family XIPHIIDAE

Xiphias gladius Linnaeus

swordfish

albacore

bluefin tuna

Monogenea

Tristoma coccineum (Atl)

T. integrum (Atl)

Trematoda

Hirudinella ventricosa (Atl)

Cestoidea

Fistulicola plicatus (Atl)

Nematoda

Nematoda gen.sp. (Atl)

Thynnascaris incurva (Atl)

Copepoda

Pennella filosa (Atl)

Family STROMATEIDAE

Peprilus triacanthus (Peck)

butterfish

Syn.: Poronotus triacanthus (Peck)

Monogenea

Microcotyle poronoti (Atl)

Family SCORPAENIDAE

Sebastes aleutianus (Jordan and Evermann)

rougheye rockfish

Monogenea

Trochopus sp. (Pac)

Trematoda

Derogenes varicus (Pac)

Hemiuridae gen.sp. (Pac)

Lecithophyllum botryophorum (Pac)

Neohelicometra sebastis (Pac)

Neolepidapedon sebastisci (Pac)

Podocotyle sp. (Pac)

Prosorhynchus crucibulum (Pac)

Psettarium sebastodorum (Pac)

Steganoderma formosum (Pac)

Cestoidea

Nybelinia surmenicola plerocercoid (Pac)

Phyllobothrium sp. plerocercoid (Pac)

Nematoda

Contracaecum sp. larva (Pac)

Cucullanus sp. (Pac)

Thynnascaris adunca (Pac)

Acanthocephala

Corynosoma sp. juvenile (Pac)

Copepoda

Brachiella robusta (Pac)

Chondracanthus pinguis (Pac)

C. triventricosus (Pac)

Colobomatus kyphosus (Pac)

Naobranchia occidentalis (Pac)

Sarcotaces arcticus (Pac)

Sebastes alutus (Gilbert) Pacific ocean perch

Syn.: Sebastodes alutus (Gilbert)

Monogenea

Microcotyle sebastis (Pac)

Microcotyle sp. (Pac)

Pseudacanthocotyla williamsi (Pac)***

Trochopus marginata (Pac)

Trochopus sp. (Pac)

Trematoda

Derogenes varicus (Pac)

Digenea gen.sp. (Pac)

Fellodistomum sebastodis (Pac)

Hemiuridae gen.sp. (Pac) Sebastes babcocki (Thompson) Lecithaster gibbosus (Pac) redbanded rockfish Lecithophyllum botryophorum (Pac) Monogenea Neohelicometra sebastis (Pac) Trochopus sp. (Pac) Neolepidapedon sebastisci (Pac) Trematoda Opechona alaskensis (Pac) Derogenes varicus (Pac) O. occidentalis (Pac) Hemiuridae gen.sp. (Pac) Podocotyle sp. (Pac) Neohelicometra sebastis (Pac) Prosorhynchus crucibulum metacercaria Neolepidapedon sebastisci (Pac) (Pac) Podocotyle sp. (Pac) P. crucibulum (Pac) Prosorhynchus crucibulum (Pac) Prosorhynchus sp. metacercaria (Pac) Psettarium sebastodorum (Pac) Psettarium sebastodorum (Pac) Stephanostomum dentatum (Pac) Syncoelium filiferum (Pac) Cestoidea Tubulovesicula lindbergi (Pac) Bothriocephalus sp. (Pac) Cestoidea Nematoda Bothriocephalus scorpii (Pac) Capillaria sp. (Pac) Bothriocephalus sp. (Pac) Contracaecum sp. larva (Pac) Nybelinia surmenicola plerocercoid (Pac) Cucullanus sp. (Pac) Phyllobothrium sp. plerocercoid (Pac) Thynnascaris adunca (Pac) Nematoda Acanthocephala Ascarophis sebastodis (Pac) Echinorhynchus gadi (Pac) Anisakis sp. larva (Pac) Copepoda Capillaria sp. (Pac) Brachiella robusta (Pac) Contracaecum sp. larva (Pac) Chondracanthus pinguis (Pac) Cucullanus sp. (Pac) C. triventricosus (Pac) Phocanema decipiens larva (Pac) Clavella parva (Pac) Thynnascaris adunca (Pac) Colobomatus kyphosus (Pac) Acanthocephala Peniculus asinus (Pac) Corynosoma villosum juvenile (Pac) Corynosoma sp. juvenile (Pac) Sebastes borealis Barsukov, 1970 Echinorhynchus gadi (Pac) shortraker rockfish Copepoda Monogenea Brachiella robusta (Pac) Trochopus sp. (Pac) Chondracanthus pinguis (Pac) Trematoda C. triventricosus (Pac) Derogenes varicus (Pac) Clavella parva (Pac) Lecithophyllum botryphorum (Pac) Colobomatus kyphosus (Pac) Neolepidapedon sebastisci (Pac) Haemobaphes theragrae (Pac) Prosorhynchus crucibulum (Pac) Lepeophtheirus oblitus (Pac) Stephanostomum dentatum (Pac) Naobranchia occidentalis (Pac) Tubulovesicula lindbergi (Pac) Peniculus asinus (Pac) Cestoidea Sarcotaces arcticus (Pac) Bothriocephalus sp. (Pac) Nybelinia surmenicola plerocercoid (Pac) Sebastes auriculatus Girard brown rockfish Phyllobothrium sp. plerocercoid (Pac) Syn.: Sebastodes auriculatus (Girard) Nematoda Copepoda Ascarophis sebastodis (Pac) Brachiella robusta (Pac) Capillaria sp. (Pac) Chondracanthus pinguis (Pac) Contracaecum sp. larva (Pac) Clavella parva (Pac) Cucullanus sp. (Pac) Acanthocephala Sebastes aurora (Gilbert) aurora rockfish Corynosoma sp. juvenile (Pac) Syn.: Sebastodes aurora (Gilbert) Echinorhynchus gadi (Pac) Trematoda Hirudinoidea Psettarium sebastodorum (Pac) Piscicola sp. (Pac) Copepoda Copepoda Brachiella robusta (Pac) Brachiella robusta (Pac)

Chondracanthus pinguis (Pac) Nematoda Colobomatus kyphosus (Pac) Ascarophis sebastodis (Pac) Naobranchia occidentalis (Pac) Capillaria sp. (Pac) Contracaecum sp. larva (Pac) Cucullanus elongatus (Pac) Sebastes brevispinis (Bean) silvergray rockfish Syn.: Sebastodes brevispinis (Bean) Thynnascaris adunca (Pac) Acanthocephala Monogenea Microcotyle sebastis (Pac) Corynosoma sp. juvenile (Pac) Trochopus sp. (Pac) Echinorhynchus gadi (Pac) Trematoda Hirudinoidea Piscicola sp. (Pac) Derogenes varicus (Pac) Podocotyle sp. (Pac) Branchiura Prosorhynchus crucibulum (Pac) Argulus borealis (Pac) A. pugettensis (Pac) Psettarium sebastodorum (Pac) Copepoda Syncoelium filiferum (Pac) Tubulovesicula lindbergi (Pac) Brachiella robusta (Pac) Caligus clemensi (Pac) Cestoidea Chondracanthus pinguis (Pac) Nybelinia surmenicola plerocercoid (Pac) C. triventricosus (Pac) Nematoda Clavella parva (Pac) Contracaecum sp. larva (Pac) Colobomatus kyphosus (Pac) Thynnascaris adunca (Pac) Acanthocephala Holobomolochus venustus (Pac) Corynosoma sp. juvenile (Pac) Lepeophtheirus oblitus (Pac) Naobranchia occidentalis (Pac) Copepoda Brachiella robusta (Pac) Sebastes crameri (Jordan) Chondracanthus pinguis (Pac) darkblotched rockfish C. triventricosus (Pac) Syn.: Sebastodes crameri Jordan Colobomatus kyphosus (Pac) Peniculus asinus (Pac) Monogenea Sarcotaces arcticus (Pac) Benedinia derzhavini (Pac) Trochopus sp. (Pac) Trematoda Sebastes caurinus Richardson copper rockfish Syn.: Sebastodes caurinus (Richardson) Derogenes varicus (Pac) Hemiuridae gen.sp. (Pac) Monogenea Microcotyle sebastis (Pac) Lecithophyllum botryophorum (Pac) Microcotyle sp. (Pac) Prosorhynchus crucibulum (Pac) Psettarium sebastodorum (Pac) Trochopus marginata (Pac) Tubulovescicula lindbergi (Pac) T. trituba (Pac) Trematoda Cestoidea Nybelinia surmenicola plerocercoid (Pac) Aporocotyle macfarlani (Pac) Phyllobothrium sp. plerocercoid (Pac) Deretrema cholaeum (Pac) Derogenes varicus (Pac) Nematoda Digenea gen.sp. (Pac) Contracaecum sp. larva (Pac) Cucullanus sp. (Pac) Hemiuridae gen.sp. (Pac) Thynnascaris adunca (Pac) Lecithaster gibbosus (Pac) Copepoda Lecithochirium exodicum (Pac) Brachiella robusta (Pac) Neohelicometra sebastis (Pac) Chondracanthus pinguis (Pac) Neolepidapedon pugetense (Pac) Opechona occidentalis (Pac) C. triventricosus (Pac) Colobomatus kyphosus (Pac) Phyllodistomum sp. (Pac) Psettarium sebastodorum (Pac) Peniculus asinus (Pac) Stephanostomum californicum (Pac) splitnose rockfish Sebastes diploproa (Gilbert) Tubulovesicula lindbergi (Pac) Syn.: Sebastodes diploproa (Gilbert) Cestoidea Bothriocephalus sp. (Pac) Monogenea Nybelinia surmenicola plerocercoid (Pac) Microcotyle sebastis (Pac) Phyllobothrium sp. plerocercoid (Pac) Trochopus sp. (Pac)

Trematoda Trochopus sp. (Pac) Derogenes various (Pac) Trematoda Neohelicometra sebastis (Pac) Derogenes varicus (Pac) Phyllodistomum sp. (Pac) Prosorhynchus crucibulum (Pac) Podocotyle sp. (Pac) Cestoidea Prosorhynchus crucibulum (Pac) Nybelinia surmenicola plerocercoid (Pac) Phyllobothrium sp. plerocercoid (Pac) Psettarium sebastodorum (Pac) Cestoidea Nematoda Nybelinia surmenicola plerocercoid (Pac) Contracaecum sp. larva (Pac) Phyllobothrium sp. plerocercoid (Pac) Thynnascaris adunca (Pac) Nematoda Copepoda Ascarophis sebastodis (Pac) Brachiella robusta (Pac) Contracaecum sp. larva (Pac) Chondracanthus pinguis (Pac) Thynnascaris adunca (Pac) Colobomatus kyphosus (Pac) Acanthocephala Echinorhynchus gadi (Pac) Sebastes flavidus (Ayres) vellowtail rockfish Syn.: Sebastodes flavidus Ayres Copepoda Brachiella robusta Monogenea Chondracanthus pinguis (Pac) Trochopus sp. (Pac) C. triventricosus (Pac) Trematoda Clavella parva (Pac) Aporocotyle macfarlani (Pac) Colobomatus kyphosus (Pac) Derogenes varicus (Pac) Lepeophtheirus paulus (Pac) Hemiuridae gen.sp. (Pac) Naobranchia occidentalis (Pac) Lecithochirium exodicum (Pac) Lecithophyllum botryophorum (Pac) Sebastes elongatus Ayres greenstriped rockfish Neohelicometra sebastis (Pac) Syn.: Sebastodes elongatus (Ayres) Opechona alaskensis (Pac) Monogenea O. occidentalis (Pac) Microcotyle sebastis (Pac) Podocotyle sp. (Pac) Trochopus sp. (Pac) Prosorhynchus crucibulum (Pac) Trematoda Psettarium sebastodorum (Pac) Deretrema cholaeum (Pac) Syncoelium filiferum (Pac) Derogenes varicus (Pac) Cestoidea Digenea gen.sp. (Pac) Nybelinia surmenicola plerocercoid (Pac) Fellodistomum sebastodis (Pac) Nematoda Hemiuridae gen.sp. (Pac) Ascarophis sebastodis (Pac) Lecithochirum exodicum (Pac) Capillaria sp. (Pac) Opechona occidentalis (Pac) Contracaecum sp. larva (Pac) Podocotyle sp. (Pac) Cucullanus sp. (Pac) Prosorhynchus crucibulum (Pac) Thynnascaris adunca (Pac) Cestoidea Acanthocephala Nybelinia surmenicola plerocercoid (Pac) Echinorhynchus gadi (Pac) Phyllobothrium sp. plerocercoid (Pac) Copepoda Nematoda Brachiella robusta (Pac) Ascarophis sebastodis (Pac) Chondracanthus pinguis (Pac) Contracaecum sp. larva (Pac) C. triventricosus (Pac) 1 Thynnascaris adunca (Pac) Clavella parva (Pac) Acanthocephala Colobomatus kyphosus (Pac) Corynosoma sp. juvenile (Pac) Lepeophtheirus paulus (Pac) Copepoda Peniculus asinus (Pac) Clavella parva (Pac) Colobomatus kyphosus (Pac) Sebastes goodei (Eigenmann and Eigenmann) Holobomolochus venustus (Pac) chilipepper Monogenea Sebastes entomelas (Jordan and Gilbert) Trochopus sp. (Pac) widow rockfish Trematoda

Derogenes varicus (Pac)

Monogenea

Podocotyle sp. (Pac) C. triventricosus (Pac) Clavella parva (Pac) Nematoda Colobomatus kyphosus (Pac) Contracaecum sp. larva (Pac) Holobomolochus venustus (Pac) Lepeophtheirus oblitus (Pac) Sebastes helvomaculatus Ayres rosethorn rockfish L. paulus (Pac) Syn.: Sebastodes helvomaculatus (Ayres) Naobranchia occidentalis (Pac) Isopoda Monogenea Rocinela belliceps (Pac) Microcotyle sebastis (Pac) Trematoda Derogenes varicus (Pac) Sebastes marinus (Linnaeus) redfish or ocean perch Neohelicometra sebastis (Pac) Syn.: Sebastes marinus marinus (Linnaeus) Neolepidapedon sebastisci (Pac) Podocotyle sp. (Pac) Sebastes fasciatus Storer Psettarium sebastodorum (Pac) Trematoda Brachyphallus crenatus (Atl) Nematoda Derogenes varicus (Atl) Contracaecum sp. larva (Pac) Helicometra sp. (Atl) Thynnascaris adunca (Pac) Acanthocephala Hemiurus levinseni (Atl) Corynosoma sp. juvenile (Pac) Podocotyle atomon (Atl) Echinorhynchus gadi (Pac) P. simplex (Atl) Cestoidea Copepoda Eubothrium sp. (Atl) Chondracanthus triventricosus (Pac) Nematoda Lepeophtheirus oblitus (Pac) Anisakis sp. larva (Atl) Contracaecum sp. (Atl) Sebastes maliger (Jordan and Gilbert) Nematoda gen.sp. (Atl) quillback rockfish Syn.: Sebastodes maliger (Jordan and Gilbert) Phocanema decipiens larva (Atl) Phocanema sp. larva (Atl) Monogenea Thynnascaris adunca larva (Atl) Microcotyle sebastis (Pac) Copepoda Trochopus marginata (Pac) Chondracanthus nodosus (Atl) Trematoda Peniculus clavatus (Atl) Aporocotyle macfarlani (Pac) Deretrema cholaeum (Pac) Sphyrion lumpi (Atl) Derogenes varicus (Pac) black rockfish Neohelicometra sebastis (Pac) Sebastes melanops Girard Syn.: Sebastodes melanops (Girard) Opechona alaskensis (Pac) Trematoda O. occidentalis (Pac) A porocotyle macfarlani (Pac) Podocotyle sinusacca (Pac) Prosorhynchus sp. metacercaria (Pac) Podocotyle sp. (Pac) Psettarium sebastodorum (Pac) Psettarium sebastodorum (Pac) Stephanostomum californicum (Pac) Copepoda Acanthochondria deltoidea (Pac) Tubulovesicula lindbergi (Pac) Cestoidea Brachiella robusta (Pac) Chondracanthus pinguis (Pac) Nybelinia surmenicola plerocercoid (Pac) Phyllobothrium sp. plerocercoid (Pac) deepwater redfish Nematoda Sebastes mentella Travin Syn.: Sebastes marinus mentella Travin Ascarophis sebastodis (Pac) Cestoidea Capillaria sp. (Pac) Contracaecum sp. larva (Pac) Eubothrium sp. (Atl) Cucullanus elongatus (Pac) Nematoda Anisakis sp. larva (Atl) Thynnascaris adunca (Pac) Acanthocephala Contracaecum sp. (Atl) Corynosoma sp. juvenile (Pac) Copepoda Chondracanthus nodosus (Atl) Copepoda Brachiella robusta (Pac) Peniculus clavatus (Atl) Chondracanthus pinguis (Pac) Sphyrion lumpi (Atl)

Sebastes nebulosus Ayres China rockfish Trochopus sp. (Pac) Monogenea Trematoda Trochopus marginata (Pac) A porocotyle macfarlani (Pac) Trematoda Derogenes varicus (Pac) Neohelicometra sebastis (Pac) Lecithaster gibbosus (Pac) Neolepidapedon pugetense (Pac) Neolepidapedon sebastisci (Pac) Opechona alaskensis (Pac) Opechona occidentalis (Pac) Nematoda Podocotyle sp. (Pac) Contracaecum sp. larva (Pac) Prosorhynchus crucibulum (Pac) Thynnascaris adunca (Pac) Psettarium sebastodorum (Pac) Syncoelium filiferum (Pac) Sebastes nigrocinctus Ayres tiger rockfish Tubulovesicula lindbergi (Pac) Syn.: Sebastodes nigrocinctus (Ayres) Cestoidea Monogenea Bothriocephalus sp. (Pac) Microcotyle sebastis (Pac) Nybelinia surmenicola plerocercoid (Pac) Trematoda Phyllobothrium sp. plerocercoid (Pac) Deretrema cholaeum (Pac) Nematoda Hemiuridae gen.sp. (Pac) Contracaecum sp. larva (Pac) Neohelicometra sebastis (Pac) Thynnascaris adunca (Pac) Psettarium sebastodorum (Pac) Copepoda Cestoidea Brachiella robusta (Pac) Nybelinia surmenicola plerocercoid (Pac) Chondracanthus pinguis (Pac) Nematoda Clavella parva (Pac) Capillaria sp. (Pac) Colobomatus kyphosus (Pac) Holobomolochus venustus (Pac) Contracaecum sp. larva (Pac) Copepoda Lepeopththeirus parviventris (Pac) Colobomatus kyphosus (Pac) Naobranchia occidentalis (Pac) Lepeophtheirus paulus (Pac) Naobranchia occidentalis (Pac) Sebastes proriger (Jordan and Gilbert) redstripe rockfish Sebastes paucispinis Ayres Syn.: Sebastodes proriger (Jordan and Gilbert) bocaccio Syn.: Sebastodes paucispinis (Ayres) Monogenea Monogenea Benedenia derzhavini (Pac) Microcotyle sebastis (Pac) Microcotyle sebastis (Pac) Trematoda Trochopus sp. (Pac) Derogenes varicus (Pac) Trematoda Lecithochirium exodicum (Pac) Derogenes varicus (Pac) Lecithophyllum botryophorum (Pac) Lecithaster gibbosus (Pac) Neolepidapedon sebastisci (Pac) Podocotyle sp. (Pac) Podocotyle sp. (Pac) Psettarium sebastodorum (Pac) Prosorhynchus crucibulum (Pac) Syncoelium filiferum (Pac) Psettarium sebastodorum (Pac) Cestoidea Tubulovesicula lindbergi (Pac) Bothriocephalus sp. (Pac) Cestoidea Nybelinia surmenicola plerocercoid (Pac) Bothriocephalus sp. (Pac) Nematoda Nematoda Ascarophis sebastodis (Pac) Capillaria sp. (Pac) Contracaecum sp. larva (Pac) Contracaecum sp. larva (Pac) Thynnascaris adunca (Pac) Cucullanus sp. larva (Pac) Acanthocephala Thynnascaris adunca (Pac) Echinorhynchus gadi (Pac) Copepoda Copepoda Naobranchia occidentalis (Pac) Brachiella robusta (Pac) Chondracanthus pinguis (Pac) Sebastes pinniger (Gill) canary rockfish C. triventricosus (Pac) Syn.: Sebastodes pinniger (Gill) Colobomatus kyphosus (Pac) Monogenea Naobranchia occidentalis (Pac) Trochopus trituba (Pac) Peniculus asinus (Pac)

Chondracanthus pinguis (Pac) Sebastes reedi (Westrheim and Tsuyuki) C. triventricosus (Pac) vellowmouth rockfish Colobomatus kyphosus (Pac) Monogenea Holobomolochus venustus (Pac) Benedenia derzhavini (Pac) Lepeophtheirus paulus (Pac) Microcotyle sebastis (Pac) Sarcotaces arcticus (Pac) Trochopus sp. (Pac) Trematoda Sebastes rubrivinctus (Jordan and Gilbert) Derogenes varicus (Pac) Lecithophyllum botryophorum (Pac) flag rockfish Neohelicometra sebastis (Pac) Syn.: Sebastodes rubrivinctus (Jordan and Podocotyle sp. (Pac) Gilbert) Prosorhynchus crucibulum (Pac) Copepoda Brachiella robusta (Pac) Psettarium sebastodorum (Pac) Cestoidea Sebastes variegatus Quast harlequin rockfish Bothriocephalus sp. (Pac) Monogenea Nybelinia surmenicola plerocercoid (Pac) Benedinia derzhavini (Pac) Nematoda Microcotyle sebastis (Pac) Contracaecum sp. larva (Pac) Thynnascaris adunca (Pac) Trematoda Derogenes varicus (Pac) Copepoda Lecithaster gibbosus (Pac) Brachiella robusta (Pac) Chondracanthus pinguis (Pac) Neohelicometra sebastis (Pac) Podocotyle sp. (Pac) C. triventricosus (Pac) Psettarium sebastodorum (Pac) Colobomatus kyphosus (Pac) Peniculus asinus (Pac) Cestoidea Bothriocephalus sp. (Pac) Nybelinia surmenicola plerocercoid (Pac) Sebastes ruberrimus (Cramer) yelloweye rockfish Phyllobothrium sp. plerocercoid (Pac) Nematoda Syn.: Sebastodes ruberrimus Cramer Ascarophis sebastodis (Pac) Monogenea Trochopus sp. (Pac) Contracaecum sp. larva (Pac) Thynnascaris adunca (Pac) Trematoda Copepoda Deretrema cholaeum (Pac) Derogenes varicus (Pac) Chondracanthus triventricosus (Pac) Fellodistomum sebastodis (Pac) Colobomatus kyphosus (Pac) Neohelicometra sebastis (Pac) Sebastes wilsoni (Gilbert) pygmy rockfish Neolepidapedon sebastisci (Pac) Monogenea Phyllodistomum sp. (Pac) Microcotyle sebastis (Pac) Podocotyle sp. (Pac) Prosorhynchus crucibulum (Pac) Trematoda Psettarium sebastodorum (Pac) Podocotyle sp. (Pac) Cestoidea Nematoda Bothriocephalus sp. (Pac) Contracaecum sp. larva (Pac) Nybelinia surmenicola plerocercoid (Pac) Sebastes zacentrus (Gilbert) sharpchin rockfish Phyllobothrium sp. plerocercoid (Pac) Monogenea Nematoda Benedinia derzhavini (Pac) Ascarophis sebastodis (Pac) Capillaria sp. (Pac) Microcotyle sebastis (Pac) Contracaecum sp. larva (Pac) Trochopus sp. (Pac) Cucullanus elongatus (Pac) Trematoda Cucullanus sp. (Pac) Derogenes varicus (Pac) Thynnascaris adunca (Pac) Fellodistomum sebastodis (Pac) Lecithaster gibbosus (Pac) Acanthocephala Corynosoma sp. juvenile (Pac) Neohelicometra sebastis (Pac) Echinorhynchus gadi (Pac) Neolepidapedon sebastisci (Pac) Copepoda Podocotyle sp. (Pac) Prosorhynchus crucibulum (Pac) Brachiella robusta (Pac)

Nematoda Psettarium sebastodorum (Pac) Ascarophis sp. (Pac) Cestoidea Nematoda gen.sp. (Pac) Bothriocephalus sp. (Pac) Nybelinia surmenicola plerocercoid (Pac) Copepoda Acanthochondria deltoidea (Pac) Nematoda Ascarophis sebastodis (Pac) Chondracanthus gracilis (Pac) Contracaecum sp. larva (Pac) C. pinguis (Pac) Haemobaphes sp. (Pac) Thynnascaris adunca (Pac) Lepeophtheirus oblitus (Pac) Acanthocephala L. parviventris (Pac) Echinorhynchus gadi (Pac) Copepoda Brachiella robusta (Pac) Hexagrammos lagocephalus (Pallas) Chondracanthus pinguis (Pac) rock greenling C. triventricosus (Pac) Syn.: Hexagrammos superciliosus (Pallas) Colobomatus kyphosus (Pac) Monogenea Microcotyle sebastis (Pac) Haemobaphes theragrae (Pac) Trematoda Sebastes sp. Anisorchis opisthorchis (Pac) Syn.: Sebastodes sp. Galactosomum sp. metacercaria (Pac) Trematoda Genolinea laticauda (Pac) A porocotyle macfarlani (Pac) Lecithaster gibbosus (Pac) Deretrema cholaeum (Pac) Lecithophyllum botryophorum (Pac) Hemiurus sp. (Atl) Podocotyle sp. (Pac) Opechona occidentalis (Pac) Cestoidea Podocotyle abitionis (Pac) Bothriocephalus scorpii (Pac) Prosorhynchus crucibulum metacercaria Phyllobothrium sp. plerocercoid (Pac) Nematoda Prosorhynchus sp. metacercaria (Pac) Anisakis sp. larva (Pac) Stephanostomum californicum (Pac) Ascarophis sebastodis (Pac) Cestoidea Capillaria sp. (Pac) Bothrioce phalus occidentalis (Pac) Contracaecum sp. (Pac) Nematoda Contracaecum sp. (Pac) Hexagrammos stelleri Tilesius Hirudinoidea whitespotted greenling Malmiana diminuta (BC aquarium) Trematoda Copepoda Anisorchis opisthorchis (Pac) Lecithaster gibbosus (Pac) Caligus clemensi (Pac) Lecithophyllum botryophorum (Pac) Lepeophtheirus oblitus (Pac) Parahemiurus merus (Pac) Podocotyle atomon (Pac) Family ANOPLOPOMATIDAE P. sinusacca (Pac) Podocotyle sp. (Pac) Anoplopoma fimbria (Pallas) sablefish Cestoidea Nematoda Bothriocephalus scorpii (Pac) Phocanema decipiens larva (Pac) Phyllobothrium sp. plerocercoid (Pac) Copepoda Copepoda Lepeophtheirus parviventris (Pac) Acanthochondria deltoidea (Pac) Lepeophtheirus oblitus (Pac) Family HEXAGRAMMIDAE Hexagrammos sp. Copepoda Hexagrammos decagrammus (Pallas) Caligus clemensi (Pac) kelp greenling Trematoda lingcod Ophiodon elongatus Girard Lecithaster gibbosus (Pac) Protozoa Cestoidea Urceolariidae gen.sp. (Pac)

Trematoda

Bothriocephalus scorpii (Pac)

Blepsias cirrhosus (Pallas) silverspotted sculpin Lecithaster gibbosus (Pac) Trematoda Lecithochirium exodicum (Pac) Genolinea laticauda (Pac) Parahemiurus merus (Pac) Lecithaster gibbosus (Pac) Prosorhynchus apertus (Pac) Podocotyle sinusacca (Pac) Rhipidocotyle elongata (Pac) Podocotyle sp. (Pac) Stephanostomum tristephanum (Pac) Cestoidea Tubulovesicula lindbergi (Pac) Phyllobothrium sp. plerocercoid (Pac) Cestoidea Nematoda Nybelinia surmenicola plerocercoid (Pac) Anisakis sp. larva (Pac) Phyllobothrium sp. plerocercoid (Pac) Contracaecum sp. (Pac) Nematoda Copepoda Anisakis sp. larva (Pac) Haemobaphes sp. (Pac) Contracaecum sp. (Pac) Cucullanus elongatus (Pac) Chitonotus pugetensis (Steindachner) Phocanema decipiens larva (Pac) roughback sculpin Phocanema sp. larva (Pac) Nematoda Thynnascaris magna (Pac) Capillaria sp. (Pac) Hirudinoidea Contracaecum sp. (Pac) Malmiana diminuta (BC aquarium) Copepoda Copepoda Clavella parva (Pac) Chondracanthus narium (Pac) Ergasilus turgidus (Pac) Lepeophtheirus breviventris (Pac) L. pravipes (Pac) polar sculpin Cottunculus microps Collett L. salmonis (Pac) Copepoda Chondracanthus cottunculi (Atl) Family COTTIDAE prickly sculpin Cottus asper Richardson Myxosporida Artediellus uncinatus (Reinhardt) Myxosporida gen.sp. (BC) Arctic hookear sculpin Monogenea Copepoda Gyrodactyloidea gen.sp. (BC) Haemobaphes cyclopterina (Atl) Trematoda Crepidostomum isostomum (BC) Artedius fenestralis Jordan and Gilbert Diplostomulum sp. metacercaria (BC) padded sculpin Posthodiplostomum minimum Protozoa metacercaria (BC) Haemogregarina bigemina (Pac) Tetracotyle sp. metacercaria (BC) Trichodina decipiens (Pac) Cestoidea T. lairdi (Pac) Bothriocephalus sp. (BC) T. retuncinata (Pac) Cyathocephalus truncatus (BC) T. vancouverense (Pac) Eubothrium sp. (BC) Trematoda Proteocephalus sp. (BC) Genolinea laticauda (Pac) Schistocephalus sp. plerocercoid (BC) Nematoda Artedius harringtoni (Starks) scalyhead sculpin Cystidicoloides tenuissima (BC) Syn.: Axyrias harringtoni Starks Eustrongylides sp. larva (BC) Trematoda Rhabdochona cotti (BC) Stephanostomum californicum (Pac) Skrjabinocapillaria bakeri (BC) Cestoidea Acanthocephala Bothriocephalus scorpii (Pac) Neoechinorhynchus rutili (BC) Nematoda Pomphorhynchus bulbocolli (BC) Ascarophis sebastodis (Pac) Mollusca Capillaria sp. (Pac) Unionidae gen.sp. glochidium (BC) Contracaecum sp. (Pac) Copepoda Copepoda Ergasilus sp. (BC) Clavella parva (Pac) Salmincola sp. (BC) Haemobaphes intermedius (Pac)

| Cottus bairdi Girard mottled sculpin | (Man, YT) | |
|---|--|--------------------|
| Syn.: Cottus bairdi kumlieni (Hoy) | T. stizostedionis plerocercoid (Man) | |
| Protozoa | Nematoda | |
| Eimeria ojibwana (Ont) | Haplonema sp. (BC) | |
| Trichodina sp. (Ont) | Raphidascaris acus lar | va (YT) |
| Myxosporida | Rhabdochona cotti (Bo | |
| Myxobolus sp. (Ont) | Acanthocephala | -) |
| | | ALL CATE |
| Monogenea Dactylogyrus buddi (Ont) | Neoechinorhynchus rutili (YT) N. tumidus (YT) | |
| | iv. tumtaus (11) | |
| Dactylogyrus sp. (Ont) | Cotton whoth and (Smith) | |
| Gyrodactylus bairdi (Ont) | Cottus rhotheus (Smith) | torrent sculpir |
| G. labradorius (Lab) | Monogenea | - (DC) |
| G. lacusgrandis (Lab) | Gyrodactyloidea gen.s | p. (BC) |
| Trematoda | Trematoda | (a |
| Diplostomulum sp. metacercaria (Ont) | Diplostomulum sp. metacercaria (BC) | |
| Phyllodistomum undulans (Ont) | Tetracotyle sp. metace | rcaria (BC) |
| Tetracotyle sp. metacercaria (Ont) | Cestoidea | ٠, |
| Cestoidea | Proteocephalus sp. (BC | ر) |
| Proteocephalus ambloplitis plerocercoid | Acanthocephala | (D.C) |
| (Ont) | Neoechinorhynchus ru | , , |
| Proteocephalus sp. (Lab, Ont) | Pomphorhynchus bulb | ocolli (BC) |
| Schistocephalus solidus plerocercoid | _ | |
| (Ont) | Cottus sp. | |
| Nematoda | Cestoidea | |
| Camallanus oxycephalus (Ont) | Schistocephalus solidus | plerocercoid (BC |
| Contracaecum sp. (Ont) | | |
| Rhabdochona cotti (Ont) | Dasycottus setiger Bean | spinyhead sculpir |
| Acanthocephala | Trematoda | |
| Metechinorhynchus salmonis (Ont) | Lecithaster gibbosus (I | |
| Neoechinorhynchus rutili (Ont) | Lecithophyllum botryophorum (Pac) | |
| Mollusca | Stephanostomum dent | atum (Pac) |
| Unionidae gen.sp. glochidium (Ont) | Cestoidea | |
| | <i>Phyllobothrium</i> sp. ple | rocercoid (Pac) |
| Cottus cognatus Richardson slimy sculpin | | |
| Syn.: Uranidea formosa (Girard) | Enophrys bison (Girard) | buffalo sculpir |
| Includes: Cottus cognatus gracilis Heckel | Cestoidea | |
| Protozoa | Bothriocephalus scorpi | i (Pac) |
| Epistylis sp. (YT) | Hirudinoidea | |
| Trichodina sp. (YT) | Malmiana diminuta (B | C aquarium) |
| Myxosporida | Copepoda | |
| Myxobilatus yukonensis (YT) | Chondracanthus irregu | laris (Pac) |
| Myxobolus sp. (YT) | Lepeophtheirus parviv | entris (Pac) |
| Monogenea | | |
| Dactylogyrus buddi (Ont, YT) | Gilbertidia sigalutes (Jordan a | nd Starks) |
| Gyrodactyloidea gen.sp. (BC) | | soft sculpir |
| Gyrodactulus bairdi (YT) | Nematoda | • |
| Trematoda | Anisakis sp. larva (Pac |) |
| Crepidostomum metoecus (YT) | * | , |
| Diplostomulum spathaceum | Gymnocanthus tricuspis (Rein | nhardt) |
| metacercaria (YT) | | c staghorn sculpir |
| Heterophyidae gen.sp. (YT) | Copepoda | |
| Neascus sp. metacercaria (YT) | Diocus gobinus (Atl) | |
| Cestoidea | - 0 | |
| Proteocephalus tumidocollus (YT) | Hemilepidotus hemilepidotus | (Tilesius) |
| Schistocephalus solidus plerocercoid | F F | red Irish lord |
| (Man, Ont, YT) | Trematoda | |
| Trigenophorus nodulosus plerocercoid | Anisorchis opisthorchi | r (Pac) |

Leptocottus armatus Girard Derogenes varicus (Pac) Pacific staghorn sculpin Genolinea laticauda (Pac) Lecithaster gibbosus (Pac) Trematoda Digenea gen.sp. (Pac) Lepidophyllum cameroni (Pac) Genolinea laticauda (Pac) Podocotyle sinusacca (Pac) Podocotyle atomon (Pac) Steganoderma formosum (Pac) P. reflexa (Pac) Nematoda P. sinusacca (Pac) Ascarophis sebastodis (Pac) Capillaria sp. (Pac) Prosorhynchoides sp. (Pac) Rhipidocotyle elongata (Pac) Acanthocephala Tubulovesicula lindbergi (Pac) Echinorhynchus gadi (Pac) Cestoidea Bothriocephalus occidentalis (Pac) Hemitripterus americanus (Gmelin) sea raven B. scorpii (Pac) Protozoa Nematoda Haemohormidium sp. (Atl) Anisakis sp. larva (Pac) Trichodina jarmilae (Atl) Contracaecum sp. (Pac) Myxosporida Thynnascaris magna (Pac) Ceratomyxa sp. (Atl) Acanthocephala Myxosporida gen.sp. (Atl) Corynosoma sp. juvenile (Pac) Trematoda Echinorhynchus gadi (Pac) Cryptocotyle lingua metacercaria (Atl) Copepoda Derogenes varicus (Atl) Holobomolochus spinulus (Pac) Digenea gen.sp. (Atl) Podocotyle reflexa (Atl) Malacocottus kincaidi Gilbert and Thompson P. simplex (Atl) blackfin sculpin Prosorhynchus squamatus (Atl) Nematoda Stenakron vetustum (Atl) Stephanostomum baccatum metacercaria Capillaria sp. (Pac) Contracaecum sp. (Pac) (Atl) S. baccatum (Atl) Myoxocephalus octodecemspinosus (Mitchill) Cestoidea longhorn sculpin Bothriocephalus scorpii (Atl) Protozoa Nematoda Haemogregarina myoxocephali (Atl) Phocanema decipiens larva (Atl) Haemohormidium beckeri (Atl) Phocanema sp. larva (Atl) Scyphidia arctica (Atl) Trichodina cottidarum (Atl) Hemitripterus sp. Trypanosoma murmanensis (Atl) Trematoda (exprimental infection) Hemiurus sp. (Atl) T. myoxocephali (Atl) Myxosporida Icelinus filamentosus Gilbert threadfin sculpin Kudoa sp. (Atl) Cestoidea Phyllobothrium sp. plerocercoid (Pac) Myxidium myoxocephali (Atl) Myxoproteus myoxocephali (Atl) Nematoda Nematoda Contracaecum sp. (Pac) Phocanema decipiens larva (Atl) Acanthocephala Phocanema sp. larva (Atl) Echinorhynchus gadi (Pac) Hirudinoidea Icelinus tenuis Gilbert spotfin sculpin Hirudinoidea gen.sp. (Atl) Malmiana brunnea (Atl) Trematoda M. scorpii (Atl) Hemiuridae gen.sp. (Pac) Oceanobdella microstoma (Atl) Cestoidea Phyllobothrium sp. plerocercoid (Pac) Myoxocephalus polyacanthocephalus (Pallas) great sculpin Jordania zonope Starks longfin sculpin Trematoda Nematoda

Contracaecum sp. (Pac)

Genolinea laticauda (Pac)

Tubulovesicula lindbergi (Pac) Trematoda Cestoidea Derogenes varicus (Atl) Bothriocephalus scorpii (Pac) ?Hemiurus appendiculatus (Atl) Phyllobothrium sp. plerocercoid (Pac) Podocotyle atomon (Atl) Nematoda P. simplex (Atl) Anisakis sp. larva (Pac) Prosorhynchus squamatus (Atl) Ascarophis sebastodis (Pac) Stephanostomum baccatum (Atl) Capillaria sp. (Pac) Cestoidea Contracaecum sp. (Pac) Platybothrium parvum (Atl) Phocanema sp. larva (Pac) Nematoda Acanthocephala Nematoda gen.sp. (E Arc) Corynosoma sp. juvenile (Pac) Phocanema decipiens larva (Atl) Echinorhynchus gadi (Pac) Thynnascaris adunca (Atl) Hirudinoidea Hirudinoidea Malmiana diminuta (BC aquarium) Hirudinoidea gen.sp. (Atl) Copepoda Malmiana brunnea (Atl) Chondracanthus irregularis (Pac) M. scorpii (Atl, W Arc) Lepeophtheirus parviventris (Pac) Oceanobdella microstoma (Atl) Lepeophtheirus sp. (Pac) Naobranchia occidentalis (Pac) Myoxocephalus sp. Syn.: Acanthocottus sp. Myoxocephalus quadricornis (Linnaeus) Trematoda fourhorn sculpin Hemiurus sp. (Atl) Syn.: Triglopsis thompsoni Girard Copepoda Oncocottus quadricornis (Linnaeus) Lernaeocera branchialis (Atl) Monogenea Gyrodactylus nainum (Lab-b) Nautichthys oculofasciatus (Girard) Trematoda sailfin sculpin Podocotyle atomon (Lab-b) Trematoda Cestoidea Genolinea laticauda (Pac) Bothrimonus sturionis (E Arc) Lecithaster gibbosus (Pac) Bothriocephalus scorpii (W Arc) Cestoidea Bothriocephalus scorpii (Pac) Eubothrium crassum (Man) Acanthocephala Nematoda Echinorhynchus gadi (Lab-b) Ascarophis sebastodis (Pac) Metechinorhynchus salmonis (Ont) Oligocottus maculosus Girard tidepool sculpin Myoxocephalus scorpioides (Fabricius) Syn.: Oligocottus borealis Jordan and Snyder Arctic sculpin Monogenea Gyrodactyloidea gen.sp. (Pac) Syn.: Cottus scorpioides Fabricius Copepoda Trematoda Haemobaphes cyclopterina (E Arc) Genolinea laticauda (Pac) Lecithaster gibbosus (Pac) Myoxocephalus scorpius (Linnaeus) Tubulovesicula lindbergi (Pac) shorthorn sculpin Nematoda Syn.: Acanthocottus scorpius (Linnaeus) Anisakis sp. larva (Pac) Cottus scorpius Linnaeus Contracaecum sp. (Pac) Myoxocephalus groenlandicus (Cuvier Copenoda and Valenciennes) Haemobaphes intermedius (Pac) Protozoa Haemobaphes sp. (Pac) Trichodina cottidarum (Atl) Holobomolochus spinulus (Pac) T. domerguei saintjohnsi (Atl) Trypanosoma murmanensis (Atl) Rhamphocottus richardsoni Günther (experimental infection) grunt sculpin Myxosporida Nematoda Chloromyxum granulosum (Atl) Ascarophis sebastodis (Pac)

Myxoproteus myoxocephali (Atl)

Podocotyle endophrysi (Pac)

Phocanema sp. larva (Pac)

Family CYCLOPTERIDAE

Scorpaenichthys marmoratus (Ayres) cabezon

Trematoda

Genolinea laticauda (Pac) Prosorhynchus scapellus (Pac) Tubulovesicula lindbergi (Pac)

Nematoda

Caballeronema wardlei (Pac)

Copepoda

Chondracanthus gracilis (Pac)

C. pinguis (Pac)

Holobomolochus venustus (Pac) Lepeophtheirus parviventris (Pac)

Triglops murrayi Günther moustache sculpin

Syn.: Triglops ommatistius Gilbert

Protozoa

Trichodina domerguei saintjohnsi (Atl)

Nematoda

Phocanema decipiens larva (Atl)

Triglops pingeli Reinhardt ribbed sculpin Includes: Triglops pingeli terraenovae Gilbert

Trematoda

Podocotyle blennicottusi (Pac)

Cestoidea

Nybelinia surmenicola plerocercoid (Pac) Phyllobothrium sp. plerocercoid (Pac)

Nematoda

Anisakis sp. larva (Pac)

Contracaecum sp. (Pac)

Phocanema decipiens larva (Atl)

Copepoda

Haemobaphes sp. (Pac)

Peniculus clavatus (Atl)

Family AGONIDAE

Agonus acipenserinus Tilesius sturgeon poacher Trematoda

Podocotyle sp. (Pac)

Cestoidea

Phyllobothrium sp. plerocercoid (Pac)

Nematoda

Contracaecum sp. (Pac)

Thynnascaris adunca (Pac)

Acanthocephala

Echinorhynchus gadi (Pac)

Copepoda

Haemobaphes sp. (Pac)

Xeneretmus latifrons (Gilbert) blacktip poacher Cestoidea

Phyllobothrium sp. plerocercoid (Pac)

Cyclopterus lumpus Linnaeus

lumpfish

Protozoa

Cryptobia dahli (Atl)

Trichodina domerguei saintjohnsi (Atl)

T. galyae (Atl)

Copepoda

Caligus elongatus (Atl)

Lernaeocera branchialis larva (Atl)

Liparis atlanticus (Jordan and Evermann)

seasnail

Protozoa

Haemogregarina sp. (Atl)

Liparis cyclostigma Gilbert polka-dot snailfish

Protozoa

Trypanosoma murmanensis (Atl)

Liparis pulchellus Ayres

showy snailfish

Trematoda

Lecithaster gibbosus (Pac)

ORDER PLEURONECTIFORMES

Family BOTHIDAE

Citharichthys stigmaeus Jordan and Gilbert speckled sandab

Trematoda

Tubulovesicula lindbergi (Pac)

Cestoidea

Gilquinia squali plerocercoid (Pac)

Nematoda

Anisakis sp. larva (Pac)

Contracaecum sp. (Pac)

Citharichthys sp.

Copepoda

Phrixocephalus cincinnatus (Pac)

Scophthalmus aquosus (Mitchill) windowpane

Syn.: Lophosetta aquosa (Mitchill)

Protozoa

Haemogregarina platessae (Atl)

Urceolariidae gen.sp. (Atl)

Trematoda

Cryptocotyle lingua metacercaria (Atl)

Lepidapedon rachion (Atl)

Stephanostomum baccatum metacercaria (Atl)

Cestoidea

Bothriocephalus scorpii (Atl)

Nematoda

Anisakinae gen.sp. larva (Atl)

Contracaecum sp. (Atl) Copepoda Phocanema sp. larva (Atl) Holobomolochus occultus (Pac) Acanthocephala Echinorhynchus gadi (Atl) Hippoglossoides platessoides (Fabricius) E. laurentianus (Atl) American plaice Protozoa Haemohormidium terraenovae (Atl) Family PLEURONECTIDAE Haemohormidium sp. (Atl) Trypanosoma murmanensis (Atl) Atheresthes stomias (Jordan and Gilbert) Trematoda arrowtooth flounder Aporocotyle simplex (Atl) Myxosporida Cryptocotyle lingua metacercaria (Atl) Kudoa sp. (Pac) Derogenes varicus (Atl) Copepoda Fellodistomum furcigerum (Atl) Gonocerca macroformis (Atl) Phrixocephalus cincinnatus (Pac) Hemiurus levinseni (Atl) Eopsetta jordani (Lockington) petrale sole Hemiurus sp. (Atl) Copepoda Lecithaster gibbosus (Atl) Lepeophtheirus parviventris (Pac) Otodistomum sp. metacercaria (Atl) Podocotyle atomon (Atl) Glyptocephalus cynoglossus (Linnaeus) Prosorhynchus squamatus (Atl) witch flounder Stenakron vetustum (Atl) Protozoa Stephanostomum baccatum metacercaria Haemogregarina platessae (Atl) Haemohormidium terraenovae (Atl) Steringotrema ovacutum (Atl) Trypanosoma murmanensis (Atl) Zoogonoides viviparus (Atl) Trypanosoma sp. (Atl) Cestoidea Trematoda Bothrimonus sturionis (Atl) Cryptocotyle lingua metacercaria (Atl) Scolex pleuronectis plerocercoid (Atl) Derogenes varicus (Atl) Nematoda Fellodistomum furcigerum (Atl) Anisakinae gen.sp. larva (Atl) Genolinea laticauda (Atl) Anisakis sp. larva (Atl) Gonocerca macroformis (Atl) Contracaecum sp. (Atl) Hemiurus appendiculatus (Atl) Nematoda gen.sp. (Atl) Lecithaster gibbosus (Atl) Phocanema decipiens larva (Atl) Otodistomum sp. metacercaria (Atl) Phocanema sp. larva (Atl) Plagioporus varius (Atl) Thynnascaris adunca (Atl) Stenakron vetustum (Atl) Acanthocephala Stephanostomum baccatum metacercaria Corynosoma sp. (Atl) (Atl) Echinorhynchus gadi (Atl) Nematoda E. laurentianus (Atl) Anisakinae gen.sp. larva (Atl) Copepoda Anisakis sp. larva (Atl) Acanthochondria cornuta (Atl) Contracaecum sp. (Atl) Lernaeocera branchialis (Atl) Phocanema decipiens larva (Atl) Phocanema sp. larva (Atl) Hippoglossus hippoglossus (Linnaeus) Thynnascaris adunca (Atl) Atlantic halibut Acanthocephala Monogenea Corynosoma sp. juvenile (Atl) Entobdella curvunca (Atl) Echinorhynchus gadi (Atl) E. hippoglossi (Atl) Copepoda Udonella caligorum (Atl) Acanthochondria cornuta (Atl) Trematoda Brachyphallus crenatus (Atl) Hippoglossoides elassodon Jordan and Gilbert Cryptocotyle lingua metacercaria (Atl) flathead sole Derogenes varicus (Atl) Branchiura Digenea gen.sp. (Atl) Argulus borealis (Pac) Fellodistomum furcigerum (Atl)

| Genolinea laticauda (Atl) Hemiurus appendiculatus (Atl) H. communis (Atl) H. levinseni (Atl) | Lepidopsetta bilineata (Ayres) rock sole Protozoa Urceolariidae gen.sp. (Pac) Myxosporida |
|---|---|
| Plagioporus varius (Atl) | Kudoa sp. (Pac) |
| Podocotyle atomon (Atl) | Trematoda |
| Prosorhynchus squamatus (Atl) | Lecithaster gibbosus (Pac) |
| Steganoderma formosum (Atl) | Cestoidea |
| Stenakron vetustum (Atl) | Bothriocephalus sp. (Pac) |
| Stephanostomum baccatum metacercaria | Phyllobothrium sp. plerocercoid (Pac) |
| (Atl) | Nematoda |
| S. baccatum (Atl) | Anisakis sp. larva (Pac) |
| Steringotrema cluthense (Atl) | Capillaria sp. (Pac) |
| S. pagelli (Atl) | Cucullanus sp. (Pac) |
| Cestoidea | Philometra americana (Pac) |
| Clestobothrium crassiceps (Atl) | Acanthocephala |
| Scolex pleuronectis plerocercoid (Atl) | Corynosoma strumosum juvenile (Pac) |
| Nematoda | Metechinorhynchus lageniformis (Pac) |
| Anisakinae gen.sp. larva (Atl) | Branchiura |
| Contracaecum sp. (Atl) | Argulus borealis (Pac) |
| Phocanema sp. (act) | Copepoda |
| Thynnascaris adunca (Atl) | Haemobaphes sp. (Pac) |
| Acanthocephala | Lepeophtheirus bifidus (Pac) |
| Corynosoma sp. juvenile (Atl) | L. hospitalis (Pac) |
| Echinorhynchus gadi (Atl) | L. parviventris (Pac) |
| Echnornynchus gaat (Att) E. laurentianus (Atl) | Lepeophtheirus sp. (Pac) |
| , , | Naobranchia occidentalis (Pac) |
| Copepoda | Nectobrachia indivisa (Pac) |
| Caligus elongatus (Atl) | recionacina marvisa (2 ac) |
| Hatschekia hippoglossi (Atl) | Limanda ferruginea (Storer) yellowtail flounde. |
| Lepeophtheirus hippoglossi (Atl) | Protozoa |
| Neobrachiella rostrata (Atl) | Glugea stephani (Atl) |
| | Haemohormidium terraenovae (Atl) |
| Hippoglossus stenolepis Schmidt Pacific halibut | Trypanosoma murmanensis (Atl) |
| Syn.: Hippoglossus hippoglossus (Linnaeus) | Trematoda |
| auct. | Cainocreadium commune (Atl) |
| Myxosporida | Cryptocotyle lingua metacercaria (Atl) |
| Kudoa sp. (Pac) | Derogenes varicus (Atl) |
| Unicapsula muscularis (Pac) | Fellodistomum furcigerum (Atl) |
| Monogenea | Gonocerca crassa (Atl) |
| Entobdella hippoglossi (Pac) | Hemiurus sp. (Atl) |
| Nematoda | Lecithaster gibbosus (Atl) |
| Phocanema decipiens larva (Pac) | |
| Hirudinoidea | Otodistomum sp. metacercaria (Atl) |
| Malmiana diminuta (BC aquarium) | Plagioporus varius (Atl) |
| Copepoda | Podocotyle atomon (Atl) |
| Lepeophtheirus pravipes (Pac) | P. olssoni (Atl) |
| Isopoda | Steganoderma formosum (Atl) |
| Rocinela propodialis (Pac) | Stenakron vetustum (Atl) |
| | Stephanostomum baccatum metacercari |
| Hippoglossus sp. | (Atl) |
| Trematoda | S. baccatum (Atl) |
| Hemiurus sp. (Atl) | Cestoidea |
| Melium no ob. (Exci) | Bothrimonus sturionis (Atl) |
| | |
| | Bothriocephalus scorpii (Atl) |
| Isopsetta isolepis (Lockington) butter sole | Bothriocephalus scorpii (Atl) Phyllobothrium sp. plerocercoid (Atl) |
| Isopsetta isolepis (Lockington) butter sole Protozoa Urceolariidae gen.sp. (Pac) | Bothriocephalus scorpii (Atl) |

| Nematoda | | Lecithaster gibbosus (Pac) | | |
|---|--------------------------------|-------------------------------------|--------------------------------|--|
| Anisakinae gen.sp. larva (| Anisakinae gen.sp. larva (Atl) | | Podocotyle atomon (Pac) | |
| Contracaecum sp. (Atl) | Contracaecum sp. (Atl) | | Cestoidea | |
| Cucullanus heterochrous (| | Phyllobothrium sp. plerocerc | oid (Pac) | |
| Phocanema decipiens larv | | Nematoda | (, | |
| <i>Phocanema</i> sp. larva (Atl) | | Anisakis sp. larva (Pac) | | |
| Thynnascaris adunca (Atl |) | Contracaecum sp. (Pac) | | |
| | Acanthocephala | | Cucullanus annulatus (Pac) | |
| Corynosoma sp. juvenile (| Atl) | Nematoda gen.sp. (Pac) | | |
| Echinorhynchus gadi (Atl) |) | Philometra americana (Pac) | | |
| | | Philometra sp. (Pac) | | |
| | nooth flounder | Acanthocephala | | |
| Protozoa | | Acanthocephala gen.sp. (Pac |) | |
| Cryptobia bullocki (Atl) | | Corynosoma strumosum juvenile (Pac) | | |
| Cryptobia sp. (Atl) | | Echinorhynchus gadi (Pac) | | |
| Trematoda | | Metechinorhynchus lagenifor | mis (Pac) | |
| Cryptocotyle lingua metacercaria (Atl) | | Copepoda | | |
| Derogenes varicus (Atl) | | Acanthochondria rectangular | ris (Pac) | |
| Fellodistomum furcigerun | Fellodistomum furcigerum (Atl) | | Bomolochus sp. (Pac) | |
| Hemiurus communis (Atl) | | Lepeophtheirus hospitalis (Pa | ıc) | |
| Podocotyle atomon (Atl) | | L. parvicrurus (Pac) | | |
| Stephanostomum baccatur | n metacercaria | Lepeophtheirus sp. (Pac) | | |
| (Atl) | | Nectobrachia indivisa (Pac) | | |
| Cestoidea | | | | |
| Bothriocephalus scorpii (A | .tl) | Pleuronectes sp. | | |
| Nematoda | | Trematoda | | |
| Anisakinae gen.sp. larva (A | Atl) | Hemiurus sp. (Atl) | | |
| Phocanema sp. larva (Atl) | | | | |
| Acanthocephala | | Pleuronichthys coenosus Girard | C-O-sole | |
| Echinorhynchus gadi (Atl) | | Copepoda | | |
| T | | A canthochondria rectangular | is (Pac) | |
| Lyopsetta exilis (Jordan and Gilbe | | Lepeophtheirus hospitalis (Pa | c) | |
| | slender sole | | | |
| Copepoda | · ` | Pseudopleuronectes americanus (Wa | lbaum) | |
| Holobomolochus occultus | (Pac) | | ter flounder | |
| Parantonia de la Citata | | Protozoa | | |
| Parophrys vetulus Girard | English sole | Cryptobia bullocki (Atl) | | |
| Myxosporida | | Cryptobia sp. (Atl) | | |
| Kudoa sp. (Pac) | | Glugea stephani (Atl) | | |
| Trematoda | | Haemogregarina platessae (A | Haemogregarina platessae (Atl) | |
| Podocotyle sinusacca (Pac) | | Urceolariidae gen.sp. (Atl) | | |
| Tubulovesicula lindbergi (Pac) | | Trypanosoma murmanensis (Atl) | | |
| Nematoda | | (experimental infection) | | |
| Cucullanus annulatus (Pac) | | Myxosporida | | |
| Philometra americana (Pac | 3 3 (1101) | | | |
| Copepoda | /D . \ | Myxidium sp. (Atl) | | |
| Acanthochondria rectangularis (Pac) Bomolochus sp. (Pac) | | Trematoda | | |
| Lepeophtheirus bifidus (Pac) | | Cryptocotyle lingua metacerca | ıria (Atl) | |
| L. hospitalis (Pac) | :) | Derogenes varicus (Atl) | | |
| Lepeophtheirus sp. (Pac) | | Fellodistomum furcigerum (Atl) | | |
| Naobranchia occidentalis (1 | = +1.511.164 (1 11) | | | |
| raobianenta beetaentatis () | rac) | Hemiurus sp. (Atl) | | |
| Platichthys stellatus (Pallas) | tarry flounder | Lecithaster gibbosus (Atl) | | |
| Monogenea | arry mounder | Plagioporus varius (Atl) | | |
| Gyrodactyloidea gen.sp. (Pa |) () | Podocotyle atomon (Atl) | | |
| Trematoda | | P. simplex (Atl) | | |
| ~ 1 oiimtouu | | Steganoderma formosum (Atl) | 1 | |

A canthochondria cornuta (Atl) Stenakron vetustum (Atl) Stephanostomum baccatum metacercaria Caligus elongatus (Atl) Lepeophtheirus nanaimoensis (Pac) (Atl) S. baccatum (Atl) Cestoidea Bothrimonus sturionis (Atl) ORDER TETRAODONTIFORMES Bothriocephalus claviceps (Atl) Nematoda Family MOLIDAE Anisakinae gen.sp. larva (Atl) Contracaecum sp. (Atl) Mola mola (Linnaeus) ocean sunfish Cucullanus heterochrous (Atl) Monogenea Nematoda gen.sp. (Atl) Capsala martinierei (Atl, Pac) Phocanema decipiens larva (Atl) Trematoda Phocanema sp. larva (Atl) Accacladium serpentulum (Atl) Thynnascaris adunca (Atl) Accacladocoelium macrocotyle (Atl) Acanthocephala A. nigroflavum (Atl) Corynosoma sp. juvenile (Atl) Accacoelium contortum (Atl) Echinorhynchus gadi (Atl) Dihemistephanus fragilis (Atl) E. laurentianus (Atl) Odhnerium calyptrocotyle (Atl, Pac) Branchiura Cestoidea Argulus funduli (Atl) Anchistocephalus microcephalus (Atl) A. melanops (Atl) Rhynchobothrium sp. plerocercoid (Atl) Copepoda Tetrarhynchus elongatus plerocercoid sp. Acanthochondria cornuta (Atl) incertae sedis (Atl) Copepoda Reinhardtius hippoglossoides (Walbaum) Cecrops latreillii (Atl, Pac) Greenland halibut Lepeophtheirus nordmanni (Atl, Pac) Syn.: Platysomatichthys hippoglossoides Lepeophtheirus sp. (Pac) (Walbaum) Orthagoriscola wilsoni (Atl) Trematoda Pennella filosa (Pac) Brachyphallus crenatus (Atl) Philorthagoriscus serratus (Atl) Derogenes varicus (Atl) Fellodistomum furcigerum (Atl) Nematoda Records for fishes of Undetermined Species Nematoda gen.sp. (Atl) Reinhardtius sp. "Bass" Trematoda Copepoda Hemiurus sp. (Atl) Haemobaphes diceraus (Pac) "Pickerel" Pleuronectidae of Undetermined Species Hirudinoidea Mollibdella grandis (Ont) Pleuronectidae gen.sp. "Sea perch" Monogenea Entobdella sp. (Pac) Copepoda Chondracanthus sp. (Atl) Pleuronectiformes of Undetermined Species "Fish" Trematoda "Flounder" Amphimerus pseudofelineus metacercaria (-) Trematoda Cryptocotyle lingua metacercaria (Atl) A pophallus venustus metacercaria (Que) Stephanostomum baccatum (Atl) Crepidostomum cooperi (Lab, NB, NS, Nematoda PEI, Que) Nematoda gen.sp. (Atl) Crevidostomum sp. (Ont) Copepoda Digenea gen.sp. metacercaria (Sask)*

Parametorchis complexus metacercaria (prairie provinces)

Stephanostomum baccatum metacercaria (Atl)

Cestoidea

Cyathocephalus truncatus (Ont)

Diphyllobothrium dendriticum plerocercoid (Ont)

Hirudinoidea

Actinobdella inequiannulata (-)

Piscicola milneri (NWT)

Branchiura

Argulus sp. (Atl)

Copepoda

Ergasilus celestis

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