# Checklist of the parasites of fishes of Bangladesh

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# Checklist of the parasites of fishes of Bangladesh

by

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#### PREPARATION OF THIS DOCUMENT

This checklist is part of the FAO's continuing effort to address the need for information on the occurrence of diseases and pathogens of aquatic animals in the Asia-Pacific Region. A previous checklist, published as FAO Fisheries Technical Paper No. 369, has summarized the parasites of fishes of the Philippines. These documents support the FAO/NACA regional strategy for the Development of Health Certification and Quarantine Guidelines for the Responsible Movement of Live Aquatic Animals in Asia, a programme involving 21 Asian nations, FAO, the Network of Aquaculture Centres in Asia-Pacific (NACA), the Office International des Épizooties (OIE) and regional and international specialists. One of the goals identified under this strategy is the development of a comprehensive information database on aquatic animal health, the Aquatic Animal Pathogen and Quarantine Information System (AAPQIS; www.enaca.org/aapqis/). Information provided via AAPQIS and through these checklists is intended to assist aquatic animal health workers, quarantine officers and policy makers in developing national strategies to minimize the risks associated with movement of pathogens of aquatic animals, and to make informed assessments on the possible threats presented by proposed movements of individual species of live fish and shellfish between countries. Further information on the regional programme is found in the "Asia Regional Technical Guidelines on Health Management of Live Aquatic Animals and the Beijing Consensus and Implementation Strategy" (FAO Fisheries Technical Paper No. 402).

#### Distribution:

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#### **ABSTRACT**

This checklist summarizes information on the parasites of Bangladeshi fishes contained in the world literature dating from the earliest known records (Southwell and Prashad, 1918a,b) to the end of 2000. Information is presented in the form of parasite-host and host-parasite lists. Included are 147 named species of parasites (not including 20 nomina nuda), distributed among the higher taxa as follows: Protozoa - 1, Myxozoa - 1, Trematoda - 55, Monogenea - 6, Cestoda - 23, Nematoda - 40, Acanthocephala - 17, Hirudinea - 1, Branchiura - 1, Copepoda - 1 and Isopoda - 1. Also included are many records of parasites not identified to species level. The Parasite-Host List is organized on a taxonomic basis and provides information for each parasite species on the environment (fresh water, brackish water, marine), the location (site of infection) in or on its host(s), the species of host(s) infected, the known geographic distribution (by administrative division) in Bangladesh, and the published sources for each host and locality record. The Host-Parasite List is organized according to the taxonomy of the hosts, and includes for each host, the English language and local (Bengali) common names, environment (fresh water, brackish water, marine), status in Bangladesh (native or exotic), and information on the known distribution in Bangladesh of the parasites. Both lists are accompanied by remarks and footnotes, as warranted, giving specific information on points of systematics, nomenclature, possible misidentifications, introductions, pathogenicity, etc. Citations are included for all references and a supplementary list of references contains other literature on Bangladeshi fish parasites. Parasite and host indices are included. The following new taxonomic combinations are made: Prosorhynchoides aspinosiensis (Bashirullah and Hafizuddin, 1971) n. comb. for Neobucephalopsis aspinosiensis Bashirullah and Hafizuddin, 1971; and Prosorhynchoides clupisomius (Bashirullah and Hafizuddin, 1976) n. comb. for Neobucephalopsis clupisomius Bashirullah and Hafizuddin, 1976.

The parasite fauna of fishes of Bangladesh remains poorly known. Parasites have been reported from only 85 of the 528 species of marine and freshwater fish occurring in the waters of Bangladesh. The situation is complicated by the large number of reports that are based on apparent misidentifications, the existence of a plethora of poorly described species, and the relatedness of the Bangladeshi fish parasite fauna to that of the larger Indian subregion, which is also poorly known for many of the same reasons.

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#### **INTRODUCTION**

The study of fish parasites in the territory of what is now known as Bangladesh has a relatively short history, dating back to a few scattered records contained in the works of Thomas Southwell and colleagues, working at the first quarter of the 20<sup>th</sup> Century in what was then known as British India (These are summarized in the series The Fauna of British India, including Ceylon and Burma - see for example, Southwell 1930). A few reports were made during the period following the separation of India and Pakistan in 1947, from the territory known as East Pakistan. However, most records date from the separation of the People's Republic of Bangladesh from Pakistan in 1971, and are mainly the result of the efforts of a few Bangladeshi scientists and their students (A.K.M. Bashirullah of the University of Dacca in the 1970s, and more recently, A.T.A. Ahmed and J. D'Silva of the University of Dhaka, and K.J. Chandra and Chowdhury M.B.R. of Bangladesh Agricultural University, Mymensingh).

In compiling this checklist, we have attempted to list only original reports appearing in the literature for each species. Previous listings of the parasites of fishes of Bangladesh are those of Ahmed (1979, 1981) for all helminths, Ahmed and Ezaz (1997) for the helminths of freshwater catfishes, and Chandra (1992b) for the special Nematoda. Α problem encountered with the papers of Ahmed (1981) and Ahmed and Ezaz (1997). Both papers included results of original research as well as information taken from the published literature. In both cases, it was not possible to completely distinguish records based on original findings from those derived from the published work of other scientists. In cataloguing these papers, all records have been entered.

In compiling this checklist, a large number the parasite taxa reported in the literature for Bangladesh were determined to

<sup>1</sup> The territory of Bangladesh encompasses most of what was then called the state of East Bengal (created by the division of Bengal in 1905 into West Bengal, Bihar and Orissa (within present-day India) and East Bengal (Assam).

be species inquirendae or nomina nuda. Also, many apparent misidentifications have been made. Although a detailed review of each species was beyond the scope of this study, we have noted those taxa that we believe are unlikely to occur in the waters of Bangladesh, in the hope that future workers will examine these taxonomic problems more closely.

To a large extent, the many problems posed by the literature for Bangladesh are probably due to the difficulty that local scientists have in accessing scientific literature. In many cases, scientists have apparently relied heavily on the Yamaguti volumes (Systema Helminthum) for species identification. New species have often been established based on inadequate and inaccurate description, and/or insufficient material (a small number of specimens, or in dioceious forms, specimens of only one sex), often without critical comparisons with previously described taxa. As a result, although considerable effort has been expended on parasite surveys and taxonomic studies, it is still impossible to obtain an accurate picture of the parasite fauna of Bangladeshi fishes. This checklist must, therefore, be used with caution, both when attempting to identify parasites, and in zoogeographic analyses. We hope that this work will form the basis for the critical taxonomic study and revision that are needed, based on collection of new, properly prepared material, which will eventually lead to a more accurate picture of the parasite fauna of the fishes of Bangladesh.

Because Bangladesh is a deltic country and is subject to extensive flooding, it is possible for marine and euryhaline fishes to move far upstream, bringing with them much of their marine parasite faunas. Feeding by freshwater carnivorous fishes on marine or anadromous fishes may result in the temporary transfer of gastro-intestinal parasites ("pseudoparasitism" or accidental infection). In a number of cases, this appears to have resulted in typically marine helminth genera being reported from freshwater hosts.

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In the literature dealing with the parasites of fishes of Bangladesh, there appear many incorrect spellings of parasite names, host names and species author's names, and incorrect attributions of dates of authorship. Where spellings of parasite genus or species names have been consistently applied, these are using footnotes. noted Occasional typographical errors, misspellings of species authors' names. incorrect species attributions, and incorrect dates are not noted. Similarly, misspellings of host species names, with the few exceptions where these have been widely applied, have been corrected without comment using information obtained from FishBase (Froese and Pauly 2001).

The Parasite-Host List is a arranged listing of taxonomically parasites reported from the fishes of Bangladesh. The higher classification used is as follows: for the Protista and Myxozoa, that of Lom and Dyková (1992); for the Trematoda, that of Gibson (1996); for the Monogenea, that of Boeger and Kritsky (1993); for the Cestoidea, that of Khalil et al. (1994); for the Nematoda, that of Anderson et al. (1974-1983) and Moravec (1998); for the Acanthocephala, that of Amin (1985, 1987); for the Copepoda and Branchiura, that of Kabata (1979, 1988); for the Isopoda, that of Rafi (1988); and for the Mollusca and Hirudinea, that used by McDonald and Margolis (1995). Other valuable references include the synopses of fish nematodes of the Indian subcontinent by Soota (1983) and Sood (1989).

The Parasite-Host List contains information for all parasite species reported from the fishes of Bangladesh. For each parasite, the currently recognized scientific name, including authors and dates, and any synonyms under which original records appeared, are given. This is followed by the environment in which the parasite normally completes its life cycle, indicated as fresh water (F), brackish water (B) or marine (M). As the life cycles of Bangladeshi fish parasites are for the most part unknown, this information is drawn primarily from non-Bangladeshi from sources information on collection locality and/or

host biology. The Location gives the site of infection where the parasite is normally found in or on the host. Under Hosts, the hosts are listed alphabetically by their currently recognized scientific names. In parentheses, following each host name, are given the numbers for the references (Records) reporting the parasite from the host in question. The distribution (Dist.) provides a summary of the reported distribution of the parasite in Bangladesh, and is given alphabetically by major administrative unit (Barisal, Chittagong, Dhaka, Khulna, Rajshahi and Sylhet Divisions), and for the Bay of Bengal.<sup>2</sup> In many cases, accurate information on distribution is lacking, due to imprecise collection information being provided by authors; in those cases where no information is given, the distribution is simply indicated as Bangladesh. Unless otherwise indicated by the authors(s), fishes examined for parasites that were obtained from local markets are considered to have originated from the division in which the market was located. However, readers should be aware that fish obtained from markets in larger cities, such as Dhaka, may well have originated from other divisions or from the Bay of Bengal. Under Records are given the numbered individual references containing the parasite followed by records, each detailed information on the locality (ies) (administrative divisions) to which they Under Remarks are comments on various aspects, such as synonymies, pathogenicity, life cycles, zoonotic importance and introductions. More specific notations on individual records are given as footnotes.

The **Host-Parasite List** is organized phylogenetically following the classification of fishes given by in the online *Catalog of Fishes* by W.N. Eschmeyer (Eschmeyer 2001), with the genera and species within individual families arranged alphabetically. Information on the scientific and common names, status and environment

<sup>2</sup> Records for the Bay of Bengal include only those pertaining to the territorial waters of Bangladesh. There exist in the literature many other parasite records, mainly the result of work by Indian scientists, from fishes collected in other parts

of the Bay of Bengal.

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of fishes was obtained from the species database of FishBase (Froese and Pauly 2001). For each host, the following information given: is the currently recognized scientific name, including species author(s), followed by any synonyms under which original parasite records were made, the FishBase recognized English common name, the Bengali common name (where available), the host's Status in Bangladesh (native or exotic), and its typical **Environment** (fresh water, brackish water, marine). This is followed by a listing of the parasites reported for the host in question, arranged by higher taxon and listed alphabetically. Following each parasite name, the **distribution** is summarized by administrative division. Records that involve possible parasite misidentifications are indicated by a question mark preceding the parasite's name. Finally, where appropriate, Remarks and footnotes are included to provide information on such topics as host taxonomy, distribution and introductions. An additional useful reference is Freshwater Fishes of Bangladesh (Rahman 1989).

Under **References** are listed all the papers containing the records, as well as other works cited in the text. A short **Supplementary References** lists some additional articles dealing with Bangladeshi fisheries parasitology but not containing any original reports. Not included in this checklist are unpublished records of fish parasites contained in the many postgraduate (M.Sc. and Ph.D.) theses produced in Bangladesh. A **Parasite Index** and a **Host Index** complete the volume.

The parasite fauna of the fishes of Bangladesh is poorly known. To date, a total of 147 named species of parasites (not including 20 nomina nuda), (1 Protozoa, 1 Myxozoa, 55 Trematoda, 6 Monogenea, 23 Cestoda, 40 Nematoda, 17 Acanthocephala, 1 Hirudinea, 1 Branchiura, 1 Copepoda and 1 Isopoda) have been reported. Contained in this checklist are records for parasites from a total of 85 fish species. As over 500 species of fish occur in the country<sup>3</sup>, there remain many years of

<sup>3</sup>Froese and Pauly (2001) list a total of 517 fish species for Bangladesh (304 marine, 200 fresh water, and 13 listed in both

basic systematic and survey work to be conducted before the parasite fauna of Bangladeshi fishes will be thoroughly documented.

We would like to thank a number of colleagues who kindly provided critical comments on sections of the manuscript, key references, and/or taxonomic advice. These include T.E. McDonald (Monogenea, Isopoda), D.I. Gibson and R.A. Bray (Trematoda), J.S. Mackiewicz (Caryophyllidae), J.N. Caira (Tetraphyllidea), I. Beveridge (Trypanorhyncha) and F. Moravec (Nematoda). The assistance of Drs R.P. Subasinghe, S.E. McGladdery, D.J. Marcogliese, D.I. Gibson and K.J. Chandra in obtaining essential literature is gratefully acknowledged. We especially thank Dr. R.P. Subasinghe (Food and Agriculture Organization of the United Nations, Rome), for arranging publication of this volume.

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categories); in compiling this checklist, records for an additional 11 species were encountered, bringing the total number to at least 528 species.

# **PARASITE-HOST LIST**

#### KINGDOM PROTISTA

SUBKINGDOM PROTOZOA

PHYLUM MASTIGOPHORA

CLASS KINETOPLASTIDEA

ORDER KINETOPLASTIDA

SUBORDER BODONINA

**FAMILY BODONIDAE** 

Ichthyobodo sp.

(F)

Syn.: *Costia* sp. Location: not specified

Host: fish

Dist.: Bangladesh

Record: Chowdhury 1993<sup>4</sup>

#### PHYLUM CILIOPHORA

#### CLASS KINETOPHRAGMINOPHOREA

#### SUBCLASS HYPOSTOMATA

#### ORDER CYRTOPHORIDA

#### FAMILY CHILODONELLIDAE

Chilodonella sp.

(F)

Location: gills, skin Hosts: Catla catla (1,2) Cyprinus carpio (2)

Oreochromis niloticus niloticus (2)

fish (3)

Dist.: Dhaka

Records: 1. Hossain and Khan 1992 (-); 2. Banu

et al. 1993 (Dhaka), 3. 1999 (-)

#### CLASS OLIGOHYMENOPHOREA

SUBCLASS HYMENOSTOMATA

ORDER HYMENOSTOMATIDA

SUBORDER OPHRYOGLENINA

#### FAMILY ICHTHYOPHTHIRIIDAE

Ichthyophthirius multifiliis Fouquet, 1876<sup>5</sup>

(F)

Location: body surface Hosts: Catla catla (4)

> Cirrhinus cirrhosus (2) Labeo rohita (4) fish (1,3,5)

Dist.: Dhaka

Records: 1. Hossain and Barua 1991 (-); 2. Hossain and Khan 1992 (-); 3. Chowdhury 1993 (-)<sup>6</sup>; 4. Banu *et al.* 1993 (Dhaka), 5. 1999 (-)

Remarks: Hossain and Barua (1991) noted that ichthyophthiriosis is the most common protozoan disease found in Bangladesh.

Ichthyophthirius sp.

(F) ?Includes: "white spot" auctorum

Location: not specified

Hosts: Cirrhinus cirrhosus (1)

fish (2)

Dist.: Dhaka

Records: 1. Collis 1993 (Dhaka)<sup>7</sup>; 2. Hossain

1993 (-)

Remarks: We tentatively refer the above records

of "white spot" to Ichthyophthirius.

#### SUBCLASS PERITRICHIA

#### ORDER PERITRICHIDA

#### SUBORDER SESSILINA

#### FAMILY EPISTYLIDIDAE

Apiosoma sp.

(F)

Location: not specified

Host: fish

Dist.: Bangladesh

Record: Banu et al. 1999

#### SUBORDER MOBILINA

<sup>&</sup>lt;sup>4</sup> Chowdhury (1993) tentatively identified *Costia* as a probable cause of disease in Bangladeshi fish.

<sup>&</sup>lt;sup>5</sup> The parasite species name was misspelled "*multifilis*" by Hossain and Barua (1991), Chowdhury (1993) and Banu *et al.* (1999).

<sup>&</sup>lt;sup>6</sup> Chowdhury (1993) listed "*Ichthyophthirius multifilis* (?)" as a probable pathogen causing disease of fish in Bangladesh.

The host identification was given as "mrigal."

#### FAMILY TRICHODINIDAE

Trichodina sp.

Location: gills, skin Hosts: Catla catla (6)

> Channa punctata (3) Cirrhinus cirrhosus (6)

Clarias batrachus (6) C. gariepinus (6)

Ctenopharyngodon idellus (1,6)

Cyprinus carpio (6)

Hypopthalmichthys molitrix (6)

Labeo rohita (6)

Mastacembelus sp. (3)

carp (2) fish (4,5,7)

Dist.: Chittagong, Dhaka, Rajshahi

Records: 1. Hossain and Khan 1992 (-); 2. Anon. 1992 (-), 3. 1993 (Chittagong, Rajshahi); 4. Chowdhury 1993 (-)8; 5. Hossain 1993 (-); 6.

Banu et al. 1993 (Dhaka), 7. 1999 (-)

Tripartiella sp.

Location: not specified Host: Anabas testudineus Dist.: Chittagong Record: Anon. 1993

# PHYLUM MYXOZOA

#### CLASS MYXOSPOREA

#### ORDER BIVALVULIDA

#### SUBORDER PLATYSPORINA

#### FAMILY MYXOBOLIDAE

Myxobolus sp.

Location: gills, skin

Hosts: Barbodes gonionotus (7) Catla catla (1,7,8)

Cirrhinus cirrhosus (1,4,8)

Clarias batrachus (8) Ctenopharyngodon idellus (8)

Labeo rohita (1,2,8)

fish (3,5,6,9)

Dist.: Chittagong, Dhaka, Rajshahi

Chowdhury (1993) tentatively identified Trichodina as a cause of "sliminess" in Bangladeshi fish.

Records: 1. Sanaullah and Ahmed 1980 (Chittagong, Dhaka); 2. Ahmed 1982 (-), 3.1993 (-); 4. Hossain and Khan 1992 (-); 5. Sanaullah 1993 (-); 6. Hossain 1993 (-); 7. Anon. 1993 (Rajshahi)<sup>9</sup>; 8. Banu *et al.* 1993 (Dhaka), 9. 1999 (-)

Remarks: Sanaullah and Ahmed (1980) reported on the pathology of gill myxoboliasis causing heavy mortalities in cultured Indian major

carps.

Thelohanellus dogieli Akhmerov, 1955

Location: epidermis at base of fins

Host: Labeo rohita Dist.: Dhaka

Record: Hossain et al. 1978

#### Unidentified Myxobolidae

Myxobolidae gen. sp.

Includes: "gill myxoboliasis"

Location: gills Host: Catla catla Dist.: Chittagong

Record: Golder et al. 1983

Remarks: This report is based on the results of a survey of fish farmers completed by Golder et al. (1983). While "rui," "mrigal" and "carpio" were also present along with "catla" in ponds showing gill myxoboliasis, it is not clear if these other cyprinids were also infected.

# Unidentified Protozoa

Protozoa gen. sp.

Location: skin, muscles Hosts: Catla catla

Heteropneustes fossilis

Dist.: Bangladesh Record: Anon. 1974 (-)

#### KINGDOM ANIMALIA

#### SUBKINGDOM EUMETAZOA

# PHYLUM PLATYHELMINTHES

<sup>9</sup> The record of Anon. (1993) involves a tentative parasite identification.

#### **CLASS TREMATODA**

#### SUBCLASS DIGENEA

#### ORDER STRIGEIDA

#### SUPERFAMILY CLINOSTOMOIDEA

#### FAMILY CLINOSTOMIDAE

Clinostomum complanatum (Rudolphi, 1814)

Braun, 1899 metacercaria

Syn.: Clinostomum marginatum (Rudolphi,

1819)

Location: skin, fins, gills, muscle Hosts: *Clarias batrachus* (2) *Heteropneustes fossilis* (1)

Dist.: Dhaka

Records: 1. Chandra and Banerjee 1993b (Dhaka);

2. Ahmed and Ezaz 1997 (-)

Remarks: The synonymy follows Gibson (1996).

Clinostomum giganticum Agarwal, 1960 (F)

(F)

metacercaria

Location: body cavity Host: *Nandus nandus* 

Dist.: Dhaka

Record: Chandra and Banerjee 1993b

Clinostomum sp. metacercaria

(F)

Location: body cavity, muscle Hosts: Clarias batrachus (2) Heteropneustes fossilis (1)

Dist.: Dhaka

Records: 1. Islam et al. 1982 (Dhaka); 2. Banu

et al. 1993 (Dhaka)

Euclinostomum heterostomum (Rudolphi,

(F)

1809) Travassos, 1928 metacercaria

Location: liver

Hosts: Channa punctata

 $C.\ striata$ 

Dist.: Dhaka

Record: Chandra and Banerjee 1993b

Euclinostomum multicaecum Tubangui and (F)

Masiluñgan, 1935 metacercaria<sup>10</sup>

Location: liver, muscles, kidney, pharyngeal wall, external surface of alimentary canal

Hosts: Channa punctata (2,3,4,5)

C. striata (1)

Heteropneustes fossilis (2)

Mystus tengara (2) Nandus nandus (2)

 $Ompok\ pabda\ (2)$ 

Dist.: Dhaka

Records: 1. Hossain *et al.* 1982 (Dhaka); 2. Chandra 1983a (Dhaka), 3. 1984a (Dhaka), 4. 1984b (Dhaka); 5. Huq *et al.* 1983 (Dhaka)

Euclinostomum sp. metacercaria

(F)

Location: liver

Hosts: Ompok pabda (2)

Heteropneustes fossilis (1)

Dist.: Dhaka

Records: 1. Amin et al. 1982 (Dhaka); 2.

Hussain and Ali 1986 (Dhaka)

#### SUPERFAMILY DIPLOSTOMOIDEA

#### FAMILY DIPLOSTOMIDAE

Neascus sp. metacercaria

(F)

Location: [skin] Hosts: Catla catla

> Cirrhinus cirrhosus Labeo rohita

Dist.: Chittagong

Record: Sanaullah 1984<sup>11</sup>

Posthodiplostomum minimum (MacCallum,

1921) Dubois, 1936 metacercaria Location: muscle, viscera

Host: Clarias batrachus
Dist.: Bangladesh

Record: Ahmed and Ezaz 1997

#### SUPERFAMILY GYMNOPHALLOIDEA

#### FAMILY BUCEPHALIDAE

 $^{10}$  The species name was misspelled "multicasecum" by Hossain et al. (1982).

<sup>&</sup>lt;sup>11</sup> Tentative parasite identification (given as "black spot disease" "...caused by ...*Neascus (Posthodiplostomum?*)...").

Bucephalus mystusi Chandra and Banerjee, (F)

1993

Location: intestine Host: *Sperata aor* Dist.: Dhaka

Record: Chandra and Banerjee 1993a

Bucephalus polymorphus Baer, 1827

(F)

Location: stomach Host: Atropus atropos Dist.: Bay of Bengal Record: Bashirullah 1973a

Remarks: As Bucephalus polymorphus is a parasite of European freshwater fishes (see Hoffman 1998), this report from a marine fish from Bangladesh is considered a

misidentification.

Bucephalus sp.

(F)

Location: intestine

Hosts: Silonia silondia (3,4)

*Sperata aor* (1,2,3,4)

Dist.: Dhaka, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3. Chandra 1992a

(Dhaka), 4. 1993b (Dhaka)

Prosorhynchoides aspinosiensis (Bashirullah

(F)

and Hafizuddin, 1971) n. comb.

Syn.: *Neobucephalopsis aspinosiensis*Bashirullah and Hafizuddin, 1971<sup>12</sup>

Location: intestine
Host: Clupisoma garua
Dist.: Dhaka, Sylhet?

Records: Bashirullah and Hafizuddin 1971 (Dhaka); Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed 1981 (-); Ahmed and Ezaz

1997 (-)

Prosorhynchoides clupisomius (Bashirullah (F)

and Hafizuddin, 1976) n. comb.

Syn.: *Neobucephalopsis clupisomius*Bashirullah and Hafizuddin, 1976<sup>13</sup>

<sup>12</sup> The species name misspelled as "aspinosinensis" by Ahmed and Frag (1997)

<sup>13</sup>Bashirullah (1973a) inadvertently created the nomen nudum

Location: intestine

Host: Eutropiichthys murius

Dist.: Dhaka, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet); Bashirullah and Hafizuddin 1976 (Dhaka); Ahmed 1981 (-); Ahmed and Ezaz 1997 (-)

Prosorhynchoides sp.

(F)

Syn.: *Bucephalopsis* sp. *Neobucephalopsis* sp.

Location: intestine

Hosts: Eutropiichthys murius (1,2,3)

Sperata aor (3)
Dist.: Dhaka?, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3. Ahmed and Ezaz

1997 (-)

Remarks: The synonymy follows Srivastava and Chauhan (1973) and is supported by Dr. R.M.

Overstreet (pers. comm.).

#### **FAMILY FAUSTULIDAE**

Faustula brevichrus (Srivastava, 1935)

(M)

Yamaguti, 1958 Location: intestine Host: *Tenualosa ilisha* 

Dist.: Chittagong, Bay of Bengal

Records: Bashirullah 1973a (Bay of Bengal); Zaman *et al.* 1992b (Chittagong), 1994 (Chittagong); D'Silva and Khatoon 1997 (Bay

of Bengal)

Remarks: This species was redescribed by

D'Silva and Khatoon (1997).

Faustula sp.

(M)

Location: intestine Host: *Hilsa kelee* Dist.: Bay of Bengal Record: Bashirullah 1973a

# FAMILY FELLODISTOMIDAE

Steringotrema sp.

(F)

Neobucephalopsis clupisomius Bashirullah, 1973 (as "Neobucephalopsis clupisomius Bashirullah & Hafizuddin, 1973").

Location: intestine Host: *Puntius sophore* Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

Ahmed 1981 (-)

Remarks: As members of this genus are typically parasites of marine teleosts, this record from a

freshwater cyprinid is rather dubius.

#### SUPERFAMILY HEMIUROIDEA

#### FAMILY ACCACOELIIDAE

#### SUBFAMILY ACCACOELIINAE

Rhynchopharynx paradoxa Odhner, 1928 (M)

Location: stomach, intestine Host: *Macrognathus aculeatus* 

Dist: Bangladesh

Record: Khanum and Parveen 1997

Remarks: *Rhynchopharynx* is a monospecific genus that is known only from the ocean sunfish (*Mola mola*), a species widely distributed in the world's warm and temperate oceans (see Bray and Gibson 1977). We consider the above record from a freshwater fish of Bangladesh to involve a misidentification.

#### FAMILY BUNOCOTYLIDAE

#### SUBFAMILY APHANURINAE

Aphanurus stossichi (Monticelli, 1891) (M)

Looss, 1907 Location: stomach

Hosts: Dussumieria acuta (2) Tenualosa ilisha (1,3,4,5)

Dist.: Chittagong, Bay of Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal); 2. Ahmed *et al.* 1986 (Bay of Bengal); 3. Zaman *et al.* 1992b (Chittagong), 4. 1994 (Chittagong); 5. D'Silva and Khatoon 1997 (Bay of Bengal)

Remarks: This species was redescribed by D'Silva and Khatoon (1997).

#### SUBFAMILY OPISTHADENINAE

*Opisthadena* sp. (M)

Location: stomach Host: *Dussumieria acuta* Dist.: Bay of Bengal Record: Ahmed *et al.* 1986

#### FAMILY DEROGENIDAE

#### **SUBFAMILY GONOCERCINAE**

Gonocera crassa Manter, 1934

(M)

Location: intestine Host: *Ompok bimaculatus* 

Dist.: Dhaka

Records: Khanum et al. 1996 (Dhaka); Ahmed

and Ezaz 1997 (-)

Remarks: This digenean is a stomach parasite of marine fishes. Its report from a freshwater silurid catfish of Bangladesh likely involves a misidentification. Gibson (1976) considered *Gonocerca crassa* a probable synonym of *G. phycidis* Manter, 1925.

# SUBFAMILY HALIPEGINAE

Genarchopsis bangladensis Bashirullah and (F)

Elahi, 1972<sup>14</sup>
Location: intestine
Host: *Channa punctata*Dist.: Dhaka, Sylhet?

Records: Bashirullah and Elahi 1972a (Dhaka); Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed

1981 (-)

Genarchopsis bashiri Hafizuddin and

Æ)

Khan, 1973 Location: intestine

Host: Heteropneustes fossilis

Dist.: Dhaka

Records: Hafizuddin and Khan 1973a (Dhaka);

Ahmed and Ezaz 1997 (-)

Genarchopsis dasus (Gupta, 1951)

(F)

Yamaguti, 1958

Syn.: Ophiocorchis dasus Gupta, 1951

Location: stomach, intestine Hosts: *Channa punctata* (1,2)

<sup>14</sup> Bashirullah (1973a) and Ahmed (1981) erroneously gave the species name as "bengalensis." *Glossogobius giuris* (1,2,3)

Dist: Dhaka

Records: 1. Ahmed 1981 (-); 2. Ahmed and Saha 1983 (Dhaka); 3. Chandra and Banerjee 1993b

(Dhaka)

Genarchopsis lobata (Srivastava, 1933)

(F)

Yamaguti, 1954 Location: intestine Host: *Channa gachua* Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

Ahmed 1981 (-)

Genarchopsis macrocotyle Coil and

(F)

Kuntz, 1960 Location: intestine Host: *Channa punctata* 

Dist.: Dhaka

Record: Coil and Kuntz 1960

Genarchopsis ozakii Bashirullah and

(F)

Elahi, 1972<sup>15</sup>

Location: stomach, intestine Host: *Channa punctata* Dist.: Dhaka, Sylhet?

Records: Bashirullah and Elahi 1972a (Dhaka); Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed

1981 (-)

Genarchopsis wallagoni Chandra and

(F)

Banerjee, 1993 Location: intestine Host: *Wallago attu* Dist.: Dhaka

Record: Chandra and Banerjee 1993b

Genarchopsis sp.

(F)

Location: stomach, intestine Hosts: Clupisoma garua (3) Glossogobius giuris (1) Silonia silondia (2,3)

Dist.: Dhaka

Records: 1. Ahmed and Begum 1978 (Dhaka); 2.

<sup>15</sup> The species name was misspelled as "ozaki" by Bashirullah (1973a) and Ahmed (1981).

Chandra 1992a (Dhaka), 3. 1993b (Dhaka)

#### FAMILY DIDYMOZOIDAE

Philopinna sp.

(F)

Location: muscle

Hosts: Channa punctata (2,3) Heteropneustes fossilis (1)

Dist.: Dhaka

Records: 1. Amin *et al.* 1982 (Dhaka); 2. Hossain *et al.* 1982 (Dhaka); 3. Huq *et al.* 1983

(Dhaka)

Remarks: The genus *Philopinna* was established by Yamaguti (1936) for *P. higai* Yamaguti, 1936, a parasite of the fins and orbit of *Sarcocheilichthys variegatus*, a Japanese freshwater fish. Didymozoids are typically tissue parasites of marine fishes.

#### **FAMILY HEMIURIDAE**

#### SUBFAMILY DINURINAE

Dinurinae gen. sp.

(M)

Location: intestine

Host: Rastrelliger kanagurta Dist.: Bay of Bengal

Record: Bashirullah 1973a

#### SUBFAMILY ELYTROPHALLINAE

Lecithocladium excisum (Rudolphi, 1819) (M)

Lühe, 1901

Location: intestine

Host: Parastromateus niger Dist.: Bay of Bengal Record: Bashirullah 1973a

Remarks: The taxonomic history and host and geographic range of *Lecithocladium excisum* were reviewed by Gibson and Bray (1986), who concluded that its confirmed distribution was the Mediterranean and Black seas and the Northeast Atlantic region. As these authors doubted the occurrence of *L. excisum* in the Indian Ocean, this report from a marine fish of the Bay of Bengal requires substantiation.

The life cycle in the Northeast Atlantic was studied by Køie (1991). Cercariae found in naturally infected gastropods (*Philine aperta*)

were used to experimentally infect various genera of marine copepods. Ctenophores and polychaetes naturally infected with metacercariae were considered likely to act as transport hosts. Adults occur in the stomach of mackerel (Scomber scomberus, S. *japonicus*) and immature specimens in Trachurus trachurus (see Gibson and Bray 1986).

Lecithocladium harpodontis Srivastava, 1937 (M)

Syn.: Lecithocladium ilishae Bashirullah and D'Silva, 1973

Location: stomach Host: Tenualosa ilisha

Dist.: Chittagong, Bay of Bengal

Records: Bashirullah and D'Silva 1973 (Bay of Bengal); Bashirullah 1973a (Bay of Bengal); Zaman et al. 1992b (Chittagong), 1994 (Chittagong)

Remarks: The synonymy follows Gibson and Bray (1986). These authors noted that because there are many poorly described species of Lecithocladium in the Indo-Malay Region, the status of species in this part of the world is highly confused.

Lecithocladium magnacetabulum

Yamaguti, 1934

Location: stomach Host: Tenualosa ilisha Dist.: Bay of Bengal Record: Bashirullah 1973a

Lecithocladium megalaspis Yamaguti, 1953 (M)

Syn.: Lecithocladium dawesi Bashirullah

and D'Silva, 1973

Location: intestine

Host: Selaroides leptolepis

Dist.: Bay of Bengal

Records: Bashirullah and D'Silva 1973 (Bay of Bengal); Bashirullah 1973a (Bay of Bengal) Remarks: The synonymy follows Gibson and

Brav

(1986).

Lecithocladium seriolellae Manter. 1954 (M)

Location: intestine

Host: Selaroides leptolepis Dist.: Bay of Bengal Record: Bashirullah 1973a

Lecithocladium sp.

Location: intestine Host: Pampus argenteus Dist.: Bay of Bengal Record: Bashirullah 1973a

#### SUBFAMILY HEMIURINAE

appendiculatus (Rudolphi, 1802) Hemiurus

(M)

Looss, 1899 Location: stomach Host: Dussumieria acuta Dist.: Bay of Bengal Record: Ahmed et al. 1986

Remarks: Gibson (1996) noted that Hemiurus appendiculatus is restricted to clupeids of the genus Alosa and to Mediterranean and European Atlantic waters as far north as southern Norway; thus, this record is certainly based on a

misidentification.

Hemiurus sp.

Location: intestine Host: Selaroides leptolepis Dist.: Bay of Bengal

Record: Bashirullah 1973a

Parahemiurus sp.

(M)

Location: stomach Host: Dussumieria acuta Dist.: Bay of Bengal Record: Ahmed et al. 1986

#### SUBFAMILY LECITHOCHIRIINAE

Lecithochiriinae gen. sp.

(M)

Location: stomach

Host: Lepturacanthus savala

Dist.: Bay of Bengal Record: Bashirullah 1973a

Unidentified Hemiuridae

Hemiuridae gen. sp.

Location: intestine

Hosts: Harpadon neherius (1)

Lates calcarifer (2)

Dist.: Chittagong?, Bay of Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal);

2. Chandra 1992a (Chittagong?) 16,17

#### FAMILY ISOPARORCHIDAE

Isoparorchis hypselobagri (Billet, 1898)

Ejsmont, 1932 adult and metacercaria 18

Location: swimbladder, body cavity, muscle,

liver, stomach, intestine, visceral surfaces

Hosts: Channa marulius (1,2,3,4)

*C. punctata* (1,2,3,4)

C. striata (1,2,3,4,10)

*Clupisoma garua* (12,13,14)

Eutropiichthys vacha (12,13,14)

Mastacembelus armatus (16)

Mystus cavasius (1,6,14)

M. tengara (6)

M. vittatus (6,14)

Nandus nandus (1,3,7,8,9)

Ompok bimaculatus (14,15,17)

O. pabda (3,11,12,13,14,15,17)

*Sperata aor* (1,3,11,12,13,14)

Wallago attu (1,2,3,4,14,17)

Xenetodon cancila (3)

fish(5)

Dist.: Chittagong, Dhaka, Sylhet?

Bashirullah 1972a (Dhaka), 2. Records: 1. 1973a (Dhaka &/or Sylhet); 3. Anon. 1974 (Chittagong); 4. Ahmed 1981 (-), 5. 1996 (-); 6. Chowdhury et al. 1986 (Dhaka); 7. Chandra and Golder 1987 (Chittagong); 8. Golder and Chandra 1987 (Chittagong); 9. Golder et al. 1987 (Chittagong); 10. Rahman 1989 (-); 11. Chandra 1992a (Dhaka), 12. 1993b (Dhaka), 13. 1994b (Dhaka); 14. Chandra and Banerjee 1993a (Dhaka); 15. Khanum et al. 1996 (Dhaka); 16. Khanum and Parveen 1997 (-); 17. Ahmed and Ezaz 1997 (-)

Remarks: The role of fish in the life cycle of this species has been discussed by Bashirullah (1972a) and Chandra and Banerjee (1993a). Adults are found in the swimbladder of siluriform catfishes, with metacercariae occurring in the muscles of many siluriform and nonsiluriform fishes. Immature flukes are found in the body cavity of Wallago attu and occasionally Channa punctata; Isoparorchis hypselobagri thus appears to use piscivorous fishes as paratenic hosts. Although Bashirullah (1972a) postulated that the parasite also matures fish-eating mammals, including man, Chandra (1993a) pointed out that these findings are probably cases of pseudoparasitism.

#### ORDER ECHINOSTOMATIDA

#### SUPERFAMILY ECHINOSTOMATOIDEA

#### **FAMILY HAPLOPORIDAE**

Haploporus sp.

(F?)

12

Location: not specified Host: Mugil cephalus Dist.: Chittagong? 19 Record: Chandra 1993b

# FAMILY PSILOSTOMIDAE

Psilostomum sp. [metacercaria?] (M?)

Location: intestine Hosts: Lates calcarifer Dist.: Chittagong? 20 Record: Chandra 1993b

Remarks: Psilostomids are occasionally found in fish as encysted metacercariae, adults occurring in birds and occasionally mammals (see Gibson 1996). Members of the genus Psilostomum are mainly parasites of aquatic birds; however, one species, P. chilkai Chatterji, 1958, (syn. of Staffordiella chilkai according to Mehra (1966)) has been described from the intestine of a fish (Lates calcarifer) in India. The above record may be based on a metacercaria or an accidental infection (a metacercaria liberated in the intestine of a piscivorous fish).

Estuarine fishes examined by Chandra (1993) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division.

<sup>&</sup>lt;sup>16</sup> Estuarine fishes examined by Chandra (1992a) were noted to have been collected mostly from Cox's Bazar, Chittagong and Taknaf [Teknaf], which are all in the Chittagong Division.

17 The record of Chandra (1992a) was given as "Himiurid

<sup>[</sup>sic] (unidentified)."

The species name was misspelled "hypselobagrii" by Chowdhury et al. (1986) and "hypselobargi" by Ahmed (1996).

<sup>&</sup>lt;sup>20</sup> Estuarine fishes examined by Chandra (1992b) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division.

#### ORDER PLAGIORCHIIDA

#### SUPERFAMILY ALLOCREADIOIDEA

#### FAMILY ALLOCREADIIDAE

Allocreadium bengalensis Banerjee and

(F)

Chandra, 1993 Location: intestine

Host: Mastacembelus armatus

Dist.: Dhaka

Record: Banerjee and Chandra 1993

Allocreadium glossogobium Banerjee

(F)

and Chandra, 1993 Location: intestine Host: *Glossogobius giuris* 

Dist.: Dhaka

Record: Banerjee and Chandra 1993

Allocreadium handiai Pande, 1937

(F)

Location: intestine

Hosts: Channa punctata (1)

Clupisoma garua (3) Glossogobius giuris (2) Heteropneustes fossilis (2) Mystus cavasius (2) M. tengara (2)

Dist.: Dhaka

Records: 1. Coil and Kuntz 1960 (Dhaka); 2. Banerjee and Chandra 1993 (Dhaka); 3. Chandra

1993b (Dhaka)

Allocreadium mahaseri Pande, 1939

(F)

Location: intestine
Host: *Ompok bimaculatus* 

Dist.: Dhaka

Records: Khanum et al. 1996 (Dhaka); Ahmed

and Ezaz 1997 (-)

Allocreadium mehrai Gupta, 1957

(F)

Syn.: Rhynchocreadium aculeatus

Srivastava, 1962

Location: intestine

Hosts: Macrognathus aculeatus Mastacembelus armatus

Dist.: Dhaka

Record: Banerjee and Chandra 1993

Remarks: The synonymy follows Kakaji (1969).

Allocreadium minutum Banerjee and

(F)

Chandra, 1993 Location: intestine Host: *Anabas testudineus* 

Dist.: Dhaka

Record: Banerjee and Chandra 1993

Allocreadium mymensinghi Banerjee and

(F)

Chandra, 1993 Location: intestine

Host: Heteropneustes fossilis

Dist.: Dhaka

Record: Banerjee and Chandra 1993

Allocreadium ovatum Banerjee

(F)

and Chandra, 1993 Location: intestine Host: *Glossogobius giuris* 

Dist.: Dhaka

Record: Banerjee and Chandra 1993

Allocreadium sp.

(F)

Location: intestine

Host: Pangasius pangasius

Dist.: Dhaka

Record: Chandra 1993b

Macrolecithus sp.

(F)

Location: stomach, intestine

Hosts: Heteropneustes fossilis (1,2,4) Macrognathus pancalus (3) Puntius sarana (1,2)

P. sophore (3)

Dist.: Barisal, Dhaka, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3. Ahmed and Saha 1983 (Barisal, Dhaka); 4. Ahmed and Ezaz

1997 (-)

**FAMILY OPECOELIDAE** 

SUBFAMILY OPECOELINAE

Coitocaecum sp.

(F)

Location: stomach, intestine

Host: Sperata aor Dist.: Barisal, Dhaka

Records: Ahmed 1981 (-); Ahmed and Saha 1983 (Barisal, Dhaka); Ahmed and Ezaz 1997 (-)

Crowcrocaecum channai Bashirullah and (F)

Elahi, 1972

Location: intestine
Host: *Channa marulius*Dist.: Dhaka, Sylhet?

Records: Bashirullah and Elahi 1972b (Dhaka); Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed

1981 (-)

Neopecoelina saharanpuriensis Gupta, 1955<sup>21</sup> (F)

Location: stomach, intestine, stomach wall [?],

intestinal wall [?]

Hosts: Anabas testudineus (5) Channa punctata (1,2,3,4)

Heteropneustes fossilis (2,3,4,6)

Dist.: Barisal, Dhaka, Sylhet?

Records: 1. Bashirullah and Eliah 1972b (Dhaka); 2. Bashirullah 1973a (Dhaka &/or Sylhet); 3. Ahmed 1981 (-); 4. Ahmed and Saha 1983 (Barisal, Dhaka); 5. Akther *et al.* 1997 (Dhaka); 6. Ahmed and Ezaz 1997 (-)

Neopecoelina sp.

(F)

Location: stomach, intestine, swimbladder [?]

Hosts: Channa punctata (3)

Heteropneustes fossilis (1,2,3)

Dist.: Barisal, Dhaka, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3. Ahmed and

Saha 1983 (Barisal, Dhaka)

Opegaster beliyai Pande, 1937

(F)

Location: stomach, intestine, body cavity [?] Hosts: *Glossogobius giuris* (1,2,3,4,7,8) *Heteropneustes fossilis* (5,6,9)

Dist.: Dhaka, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or

<sup>21</sup> The species name was misspelled "saharanpurensis" by Bashirullah (1973a), Ahmed (1981), Ahmed and Saha (1983) and Akther et al. (1997), and as "shalanpurensis" by Ahmed and Ezaz (1997).

Sylhet); 2. Ahmed and Begum 1978 (Dhaka); 3. Ahmed 1981 (-); 4. Ahmed and Saha 1983 (Dhaka); 5. Akhtar *et al.* 1992 (Dhaka); 6. Khanum and Begum 1992 (Dhaka); 7. Khanum *et al.* 1992 (-), 8. 1994 (Dhaka); 9. Ahmed and Ezaz 1997 (-)

Opegaster sp.

(F)

Location: stomach, intestine, stomach wall [?]

Host: *Glossogobius giuris* Dist.: Barisal, Dhaka, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed and Begum 1978 (Barisal, Dhaka); Ahmed 1981 (-); Ahmed and Saha 1983

(Barisal, Dhaka)

SUBFAMILY PLAGIOPORINAE

Cotylogonoporum orfeum Thapar and

(F)

Dayal, 1934

Location: stomach, intestine
Hosts: Macrognathus aculeatus
Mastacembelus armatus

Dist: Bangladesh

Record: Khanum and Parveen 1997

Eucreadium daccai Bashirullah and

(F)

Elahi, 1972<sup>22</sup>

Location: intestine Host: *Channa punctata* Dist.: Dhaka, Sylhet?

Records: Bashirullah and Elahi 1972b (Dhaka); Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed

1981 (-)

Macvicaria crassigula (Linton, 1910)

(M)

Bartoli, Bray and Gibson, 1989

Syn.: Plagioporus crassigula (Linton, 1910)

Location: stomach, intestine Host: *Heteropneustes fossilis* 

Dist.: Dhaka

Records: Akhtar *et al.* 1992 (Dhaka); Khanum and Begum 1992 (Dhaka); 3. Ahmed and Ezaz 1997 (-)

Remarks: Bartoli *et al.* (1989) transferred this species to the genus *Macvicaria* and provided a redescription and a summary of its host and geographical distributions. Definitive hosts are

<sup>22</sup> The generic name was misspelled "Eucredium" by Bashirullah (1973a) and Ahmed (1981).

marine fishes (mainly Sparidae) of the North Atlantic Ocean and Mediterranean Sea, while records from other geographic areas (Indian and South Atlantic oceans) were considered questionable. Reports of this digenean from stinging catfish from Bangladesh are thus likely erroneous.

Podocotyle atomon (Rudolphi, 1802)

(M)

Dujardin, 1845 metacercaria Location: swimbladder Host: *Nandus nandus* 

Dist.: Dhaka

Record: Nahida et al. 1994

Remarks: This species is a parasite of the pyloric caeca and intestine of marine fishes of the North Atlantic Ocean. The above record from the swimbladder of a freshwater fish of Bangladesh is considered a misidentification.

#### FAMILY OPISTHOLEBETIDAE

Opistholebes sp.

(F)

Location: intestine Host: *Puntius sophore* Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

Ahmed 1981 (-)

Remarks: Members of this genus are typically parasites of marine fishes (pufferfishes).

#### SUPERFAMILY LEPOCREADIOIDEA

#### FAMILY ACANTHOCOLPIDAE

Acanthocolpus liodorus Lühe, 1906

(M)

Location: intestine Host: *Chirocentrus dorab* Dist.: Bay of Bengal

Records: Bashirullah 1973a (Bay of Bengal); D'Silva and Khatoon 1997 (Bay of Bengal) Remarks: This species was redescribed by

D'Silva and Khatoon (1997).

Acanthocolpus luehei Srivastava, 1939<sup>23</sup>

M)

Location: intestine

<sup>23</sup> The species name was originally spelled "*lühei*." It has been corrected to "*luehi*" following Article 32 (d) (I) (2) of the International Code of Zoological Nomenclature.

Host: *Chirocentrus dorab*Dist.: Bay of Bengal

Record: D'Silva and Khatoon 1997

Remarks: Although various authors have considered *Acanthocolpus luehei* a synonym of *A. liodorus* Lühe, 1906, D'Silva and Khatoon (1997), who redescribed both species,

considered them distinct.

#### SUPERFAMILY OPISTHORCHIOIDEA

#### FAMILY CRYPTOGONIMIDAE

Aphallus sp.

(F)

Location: unspecified Host: *Heteropneustes fossilis* 

Dist.: Dhaka

Record: Amin et al. 1982

#### FAMILY OPISTHORCHIDAE

Allogomtiotrema attu (Gupta, 1955)

(F)

Yamaguti, 1958

Location: stomach, body cavity [?]

Hosts: Channa marulius (1)

 $C.\ striata\ (1)$ 

Macrognathus aculeatus (2)

Dist: Bangladesh

Records: 1. Khanum et al. 1993 (-); 2. Khanum

and Parveen 1997 (-)

Opisthorchis bagarius Chandra and

(F)

Banerjee, 1992 Location: intestine Host: *Bagarius bagarius* 

Dist.: Dhaka

Record: Chandra and Banerjee 1992

Remarks: Members of the family Opisthorchiidae typically use fish as second intermediate hosts where they occur as encysted metacercariae, and mature in the intestine of piscivorous mammals and birds. This finding of mature specimens from the intestine of a freshwater fish is unusual.

Opisthorchis sp. metacercaria

(F)

Location: body cavity
Host: *Rita rita* 

Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

Ahmed 1981 (-); Ahmed and Ezaz 1997 (-) Remarks: The above records are assumed to involve the encysted metacercarial stage.

#### SUPERFAMILY PLAGIORCHIOIDEA

#### FAMILY GORGODERIDAE

Phyllodistomum chauhani Motwani and (F)

Srivastava, 1961

Location: intestine [?], body cavity [?]

Hosts: Channa punctata (1) Eutropiichthys vacha (2)

Dist.: Dhaka

Records: 1. Chandra and Banerjee 1993a (Dhaka);

2. Chandra 1993b (Dhaka)

Remarks: Members of the genus *Phyllodistomum* are parasites of the urinary bladder and ureters. Reports from other locations are probably due to parasite dislocation during host dissection.

Phyllodistomum folium (Olfers, 1816)

(F)

Braun, 1899

Location: urinary bladder, intestine [?],

body cavity [?], mesenteries [?]

Hosts: Channa striata (1,2)

Clarias batrachus (6)

Glossogobius giuris (1,2,3,4)

Ompok bimaculatus (5,6)

Dist.: Dhaka

Records: 1. Ahmed and Begum 1978 (Dhaka); 2. Ahmed 1981 (-); 3. Khanum *et al.* 1992 (-), 4. 1994 (Dhaka), 5. 1996 (Dhaka); 6. Ahmed and

Ezaz 1997 (-)

Remarks: *Phyllodistomum folium* is a parasite of the urinary system of European freshwater fishes. Its occurrence in South Asia requires confirmation, and we regard these records as based on likely misidentifications.

Phyllodistimum spp. are typically parasites of the urinary system. Reports from other locations given by Bangladeshi authors are likely the result of parasite dislocation during host dissection.

Phyllodistomum yosufzaii Bashirullah

F)

and Islam, 1970<sup>24</sup>

Location: swimbladder [?]

<sup>24</sup> Bangladeshi authors subsequent to Bashirullah and Islam (1970) have incorrectly spelled the species name as "yosufzai." Host: *Rita rita*Dist.: Dhaka?, Sylhet

Records: Bashirullah and Islam 1970 (Sylhet); Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed

1981 (-); Ahmed and Ezaz 1997 (-)

Remarks: *Phyllodistomum* spp. are typically parasites of the ureters and urinary bladder.

Phyllodistomum sp.

(F)

Location: urinary bladder Host: Channa marulius

Dist.: Dhaka

Records: Ahmed and Begum 1978 (Dhaka);

Ahmed 1981 (-)

#### FAMILY LECITHODENDRIIDAE

Pleurogenes attui Kakaji, 1968

(F)

Location: intestine

Hosts: Ompok bimaculatus (1)

*O. pabda* (2)

Dist.: Dhaka

Records: 1. Khanum et al. 1996 (Dhaka); 2.

Ahmed and Ezaz 1997 (-)

Remarks: Gibson (1998) noted that *Pleurogenes* spp. are parasites of amphibians. Records from Bangladeshi fishes might thus be due to accidental infection or temporary pseudoparasitism, a result of a carnivorous fish having consumed an infected frog.

Pleurogenes pabdai Pande, 1937

**(F)** 

Location: intestine

Hosts: Ompok bimaculatus (1,2)

O. pabda (1,2)

Dist.: Dhaka

Records: 1. Khanum et al. 1996 (Dhaka); 2.

Ahmed and Ezaz 1997 (-)

Pleurogenoides notopteri Bashirullah

(F)

and Hafizuddin, 1976<sup>25</sup> Location: intestine

Host: Notopterus notopterus

Dist.: Dhaka, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

<sup>25</sup> Bashirullah (1973a) inadvertently created the nomen nudum *Pleurogenoides notopteri* Bashirullah, 1973 (as "*Pleurogenoides notopteri* Bashirullah & Hafizuddin, 1973").

Bashirullah and Hafizuddin 1976 (Dhaka); Ahmed 1981 (-)

Remarks: As members of this genus are typically parasites of amphibians, it is possible that the occurrence of *Pleurogenoides notopteri* in a freshwater fish is the result of an accidental infection.

#### **FAMILY MASENIIDAE**

Eumasenia sp.

(F)

Location: intestine

Host: *Heteropneustes fossilis* Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed 1981 (-); Ahmed and Ezaz 1997 (-)

Masenia dayali Gupta, 1955

(F)

Location: intestine Host: Clarias batrachus Dist.: Bangladesh

Record: Ahmed and Ezaz 1997

#### FAMILY ORIENTOCREADIIDAE

Orientocreadium batrachoides Tubangui, 1931 (F)

Location: intestine

Hosts: Clarias batrachus (1,2,3,7)

Heteropneustes fossilis (4,5,6)

Dist.: Dhaka

Records: 1. Rashid *et al.* 1983 (Dhaka), 2. 1984 (Dhaka); 3. Rashid and Haque 1984a (Dhaka); 4. Chandra 1992a (Dhaka), 5. 1993b (Dhaka), 6. 1994a (Dhaka); 7. Ahmed and Ezaz 1997 (-)

Remarks: The life cycle of this trematode was studied experimentally by Sirikantayakul (1985). In the Philippines, the snail *Lymnaea viridis* serves as both the first intermediate and the primary second intermediate host. A few metacercariae were also recovered from catfish (*Clarias macrocephalus*) and tilapia (*Oreochromis mossambicus*) fry and other aquatic organisms expermentally exposed to newly emerged cercariae.

#### SUPERFAMILY ZOOGONOIDEA

#### **FAMILY LISSORCHIIDAE**

Asymphylodora indica Srivastava, 1936

(F)

Location: intestine Host: *Channa punctata* 

Dist.: Dhaka

Record: Coil and Kuntz 1960

Palaeorchis sp.

(F)

Location: stomach, intestine
Hosts: Channa punctata (3)
Clarias batratchus (3)

Clupisoma garua (4) Eutropiichthys vacha (4) Heteropneustes fossilis (3)

Mystus vittatus (3) Puntius sarana (1,2)

Dist.: Barisal, Dhaka, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3. Ahmed and Saha 1983 (Barisal, Dhaka); 4. Chandra 1993b

(Dhaka)

#### Unidentified Digenea

Digenea gen. sp. adult and metacercaria

(F)

Includes: Trematoda and trematodes auctorum ?"black spot disease" of Golder *et al.*, 1983

Location: stomach, intestine, liver; muscles, body cavity, swimbladder, gills

Hosts: Channa marulius (1)

*C. punctata* (1,3)

*C. striata* (1,3)

Clarias batrachus (7,10)

Cyprinus carpio (4)

Eutropiichthys vacha (3,8)

Glossogobius giuris (1,3)

Heteropneustes fossilis (1,3)

Nandus nandus (1)

Ompok bimaculatus (2,10)

O. pabda (1, 2,5,8)

Puntius sophore (2)

Silonia silondia (3)

Tenualosa ilisha (3)

Wallago attu (1,3)

Xenentodon cancila (1)

catfish (9)

fish (6)

Dist.: Chittagong, Dhaka, Sylhet?

Records: 1. Ali 1968 (-)<sup>26</sup>; 2. Bashirullah 1973a

<sup>26</sup> The host record of Ali (1968) for *Ompok pabda* was given only as "*C. pabda*."

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(Dhaka &/or Sylhet); 3. Anon. 1974 (Chittagong), 4. 1993 (-)<sup>27</sup>; 5. Ali *et al.* 1983 (Dhaka); 6. Golder *et al.* 1983<sup>28</sup> (Chittagong); 7. Rashid and Haque 1984b (Dhaka); 8. Chandra 1992a (Dhaka), 9. 1994b (Dhaka)<sup>29</sup>; 10. Ahmed 1996 (-)

#### **CLASS MONOGENEA**

#### SUBCLASS POLYONCHOINEA

#### ORDER DACTYLOGYRIDEA

#### SUBORDER DACTYLOGYRINEA

#### FAMILY DACTYLOGYRIDAE

Dactylogyrus glossogobii Jain, 1960

(F)

Location: gills

Host: *Glossogobius giuris* Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

Ahmed 1981 (-)

Dactylogyrus vastator Nybelin, 1924<sup>30</sup>

(F)

Location: gills

Hosts: Clarias batrachus (1)

fish (2) Dist.: Bangladesh

Records: 1. Ahmed and Ezaz 1997 (-); 2. Banu

et al. 1999 (-)

Remarks: Gibson *et al.* (1996) indicated that this species is a parasite of cyprinid fishes of the Palearctic and Nearctic regions. The above records are thus probably based on

misidentifications.

Dactylogyrus sp.

(F)

Location: gills, skin

Hosts: *Anabas testudineus* (4) *Catla catla* (6)

<sup>27</sup> The record of Anon. (1993) is taken from Figure 7.

Cirrhinus cirrhosus (6)

Clarias batrachus (6)

Ctenopharyngodon idellus (2)

Cyprinus carpio (6)

Heteropneustes fossilis (4)

Hypopthalmichthys molitrix (6)

Labeo rohita (6)

carp (3)

Indian major carp (1)

fish (5)

Dist.: Chittagong, Dhaka, Rajshahi

Records: 1. Sanaullah and Ahmed 1980 (-); 2. Hossain and Khan 1992 (-); 3. Anon. 1992 (-), 4. 1993 (Chittagong, Rajshahi); 5. Hossain

1993 (-); 6. Banu et al. 1993 (Dhaka)

#### SUBCLASS OLIGONCHOINEA

#### ORDER MAZOCRAEIDEA

#### SUBORDER MAZOCRAEINEA

#### FAMILY MAZOCRAEIDAE

*Pseudoanthocotyle pavlovskyi* Bykhovsky (M)

and Nagibina, 1954

Syn.: Pseudoanthocotyle jagannath

(Tripathi, 1959)

Location: gills

Host: Rastrelliger kanagurta

Dist.: Bay of Bengal Record: Bashirullah 1973a

Remarks: The synonymy follows Mamaev

(1982).

#### SUBORDER GASTROCOTYLINEA

#### SUPERFAMILY GASTEROCOTYLOIDEA

#### FAMILY GASTEROCOTYLIDAE

Pricea multae Chauhan, 1945

(M)

Syn.: *Pricea armata* Ramalingam, 1952 *P. robusta* Ramalingam, 1952

Location: gills

Host: Scomberomorus guttatus

Dist.: Bay of Bengal Record: Bashirullah 1973a

Remarks: The synonymy follows Nagibina (1969) and Rohde (1976). A discussion of the host and geographical distribution, and a

<sup>&</sup>lt;sup>28</sup> The record of "black spot disease" by Golder *et al.* (1983) is tentatively considered to refer to infection by an unidentified digenean.

<sup>&</sup>lt;sup>29</sup> Chandra (1994b) examined four species of siluroid catfishes, but did not indicate to which host(s) this record pertains.

<sup>&</sup>lt;sup>30</sup> The species name was misspelled "vestator" by Banu et al. (1999).

revised synonymy is provided by Rohde and Hayward (1999).

#### SUBORDER MICROCOTYLINEA

#### SUPERFAMILY MICROCOTYLOIDEA

#### **FAMILY AXINIDAE**

Megamicrocotyle chirocentrus Tripathi, 1956

(M)

Location: gills

Host: *Chirocentrus dorab* Dist.: Bay of Bengal Record: Bashirullah 1973a

#### SUPERFAMILY DYCLIDOPHOROIDEA

#### FAMILY DICLYDOPHORIDAE

Choricotyle pagelli (Gallien, 1937)

(M)

Llewellyn, 1941 Location: gills Host: *Ilisha filigera* Dist.: Bay of Bengal Record: Bashirullah 1973a

Remarks: As this monogenean was originally described from a sea bream collected in the North Atlantic Ocean off Ireland (see Dawes 1947), its report from a fish from Bangladesh is

suspect.

Choricotyle sp.

(M)

Location: gills Host: *Ilisha filigera* Dist.: Bay of Bengal Record: Bashirullah 1973a

# Unidentified Monogenea

Monogenea gen. sp.

(F)

Includes: monogeneans auctorum

Location: gills, skin

Hosts: Puntius sophore (1)

Puntius sp. (2)
Dist.: Bangladesh

Records: 1. Anon. 1974 (-), 2. 1993<sup>31</sup> (-)

#### **CLASS CESTODA**

#### SUBCLASS GYROCOTYLIDEA

#### ORDER GYROCOTYLIDEA

#### **FAMILY GYROCOTYLIDAE**

Gyrocotyle sp.

(F)

Location: intestine
Host: Clarias batrachus
Dist.: Bangladesh

Records: Ali 1968; Anon. 1974 (-)

Remarks: Gyrocotylideans are primitive monozoic cestodes parasitic in the spiral valves of holocephalan fishes (see Gibson 1994). These records undoubtedly involve misidentications, most probably of caryophyllidean cestodes, which are common in walking catfish in Bangladesh.

#### SUBCLASS CESTOIDEA

#### SUPERORDER EUCESTODA

#### ORDER CARYOPHYLLIDEA<sup>32</sup>

# FAMILY LYTOCESTIDAE

Bovienia serialis (Bovien, 1926)

(F)

Fuhrmann, 1931 Location: intestine Host: *Clarias batrachus* Dist.: Barisal, Dhaka

Records: Ahmed 1981 (Barisal, Dhaka); Ahmed et al. 1984 (Barisal, Dhaka), 1985 (Dhaka);

Ahmed and Ezaz 1997 (-)

Bovienia sp.

(F)

Location: intestine Host: *Clarias batrachus* Dist.: Dhaka, Rajshahi

Records: Ahmed and Sanaullah 1976 (-)<sup>33</sup>, 1977a

<sup>31</sup> The record is taken from Figure 5 of Anon. (1993).

<sup>&</sup>lt;sup>32</sup> The many difficulties surrounding the taxonomy of cary ophyllidean cestodes described from the South Asian Region are discussed by Mackiewicz (1981).

(Rajshahi); Sanaullah and Ahmed 1978 (Dhaka,

Rajshahi)

*Djombangia penetrans* Bovien, 1926 (F)

Location: stomach, intestine Host: *Clarias batrachus* 

Dist.: Barisal, Chittagong, Dhaka, Rajshahi,

Sylhet

Records: Ahmed and Sanaullah 1976 (-)<sup>34</sup>, 1977a (Chittagong, Dhaka, Rajshahi, Sylhet), 1977b (-)<sup>35</sup>, 1979 (-); Sanaullah and Ahmed 1978 (Dhaka, Chittagong, Rajshahi, Sylhet)<sup>36</sup>; Ahmed 1981 (Barisal, Dhaka); Rashid *et al.* 1983 (Dhaka), 1985 (Dhaka); Rashid and Haque 1984a (Dhaka); Ahmed *et al.* 1984 (Barisal, Chittagong, Dhaka, Sylhet), 1985 (Dhaka); Ahmed and Ezaz 1997 (-)

Remarks: The pathology caused by this cestode in *Clarias batrachus* has been described by Ahmed and Sanaullah (1979).

*Lytocestus birmanicus* Lynsdale, 1956 (F)

Location: intestine
Host: Clarias batrachus

Dist.: Barisal, Dhaka Records: Ahmed 1981 (Barisal); Ahmed *et al.* 1984 (Dhaka), 1985 (Dhaka); Ahmed and Ezaz 1997 (-)

Lytocestus indicus (Moghe, 1925)

(F)

Woodland, 1926

Location: stomach, intestine Host: Clarias batrachus

Dist.: Barisal, Chittangong, Dhaka, Rajshahi,

Sylhet

Records: Ahmed and Sanaullah 1976 (-)<sup>37</sup>, 1977a

<sup>33</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

(Chittagong, Dhaka, Rajshahi, Sylhet), 1977b (-)<sup>38</sup>, 1979 (-); Sanaullah and Ahmed 1978 (-)<sup>39</sup>; Ahmed 1981 (Barisal, Dhaka); Rashid *et al.* 1983 (Dhaka), 1985 (Dhaka); Rashid and Haque 1984a (Dhaka); Ahmed *et al.* 1984 (Barisal, Chittagong, Dhaka, Sylhet), 1985 (Dhaka); Chandra *et al.* 1997 (Dhaka); Ahmed and Ezaz 1997 (-)

Remarks: The pathology caused by this cestode in *Clarias batrachus* has been described by Ahmed and Sanaullah (1979).

*Lytocestus lativitellarium* Furtado and (F)

Tan, 1973

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Location: intestine Host: *Clarias batrachus* Dist.: Bangladesh

Record: Ahmed and Ezaz 1997 (-)

Lytocestus parvulus Furtado, 1963

(F)

Location: intestine Host: Clarias batrachus

Dist.: Barisal, Chittagong, Dhaka, Rajshahi, Sylhet

Records: Ahmed and Sanaullah 1976 (-)<sup>40</sup>, 1977a (Dhaka, Rajshahi), 1977b (-)<sup>41</sup>, 1979 (-); Sanaullah and Ahmed 1978 (-)<sup>42</sup>; Ahmed 1981 (Barisal, Dhaka); Rashid *et al.* 1983 (Dhaka), 1985 (Dhaka); Rashid and Haque 1984a (Dhaka); Ahmed *et al.* 1984 (Barisal, Chittagong, Dhaka, Sylhet), 1985 (Dhaka); Ahmed and Ezaz 1997 (-)

Remarks: The pathology caused by this cestode in *Clarias batrachus* has been described by Ahmed and Sanaullah (1979).

*Lytocestus* sp. (F)

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<sup>&</sup>lt;sup>34</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

<sup>&</sup>lt;sup>35</sup> Ahmed and Sanaullah (1977b) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual parasites.

<sup>&</sup>lt;sup>36</sup> Sanaullah and Ahmed (1978) examined catfishes from six regions of Bangladesh, but in most cases, did not indicate specific collection localities for individual parasites. They did note that *D. penetrans* occurred in *C. batrachus* at all study areas.

<sup>&</sup>lt;sup>37</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

<sup>&</sup>lt;sup>38</sup> Ahmed and Sanaullah (1977b) examined catfishes from six regions of Bangladesh, but in most cases, did not indicate specific collection localities for individual parasites.

<sup>&</sup>lt;sup>39</sup> Sanaullah and Ahmed (1978) examined catfishes from six regions of Bangladesh, but in most cases, did not indicate specific collection localities for individual parasites.

<sup>40</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

<sup>&</sup>lt;sup>41</sup> Ahmed and Sanaullah (1977b) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual parasites.

<sup>&</sup>lt;sup>42</sup> Sanaullah and Ahmed (1978) examined catfishes from six regions of Bangladesh, but in most cases, did not indicate specific collection localities for individual parasites.

Syn.: *Lucknowia* sp. Location: intestine

Hosts: Clarias batrachus (1,2)

Heteropneustes fossilis (3,5,6,7)

Otolithoides pama (2)

catfish (4)
Dist.: Barisal, Dhaka

Records: 1. Ali 1968 (-); 2. Anon. 1974 (-); 3. Ahmed 1981 (Dhaka), 4. 1996 (-); 5. Ahmed *et al.* 1984 (Barisal), 6. 1985 (Dhaka); 7. Ahmed and Ezaz 1997 (-)

Remarks: The synonymy follows Mackiewicz (1994).

Monobothrioides sp.

(F)

Location: [intestine] Host: Clarias batrachus

Dist.: Dhaka

Records: Rashid *et al.* 1983 (Dhaka), 1985 (Dhaka); Rashid and Haque 1984a (Dhaka)

Remarks: As Mackiewicz (1994) noted that members of this genus are parasites of Bagridae and Clariidae in Africa, the above records are considered to involve misidentifications (J.S. Mackiewicz, pers. comm.).

#### FAMILY CARYOPHYLLAEIDAE

Bialovarium sp.

(F)

Location: [intestine]

Host: Heteropneustes fossilis

Dist.: Dhaka

Record: Amin et al. 1982

Remarks: Mackiewicz (1994) noted that members of this genus are parasites of cyprinid fishes in North America; the above report is thus regarded as a misidentification (J.S.

Mackiewicz, pers. comm.).

Caryophyllaeus sp.

(F)

Location: stomach, intestine
Hosts: Clupisoma garua
Eutropiichthys vacha
Ompok pabda
Silonia silondia
Sperata aor

Dist.: Dhaka

Record: Chandra 1993b

Remarks: Members of the genus *Caryophyllaeus* appear to be restricted to cyprinid fishes in the Palearctic Region (see Mackiewicz 1983, 1994).

Reports of this genus from fishes of Bangladesh are considered to be misidentifications (J.S. Mackiewicz, pers. comm.).

#### **FAMILY CAPINGENTIDAE**

Capingentoides batrachii Gupta, 1961

(F)

species inquirenda Location: intestine Host: Clarias batrachus

Dist.: Chittagong, Dhaka, Sylhet

Records: Ahmed 1981 (Dhaka); Ahmed *et al.* 1984 (Chittagong, Dhaka, Sylhet), 1985 (Dhaka); Ahmed and Ezaz 1997 (-)

Remarks: Mackiewicz (1994) considered the genus *Capingentoides* Gupta, 1961 a synonym of *Pseudocaryophyllaeus* Gupta, 1961. He also noted that the musculature of *P. indica* Gupta, 1961 and *C. batrachii* Gupta, 1961 appears to be that of the family Caryophyllaeidae and that these two species may be conspecific. He also observed that the original description of *C. batrachii* was likely based on a mixed infection. For these reasons, we have listed this taxon as a species inquirenda.

Pseudocaryophyllaeus heteropneustus

(F)

Chandra and Khatun, 1993

Location: intestine

Host: Heteropneustes fossilis

Dist.: Dhaka

Record: Chandra and Khatun 1993

Pseudocaryophyllaeus indica Gupta, 1961

(F)

Location: intestine Host: *Clarias batrachus* Dist.: Barisal, Dhaka

Records: Ahmed 1981 (Barisal, Dhaka); Ahmed *et al.* 1984 (Barisal, Dhaka), 1985 (Dhaka); Ahmed and Ezaz 1997 (-)

Remarks: Mackiewicz (1994) noted that the musculature of *Pseudocaryophyllaeus indica* Gupta, 1961 and *Capingentoides batrachii* Gupta, 1961 appears to be that of the family Caryophyllaeidae and that these two species may be conspecific.

Pseudocaryophyllaeus sp.

**(F)** 

Location: intestine

Host: Heteropneustes fossilis

Dist.: Dhaka

Records: Chandra 1993b (Dhaka), 1994a (Dhaka)

*Pseudolytocestus clariae* Gupta, 1961 (F)

Includes: *Lytocestus clariae* of Anon., 1974<sup>43</sup>

\*\*Pseudocaryophyllaeus clariae of

Ahmed and Ezaz, 199744

Location: intestine Host: Clarias batrachus

Dist.: Barisal, Chittagong, Dhaka, Sylhet

Records: Anon. 1974 (-); Ahmed *et al.* 1984 (Barisal, Chittagong, Dhaka, Sylhet), 1985

(Dhaka); Ahmed and Ezaz 1997 (-)

Remarks: Mackiewicz (1981) regarded the status of this species as uncertain. The other member of the genus, *Pseudolytocestus differtus* Hunter, 1927 is a parasite of a North American catostomid fish (see Wardle and McLeod 1952).

#### Unidentified Caryophyllaeidea

Caryophyllaeidea gen. sp.

(F)

Includes: Caryophyllidean larva auctorum

"caryophyllid" cestodes auctorum "caryphylloid" cestodes auctorum

Location: stomach, intestine

Hosts: Clarias batrachus (6)

Clupisoma garua (1)

Heteropneustes fossilis (3,4)

Ompok bimaculatus (5,6,7)

Silonia silondia (1)

catfish (2)

Dist.: Dhaka

Records: 1. Chandra 1992a (Dhaka), 2. 1994b (Dhaka)<sup>45</sup>; 3. Akhtar *et al.* 1992 (Dhaka); 4. Khanum and Begum 1992 (Dhaka); 5. Khanum *et al.* 1996 (Dhaka); 6. Ahmed 1996 (-); 7.

Ahmed and Ezaz 1997 (-)

#### ORDER TRYPANORHYNCHA

<sup>43</sup> Anon. (1974) reported "*Lytocystus clarias*" [sic] from *Clarias batrachus*. This new combination is believed to have been the result of a lapsus.

#### SUPERFAMILY HOMEACANTHOIDEA

#### FAMILY TENTACULARIIDAE

*Nybelinia* sp. [postlarva]

(M)

22

Location: body cavity
Host: *Chirocentrus dorab*Dist.: Bay of Bengal

Record: D'Silva and Khatoon 1997

# SUPERFAMILY OTOBOTHRIOIDEA

#### **FAMILY OTOBOTHRIIDAE**

Poecilancistrum ilisha (Southwell and (M)

Prashad, 1918) Dollfus, 1929 plerocercus Syn.: *Rhynchobothrius ilisha* Southwell

and Prashad, 1918

Tentacularia ilisha (Southwell and Prashad, 1918)

Location: musculature Host: *Tenualosa ilisha* 

Dist.: Khulna

Records: Southwell and Prashad 1918a (Khulna)<sup>46</sup>; 1918b (Khulna?)<sup>47</sup>; Southwell 1929 (Khulna), 1930 (-)<sup>48</sup>

Remarks: This systematic position of this species is uncertain. Dollfus (1942) noted that *Poecilancistrum ilisha* was probably a synonym of *P. gangeticum* (Shipley and Hornell, 1906) and that both names may be synonyms of *P. caryophyllum* Diesing, 1850. Goldstein (1963), however, suggested that *P. ilisha* should be returned to the genus *Otobothrium* Linton, 1890.

Poecilancistrum ilisha (Southwell and (M)

and Prashad, 1918)

Prashad, 1918) Dollfus, 1929

Syn.: *Rhynchobothrius ilisha* Southwell and Prashad, 1918 *Tentacularia ilisha* (Southwell

<sup>46</sup> The specimens of Southwell and Prashad (1918a) were collected from the Pusser River, Khulna District, Bengal.

<sup>&</sup>lt;sup>44</sup> Ahmed and Ezaz (1997) listed "Pseudocaryophyllaeus clariae" from walking catfish. This new combination is believed to have been the result of a lapsus.

<sup>&</sup>lt;sup>45</sup> Chandra (1994b) examined four species of siluroid catfishes, but did not indicate to which host(s) this record pertains.

<sup>&</sup>lt;sup>47</sup> Southwell and Prashad (1918b) did not specify where their material was collected, only noting that their main observations were made "...at Khulna and Kalna (in the district of Jessore), in the rivers Pussur and Madhumati." (now Bangladesh), with additional work being conducted at several localities in India

The location for the record of Southwell (1930) was given simply as "Bengal, India."

Location: intestine Host: Glyphis gangeticus

Dist.: Khulna

Records: Southwell 1918a and Prashad (Khulna)<sup>49</sup>; Southwell 1929 (Khulna), 1930 (-

Remarks: The systematic postion of this species is uncertain. Dollfus (1942)noted Poecilancistrum ilisha was probably a synonym of P. gangeticum (Shipley and Hornell, 1906) and that both names may be synonyms of P. caryophyllum Diesing, 1850. Goldstein (1963), however, suggested that P. ilisha should be returned to the genus Otobothrium Linton, 1890.

#### FAMILY PTEROBOTHRIIDAE

Pterobothrium Escalante acanthotruncatum (M)

and Carvajal, 1984 plerocercus

Syn.: Gymnorhynchus gigas of Southwell, 1929 (partim), 1930 (partim)

Location: musculature Host: Arius gagora Dist.: Khula? 51

Records: Southwell 1929, 1930

Campbell and Beveridge (1996) re-Remarks: examined Southwell's specimens from Arius gagora, transferring them to Р.

acanthotruncatum.

Pterobothrium 1850 heteracanthum Diesing, (M)

plerocercus

Syndesmobothrium filicolle Linton, Syn.:

Location: musculature Host: Tenualosa ilisha Dist.: Khula? 52

Record: Southwell and Prashad 1918b

Remarks: The synonymy follows Dollfus (1942); however, is is possible that this record from

<sup>49</sup> The specimens of Southwell and Prashad (1918a) were collected from the Pusser River, Khulna District, Bengal.

The location for the record of Southwell (1930) was given

simply as "Bengal, India."

<sup>51</sup> The records of Southwell (1929,1930) for *Arius gagora* were from the Sunderbans, Delta of the Ganges, Bengal, India. As this mangrove area spans both present day India and Bangladesh, these records are included as possibly pertaining to Bangladesh.

52 Southwell and Prashad (1918b) did not specify where their material was collected, only noting that their main observations were made "...at Khulna and Kalna (in the district of Jessore), in the rivers Pussur and Madhumati." (now Bangladesh), with additional work being conducted at several localities in India.

hilsa involves Pterobothrium acanthotruncatum Escalante and Carvajal, 1984 (I. Beveridge pers. comm.).

Pterobothrium lintoni (MacCallum, 1916)

Dollfus, 1942 plerocercus

23

Syn.: Gymnorhynchus malleus (Linton, 1924)

Location: body cavity, viscera, muscle

Host: Lates calcarifer Dist.: Chittagong?<sup>53</sup>

Records: Chandra 1992a, 1993b

Remarks: The synonymy follows Campbell and

Beveridge (1996).

#### SUPERFAMILY POECILACANTHOIDEA

#### FAMILY DASYRHYNCHIDAE

Dasyrhynchus indicus Chandra and Rao, 1986

plerocercus species inquirenda

Location: body cavity, viscera, muscle

Host: Lates calcarifer Dist.: Chittagong? 5

Records: Chandra 1992a, 1993b

Remarks: In their revision of the genus Dasyrhynchus Pintner, 1928, Beveridge and Campbell (1993) noted that Dasyrhynchus indicus resembles D. magnus (Bilquees and Kurshid, 1985), but that the original description is too poor to be certain of their synonymy. We follow these authors in listing this taxon as a species inquirenda.

#### FAMILY GYMNORHYNCHIDAE

Gymnorhynchus gigas (Cuvier, 1817)

Rudolphi, 1819 plerocercus

Location: body cavity, viscera, muscle

Host: Lates calcarifer Dist.: Chittagong? 55

<sup>53</sup> Estuarine fishes examined by Chandra (1992a, 1993b) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division.

<sup>54</sup> Estuarine fishes examined by Chandra (1992a, 1993b) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division

55 Estuarine fishes examined by Chandra (1992a, 1993b) were noted to have been collected mostly from Cox's Bazar,

Records: Chandra 1992a, 1993b

Remarks: As other records of *Gymnorhynchus gigas* from Indian coastal waters of the Bay of Bengal given by Chandra (1985b) clearly pertain to *Pterobothrium* (I. Beveridge, per. comm.), this record from Bangladesh may involve *Pterobothrium acanthotruncatum* Escalante and Carvajal, 1984.

Gymnorhynchus sp. plerocercus

 $(\mathbf{M})$ 

Location: body cavity, viscera Hosts: Otolithoides pama (1,2,3) Pangasius pangasius (1,3) Silonia silondia (1) Tenualosa ilisha (1,3)

Dist.: Chittagong

Records: 1. Ali 1968 (-); 2. Rahman 1971 (Chittagong); 3. Anon. 1974 (Chittagong)

#### FAMILY LACISTORHYNCHIDAE

Callitetrarhynchus gracilis (Rudolphi, 1819) (M)

Pintner, 1931 plerocercus<sup>56</sup>

Location: body cavity, viscera, muscle

Host: *Lates calcarifer* Dist.: Chittagong? <sup>57</sup>

Records: Chandra 1992a, 1993b

#### Unidentified Trypanorhyncha

Tetrarhynchus sp.

(M)

Location: muscle, ovary Host: *Glossogobius giuris* 

Dist.: Bangladesh

Records: Ali 1968 (-); Anon. 1974 (-)

Remarks: Jones *et al.* (1994) listed *Tetrarhynchus* Rudolphi, 1890 as a genus

incertae sedis.

Trypanorhyncha gen. sp. (M)

Chittagong and Teknaf, which are all in the Chittagong Division.

Location: not specified Host: elasmobranch fishes Dist.: Bay of Bengal Record: Khusi *et al.* 1993

#### ORDER TETRAPHYLLIDEA

#### FAMILY DISCULICIPITIDAE

Disculiceps pileatum (Linton, 1890) Joyeux (M)

and Baer, 1936

Syn.: Discocephalum pileatum Linton, 1890

Location: intestine Host: *Glyphis gangeticus* 

Dist.: Khulna

Record: Southwell and Prashad 1918a<sup>58</sup>

#### Unidentified Tetraphyllidea

Tetraphyllidea gen. sp.

(M)

Location: not specified Host: elasmobranch fishes Dist.: Bay of Bengal Record: Khusi *et al.* 1993

#### ORDER LECANICEPHALIDEA

Lecanicephalidea gen. sp.

(M)

Location: not specified Host: elasmobranch fishes Dist.: Bay of Bengal Record: Khusi *et al.* 1993

#### ORDER PSEUDOPHYLLIDEA

#### FAMILY BOTHRIOCEPHALIDAE

Bothriocephalus cuspidatus Cooper, 1917

(F)

Location: [pyloric caeca, intestine]

Hosts: Channa marulius

C. striata

Dist.: Bangladesh

Record: Khanum et al. 1993

Remarks: The report of this North American

<sup>58</sup> Southwell and Prashad (1918a) gave the collection locality as Pusser River, Khulna District, Bengal.

<sup>&</sup>lt;sup>56</sup> The generic name was misspelled "Calliotetrarhynchus" by Chandra (1992a, 1993b).

<sup>&</sup>lt;sup>57</sup> Estuarine fishes examined by Chandra (1992a, 1993b) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division.

species from Bangladesh is probably based on a misidentification.

Bothriocephalus sp. plerocercoid

(F)

Location: viscera, gall bladder

Host: *Nandus nandus*Dist.: Chittagong, Dhaka

Records: Chandra and Golder 1987 (Chittagong); Golder et al. 1987 (Chittagong); Nahida et al.

1994 (Dhaka)

Remarks: Golder et al. (1987) noted that most of

their specimens were "encysted."

Polyonchobothrium sp.

(F)

Location: not specified Hosts: *Channa marulius* 

C. striata
Dist.: Bangladesh

Record: Khanum et al. 1993

Senga ophicephaliana (Tseng, 1933)

(F)

Dollfus, 1934<sup>59</sup> Location: intestine

Host: Nandus nandus
Dist.: Chittagong

Records: Chandra and Golder 1987 (Chittagong);

Golder et al. 1987 (Chittagong)

Taphrobothrium japonense Lühe, 1899

(M)

Location: [intestine] Hosts: *Channa marulius* 

*C. striata* Dist.: Bangladesh

Record: Khanum et al. 1993

Remarks: Originally described from a marine fish (*Muraenesox cinereus*) of Japan (see Wardle and McLeod 1952), the occurrence of this species in freshwater fishes of Bangladesh is unlikely.

#### FAMILY TRIAENOPHORIDAE

Anchistrocephalus sp.

(F)

Syn.: *Ancistrocephalus* sp. Location: intestine, liver

<sup>59</sup> The parasite species name has been misspelled "ophiocephalina" by Bangladeshi authors.

Hosts: Channa marulius (1,2)

*C. punctata* (1,2)

*C. striata* (1,2)

Nandus nandus (1,2)

Dist.: Chittagong

Records: 1. Ali 1968 (-); 2. Anon. 1974

(Chittagong)

Remarks: The synonymy follows Bray *et al.* (1994). As the only member of this genus, *Anchistrocephalus microcephalus* Rudolphi, 1819, is a parasite of the ocean sunfish (*Mola mola*) (see Wardle and McLeod 1952), these records from freshwater fishes of Bangladesh

probably involve misidentifications.

Marsipometra parva Simer, 1930

**(F)** 

Location: stomach, intestine Host: Mastacembelus armatus

Dist: Bangladesh

Record: Khanum and Parveen 1997

Remarks: This species was originally described from *Polyodon spathula* from the southern United States (see Hoffman 1998); its occurrence

in Bangadesh seems improbable.

#### FAMILY DIPHYLLOBOTHRIIDAE

Diphyllobothrium latum (Linnaeus, 1758)

(F)

Lühe, 1910 plerocercoid Location: mucles

Host: *Harpadon nehereus*Dist.: Chittagong

Record: Uddin et al. 1980

Remarks: *Diphyllobothrium latum* is a parasite of coldwater freshwater fishes of North America and Europe (see Hoffman 1998). The above report from Bangladesh is considered to involve a

misidentification.

Ligula intestinalis (Linnaeus, 1758)

(F)

Gmelin, 1790 plerocercoid Location: [body cavity] Host: *Heteropneustes fossilis* 

Dist.: Dhaka

Record: Amin et al. 1982

Remarks: Bray *et al.* (1994) noted that the distribution of this species is circumboreal; its occurrence in fishes of Bangadesh therefore

requires confirmation.

#### Unidentified Diphyllobothriidae

Diphyllobothriidae gen. sp. plerocercoid

Includes: Diphyllobothridean larvae auctorum<sup>60</sup>

Location: body cavity, viscera, intestine

Hosts: Nandus nandus (1) Tenualosa ilisha (2,3)

Dist.: Chittagong, Dhaka

Records: Chowdhury et al. 1982 (Dhaka); 2. Zaman et al. 1992b (Chittagong), 3. 1994

(Chittagong)

#### Unidentified Pseudophyllidea

Pseudophyllidea gen. sp. (F,M)

Includes: Pseudophyllidean cestodes auctorum

Location: stomach, intestine Hosts: *Glossogobius giuris* (1,2) elasmobranch fishes (3)

Dist.: Dhaka, Bay of Bengal

Records: 1. Khanum *et al.* 1992 (-), 2. 1994 (Dhaka); 3. Khusi *et al.* 1993 (Bay of Bengal)

Remarks: As pseudophyllideans do not infect elasmobranchs, the record of Khusi *et al.* (1993) is either based on a misidentification or is the result of pseudoparasitism due a shark or ray feeding on a teleost fish.

#### **Unidentified Cestoda**

*Ilisha parthenogenetica* Southwell and (M?)

Prashad, 1918 plerocercoid

Location: pyloric caeca, mesenteries, liver

Host: *Tenualosa ilisha*Dist.: Chittagong, Khulna

Records: Southwell and Prashad 1918a (Khulna); Southwell 1930 (Khulna)<sup>61</sup>; Zaman *et al.* 1992b (Chittagong), 1994 (Chittagong)

Remarks: According to Jones *et al.* (1994), the genus *Ilisha* Southwell and Prashad, 1918 is a collective larval genus that is preoccupied;

<sup>60</sup> In an abstract, Zamin *et al.* (1992b) initially reported diphyllobothridean larvae from *Tenualosa ilisha*. In a more complete report of their study, they subsequently (Zamin *et al.* 1992b) recorded a single specimen from the intestine of this fish, variously referring to it as *Diphyllobothrium* sp., "Diphyllobothridean" and "Diphyllobothrideans spp."

therefore, it should not be applied to cestodes.

Cestoda gen. sp. plerocercoid and/or adult

Includes: cestodes auctorum Location: intestine, body cavity Hosts: *Channa marulius* (1,2)

*C. punctata* (1,2) *C. striata* (2)

Clarias batrachus (1,2,5,6) Glossogobius giuris (1,2)

Heteropneustes fossilis (1,2)

Mystus tengara (4) Otolithoides pama (1,2) Pangasius pangasius (2)

Silonia silondia (2) Tenualosa ilisha (1,2)

Xenentodon cancila (3)

Dist.: Chittagong, Dhaka, Rajshahi

Records: 1. Ali 1968 (-); 2. Anon. 1974 (Chittagong), 3. 1993 (Rajshahi); 4. Hassan *et al.* 1982 (Dhaka); 5. Rashid and Haque 1984b

(Dhaka); 6. Sultana et al. 1992 (Dhaka)

# PHYLUM NEMATODA<sup>62</sup>

#### **CLASS ADENOPHOREA**

# ORDER ENOPLIDA

#### SUPERFAMILY DIOCTOPHYMATOIDEA

#### FAMILY DIOCTOPHYMATIDAE

Eustrongylides tubifex (Nitzsch in (F)

Rudolphi, 1819) Jägerskiöld, 1909 larva

Location: ovary, mesenteries Host: *Ompok bimaculatus* 

Dist.: Dhaka

Records: Khanum et al. 1996 (Dhaka); Ahmed

and Ezaz 1997 (-)

Remarks: The life cycle of this nematode involves maturation in fish-eating birds (Gaviiformes, Anseriformes, Ciconiiformes and Podicipediformes). Aquatic oligochaetes serve as first intermediate hosts, while fish are believed to act as second intermediate or paratenic hosts (see Moravec 1998). Moravec (1998) cautioned that the only reliable means of determining the specific identity of larval

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<sup>&</sup>lt;sup>61</sup> Southwell (1930) listed this species from "Khulna, Bengal, India."

<sup>&</sup>lt;sup>62</sup> A listing of the nematodes recorded from fishes of Bangladesh was given by Chandra (1992b). This paper contains no original records.

Eustrongylides is to examine adult specimens obtained through experimental infection of birds. Further, as Measures (1988), in her revision of the genus, stated that *E. tubifex* is found only in the Holarctic and Neotropical regions, the above report is regarded as a probable misidentification.

Eustrongylides sp. [larva?]

(F)

Host: *Ompok pabda* Location: intestine [?]

Dist.: Dhaka

Record: Chandra 1993b

Remarks: The above record from the intestine of a freshwater fish requires confirmation. The location may have been incorrectly determined, or the parasite may have been misidentified.

#### SUPERFAMILY TRICHINELLOIDEA

#### **FAMILY CAPILLARIIDAE**

Capillaria sp. (F,M)

Location: esophagus, stomach, intestine

Hosts: Glossogobius giuris (4,5)

Macrognathus aculeatus (7)

Mastacembelus armatus (7)

Ompok bimaculatus (6,8)

Psettodes erumei (2,3)

Solea elongata (1)

Pampus argenteus (1)

Parastromateus niger (1)

Trichiurus lepturus (1)

Dist.: Dhaka, Bay of Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal); 2. Ahmed and Rahman 1976 (Bay of Bengal), 3. 1977 (Bay of Bengal); 4. Khanum *et al.* 1992 (-), 5. 1994 (Dhaka), 6. 1996 (Dhaka); 7. Khanum and Parveen 1997 (-); 8. Ahmed and Ezaz 1997 (-)

Remarks: As a large number of genera belonging to the Capillariidae are now recognized to infect fishes (see Moravec 1998), the generic assignment of nematodes reported as "Capillaria" from fishes of Bangladesh must be re-examined.

#### **CLASS SECERNENTEA**

#### ORDER OXYURIDA

#### SUPERFAMILY OXYUROIDEA

#### FAMILY PHARYNGODONIDAE

Cosmoxynemoides sp.

(F)

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Location: intestine
Host: Colisa fasciatus
Dist.: Dhaka?, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet);

Ahmed 1981 (-)

Remarks: Petter and Quentin (1976) noted that the genus *Cosmoxynemoides* Travassos, 1949 was of doubtful status because males were unknown. However, Moravec (1998), in his review of the nematode fauna of Neotropical freshwater fishes, accepted the validity of this genus and species. Moravec (1998) also noted that the genus contains a single species, *C. aguirrei* Travassos, 1949, so far known only from South America.

#### **ORDER ASCARIDIDA**

#### SUPERFAMILY HETERAKOIDEA

#### FAMILY ASCARIDIDAE

Ascaridia sp. adult and larva<sup>63</sup>

(F

Location: digestive tract, viscera, body cavity

Hosts: Channa punctata (2,4) Clarias batrachus (3,5,8) Heteropneustes fossilis (9)

*Nandus nandus* (6,7)

fish (1)

Dist.: Chittagong, Dhaka, Sylhet

Records: 1. Islam 1982 (Sylhet); 2. Hossain et al. 1982 (Dhaka); 3. Rashid et al. 1983 (Dhaka); 4. Huq et al. 1983 (Dhaka); 5. Rashid and Haque 1984a (Dhaka); 6. Chandra and Golder 1987 (Chittagong); 7. Golder et al. 1987 (Chittagong); 8. Rashid 1990 (Dhaka); 9. Chandra 1994a (Dhaka)

Remarks: Members of the genus Ascaridia Dujardin, 1845 are parasites of birds and, rarely, mammals (see Chabaud 1978). Some of the above records may involve misidentification of ascaridoid nematodes, as the adults and/or larvae of a number of genera of this superfamily (e.g., Anisakis, Contracaecum, Hysterothylacium, Pseudoterranova, Raphidascaris) are frequently encountered parasites of fishes.

 $^{63}$  For many records from Bangladesh, neither the life-cycle stage nor the location within the host is indicated.

#### SUPERFAMILY ASCARIDOIDEA

#### **FAMILY ANISAKIDAE**

Goezia ascaroides (Goeze, 1782) Railliet (M)

and Henry, 1915 Location: stomach Host: *Thryssa hamiltonii* 

Dist.: Khulna

Record: Khan and Yaseen 1969

Remarks: As *Goezia ascaroides* is a poorly known parasite of European freshwater fishes (see Deardorff and Overstreet 1980), the above record from a marine fish of Bangladesh is likely to be based on a misidentification. A description was provided by Khan and Yaseen (1969).

Goezia sp. 64

(F,M)

Location: intestine, body cavity
Hosts: Lutjanus argentimaculatus (2)
Otolithoides pama (1,3)
Wallago attu (2,4,5)

Dist.: Dhaka?, Sylhet?, Bay of Bengal

Records: 1. Ali 1968 (-); 2. Bashirullah 1973a (Bay of Bengal, Dhaka &/or Sylhet); 3. Anon. 1974 (-); 4. Ahmed 1981 (-); 5. Ahmed and Ezaz 1997 (-)

Contracaecum aori Khan and

(F)

Yaseen, 1969 larva species inquirenda

Location: body cavity Host: *Sperata aor* Dist.: Sylhet

Record: Khan and Yaseen 1969

Remarks: The description of this nematode by Khan and Yaseen (1969) was based on three female specimens. Deardorff and Overstreet (1981) listed *Contracaecum aori* among those larval ascaridoids of uncertain status. They further noted that it was probably a fourth-stage larva. Moravec (1998) noted that since the separation of species is based on adult morphology, it is generally impossible to assign larval *Contracaecum* to species with certainty without carrying out feeding experiments.

<sup>64</sup> The generic name was misspelled "Goezi" by Ali (1968) and Anon. (1974).

Contracaecum brevicaecum Khan and

Yaseen, 1969 larva species inquirenda Location: body cavity

Host: sawfish Dist.: Khulna

Record: Khan and Yaseen 1969

Remarks: The description of this species by Khan and Yaseen (1969) was based on female specimens only. Deardorff and Overstreet (1981) listed *Contracaecum brevicaecum* among those larval ascaridoids of uncertain status. They further noted that it was a third-stage larva. Moravec (1998) noted that since the separation of species is based on adult morphology, it is generally impossible to assign larval *Contracaecum* to species with certainty without carrying out feeding experiments.

(?)<sup>65</sup>

Contracaecum sp. larva (F,M)

Location: stomach, pyloric caeca, intestine,

body cavity, viscera

Hosts: Anabas testudineus (7)

Channa marilius (1,3)

*C. punctata* (1,3)

C. striata (1,3)

Clupisoma garua (3)

Eutropiichthys vacha (3)

Glossogobius giuris (1,3)

Heteropneustes fossilis (3)

Mastacembelus armatus (3)

Nandus nandus (1,3,4)

Ompok bimaculatus (6,8)

O. pabda (3,6,8)

Otolithoides pama (1,3)

Pangasius pangasius (1,3)

Rita rita (1,3)

Sardinella fimbriata (2,5)

Silonia silondia (1,3)

*Wallago attu* (1,3)

Xenentodon cancila (1,3)

Dist.: Chittagong, Dhaka, Bay of Bengal

Records: 1. Ali 1968 (-); 2. Bashirullah 1973a (Bay of Bengal); 3. Anon. 1974 (Chittagong); 4. Chowdhury *et al.* 1983 (Dhaka); 5. Ahmed *et al.* 1986 (Bay of Bengal); 6. Khanum *et al.* 1996 (Dhaka); 7. Akther *et al.* 1997 (Dhaka); 8. Ahmed and Ezaz 1997 (-)

Remarks: Members of the genus *Contracaecum* occur as adults in the digestive tract of fisheating birds and marine mammals, while fish may serve as either intermediate or paratenic hosts (see Moravec 1998).

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<sup>65</sup> Sawfish (family Pristidae) occur in marine and estuarine environments, and may enter fresh water.

Heterotyphlum sp. larva and adult? 66,67

Location: liver, stomach wall, stomach Hosts: Cynoglossus arel (2,3,4) Ilisha filigera (1)

Dist.: Bay of Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal); 2. Ahmed and Rahman 1976 (Bay of Bengal), 3. 1977 (Bay of Bengal), 4. 1979 (Bay of Bengal)

Paranisakis sp. larva

Location: body cavity, viscera Host: Dussumieria acuta Dist.: Bay of Bengal Record: Ahmed et al. 1986

Raphidascaris panijii Khan and (M)

Yaseen, 1969 species inquirenda

Location: intestine

Host: Sillaginopsis panijus

Dist.: Khulna

Record: Khan and Yaseen 1969

Remarks: Soota (1983) noted that Raphidascaris panijii was inadequately described based on a single male specimen. He also pointed out that the authors' figure of the tail of the adult male appears to be that of a juvenile female.

Raphidascaris sp. larva (M)

Location: intestine, body cavity, wall of stomach and intestine

Hosts: Polynemus paradiseus (4) Psettodes erumei (1,2,3)

Sardinella fimbriata (4) Dist.: Bay of Bengal

Records: 1. Ahmed and Rahman 1976 (Bay of Bengal), 2. 1977 (Bay of Bengal), 3. 1979 (Bay of Bengal); 4. Ahmed et al. 1986 (Bay of

Bengal)

Terranova sp. (M)

Location: stomach Host: Eusphyra blochii Dist.: Bay of Bengal Record: Bashirullah 1973a

#### FAMILY ACANTHOCHEILIDAE

Pseudanisakis sp.

(M)

Syn.: Metanisakis sp. Location: stomach Host: Eusphyra blochii Dist.: Bay of Bengal Record: Bashirullah 1973a

Remarks: The synonymy follows Gibson (1973). As Gibson (1973) noted that Pseudanisakis spp. appear to be primarily parasites of skates and rays, the above report from a winghead shark is possibly based on a misidentification. He also speculated that the life cycle of members of this genus may involve one or two crustacean and no teleost intermediate hosts.

#### **FAMILY ASCARIDIDAE**

Ascaris sp.

Location: stomach Host: Channa punctata

Dist.: Dhaka

Records: Hossain et al. 1982 (Dhaka); Huq et al.

1983 (Dhaka)

Remarks: As members of the genus Ascaris are parasites of mammals (see Hartwich 1974), the above records must involve misidentifications of other ascaridoid nematodes.

Dujardinascaris sp. larva

(M)

Location: liver, stomach wall Host: Cynoglossus arel Dist.: Bay of Bengal

Records: Ahmed and Rahman 1976 (Bay of Bengal), 1977 (Bay of Bengal), 1979 (Bay of

Bengal)

Remarks: Members of the genus Dujardinascaris are parasites of crocodilians (see Hartwich 1974).

Porrocaecum trichiuri Chandler, 1935

species inquirenda [larva?] Location: body cavity

<sup>66</sup> The generic name was misspelled "Heterophylum" by all Bangladeshi authors except Bashirullah (1973a).

<sup>&</sup>lt;sup>67</sup> Bashirullah (1973a) reported *Heterotyphlum* sp. from the stomach of the clupeid fish Ilisha filigera, but did not indicate the stage of maturity.

Hosts: Polydactylus indicus (1)

Psettodes erumei (2,3)

Dist.: Khulna, Bay of Bengal

Records: 1. Khan and Yaseen 1969 (Khulna); 2. Ahmed and Rahman 1976 (Bay of Bengal), 3. 1977 (Bay of Bengal)

Remarks: Soota (1983) listed this taxon as a species inquirenda. He noted that the figure of the tail of the adult male given by Khan and Yaseen (1969) appears to be that of a juvenile female. The finding of this parasite within the body cavity of the host would also indicate that the specimens of Khan and Yaseen (1969) were probably larvae.

Porrocaecum sp. larva

(F)

Location: external wall of intestine

Host: Nandus nandus

Dist.: Dhaka

Record: Nahida et al. 1994

Remarks: Adults of members of this genus are intestinal parasites of birds, while larvae of some species occur in fishes (see Moravec 1998).

#### Unidentified Ascaridoidea

Ascaridoidea gen. sp. larva

(F)

Includes: Ascaroid larva auctorum

Ascaridoid larva auctorum

Location: stomach, intestine, liver, body cavity

Hosts: Glossogobius giuris (5,6) Heteropneustes fossilis (3,4)

Xenentodon cancila (1,2)

Dist.: Dhaka

Records: 1. Akhtar *et al.* 1989 (Dhaka)<sup>68</sup>, 2. 1990 (Dhaka), 3. 1992 (Dhaka); 4. Khanum and Begum 1992 (Dhaka); 5. Khanum *et al.* 1992 (-), 6. 1994 (Dhaka)

#### SUPERFAMILY COSMOCERCOIDEA

#### FAMILY KATHLANIIDAE

Falcaustra brevicaudatum (Khan and (F)

Yaseen, 1969) Soota, 1983

Syn.: Kathlania brevicaudatum Khan

<sup>68</sup> Ahktar *et al.* (1989), in their Table 3, also referred to these nematodes as immature *Ascaris* and as "Ascaridian larva."

and Yaseen, 1969

Location: intestine Host: *Ompok bimaculatus* 

Dist.: Sylhet

Records: Khan and Yaseen 1969 (Sylhet);

Ahmed and Ezaz 1997 (-)

#### SUPERFAMILY SEURATOIDEA

#### FAMILY CUCULLANIDAE

Cucullanus dogieli Krotas, 1959

(F)

Location: intestine Host: Chanda nama

Dist.: Sylhet

Record: Khan and Yaseen 1969

Remarks: This species was originally described from a cyprinoid fish from the USSR (see Soota 1983) and has been reported from a wide variety of cyprinid fishes from the basins of the Baltic, Black and Azov seas (see Bauer 1987).

Cucullanus pangasius Soota and

(F)

Chaturvedi, 1971 Location: intestine

Host: Pangasius pangasius

Dist.: Bangladesh

Record: Ahmed and Ezaz 1997 (-)

Remarks: Soota (1983) noted the close similarity of this species to *Cucullanus ritai* Karve, 1952 and suggested that they may be conspecific.

Cucullanus sp.

(F,M)

Syn.: Indocucullanus sp.

Location: stomach, intestine, body cavity Hosts: *Mystus cavasius* (1,5,6)

Psettodes erumei (2,3)

Rita rita (6)

fish (4)

Dist.: Dhaka?, Sylhet?, Bay of Bengal

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed and Rahman 1976 (Bay of Bengal), 3. 1977 (Bay of Bengal), 4. 1979 (Bay of Bengal)<sup>69</sup>; 5. Ahmed 1981 (-); 6. Ahmed and Ezaz 1997 (-)

Remarks: Although Ahmed and Rahman (1977) reported larval *Cucullanus* sp. from the stomach

<sup>69</sup> Ahmed and Rahman (1979) examined *Psettodes erumei* and *Cynoglossus macrolepidotus* (syn. of *C. arel*), but did not indicate to which host this record pertains.

of *Psettodes erumei*, it is probable that these were actually immature adults.

The synonymy follows Chabaud (1978).

Dichelyne (Cucullanellus) sp.

(F)

Syn.: Cucullanellus sp.

Location: intestine Hosts: *Rita rita* (1,2)

fish (3)

Dist.: Dhaka?, Sylhet

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3. Islam 1982

(Sylhet)

Remarks: The synonymy follows Chabaud

(1978).

# FAMILY QUIMPERIIDAE

Buckleynema sp.

(F)

Location: intestine

Hosts: Mystus cavasius (1,4)

M. vittatus (2)

fish(3)

Dist.: Dhaka?, Sylhet

Records: 1. Bashirullah 1973a (Dhaka &/or

Sylhet); 2. Ahmed 1981 (-); 3. Islam 1982

(Sylhet); 4. Ahmed and Ezaz 1997 (-)

Paragendria bagarii (Karve, 1941)

(F)

Soota, 1983

Syn.: Metaquimperia bagarii Karve, 1941

Location: stomach, intestine, body cavity,

swimbladder

Host: Xenentodon cancila

Dist: Dhaka

Records: Akhtar et al. 1989 (Dhaka), 1990

(Dhaka)

Remarks: Chaubaud (1978) regarded

Metaquimperia Karve, 1941 as a synonym of

Paragendria Baylis, 1939.

Paragendria wallagonia (Sood, 1968)

(F)

Sood, 1989

Syn.: Metaquimperia madhuai Sood, 1973

Location: intestine Host: *Anabas testudineus* 

Dist: Dhaka

Record: Akther et al. 1997

Remarks: The synonymy follows Sood (1989).

Soota (1983) considered *Paragendria* wallagonia a synonym of *P. macronis* (Stewart, 1914) and *P. madhuai*, a distinct species.

Paragendria sp.

(F)

Host: *Sperata aor* Location: intestine Dist.: Dhaka

Record: Chandra 1993b

Paraquimperia sp. larva

(M)

Location: body cavity, outer wall of intestine

Hosts: *Cynoglossus arel* (1,2) *Polydactylus sextarius* (3)

Dist.: Bay of Bengal

Records: 1. Ahmed and Rahman 1976 (Bay of

Bengal), 2. 1977 (Bay of Bengal); 3. Ahmed et

al. 1986 (Bay of Bengal)

Pingus aori Khan and Yaseen, 1969

(F)

species inquirenda

Location: intestine Host: *Sperata aor* 

Dist.: Sylhet

Records: Khan and Yaseen 1969 (Sylhet); Ahmed

and Ezaz 1997 (-)

Remarks: Soota (1983) noted that this is an inadequately described species. Dr. F. Moravec

(pers. comm.) regards it as a species inquirenda.

Quimperia sp. larva

(M)

Location: liver, body cavity Hosts: Sardinella fimbriata

Upeneus sulphureus

Dist.: Bay of Bengal

Record: Ahmed et al. 1986

Quimperiidae gen. sp. larva

(F,M)

Includes: Quimperiidean larvae auctorum

Location: body cavity, viscera, muscle,

stomach, intestine

Hosts: Channa marulius (8)

C. striata (8)

Chirocentrus nudus (1)

Clarias batrachus (2,3,4,9,11,12,13)

Glossogobius giuris (8)

Heteropneustes fossilis (2,3,4,9,10,14)

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Psettodes erumei (5,6,7) Trichiurus lepturus (1)

Dist.: Barisal, Chittagong, Dhaka, Rajshahi, Sylhet, Bay of Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal); 2. Ahmed and Sanaullah 1976 (-)<sup>70</sup>, 3. 1977a (Chittagong, Dhaka, Rajshahi, Sylhet), 4. 1977b (-)<sup>71</sup>; 5. Ahmed and Rahman 1976 (Bay of Bengal), 6. 1977 (Bay of Bengal), 7. 1979 (Bay of Bengal); 8. Ahmed and Begum 1978 (Barisal, Dhaka); 9. Sanaullah and Ahmed 1978 (-)<sup>72</sup>; 10. Islam *et al.* 1982 (Dhaka); 11. Rashid *et al.* 1983 (Dhaka); 12. Rashid and Haque 1984a (Dhaka); 13. Rashid 1990 (Dhaka); 14. Ahmed and Ezaz 1997 (-)

#### Unidentified Ascaridida

Ascaridida gen. sp. larva (F,M)

Includes: Ascarididean larva auctorum
Ascaridian larva auctorum

Location: stomach, intestine, body cavity,

viscera

Hosts: Aetobatus narinari (1)

Anabas testudineus (9)

Bagarius bagarius (1,3,10)

Chirocentrus nudus (1)

Clarias batrachus (1,2,3,10)

Eusphyra blochii (1)

Glossogobius giuris (1,3)

*Harpadon neherius* (1)

*Heteropneustes fossilis* (1,2,3,10)

Johnius borneensis (1)

Mystus tengara (5)

M. vittatus (1,3,10)

Nandus nandus (1,3,4)

Ompok bimaculatus (1,3)

O. pabda (1,3,6,7,8)

O. pabaa (1,5,0,7,8)

Scoliodon laticaudus (1) Scomberomorus guttatus (1)

Silonia silondia (7)

Sperata aor (8)

Tachysurus sp. (1)

Dist.: Chittagong, Dhaka, Sylhet?, Bay of

Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal,

Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species. Dhaka &/or Sylhet); 2. Hossain *et al.* 1978 (Dhaka); 3. Ahmed 1981 (-); 4. Chowdhury *et al.* 1983 (Dhaka), 5. 1990 (Dhaka); 6. Hussain and Ali 1986 (Dhaka); 7. Chandra 1992a (Dhaka), 8. 1993b (Dhaka); 9. Akther *et al.* 1997 (Dhaka); 10. Ahmed and Ezaz 1997 (-)

Remarks: Members of the family Ascaridiidae (which contains a single genus, Ascaridia) are parasites of birds and, rarely, mammals (see Chabaud 1978). There exists considerable confusion among Bangladeshi concerning the use of the terms "ascarididean," "ascaridian" or "Ascaridia sp." and "ascaridoid" or "ascaroid." Some or all of the above records may involve misidentification of ascaridoid nematodes, as the adults and/or larvae of a number of genera of this superfamily (e.g., Anisakis, Contracaecum, Hysterothylacium, Pseudoterranova, Raphidascaris) are frequently encountered in marine and freshwater fishes.

#### **ORDER SPIRURIDA**

#### SUPERFAMILY CAMALLANOIDEA

# FAMILY CAMALLANIDAE<sup>73</sup>

 $Camallanus \; (Zeylanema) \; anabantis$ 

(F)

Pearse, 1933

Syn.: Zeylanema anabantis (Pearse, 1933)

Location: intestine
Host: *Anabas testudineus*Dist.: Barisal, Dhaka, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet); Ahmed and Begum 1978 (Barisal, Dhaka); Ahmed 1981 (-); Akther *et al.* 1997 (Dhaka)

Camallanus atropusi Bashirullah and

Khan, 1973

Location: intestine
Host: Atropus atropos
Dist.: Bay of Bengal

Records: Bashirullah and Khan 1973 (Bay of Bengal); Bashirullah 1973a (Bay of Bengal)

Remarks: The status of this taxon requires further analysis. Considered a synonym of *Camallanus trichiuris* Bashirullah and Rahman, 1972 by Soota (1983), it was listed separately by Sood

<sup>73</sup> The taxonomy of the camallanids of the South Asian Region remains quite confused, and this group is in urgent need of critical study. For a recent treatment of generic and subgeneric structure of the family Camallanidae, see Moravec (1998).

Ahmed and Sanaullah (1977b) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual parasites.

<sup>&</sup>lt;sup>72</sup> Sanaullah and Ahmed (1978) examined catfishes from six regions of Bangladesh, but in most cases, did not indicate specific collection localities for individual parasites.

(1989).

Camallanus bispiculus Rajyalakshmi, Rao (M)

and Shyamasundari, 1986

Location: intestine

Host: Chirocentrus dorab

Dist.: Bay of Bengal

Record: D'Silva and Khatoon 1997

Remarks: This species was redescribed by

D'Silva and Khatoon (1997).

Camallanus cotti Fujita, 1927

(F)

Location: intestine

Host: Polydactylus indicus

Dist.: Khulna

Record: Khan and Yaseen 1969

Remarks: Moravec and Sey (1988) considered the above report, which was based on a single female nematode from the Indian threadfin, a marine species, to involve a misidentification.

Camallanus dollfusi Bashirullah and

(M)

Khan, 1973

Location: intestine

Hosts: Solea elongata (2)

Trichiurus lepturus (1,2)

Dist.: Bay of Bengal

Records: 1. Bashirullah and Khan 1973 (Bay of Bengal); 2. Bashirullah 1973a (Bay of Bengal)

Remarks: The status of this taxon requires further analysis. Considered a synonym of *Camallanus trichiuris* Bashirullah and Rahman, 1972 by Soota (1983), it was listed separately by Sood (1989).

Camallanus intestinalus Bashirullah, 1974

(F)

Location: intestine Hosts: *Channa punctata* 

C. striata
Dist.: Dhaka

Record: Bashirullah 1974b

Camallanus kirandensis Baylis, 1928

(F)

Location: intestine Host: sawfish Dist.: Khulna

Record: Khan and Yaseen 1969

Remarks: Given that this species was originally

described from a freshwater cyprinid in Africa (see Sood 1989), this report is likely to involve a misidentification. A description, based on a single male and a single female specimen, was given by Khan and Yaseen (1969).

Camallanus (Zeylanema) magna (Khan (M?)<sup>74</sup>

and Yaseen, 1969) Petter, 1979

Syn.: Zeylanema magna Khan and Yaseen,

1969 Location: intestine

Host: Macrognathus pancalus

Dist.: Khulna

Record: Khan and Yaseen 1969

Camallanus (Zeylanema) pearsei (Yeh, 1960)

(F)

Agrawal, 1967

Syn.: Zeylanema pearsei Yeh, 1960

Location: intestine

Hosts: Anabas testudineus (2,3,4,5)

Channa gachua (1,2,4)

Dist.: Barisal, Dhaka, Sylhet?

Records: 1. Bashirullah 1970 (-), 2. 1973a (Dhaka &/or Sylhet); 3. Ahmed and Begum 1978 (Barisal); 4. Ahmed 1981 (-); 5. Akther *et* 

al. 1997 (Dhaka)

Camallanus trichiuris Bashirullah and

(M)

Rahman, 1972 Location: intestine

Host: Lepturacanthus savala

Dist.: Bay of Bengal

Records: Bashirullah and Rahman 1972 (Bay of Bengal); Bashirullah 1973a (Bay of Bengal)

Remarks: Soota (1983) considered *Camallanus*\*\*atropusi\*\* Bashirullah and Khan, 1973 and *C. dollfusi*\*\* Bashirullah and Khan, 1973 as

synonyms of this species.

Camallanus truncatus (Rudolphi, 1814)

(M)

Törnquist, 1931

Location: stomach, intestine, body cavity,

intestinal surface

Host: Mystus tengara

Dist.: Dhaka

Record: Chowdhury et al. 1990

<sup>74</sup> Khan and Yaseen (1969) incorrectly noted that the host, *Mastacembelus pancalus* (syn. of *Macrognathus pancalus*) (the barred spiney eel), is a marine fish; it is a freshwater species that enters estuaries (see Froese and Pauly 2001).

Remarks: As Camallanus truncatus is a parasite of freshwater fishes of Europe, it is likely that this report from Bangladesh is based on a misidentification.

Camallanus xenentodoni Khan and

Yaseen, 1969 species inquirenda

Location: intestine

Hosts: Macrognathus aculeatus Xenentodon cancila Dist.: Khulna, Sylhet

Record: Khan and Yaseen 1969

Remarks: As the description is based on female specimens only, the status of this species is uncertain.

Camallanus sp. adult and larva (F,M)

Syn.: Zeylanema sp.

Location: intestine

Hosts: Channa marulius (1,2)

Chirocentrus dorab (1)

Clarias batrachus (3)

Glossogobius giuris (1,2)

*Puntius sophore* (1,2)

Dist.: Dhaka?, Sylhet?, Bay of Bengal

Records: 1. Bashirullah 1973a (Bay of Bengal, Dhaka &/or Sylhet); 2. Ahmed 1981 (-); 3.

Ahmed and Ezaz 1997 (-)

Neocamallanus ophicephali (Pearse, 1933)

(F)

Moravec and Sey, 1988

Syn.: Camallanus adamsi Bashirullah, 1974<sup>75</sup>

C. singhi (Ali, 1957)

Location: pyloric caeca, intestine

Hosts: Channa marulius (4)

*C. punctata* (2,4,6)

C. striata (1,2,3,4,5,6,7)

Dist.: Dhaka, Sylhet

Records: 1. Khan and Yaseen 1969 (Sylhet); 2. Bashirullah 1973a (Dhaka &/or Sylhet), 3. 1974b (Dhaka); 4. Anon. 1974 (-); 5. Bashirullah and Ahmed 1976a (Dhaka); 6. Ahmed 1981 (-); 7. Rahman 1989 (-)

The life cycle, which involves a copepod intermediate host, was studied by Bashirullah and Ahmed (1976a) and by De et (1984) (as Camallanus adamsi and

Neocamallanus singhi, respectively).

The synonymy follows Moravec and Sey (1988).

Neocamallanus vachaii Wahid and

(F)

Perveen, 1969

Syn.: Camallanus vachaii (Wahid and

Perveen, 1969)<sup>76</sup>

Host: Eutropiichthys vacha

Location: intestine Dist.: Dhaka

Record: Chandra 1993b

Neocamallanus sp.

Location: pyloric caeca

Hosts: Channa marilius (1,2)

*C. punctata* (1,2)

*C. striata* (1,2)

Dist.: Bangladesh

Records: 1. Ali 1968 (-); 2. Anon. 1974

(Chittagong)

Paracamallanus sweeti (Moorthy, 1937)

Campana-Rouget, 1961

Syn.: Camallanus sweeti Moorthy, 1937

Location: esophagus, stomach, intestine, liver

Hosts: Channa marulius (1)

C. striata (1)

Macrognathus aculeatus (2)

Mastacembelus armatus (2)

Dist: Bangladesh

Records: 1. Khanum et al. 1993 (-); 2. Khanum

and Parveen 1997 (-)

Procamallanus (Spirocamallanus) alii

Kalyankar, 1971

Syn.: Spirocamallanus alii (Kalyankar, 1971)<sup>77</sup>

S. mazabukae sensu Khan and Yaseen, 1969<sup>78</sup>

Location: intestine

Hosts: *Ompok bimaculatus* (2,3)

Polydactylus indicus (1)

Dist.: Dhaka, Khulna

Records: 1. Khan and Yaseen 1969 (Khulna); 2.

 $<sup>^{75}</sup>$  Bashirullah (1973a) inadvertently created the nomen nudum "Camallanus adamsia Bashirullah, 1973." This name was also used by Ahmed (1981).

The species name was misspelled "vachi" by Chandra (1993b).

The species name misspelled "allai" by Ahmed and Ezaz

<sup>&</sup>lt;sup>78</sup> The parasite species name was misspelled "mozabukae" by Khan and Yaseen (1969).

Khanum et al. 1996 (Dhaka); 3. Ahmed and Ezaz 1997 (-)

Remarks: Petter (1978) considered Spirocamallanus mazabukae sensu Khan and Yaseen, 1969 referable to S. alii.

Procamallanus (Spirocamallanus) berdii (M)

(Khan and Yaseen, 1969) Bilqees, Khanum and Jehan, 1971 species inquirenda

Syn.: *Spirocamallanus berdii* Khan and Yaseen, 1969

Location: intestine

Host: Acanthopagrus berda

Dist.: Khulna

Record: Khan and Yaseen 1969

Remarks: The taxonomic status of this species requires reassessment. Soota (1983) listed it as a synonym of *Onchocamallanus bagarii* (Karve and Naik, 1951) (syn. of *Procamallanus* (*Spirocamallanus*) *bagarii*), however, Sood (1989) considered the two species distinct. Dr. F. Moravec (pers. comm.) regards it as a species inquirenda.

Procamallanus (Procamallanus) cancilus (F)

Bashirullah and Hafizuddin, 1974 species inquirenda<sup>79</sup>

Location: intestine

Host: Xenentodon cancila Dist.: Dhaka, Sylhet?

Records: Bashirullah 1973a (Dhaka &/or Sylhet); Bashirullah and Hafizuddin 1974 (Dhaka); Ahmed 1981 (-)

Remarks: As noted by Soota (1983), as the original description of this species was based only on female specimens, its status is uncertain.

Procamallanus (Procamallanus) clarius (F)

Ali, 1957

Syn.: Procamallanus heteropneustus Ali, 1957<sup>80,81</sup> Spirocamallanus heteropneustus (Ali, 1957)<sup>82</sup>

<sup>79</sup> Bashirullah (1973a) inadvertently created the nomen nudum "*Procamallanus cancilis* Bashirullah, 1973" (as "*Procamallanus cancilus* Bashirullah and Hafizuddin, 1973").

Location: stomach, intestine

Hosts: Clarias batrachus (1,2,3,4,5,6,14) Heteropneustes fossilis (1,2,3,7,8,9,10, 11,12,14)

> Mastacembelus armatus (3) Ompok bimaculatus (13,14)

O. pabda (13,14)

Dist.: Chittagong, Dhaka

Records: 1. Rahman and Ali 1968 (Chittagong)<sup>83</sup>; 2. Ali 1968 (-); 3. Anon. 1974 (Chittagong); 4. Rashid *et al.* 1983 (Dhaka); 5. Rashid and Haque 1984a (Dhaka); 6. Rashid 1990 (Dhaka); 7. Zaman *et al.* 1992a (Dhaka); 8. Chandra 1992a (Dhaka), 9. 1993a (Dhaka), 10. 1993b (Dhaka), 11. 1994a (Dhaka); 12. Chandra and Modak 1995 (Dhaka); 13. Khanum *et al.* 1996 (Dhaka); 14. Ahmed and Ezaz 1997 (-)

Remarks: Chandra and Modak (1995) established experimental infections in copepods, *Diaptomus* sp.

The synonymy follows Moravec and Sey (1988).

Procamallanus (Spirocamallanus) mysti (F)

Karve, 1952

Syn.: Spirocamallanus mysti (Karve, 1952)

- S. inglisi Bashirullah and Hafizuddin, 1973
- S. intestinecolas Bashirullah, 1974
- S. notopteri Bashirullah and Hafizuddin, 1973
- S. olseni Bashirullah, 1973 [nec S. olseni Campana-Rouget and Razarihelissoa, 1965]<sup>84</sup>
- S. singhi (Ali, 1957)
- S. timmi Bashirullah, 1973
- S. viviparus (Ali, 1957)

Procamallanus bengalensis Akram, 1975<sup>85</sup>

Location: stomach, intestine, liver [?]

Hosts: Channa striata (1,2,8) Clarias batrachus (5,6,7) Eutropiichthys murius (3)

cancilus Bashirullah and Hafizuddin, 1973").

80 The species name was misspelled "heteropneustes" by Ahmed and Ezaz (1997).

<sup>&</sup>lt;sup>81</sup> In an apparent lapsus for *Procamallanus heteropneustus*, the combination "*Camallanus heteropneustus*" appears in the abstract accompanying the paper by Zaman *et al.* (1992a).

<sup>&</sup>lt;sup>82</sup> Ahmed and Ezaz (1997), in an apparent error, listed a record from *Ompok bimaculatus* as *S. heteropneustes* [sic].

<sup>&</sup>lt;sup>83</sup> The record of Rahman and Ali (1968) involves a tentative parasite identification.

<sup>&</sup>lt;sup>84</sup> The species name was misspelled "olsenia" by Bashirullah (1973a), Ahmed and Sanaullah (1976, 1977a), Ahmed (1981), Islam et al. (1982), Chowdhury et al. (1990) and Ahmed and Ezaz (1997).

<sup>&</sup>lt;sup>85</sup> This name was created by Akram (1975) for *Procamalanus olseni* Bashirullah, 1973. Akram (1975) was unaware that Bashirullah (1974), recognizing that the specific epithet *olseni* was preoccupied in the genus *Procamallanus*, had already changed it to *intestinecolas*.

Heteropneustes fossilis (2,5,6,7,9,12)

*Mystus cavasius* (2,12)

M. tengara (10)

M. vittatus (1,2,4,8,12)

Notopterus notopterus (1,3,8)

Ompok bimaculatus (11,12)

O. pabda (11,12)

fish (6)

Dist.: Dhaka, Rajshahi, Sylhet

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet), 2. 1973b (Dhaka, Sylhet); 3. Bashirullah and Hafizuddin 1973 (Dhaka); 4. Bashirullah and Ahmed 1976b (Dhaka); 5. Ahmed and Sanaullah 1976 (-)<sup>86</sup>, 6. 1977a (Dhaka, Rajshahi)<sup>87</sup>; 7. Sanaullah and Ahmed 1978 (Dhaka, Rajshahi)<sup>88</sup>; 8. Ahmed 1981 (-); 9. Islam *et al.* 1982 (Dhaka); 10. Chowdhury *et al.* 1990 (Dhaka); 11. Khanum *et al.* 1996 (Dhaka); 12. Ahmed and Ezaz 1997 (-)

Remarks: The synonymy follows De *et al.* (1986), who provided a redescription of this species.

The life cycle was studied (under the synonym Spirocamallanus intestinecolas) by Ahmed (1976b), Bashirullah and established experimental infections developed to third-stage larvae in the copepods Mesocyclops leuckarti and Thermocyclops crassus by exposing them to first-stage larvae released from adult worms obtained from Mystus, and by De (1995) (under the synonym S. mysti), who successfully infected the fish Mystus vittatus via expermental transmission of third-stage larvae in experimentally infected copepods.

Following De and Moravec (1980), *Procamallanus viviparus* of Khan and Yaseen, 1969 is tentatively referred to *P. spiculogubernaculus* Agarwal, 1958.

Procamallanus (Procamallanus) (F)

spiculogubernaculus Agarwal, 1958

Syn.: Procamallanus daccai Gupta, 1959

P. sprenti Bashirullah and Hafizuddin, 1974

?P. viviparus of Khan and Yaseen, 1969

<sup>86</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species. Location: stomach, intestine

Hosts: Channa striata (3,5)

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Clarias batrachus (7)

Heteropneustes fossilis (2,4,7)

Mystus tengara (6)

Wallago attu (7)

catfish (1)

Dist.: Dhaka, Sylhet?

Records: 1. Gupta 1959 (Dhaka); 2. Khan and Yaseen 1969 (Dhaka); 3. Bashirullah 1973a (Dhaka &/or Sylhet); 4. Bashirullah and Hafizuddin 1974 (Dhaka); 5. Ahmed 1981 (-); 6. Chowdhury *et al.* 1990 (Dhaka); 7. Ahmed and Ezaz 1997 (-)

Remarks: The synonymy follows De and Moravec (1980).

Bashirullah (1973a) created a nomen Procamallanus bangladeshi nudum, Bashirullah, 1973, by reporting, without description, "Procamallanus bangladeshi Bashirullah & Hafizuddin, 1973" as a parasite of H. fossilis. The same material was later described as P. sprenti by apparently Bashirullah and Hafizuddin (1974) (see De and Moravec 1980).

According to De and Moravec (1980), since the specimens reported as *Procamallanus viviparus* by Khan and Yaseen (1969) possess a smooth buccal capsule, without any thickenings, they probably belong to *P. spiculogubernaculus*.

*Procamallanus (Procamallanus)* sp. (F)

Location: intestine, body cavity [?]

Hosts: Channa punctata (2,3)

Clarias batrachus (6)

Eutropiichthys vacha (4,5)

Heteropneustes fossilis (1)

catfish (7)

Dist.: Dhaka

Records: 1. Amin *et al.* 1982 (Dhaka); 2. Hossain *et al.* 1982 (Dhaka); 3. Huq *et al.* 1983 (Dhaka); 4. Chandra 1992a (Dhaka), 5. 1993b (Dhaka); 6. Banu *et al.* 1993 (Dhaka); 7. Ahmed 1996 (-)

*Procamallanus* (*Spirocamallanus*) sp. (F,M)

Syn.: Spirocamallanus sp.

Location: stomach, intestine

Hosts: Clarias batrachus (11,12,15)

Cynoglossus arel (2,3)

Dussumieria acuta (13)

Eutropiichthys murius (1,8,16)

*Heteropneustes fossilis* (1,5,6,7,8)

<sup>&</sup>lt;sup>87</sup> The record of Ahmed and Sanaullah (1977a) from an unidentified fish from Dhaka is based on the unpublished thesis of A.K.M. Hafizuddin.

<sup>88</sup> Sanaullah and Ahmed (1978) reted that the

<sup>&</sup>lt;sup>88</sup> Sanaullah and Ahmed (1978) noted that this nematode (as *Spirocamallanus intestinecolas*) was found only in fishes from Dhaka and Bogra (Rajshahi), but did not indicate if it occurred in both hosts at each locality.

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Mystus cavasius (1,8) M. tengara (14) Polydactylus sextarius (13) catfish (9) fish (4,10)<sup>89</sup>

Dist.: Dhaka, Rajshahi, Sylhet, Bay of Bengal Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed and Rahman 1976 (Bay of Bengal), 3. 1977 (Bay of Bengal), 4. 1979 (Bay of Bengal); 5. Ahmed and Sanaullah 1976 (-)<sup>90</sup>, 6. 1977a (Rajshahi); 7. Sanaullah and Ahmed 1978 (Rajshahi)<sup>91</sup>; 8. Ahmed 1981 (-), 9. 1996 (-); 10. Islam 1982 (Sylhet); 11. Rashid *et al.* 1983 (Dhaka); 12. Rashid and Haque 1984a (Dhaka); 13. Ahmed *et al.* 1986 (Bay of Bengal); 14. Chowdhury *et al.* 1990 (Dhaka); 15. Rashid 1990 (Dhaka); 16. Ahmed and Ezaz 1997 (-)

#### SUPERFAMILY GNATHOSTOMATOIDEA

#### FAMILY GNATHOSTOMATIDAE

Echinocephalus sp.

(F?)

Location: intestine

Hosts: Channa striata (1,2) Clarius batrachus (1,2)

Dist.: Bangladesh

Records: Ali 1968 (-); 2. Anon. 1974 (-)

Remarks: Members of the genus *Echinocephalus* are parasites of elasmobranchs. The above records from freshwater fishes of Bangladesh are likely based on misidentifications.

Gnathostoma spinigerum Owen, 1836 larva

(F)

Location: stomach, intestine, viscera,

body cavity, muscles
Hosts: Anabas testudineus (11)
Channa striata (1,2,6)
Clarias batrachus (1,3,4,5,12)
Heteropneustes fossilis (1,3,4,5,12)
Mystus microphthalmus (1,2,4,6,12)

Nandus nandus (9)

<sup>89</sup> Ahmed and Rahman (1979) examined *Psettodes erumei* and *Cynoglossus macrolepidotus* (syn. of *C. arel*), but did not indicate to which host this record applies.

Ompok bimaculatus (10,12)
O. pabda (10,12)
Wallago attu (1,2,4,6,12)
Xenentodon cancila (1)
catfish (7)
fish (8,10)

Dist.: Chittagong, Dhaka, Sylhet

Records: 1. Bashirullah 1972b (Dhaka), 2. 1973a (Dhaka &/or Sylhet); 3. Ahmed and Sanaullah 1976 (-)<sup>92</sup>, 4. 1977a (Chittagong, Dhaka, Sylhet)<sup>93</sup>; 5. Sanaullah and Ahmed 1978 (Chittagong, Dhaka)<sup>94</sup>; 6. Ahmed 1981 (-), 7. 1996 (-); 8. Islam 1982 (Sylhet); 9. Nahida *et al.* 1994 (Dhaka); 10. Khanum *et al.* 1996 (Dhaka); 11. Akther *et al.* 1997 (Dhaka); 12. Ahmed and Ezaz 1997 (-)

Remarks: The life cycle was summarized by Moravec (1998). Definitive hosts are typically piscivorous mammals (mainly felids, canids and mustelids), including domestic dogs and cats, in which the adult parasite occurs in swellings of the stomach. Intermediate hosts include various species of freshwater copepods, where development to third-stage larvae occurs. Fish, amphibians and other animals that ingest infected copepods may become paratenic hosts, the larvae becoming encapsulated in the musculature and visceral organs. This nematode is the cause of gnathostomosis, a serious disease of man.

#### SUPERFAMILY PHYSALOPTEROIDEA

# FAMILY PHYSALOPTERIDAE

*Heliconema brevispiculum* Baylis, 1934 (F)

Location: stomach
Host: Channa marulius

Dist.: Rajshahi

Record: Khan and Yaseen 1969

Remarks: This species was originally described from a marine eel (*Muraenesox cinereus*) from Australia (see Sood 1989); its presence in a freshwater fish in Bangladesh requires confirmation. Khan and Yaseen (1969) provided

<sup>92</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual hosts or parasites.

<sup>&</sup>lt;sup>90</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

<sup>&</sup>lt;sup>91</sup> The listing of *Spirocamallanus* sp. from *Clarias batrachus* in Table 1 of Sanaullah and Ahmed (1978) is apparently an error, as these authors later indicated that only *Heteropneustes fossilis* was infected.

<sup>&</sup>lt;sup>93</sup> The records of Ahmed and Sanaullah (1977a) for *Mystus microphthalmus* and *Wallago attu* are based on the unpublished thesis of M.A. Islam, and are from Sylhet.

<sup>&</sup>lt;sup>94</sup> Sanaullah and Ahmed (1978) noted that *Gnathostoma spinigerum* was found only from the Mymensingh and Noakhali study areas, but did not indicate if both hosts were infected in both areas.

a description of their material, which comprised only three female specimens.

Proleptus inflatus (von Linstow, 1890)

(F)

Baylis, 1933 Location: stomach

Host: Mastacembelus armatus

Dist.: Sylhet

Record: Khan and Yaseen 1969

Remarks: This species was originally described from a shark (Scyllium immoratum), locality unknown (see Soota 1983). Its occurence in a freshwater fish of Bangladesh seems unlikely. A description was provided by Khan and Yaseen (1969).

#### SUPERFAMILY HABRONEMATOIDEA

#### FAMILY CYSTIDICOLIDAE

Pseudoproleptus vestibulus Khera, 1953

Location: esophagus, stomach, intestine

Host: Mastacembelus armatus

Dist: Bangladesh

Record: Khanum and Parveen 1997

Spinitectus indicus Verma and Agarwal, 1932 (F)

Location: intestine

Hosts: Clupisoma garua (2)

Eutropiichthys vacha (2)

Wallago attu (1)

Dist.: Dhaka

Records: 1. Khan and Yaseen 1969 (Dhaka); 2.

Chandra 1993b (Dhaka)

Remarks: This species was redescribed by Khan

and Yaseen (1969).

#### SUPERFAMILY THELAZIOIDEA

# FAMILY RHABDOCHONIDAE

Rhabdochona bagarii Gupta and (F)

Srivastava, 1982 Location: intestine Host: Bagarius bagarius Dist.: Bangladesh

Record: Ahmed and Ezaz 1997

Rhabdochona magna Khan and Yaseen, 1969 (F)

species inquirenda Location: intestine Host: Rita rita Dist.: Chittagong

Records: Khan and Yaseen 1969 (Chittagong);

Ahmed and Ezaz 1997 (-)

Remarks: Due to the inadquate description based on four female nematodes, Moravec (1975) and Soota (1983) regarded this taxon as a species inquirenda. A redescription by Zaidi and Khan (1975), based only on female specimens taken from the same host in Pakistan, has added little

new information.

#### Unidentified Nematoda

Nematoda gen. sp.

(F)

Location: stomach?, intestine, body cavity

Hosts: Channa punctata (1)

*C. striata* (1,2)

Clupisoma garua (1)

Clarias batrachus (6,8)

Colisa fasciatus (3)

Mystus tengara (2,4)

Ompok bimaculatus (8)

*O. pabda* (5)

Otolithoides pama (1,2)

catfish (7)

Dist.: Chittagong, Dhaka, Rajshahi

Records: 1. Ali 1968 (-); 2. Anon. 1974 (Chittagong), 3. 1993 (Rajshahi); 4. Hassan et al. 1982 (Dhaka); 5. Ali et al. 1983 (Dhaka); 6. Rashid and Haque 1984b (Dhaka); 7. Chandra

1994b (Dhaka)<sup>95</sup>; 8. Ahmed 1996 (-)

#### PHYLUM ACANTHOCEPHALA

# CLASS PALAEACANTHOCEPHALA

# ORDER ECHINORHYNCHIDA

# **FAMILY ARHYTHMACANTHIDAE**

Heterosentis plotosi Yamaguti, 1935

(B)

Location: intestine Host: Plotosus canius

Dist.: Barisal

Chandra (1994b) examined four species of siluroid catfishes, but did not indicate to which host(s) his record pertains.

Records: Ahmed and Rouf 1981 (Barisal); Ahmed 1981 (Barisal); Ahmed and Ezaz 1997 (-)

#### FAMILY ECHINORHYNCHIDAE

Echinorhynchus kushiroensis Fujita, 1921<sup>96</sup>

(F)

Location: stomach, intestine Host: Glossogobius giuris

Dist.: Dhaka

Records: Khanum *et al.* 1992 (-), 1994 (Dhaka) **FAMILY HETERACANTHOCEPHALIDAE** 

Sachalinorhynchus sp.

(F)

Location: intestine Host: *Labeo rohita* Dist.: Dhaka

Records: Ahmed and Begum 1978 (Dhaka);

Ahmed 1981 (Dhaka)

#### FAMILY HYPOECHINORHYNCHIDAE

Hypoechinorhynchus sp.

(B)

Location: intestine Host: *Mystus gulio* Dist.: Barisal

Records: Ahmed and Rouf 1981 (Barisal); Ahmed 1981 (Barisal); Ahmed and Ezaz 1997 (-)

#### FAMILY RHADINORHYNCHIDAE

Cleaveius secundus (Tripathi, 1959)

(B)

Golvan, 1969

Syn.: Mehrarhynchus secundus Tripathi,

1959<sup>97</sup>

Location: intestine Hosts: *Arius gagora* Dist.: Barisal

Records: Ahmed and Rouf 1981 (Barisal); Ahmed 1981 (Barisal); Ahmed and Ezaz 1997 (-

)

<sup>96</sup> The parasite species name was misspelled "kushiroense" by Khanum *et al.* (1992, 1994), and also as "kushiroence" in Tables 1-3 of Khanum *et al.* (1994).

<sup>97</sup> The parasite species name was misspelled "secundum" by all Bangladeshi authors. Serrasentis sagittifer (Linton, 1889)

(M)

Van Cleave, 1923

Syn.: Serrasentis socialis (Leidy, 1851)

Location: intestine Host: *Lates calcarifer* Dist.: Chittagong?<sup>98</sup>

Records: Chandra 1992a, 1993b

## CLASS EOACANTHOCEPHALA

#### ORDER GYRACANTHOCEPHALA

#### FAMILY QUADRIGYRIDAE

Acanthogyrus (Acanthogyrus) acanthogyrus

(F)

Thapar, 1927 Location: intestine Host: *Catla catla* Dist.: Dhaka

Records: Ahmed and Begum 1978 (Dhaka); Ahmed and Rouf 1981 (Dhaka); Ahmed 1981

(Dhaka)

Acanthogyrus (Acanthosentis) dattai

(F)

(Podder, 1938) Dollfus and Golvan, 1956 Syn: *Acanthosentis dattai* Podder, 1938

Location: intestine Host: *Puntius sophore* 

Dist.: Dhaka

Records: Ahmed and Rouf 1981 (Dhaka); Ahmed

1981 (Dhaka)

Acanthogyrus (Acanthosentis) indicus

(F)

(Tripathi, 1959) Chubb, 1982

Syn.: Acanthosentis indicus Tripathi, 1959

Location: intestine Host: *Setipinna phasa* Dist.: Barisal, Dhaka

Records: Ahmed and Rouf 1981 (Barisal, Dhaka);

Ahmed 1981 (Barisal, Dhaka)

Acanthogyrus (Acanthosentis) tilapiae

(Baylis, 1948) Dollfus and Golvan, 1956

<sup>98</sup> Estuarine fishes examined by Chandra (1992a, 1993b) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division.

Syn.: Acanthosentis tilapiae Baylis, 1948

Location: intestine

Hosts: Channa striata (1,2) Clarias batrachus (3)

Dist.: Barisal

Records: 1. Ahmed and Rouf 1981 (Barisal); 2. Ahmed 1981 (Barisal); 3. Ahmed and Ezaz

1997 (-)

Acanthogyrus sp.

(F)

Syn.: Acanthosentis sp.

Location: intestine

Hosts: Clarias batrachus (2,3,4) Eutropiichthys murius (1,3,5)

Dist.: Dhaka, Sylhet?, Rajshahi

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed and Sanaullah 1976 (-)<sup>99</sup>, 3. 1977a (Dhaka, Rajshahi)<sup>100</sup>; 4. Sanaullah and Ahmed 1978 (Rajshahi); 5. Ahmed and Ezaz 1997 (-)

Pallisentis (Brevitritospinus) allahabadii (F)

Agarwal, 1958

Location: intestine, liver, mesenteries

Host: *Channa punctata* Dist.: Barisal, Dhaka

Records: Ahmed and Rouf 1981 (Barisal, Dhaka); Ahmed 1981 (Barisal, Dhaka)

Remarks: There are many reports of *Pallisentis* spp. occurring free and encapsulated in the viscera and body cavity, indicating that members of this genus frequently use fish as paratenic hosts.

Pallisentis (Pallisentis) gaboes

(MacCallum, 1918) Van Cleave, 1928

Location: intestine, body cavity, mesenteries

Hosts: *Channa striata* (1,2,3) *Clarias batrachus* (7)

Glossogobius giuris (1,4,5) Ompok bimaculatus (6,7)

O. pabda (5,6,7)

Dist.: Barisal, Dhaka

Records: 1. Ahmed and Begum 1978 (Dhaka); 2.

<sup>99</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

Ahmed and Rouf 1981 (Barisal, Dhaka); 3. Ahmed 1981 (Barisal, Dhaka); 4. Khanum *et al.* 1992 (-), 5. 1994 (Dhaka), 6. 1996 Dhaka); 7. Ahmed and Ezaz 1997 (-)

Remarks: There are many reports of *Pallisentis* spp. occurring free and encapsulated in the viscera and body cavity, indicating that members of this genus frequently use fish as paratenic hosts.

Pallisentis (Pallisentis) garuai (Sahay, Sinha (F)

and Gosh, 1971) Jain and Gupta, 1979

Syn.: Devendrosentis garuai Sahay, Sinha

and Gosh, 1971

Location: stomach [?], intestine Hosts: Clupisoma garua (1,2,3) Silonia silondia (1,2)

Dist.: Dhaka

Records: 1. Ahmed and Rouf 1981 (Dhaka); 2. Ahmed 1981 (Dhaka); 3. Ahmed and Ezaz 1997 (-)

Remarks: The synonomy follows Amin *et al.* (2000).

Pallisentis (Pallisentis) nagpurensis

(F)

(Bhalerao, 1931) Baylis, 1933

Location: intestine

Hosts: Channa marulius (1,4)

*C. punctata* (1) *C. striata* (1,2,3,4)

Dist.: Barisal, Dhaka, Sylhet?

Records: 1. Bashirullah 1973a (Dhaka &/or Sylhet); 2. Ahmed and Rouf 1981 (Barisal, Dhaka); 3. Ahmed 1981 (Barisal, Dhaka); 4.

Khanum et al. 1993 (-)

Pallisentis (Pallisentis) nandai Sarker, 1953<sup>101</sup> (F)

Location: stomach [?], intestine; viscera

Hosts: Glossogobius giuris (7,8)

*Nandus nandus* (1,2,3,4,5,6,9)

Dist.: Barisal, Chittagong, Dhaka, Sylhet?

Records: 1. Rahman and Ali 1967 (Chittagong); 2. Bashirullah 1973a (Dhaka &/or Sylhet); 3. Anon. 1974 (-); 4. Ahmed and Rouf 1981 (Barisal, Dhaka); 5. Ahmed 1981 (Barisal, Dhaka); 6. Chowdhury *et al.* 1982 (Dhaka); 7. Khanum *et al.* 1992 (-), 8. 1994 (Dhaka); 9. Nahida *et al.* 1994 (Dhaka)

Remarks: There are many reports of Pallisentis

The parasite species name was misspelled "nandî" by Rahman and Ali (1967) and Chowdhury et al. (1982).

-

<sup>&</sup>lt;sup>100</sup> The record of of *Acanthosentis* sp. in *Chupisoma muris* (syn. of *Eutropiichthys murius*) from Dhaka given by Ahmed and Sanaullah (1977a) was based on the unpublished thesis of A.K.M. Hafizuddin.

spp. occurring free and encapsulated in the viscera and body cavity, indicating that members of this genus frequently use fish as paratenic hosts.

Pallisentis (Demidueterospinus) ophiocephali (F)

(Thapar, 1931) Baylis, 1933<sup>102</sup>

Location: stomach, intestine, viscera, muscle [?]

Hosts: Channa marulius (2)

C. punctata (2,3,4,5)

C. striata (1,2,9)

Nandus nandus (7,8)

Ompok pabda (6)

Xenentodon cancila (10,11)

Dist.: Chittagong, Dhaka

Records: 1. Rahman and Ali 1967 (-); 2. Anon. 1974 (-); 3. Hossain *et al.* 1982 (Dhaka); 4. Huq *et al.* 1983 (Dhaka); 5. Chandra 1985a (Dhaka); 6. Hussain and Ali 1986 (Dhaka); 7. Chandra and Golder 1987 (Chittagong); 8. Golder *et al.* 1987 (Chittagong); 9. Rahman 1989 (-); 10. Akhtar *et al.* 1989 (Dhaka), 11. 1990 (Dhaka)

Remarks: This acanthocephalan has also been reported from frogs (*Rana tigrina*) by Chandra and Rahman (1988) and Chandra *et al.* (1990).

There are many reports of *Pallisentis* spp. occurring free and encapsulated in the viscera and body cavity, indicating that members of this genus frequently use fish as paratenic hosts.

Pallisentis sp.

(F)

Location: intestine, body cavity, viscera

Hosts: Channa gachua (2)

C. marulius (1,3)

C. punctata (3)

C. striata (1,3,6)

Clarias batrachus (4,5,7,10)

Colisa fasciatus (8,9)

Cyprinus carpio (10)

Glossogobius giuris (1,8,9)

Mystus vittatus (2)

Nandus nandus (1)

Otolithoides pama (1)

Silonia silondia (1)

Tenualosa ilisha (1)

Dist.: Barisal, Chittagong, Dhaka, Rajshahi, Sylhet?

Symet:

Records: 1. Ali 1968 (-); 2. Bashirullah 1973a (Dhaka &/or Sylhet); 3. Anon. 1974

<sup>102</sup> The parasite species name was misspelled "*ophicephali*" by Rahman and Ali (1967), Anon. (1974), Rahman (1989) and Akhtar *et al.* (1989, 1990).

(Chittagong); 4. Ahmed and Sanaullah 1976 (-)<sup>103</sup>, 5. 1977a (Rajshahi); 6. Ahmed and Begum 1978 (Barisal, Dhaka); 7. Sanaullah and Ahmed 1978 (Rajshahi); 8. Ahmed and Rouf 1981 (Dhaka); 9. Ahmed 1981 (Dhaka); 10. Banu *et al.* 1993 (Dhaka)

Remarks: There are many reports of *Pallisentis* spp. occurring free and encapsulated in the viscera and body cavity, indicating that members of this genus frequently use fish as paratenic hosts.

#### ORDER NEOECHINORHYNCHIDA

#### FAMILY NEOECHINORHYNCHIDAE

Neoechinorhynchus aminulhaquei

(F)

41

Chandra, 1983<sup>104</sup> Location: intestine Host: *Mystus vittatus* 

Dist.: Dhaka

Record: Chandra 1983b

Neoechinorhynchus chilkaensis Podder, 1937

(F)

Location: intestine Host: *Mugil cephalus* Dist.: Chittagong?<sup>105</sup>

Records: Chandra 1992a, 1993b

Neoechinorhynchus topseyi Podder, 1937

(F

Location: intestine

Hosts: Polynemus paradiseus

Dist.: Dhaka

Records: Ahmed and Rouf 1981 (Dhaka); Ahmed

1981 (Dhaka)

Remarks: The host is a marine and brackish water species that frequently enters fresh water during the breeding season (see Froese and

Pauly 2001).

Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

104 The species name was originally spelled *aminul-haquei*. However, as the use of a hyphen in a species name in this context is not permitted (see International Code of Zoological Nomenclature, Article 31 (d)(vi)), it has been corrected.

<sup>105</sup> Estuarine fishes examined by Chandra (1992a,1993b) were noted to have been collected mostly from Cox's Bazar, Chittagong and Teknaf, which are all in the Chittagong Division.

occurrence in South Asia requires confirmation.

Neoechinorhynchus sp.

Location: intestine, viscera Hosts: Cynoglossus lingua (2,3)

Eleutheronema tetradactylum (2,3)

Mystus tengara (6) Nandus nandus (4,5) Sardinella fimbriata (1)

Dist.: Barisal, Chittagong, Dhaka, Bay of Bengal Records: 1. Bashirullah 1973a (Bay of Bengal); 2. Ahmed and Rouf 1981 (Barisal); 3. Ahmed 1981 (Barisal); 4. Chandra and Golder 1987 (Chittagong); 5. Golder et al. (Chittagong); 6. Chowdhury et al. 1990 (Dhaka)

Remarks: Although reported from a number of hosts collected in estuarine or marine coastal waters. members of the genus Neoechinorhynchus complete their life cycles in fresh water.

#### Unidentified Acanthocephala

Acanthocephala gen. sp.

Location: intestine

Hosts: Clarias batrachus (3) Heteropneustes fossilis (1) Ompok bimaculatus (3) *O. pabda* (2)

Dist: Chittagong, Dhaka

Records: 1. Anon. 1974 (Chittagong); 2. Ali et al. 1983 (Dhaka); 3. Ahmed 1996 (-)

#### PHYLUM ANNELIDA

# CLASS HIRUDINEA

#### ORDER RHYNCHOBDELLIDA

#### FAMILY GLOSSIPHONIIDAE

Hemiclepsis marginata (O.F. Müller, 1774) (F)

Vedjovsky, 1884 Location: skin

Hosts: Clarias batrachus (1)

Labeo bata (2)

Dist: Chittagong

Records: 1. Anon. 1974 (-); 2. Sanaullah 1984

(Chittagong)

Remarks: According to McDonald and Margolis (1995), this is a European species. Its

# ORDER GNATHOBDELLIDA

#### FAMILY PISCICOLIDAE

Piscicola sp.

(F)

Location: skin

Host: Clarias gariepinus

Dist.: Dhaka

Record: Banu et al. 1993

#### Unidentified Hirudinea

Hirudinea gen. sp.

(F)

Includes: leeches Location: [body surface]

Host: fish

Dist.: Chittagong

Records: Golder et al. 1983 (Chittagong)<sup>106</sup>;

Sanaullah 1993 (-)

#### PHYLUM ARTHROPODA

#### **CLASS CRUSTACEA**

# SUBCLASS BRANCHIURA

# ORDER ARGULOIDEA

#### **FAMILY ARGULIDAE**

Argulus bengalensis Ramakrishna, 1952 (F)

Location: external surface Host: Eutropiichthys vacha

Dist.: Bangladesh Record: Anon. 1974

Argulus sp.

(F)

Includes: "argulosis" auctorum Location: skin, fins, eyes, gills [?]

Hosts: Catla catla (1,2,3,4) Channa striata (3,4)

Cirrhinus cirrhosus (3,4) Colisa fasciatus (2)

Ctenopharyngodon idellus (15)

106 The record of Golder et al. (1983) is based on a fish farmer survey.

Heteropneustes fossilis (2,5,6,7) *Labeo rohita* (1,2,3,4) Notopterus notopterus (2) Ompok pabda (10) Oreochromis mossambicus (2,3) O. niloticus niloticus (8) carp (4) tilapia (4) fish (9,11,12,13,14)

Dist.: Barisal, Chittagong

Records: 1. Rahman 1967 (Chittagong), 2. 1968 (Chittagong)<sup>107</sup>; 3. Ali 1968 (Chittagong); 4. Anon. 1974 (Barisal, Chittagong); 5. Ahmed and Sanaullah 1976 (-)<sup>108</sup>, 6. 1977a (Dhaka); 7. Sanaullah and Ahmed 1978 (Dhaka): 8. Islam et al. 1982 (Dhaka); 9. Golder et al. 1983 (Dhaka)<sup>109</sup>; 10. Hussain and Ali 1986 (Dhaka); 11. Sanaullah 1993 (-); 12. Ahmed 1993 (-); 13. Chowdhury 1993 (-); 14. Hossain 1993 (-); 15. Banu et al. 1993 (Dhaka)

Remarks: Rahman (1967, 1968) reported that fish lice (Argulus) caused a mass mortality of major carps in a small pond at the Fisheries Research Institute in Chandpur in November 1964.

#### SUBCLASS ENTOMOSTRACA

#### ORDER COPEPODA

#### SUBORDER CYCLOPOIDA

#### **FAMILY LERNAEIDAE**

Lernaea cyprinacea Linnaeus, 1758<sup>110</sup> (F)

Location: skin, under accessory respiratory

organs, above gill clefts, liver,

abdomenal muscles

Hosts: Channa punctata (1)

Clarias batrachus (2)

Colisa fasciatus (1)

Puntius sophore (1)

Dist.: Dhaka

Records: 1. Hossain et al. 1978 (Dhaka); 2. Zaman and Akhtar 1990 (-)

Lernaea sp.

(F)

Includes: "learnaeasis"

Location: skin

Hosts: Ctenopharyngodon idellus (3) Hypopthalmichthys molitrix (3)

fish(1,2)

Dist.: Dhaka

Records: 1. Sanaullah 1993 (-); 2. Chowdhury

1993 (-); 3. Banu et al. 1993 (Dhaka)

#### SUBORDER POECILOSTOMATOIDA

#### **FAMILY ERGASILIDAE**

Ergasilus sp.

(F)

Location: gills

Host: Cynoglossus arel Dist.: Bay of Bengal

Ahmed and Rahman 1976 (Bay of Records:

Bengal), 1977 (Bay of Bengal)

#### SUBORDER SIPHONOSTOMATOIDEA

# **FAMILY PENNELLIDAE**

Lernaeocera sp. 111

(F)

Location: gills

Host: Heteropneustes fossilis

Dist.: Rajshahi

Ahmed and Sanaullah 1976 (-)<sup>112</sup>, Records: 1977a (Rajshahi); Sanaullah and Ahmed 1978 (Rajashahi)

Remarks: As species of this genus are parasites of marine fishes, this report is regarded as a misidentification.

The records of Rahman (1968) for some hosts (Oreochromis mossambicus, Notopterus notopterus, Colisa fasciatus and Heteropneustes fossilis) involved experimental exposure in an aquarium. Catla catla and Labeo rohita were both naturally and experimentally infected.

Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

<sup>&</sup>lt;sup>109</sup> In a fish farmer survey, Golder et al. (1983) noted argulosis in a mixed population of "catla," "rui" and "mrigal," but did not indicate which hosts were infected.

The parasite species name was misspelled "cyprinacae" by Hossain et al. (1978).

<sup>111</sup> The generic name was misspelled "Larnaeocera" by all

<sup>&</sup>lt;sup>112</sup> Ahmed and Sanaullah (1976) examined catfishes from six regions of Bangladesh, but did not indicate specific collection localities for individual host or parasite species.

#### SUBCLASS MALACOSTRACA

#### **ORDER ISOPODA**

#### **FAMILY CYMOTHOIDAE**

*Ichthyoxenus amurensis* (Gertsfeld, 1858)

Herklots, 1870

Syn.: *Livoneca amurensis* Gerstfeld, 1858 Location: body cavity in region of pelvic fin

Host: Pseudeutropius atherinoides

Dist.: Dhaka

Record: Hossain et al. 1978

Remarks: The synonymy follows Kusakin

(1979).

Cymothoidae gen. sp.

(M)

Location: buccal cavity Host: *Psettodes erumei* Dist.: Bay of Bengal

Records: Ahmed and Rahman 1976 (Bay of

Bengal), 1977 (Bay of Bengal)

#### Unidentified Isopoda

Isopoda gen. sp.

(F, M)

Location: skin, stomach

Hosts: Catla catla (2)
Polydactylus sextarius (2)

Pseudeutropius atherinoides (1,2)

Silonia silondia (2)

Tetraodon sp. (2)
Dist.: Chittagong

Records: 1. Ali 1968 (-); 2. Anon. 1974

(Chittagong)

#### **Unidentified Crustacea**

Crustacea gen. sp.

(M)

Location: skin

Hosts: Ompok pabda (2)

fish (1)<sup>113</sup>

Dist.: Dhaka, Bay of Bengal

Records: 1. Ahmed and Rahman 1979 (Bay of

#### Bengal); 2. Ali et al. 1983 (Dhaka)

# **NOMINA NUDA**

The following names appear in the Bangladeshi literature. However, because their authors provided neither species descriptions nor differential diagnoses, they are unrecognizable. These names are unavailable and therefore, should not be used (see the International Code of Zoological Nomenclature, Article 13).

# Digenea

Lecithochirium coxium Bashirullah, 1973<sup>114</sup> Lecithochirium margolisi Bashirullah, 1973<sup>115</sup> Lecithocladium daccai Bashirullah, 1973<sup>116</sup>

#### Monogenea

Allomonaxine atropoides Bashirullah, 1973<sup>117</sup>
Bicotyle bangladeshi Bashirullah, 1973<sup>118</sup>
Kuhnia pricei Bashirullah, 1973<sup>119</sup>
Loimos polytesticularis Bashirullah, 1973<sup>120</sup>
Pseudothoracocotyla coxbazari Bashirullah, 1973<sup>121</sup>

# Nematoda

Camallanus gaboes Akhtar, Chowdhury, Latifa and Nahar, 1989<sup>122</sup> Camallanus gibsonia Bashirullah, 1973<sup>123</sup> Camallanus zakeri Hafizuddin and Islam, 1991<sup>124</sup>

Indocucullanus gibsonia Islam, 1982<sup>125</sup>

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<sup>&</sup>lt;sup>113</sup>Ahmed and Rahman (1979) studied the parasites of *Cynoglossus macrolepidotus* (syn. of *C. arel*) and *Psettodes erumei*, but did not indidate to which host this record petains.

<sup>&</sup>lt;sup>114</sup> This nomen nudum was used by Bashirullah (1973a) as "*Lecithochirium coxium* Bashirullah and D'Silva, 1973."

This nomen nudum was used by Bashirullah (1973a) as "Lecithochirium margolisi Bashirullah & D'Silva, 1973."

<sup>&</sup>lt;sup>116</sup> This nomen nudum was used by Bashirullah (1973a) as "*Lecithocladium daccai* Bashirullah and Hafizuddin, 1973."

This nomen nudum was used by Bashirullah (1973a) as "Allomonaxine atropoides Bashirullah and Khan, 1973."
This nomen nudum was used by Bashirullah (1973a) as

<sup>&</sup>quot;Bicotyle bangladeshi Bashirullah & Khan, 1973."

This nomen nudum was used by Bashirullah (1973a) as

<sup>&</sup>quot;Kuhnia pricei Bashirullah & Khan, 1973." This nomen nudum was used by Bashirullah (1973a) as

<sup>&</sup>quot;Loimos polytesticularis Bashirullah & Khan, 1973."

121 This nomen nudum was used by Bashirullah (1973a) as "Pseudothoracocotyla coxbazari Bashirulla & Khan, 1973."

<sup>122</sup> This name was reported as "Camallanus gaboes Pearse, 1933," by Akhtar et al. (1989) and as "Camallanus gaboes Railliet and Henry, 1915" by Khanum et al. (1992,1994); however, no species of camallanid nematode bearing this specific epithet has ever been described.

<sup>&</sup>lt;sup>123</sup> This nomen nudum was created by Bashirullah (1973a).

<sup>&</sup>lt;sup>124</sup> Hafizuddin and Islam (1991), in a conference abstract, named three new species of Nematoda, *Camallanus zakeri*, *Spirocamallanus kaptaiensis* and *S. karnaphuliensis*; however, these species were never described nor illustrated.

<sup>125</sup> Islam (1982), in a conference abstract, named two new species of Nematoda, *Procamallanus jalaliai* and

*Procamallanus bangladeshi* Bashirullah, 1973<sup>126</sup>

Procamallanus jalaliai Islam, 1982<sup>127</sup> Spirocamallanus kaptaiensis Hafizuddin and Islam, 1991<sup>128</sup>

Spirocamallanus karnaphuliensis Hafizuddin and Islam, 1991<sup>129</sup>

Spirocamallanus murius Bashirullah, 1973<sup>130</sup> Zeylanema bidigitalis Bashirullah, 1970<sup>131</sup> Zeylanema tridensis Bashirullah, 1970<sup>132</sup> Zeylanema yehia Bashirullah, 1970<sup>133</sup>

Indocucullanus gibsonia, however, these species were never described nor illustrated.

<sup>126</sup> Bashirullah (1973a) created a nomen nudum, *Procamallanus bangladeshi* Bashirullah, 1973, by reporting, without description, "*Procamallanus bangladeshi* Bashirullah & Hafizuddin, 1973" as a parasite of *Heteropneustes fossilis*. The same material was later apparently described as *P. sprenti* by Bashirullah and Hafizuddin (1974) (see De and Moravec 1980).

<sup>127</sup> Islam (1982), in a conference abstract, named two new species of Nematoda, *Procamallanus jalaliai* and *Indocucullanus gibsonia*, however, these species were never described nor illustrated.

<sup>&</sup>lt;sup>128</sup> Hafizuddin and Islam (1991), in a conference abstract, named three new species of Nematoda, *Camallanus zakeri*, *Spirocamallanus kaptaiensis* and *S. karnaphuliensis*; however, these species were never described nor illustrated.

<sup>129</sup> Hafizuddin and Islam (1991), in a conference abstract, named three new species of Nematoda, *Camallanus zakeri*, *Spirocamallanus kaptaiensis* and *S. karnaphuliensis*; however, these species were never described or illustrated.

This species name was given without description, as "Spirocamallanus murius Bashirullah and Hafizuddin, 1973," by Bashirullah (1973a). Sood (1989) suggested that the record of Bashirullah (1973a) might involve Procamallanus inglisi (a sy nony m of P. (Spirocamallanus) mysti Karve, 1952).

131 This nomen nudum was created by Bashirullah (1970) in a

<sup>&</sup>lt;sup>131</sup> This nomen nudum was created by Bashirullah (1970) in a conference abstract.

<sup>&</sup>lt;sup>132</sup> This nomen nudum was created by Bashirullah (1970) in a conference abstract.

<sup>133</sup> This nomen nudum was created by Bashirullah (1970) in a conference abstract.

# **HOST-PARASITE LIST**<sup>134</sup>

134 Records involving nomina nuda are not included in this list.

#### CLASS ELASMOBRANCHII

#### **ORDER CARCHARINIFORMES**

#### **FAMILY CARCHARINIDAE**

Glyphis gangeticus (Müller Ganges shark

and Henle)

Syn.: Carcharinus gangeticus (Müller and Henle)

Status: native

Environment: marine, brackish

Cestoda

Disculiceps pileatum (Khulna) Poecilancistrum ilisha (Khulna)

Remarks: This species is considered to be critically endangered. Although not listed in Froese and Pauly (2001) as recorded in Bangladesh, it is noted to occur in the Ganges-Hooghly river system.

Scoliodon laticaudus Müller spadenose shark

and Henle
Syn.: Scoliodon sorrakowah (Bleeker)

Status: native

Environment: marine, brackish

Nematoda

Ascaridida gen. sp. larva (Bay of Bengal)

Remarks: Although found on rocky substrates of coastal waters and lower reaches of tropical rivers, it is uncertain if this species can live in fresh water for extended periods (Froese and Pauly 2001).

#### FAMILY SPHYRNIDAE

Eusphyra blochii (Cuvier) winghead shark

Status: native

Environment: marine, brackish

Nematoda

Ascaridida gen. sp. larva (Bay of Bengal) ? Pseudanisakis sp. (Bay of Bengal) Terranova sp. larva (Bay of Bengal)

# **ORDER RAJIFORMES**

#### FAMILY MYLIOBATIDAE

Aetobatus narinari (Euphrasen) spotted eagle ray

Status: native -

Environment: marine

Nematoda

Ascaridida gen. sp. larva (Bay of Bengal)

Remarks: This species sometimes enters estuaries; it is not listed as reported for Bangladesh by Froese and Pauly (2001).

#### CLASS ACTINOPTERYGII

#### ORDER OSTEOGLOSSIFORMES

#### FAMILY NOTOPTERIDAE

Notopterus notopterus (Pallas) bronze

featherback Status: native

foli

Environment: fresh water

Digenea

Pleurogenoides notopteri (Dhaka,

Sylhet?)

Nematoda

Procamallanus (Spirocamallanus) mysti

(Dhaka, Sylhet?)

Branchiura

Argulus sp. (Chittagong)

# **ORDER CLUPEIFORMES**

# FAMILY CHIROCENTRIDAE

Chirocentrus dorab (Forrskål) dorab wolf-

herring

Status: native

Environment: marine, brackish

Digenea

Acanthocolpus liodorus (Bay of Bengal)

A. luehei (Bay of Bengal)

Monogenea

Megamicrocotyle chirocentrus (Bay of

Bengal)

Cestoda

Nybelinia sp. postlarva (Bay of Bengal)

Nematoda

Camallanus bispiculus (Bay of Bengal)

Camallanus sp. (Bay of Bengal)

Chirocentrus nudus whitefin wolf-

herring	Raphidascaris sp. larva (Bay of Bengal)	
Swainson -	Acanthocephala	
Status: native	Neoechinorhynchus sp. (Bay of Bengal)	
Environment: marine		
Nematoda	m 1 11 1 m 11 )	
Ascaridida gen. sp. larva (Bay of Bengal)	Tenualosa ilisha (Hamilton)	hilsa
Quimperiidae gen. sp. larva (Bay of	shad	
Bengal)	Syn.: Hilsa ilisha (Hamilton)	ilish,
	jatka	
FAMILY CLUPEIDAE	Status: native	
	Environment: marine, brackish, fre	esh water
	Digenea	
Dussumieria acuta Valenciennes rainbow sardine	<i>Aphanurus stossichi</i> (Chitta	agong, Bay of
Status: native -	Bengal)	
Environment: marine	Faustula brevichrus (Chitta	gong, Bay of
Digenea	Bengal)	
Aphanurus stossichi (Bay of Bengal)	Lecithocladium harpodonti	is (Chittagong,
?Hemiurus appendiculatus (Bay of Bengal)	Bay of Bengal)	
Opisthadena sp. (Bay of Bengal)	L. magnacetabulum (Bay of	fBengal)
Parahemiurus sp. (Bay of Bengal)	Digenea gen. sp. (-)	
Nematoda	Cestoda	
Paranisakis sp. larva (Bay of Bengal)	Diphyllobothriidae gen. sp.	plerocercoid
Procamallanus (Spirocamallanus) sp.	(Chittagong)	
(Bay	Gymnorhynchus sp. plerocen	rcus (-)
of Bengal)	Ilisha parthenogenetica ples	rocercoid
	(Chittagong, Khulna)	
	Poecilancistrum ilisha plero	ocercus
Hilsa kelee (Cuvier) kelee	(Khulna)	
shad	?Pterobothrium heteracanthum plerocercus	
Syn.: Hilsa kanagurta	(Khulna?)	-
-	Cestoda gen. sp. (-)	
Status: native	Acanthocephala	
Environment: marine, brackish, fresh water	Pallisentis sp. (-)	
Digenea	1 (/	
Faustula sp. (Bay of Bengal)		
1 ( ) 2 /	FAMILY ENGRAULIDAE	
T. 1 At		
Ilisha filigera (Valenciennes) Coromandel		1 . 0
ilisha	Setipinna phasa Gangetic	hairtín
Status: native -	anchovy	
Environment: marine, brackish	(Hamilton)	phasa
Monogenea	Status: native	
?Choricotyle pagelli (Bay of Bengal)	Environment: fresh water, brackish	
Choricotyle sp. (Bay of Bengal)	Acanthocephala	
Heterotyphlum sp. (Bay of Bengal)	Acanthogyrus (Acanthosentis) indicus	
Remarks: This species is reported to occur in	(Barisal, Dhaka)	
coastal waters and apparently enters estuaries; it	Remarks: The occurrence of this anchovy in	
is not listed in Froese and Pauly (2001) as	s not listed in Froese and Pauly (2001) as Bangladesh was listed as questional	
having been reported from Bangladesh.	Froese and Pauly (2001). It is a r	iverine species,
	but is also found in estuaries.	
Continuity Contains		
Sardinella fimbriata fringescale sardinella	Thomas have to the control of the co	[a.a.:14]
(Valenciennes) -	· • • • • • • • • • • • • • • • • • • •	lamilton's
Status: native	thryssa	`
Environment: marine	Syn.: Thrissocles hamiltonii (G	ray) -
Nematoda	Status: native	
Contracaecum sp. larva (Bay of Bengal)	Environment: marine, brackish	
Quimperia sp. larva (Bay of Bengal)	Nematoda	

? Goezia ascaroides (Khulna) Environment: fresh water Protozoa Ichthyophthirius multifiliis (-) **ORDER CYPRINIFORMES** Ichthyophthirius sp. (Dhaka) Trichodina sp. (Dhaka) **FAMILY CYPRINIDAE** Myxozoa Myxobolus sp. (Chittagong, Dhaka) Digenea *Neascus* sp. metacercaria<sup>137</sup> (Chittagong) Barbodes gonionotus (Bleeker) Java Monogenea Syn.: Puntius gonionotus Dactylogyrus sp. (Dhaka) Branchiura rajputi, (Bleeker) Thai Argulus sp. (Barisal, Chittagong) sharputi Status: exotic Environment: fresh water Ctenopharyngodon idellus Mvxozoa grass carp Myxobolus sp. 135 (Rajshahi) (Valenciennes) Remarks: Rahman (1989) noted that this species Status: exotic was introduced to Bangladesh from Thailand in Environment: fresh water 1977. Protozoa Trichodina sp. (Dhaka) Myxozoa Catla catla (Hamilton) Myxobolus sp. (Dhaka) Monogenea Status: native pla kra Dactylogyrus sp. (-) Branchiura Environment: fresh water Argulus sp. (Dhaka) Protozoa Copepoda Chilodonella sp. (Dhaka) Lernaea sp. (Dhaka) Ichthyophthirius multifiliis (Dhaka) Remarks: The species name is frequently mispelled "idella." Trichodina sp. (Dhaka) Grass carp was first introduced into Bangladesh from Hongkong in Protozoa gen. sp. (-) Myxozoa 1966 (see Rahman 1989). Myxobolus sp. (Chittagong, Dhaka, Rajshahi) Myxobolidae gen. sp. (Chittagong) Cyprinus carpio Linnaeus common Digenea carp Neascus sp. metacercaria<sup>136</sup> (Chittagong) Status: exotic Monogenea Environment: fresh water Dactylogyrus sp. (Dhaka) Protozoa Acanthocephala Chilodonella sp. (Dhaka) Acanthogyrus (Acanthogyrus) Trichodina sp. (Dhaka) acanthogyrus (Dhaka) Digenea Digenea gen. sp. metacercaria (-) Branchiura Argulus sp. (Barisal, Chittagong) Monogenea Isopoda Dactylogyrus sp. (Dhaka) Isopoda gen. sp. (Chittagong) Acanthocephala Pallisentis sp. (Dhaka) Remarks: Although common carp is not listed

Cirrhinus cirrhosus (Bloch)

mrigal

barb

catla

ho

Syn.: Cirrhina mrigala (Hamilton)

mrigal

Status: native

<sup>135</sup> Tentative parasite identification.

<sup>137</sup> Tentative parasite identification.

date, from India.

by Froese and Pauly (2001) as occurring in Bangladesh, Rahman (1989) noted that it was

introduced by the Department of Fisheries in

1960 and by fishfarmers at an unknown, earlier

<sup>136</sup> Tentative parasite identification.

		Remarks: Froese and Pauly (2001) no	
Hypopthalmichthys molitrix	silver	olive barb is found in rivers, streams,	lakes and
carp		beels and is tolerant of salinity.	
(Valenciennes)	=		
Status: exotic			
Environment: fresh water		Puntius sophore (Hamilton)	pool
Protozoa		barb	
Trichodina sp. (Dhaka)		Syn.: Barbus sophore (Hamilton)	
Monogenea  Dactylogyrus sp. (Dhaka)		puti  Barbus stigma (Valenciennes)	
Copepoda		Status: native	
Lernaea sp. (Dhaka)		Environment: fresh water	
Remarks: Froese and Pauly (20	001) noted that	Digenea	
silver carp was introduced into E		Macrolecithus sp. (Barisal, Dha	ka)
Japan in 1969, while Rahman		Opistholebes sp. (Dhaka?, Sylhe	
that this species was first int		?Steringotrema sp. (Dhaka?, Sylli	
ponds of the Riverine Fish		Digenea gen. sp. (Dhaka?, Sylhe	
Station at Chandur from Hongko	ong in the same	Monogenea	,
year.		Monogenea gen. sp. (-)	
		Nematoda	
		Camallanus sp. (Dhaka?, Sylhet	t?)
Labeo bata (Hamilton)	bata	Acanthocephala	
Status: native	bata	Acanthogyrus (Acanthosentis) do	ıttai
Environment: fresh water		(Dhaka)	
Hirudinea	.:	Copepoda	
?Hemiclepsis marginata (Cl	nittagong)	Lernaea cyprinacea (Dhaka)	
Labeo rohita (Hamilton)	rohu	Puntius sp.	
Status: native	rohu,	Status: unknown	
rui		Environment: fresh water	
Environment: fresh water		Monogenea	
Protozoa	(Dhalsa)	Monogenea gen. sp. (-)	
Ichthyophthirius multifiliis Trichodina sp. (Dhaka)	(Бпака)		
Myxozoa		"Carp"	
Myxobolus sp. (Chittagong		Status: unknown	
Thelohanellus dogieli (Dha	ka)	Environment: fresh water	
Digenea	(61.1	Protozoa	
Neascus sp. metacercaria <sup>138</sup>	(Chittagong)	Trichodina sp. (-)	
Monogenea		Monogenea	
Dactylogyrus sp. (Dhaka) Acanthocephala		Dactylogyrus sp. (-)	
Sachalinorhynchus sp. (Dh	aka)	Branchiura	
Branchiura	aka)	Argulus sp. (Chittangong)	
Argulus sp. (Barisal, Chitta	agong)		
8 st. (= 11-11-11)		"Indian major carp"	
		Status: native	
Puntius sarana (Hamilton)	olive	Environment: fresh water	
barb		Monogenea	
Status: native		Dactylogyrus sp. (-)	
sarputi		, i ()	
Environment: fresh water, brackish	1		
Digenea		ORDER SILURIFORMES	
Macrolecithus sp. (Dhaka?,			
Palaeorchis sp. (Dhaka?, S	ythet?)	FAMILY ARIIDAE	

Tentative parasite identification.

*Arius gagora* (Hamilton) gagora catfish Nematoda Syn.: Tachysurus gagora (Hamilton) Gnathostoma spinigerum larva (Dhaka, gagla Status: native Sylhet) Remarks: Although Froese and Pauly (2001) do Environment: fresh water, brackish, marine Cestoda not list this catfish as occurring in Bangladesh, its distribution includes India, Myanmar and Pterobothrium acanthotruncatum plerocercus (Khulna?) Laos. Acanthocephala Cleaveius secundus (Barisal) Remarks: Froese and Pauly (2001) note that this Mystus tengara (Hamilton) catfish is found in estuaries and tidal rivers, Status: native bajari-tengra where it ascends beyond the tidal reach. Environment: fresh water Digenea Allocreadium handiai (Dhaka) Tachysurus sp. Euclinostomum multicaecum metacercaria Status: native Environment: marine Isoparorchis hypselobagri (Dhaka) Nematoda Cestoda Ascaridida gen. sp. larva (Bay of Bengal) Cestoda gen. sp. (Dhaka) Nematoda Ascaridida gen. sp. larva (Dhaka) **FAMILY BAGRIDAE** ?Camallanus truncatus (Dhaka) Procamallanus (Procamallanus) spiculogubernaculus (Dhaka) Mystus cavasius (Hamilton) P. (Spirocamallanus) mysti (Dhaka) Gangetic mystus Procamallanus (Spirocamallanus) sp. Status: native golsha, golsha-(Dhaka) Nematoda gen. sp. (Dhaka) tengra, kabashi-tengra Acanthocephala Environment: fresh water, brackish Neoechinorhynchus sp. (Dhaka) Digenea Allocreadium handiai (Dhaka) Isoparorchis hypselobagri (Dhaka) Mystus vittatus (Bloch) striped dwaft Nematoda catfish Buckleynema sp. (Dhaka?, Sylhet?) Status: native tengra Cucullanus sp. (Dhaka?, Sylhet?) Environment: fresh water, brackish Procamallanus (Spirocamallanus) mysti Digenea Isoparorchis hypselobagri (Dhaka) (Sylhet) Procamallanus (Spirocamallanus) sp. Palaeorchis sp. (Barisal, Dhaka) (Dhaka?, Sylhet?) Nematoda Ascaridida gen. sp. larva (Dhaka?, Sylhet?) Mystus gulio (Hamilton) Buckleynema sp. (-) long whiskers catfish Status: native nuna-tengra Procamallanus (Spirocamallanus) mysti Environment: fresh water, brackish (Dhaka, Sylhet) Acanthocephala Acanthocephala Hypoechinorhynchus sp. (Barisal) Neoechinorhynchus aminulhaquei (Dhaka) Remarks: This catfish is primarily a brackishwater Pallisentis sp. (Dhaka?, Sylhet?) species that enters and lives in fresh water (Froese and Pauly 2001). Rita rita (Hamilton) rita Status: native rita *Mystus microphthalmus* (Day) mystus <sup>139</sup> Irwaddy Environment: fresh water, brackish Digenea Status: native Opisthorchis sp. metacercaria (Dhaka?, Sylhet?) Environment: fresh water, brackish Phyllodistomum yosufzaii (Dhaka?, Sylhet) <sup>139</sup> The common name is taken from Ahmed and Ezaz (1997).

Nematoda	Capingentoides batrachii <sup>143</sup> (Chittagong,	
Contracaecum sp. larva (-)	Dhaka, Sylhet)	
Cucullanus sp. (-)	Caryophyllaeidea gen. sp. (-)	
Dichelyne (Cucullanellus) sp. (Dhaka?,	Djombangia penetrans (Barisal,	
Sylhet?)	Chittagong, Dhaka, Rajshahi, Sylhet)	
Rhabdochona magna <sup>140</sup> (Chittagong)	?Gyrocotyle sp. (-)	
	Lytocestus birmanicus (Barisal, Dhaka)	
	L. indicus (Barisal, Chittagong, Dhaka,	
Sperata aor (Hamilton) long-whiskered catfish	Rajshahi, Sylhet)	
Syn.: Mystus aor (Hamilton) ayre	L. lativitellarium (-)	
Status: native	L. parvulus (Barisal, Chittagong, Dhaka,	
Environment: fresh water	Rajshahi, Sylhet)	
Digenea	Lytocestus sp. (-)	
Bucephalus mystusi (Dhaka)	?Monobothrioides sp. (Dhaka)	
Bucephalus sp. (Dhaka, Sylhet?)	Pseudocaryophyllaeus indica (Barisal,	
Coitocaecum sp. (Barisal, Dhaka)	Dhaka)	
Isoparorchis hypselobagri (Dhaka)		
Prosorhynchoides sp. (-)	Chittagong, Dhaka, Sylhet)	
Cestoda	Cestoda gen. sp. (Dhaka)	
?Caryophyllaeus sp. (Dhaka)	Nematoda	
Nematoda	Ascaridia sp. adult and larva? (Dhaka)	
Ascaridida gen. sp. larva (Dhaka)	Ascaridida gen. sp. larva (Dhaka, Sylhet?)	
?Contracaecum aori larva <sup>141</sup> (Sylhet)	Camallanus sp. larva (-)	
Paragendria sp. (Dhaka)	?Echinocephalus sp. (-)	
Pingus aori 142 (Sylhet)	Gnathostoma spinigerum larva	
(=;	(Chittagong, Dhaka)	
	Procamallanus (Procamallanus) clarius	
FAMILY CLARIIDAE	(Dhaka)	
	P. (Spirocamallanus) mysti (Dhaka?,	
	Rajshahi)	
Clarias batrachus (Linnaeus) walking catfish	P. (Procamallanus) spiculogubernaculus	
Status: native magur	(-)	
Environment: fresh water, brackish	Procamallanus (Procamallanus) sp.	
Protozoa	(Dhaka)	
Trichodina sp. (Dhaka)	Procamallanus (Spirocamallanus) sp.	
Myxozoa	(Dhaka)	
Myxobolus sp. (Dhaka)	Quimperiidae gen. sp. larva (Chittagong,	
Digenea	Dhaka, Rajshahi)	
Clinostomum complanatum metacercaria	Nematoda gen. sp. (Dhaka)	
(-)	Acanthocephala	
Clinostomum sp. metacercaria (Dhaka)	<u> •</u>	
Masenia dayali (-)	Acanthogyrus (Acanthosentis) tilapiae (-)	
Orientocreadium batrachoides (Dhaka)	Acanthogyrus sp. (Rajshahi)	
	Pallisentis (Pallisentis) gaboes (-)	
Palaeorchis sp. (Barisal, Dhaka)	Pallisentis sp. (Dhaka, Rajshahi)	
? Phyllodistomum folium (-)	Acanthocephala gen. sp. (-)	
Posthodiplostomum minimum metacercaria	Copepoda	
(-)	Lernaea cyprinacea (-)	
Digenea gen. sp. (Dhaka)	Hirudinea	
Monogenea	Hemiclepsis marginata (-)	
?Dactylogyrus vastator (-)		
Dactylogyrus sp. (Dhaka)		
Cestoda	Clarias gariepinus North African catfish	
Bovienia serialis (Barisal, Dhaka)	(Burchell) -	
Bovienia sp. (Dhaka, Rajshahi)	Status: exotic	
	Environment: fresh water	
140 Species inquirenda.	Protozoa	
Species inquirenda.  141 Species inquirenda.		
1.10	1.40	

<sup>143</sup> Species inquirenda.

Species inquirenda.

142 Species inquirenda.

*Trichodina* sp. (Dhaka) Hirudinea

Piscicola sp. (Dhaka)

Remarks: Although this catfish is not listed by Froese and Pauly (2001) as occurring in Bangladesh, it is known to have been introduced from Thailand in 1989.

#### **FAMILY HETEROPNEUSTIDAE**

Heteropneustes fossilis (Bloch) stinging catfish Status: native shingi

Environment: fresh water, brackish

Protozoa

Protozoa gen. sp. (-)

Digenea

Allocreadium handiai (Dhaka)

A. mymensinghi (Dhaka)

Aphallus sp. (Dhaka)

Clinostomum complanatum metacercaria (Dhaka)

Clinostomum sp. metacercaria (Dhaka)

Euclinostomum multicaecum metacercaria (Dhaka)

Euclinostomum sp. metacercaria (Dhaka)

Eumasenia sp. (Dhaka?, Sylhet?)

Genarchopsis bashiri (Dhaka)

Macrolecithus sp. (Dhaka?, Sylhet?)

?Macvicaria crassigula (Dhaka)

Neopecoelina saharanpuriensis (Barisal,

Dhaka, Sylhet?)

Neopecoelina sp. (Barisal, Dhaka, Sylhet?)

Opegaster beliyai (Dhaka)

Orientocreadium batrachoides (Dhaka)

Palaeorchis sp. (Barisal, Dhaka)

Philopinna sp. (Dhaka)

Digenea gen. sp. (Chittagong)

Monogenea

Dactylogyrus sp. (Chittagong)

Cestoda

?Bialovarium sp. (Dhaka)

Caryophyllaeidea gen. sp. (Dhaka)

?Ligula intestinalis plerocercoid (Dhaka)

Lytocestus sp. (Barisal, Dhaka)

 $Pseudocary ophyllaeus\ heteropneus tus$ 

(Dhaka)

Pseudocaryophyllaeus sp. (Dhaka)

Cestoda gen. sp. (Chittagong)

Nematoda

Ascaridia sp. larva (Dhaka)

Ascaridida gen. sp. larva (Dhaka, Sylhet?)

Ascaridoidea gen. sp. larva (Dhaka)

Contracaecum sp. larva (Chittagong)

Gnathostoma spinigerum larva

(Chittagong, Dhaka)

Procamallanus (Procamallanus) clarius (Chittagong, Dhaka)

P. (Spirocamallanus) mysti (Dhaka, Rajshahi, Sylhet)

P. (Procamallanus) spiculogubernaculus (Dhaka)

Procamallanus (Procamallanus) sp. (Dhaka)

Procamallanus (Spirocamallanus) sp. (Dhaka?, Rajshahi, Sylhet?)

Quimperiidae gen. sp. larva (Chittagong, Dhaka, Rajshahi, Sylhet)

Acanthocephala

Acanthocephala gen. sp. (Chittagong)

Branchiura

Argulus sp. (Chittagong, Dhaka)

Copepoda

?Lernaeocera sp. (Rajshahi)

Remarks: The generic name has been variously mispelled "Heteropnuestes," "Heteropneustus" and "Heteropueustes" by Bangladeshi authors.

#### FAMILY PANGASIIDAE

Pangasius pangasius (Hamilton) pangas catfish

Status: native

pangas

Environment: fresh water, brackish

Digenea

Allocreadium sp. (Dhaka)

Cestoda

Gymnorhynchus sp. plerocercus (-)

Cestoda gen. sp. (Chittagong)

Nematoda

Contracaecum sp. larva (Chittagong)

Cucullanus pangasius (-)

Remarks: The pangas catfish is found in large rivers and estuaries (Froese and Pauly 2001).

#### FAMILY PLOTOSIDAE

Plotosus canius Hamilton gray eel-catfish Status: native gang

magur

Environment: marine, brackish

Acanthocephala

Heterosentis plotosi (Barisal)

Remarks: Froese and Pauly (2001) note that this catfish, although found mostly in estuaries and lagoons, is sometimes captured up rivers in nearly fresh waters.

# FAMILY SCHILBEIDAE

	Procamallanus (Procamallanus) sp. (Dhaka)	
Clupisoma garua (Hamilton) garua bachcha	Spinitectus indicus (Dhaka)	
Status: native	Branchiura	
ghaura	Argulus bengalensis (-)	
Environment: fresh water Digenea	Remarks: The generic name has often beer mispelled "Eutropichthys" by Bangladesh	
Allocreadium handiai (Dhaka)	authors.	
Genarchopsis sp. (Dhaka)	authors.	
Isoparorchis hypselobagri (Dhaka)		
Palaeorchis sp. (Dhaka)	Pseudeutropius atherinoides (Bloch) Indian	
Prosorhynchoides aspinosiensis (Dhaka,	potasi	
Sylhet?)	Status: native	
Cestoda	batasi	
?Caryophyllaeus sp. (Dhaka)	Environment: fresh water, brackish	
Caryophyllaeidea gen. sp. (Dhaka)	Isopoda	
Nematoda	Ichthyoxenus amurensis (Dhaka)	
Contracaecum sp. larva (-)	Isopoda gen. sp. (-)	
Spinitectus indicus (Dhaka)	Remarks: This species inhabits fresh waters and	
Nematoda gen. sp. (-)	tidal rivers (Froese and Pauly 2001)	
Acanthocephala	Bangladeshi authors have misspelled the genus	
Pallisentis (Pallisentis) garuai (Dhaka)	"Pseudotropeus" and "Pseudotropies,	
Tuttisentis (Tuttisentis) guruut (Dilaka)	possibly confusing it with <i>Pseudotropheus</i> ,	
	valid genus within the family Cichlidae.	
Eutropiichthys murius (Hamilton) -	varia genas within the minny Clemiaac.	
Syn.: Clupisoma murius (Hamilton) muri		
bacha	Silonia silondia (Hamilton) silond	
Status: native	catfish	
Environment: fresh water	Status: native	
Digenea Digenea	shillong	
Prosorhynchoides clupisomius (Dhaka,	Environment: fresh water, brackish	
Sylhet?)	Digenea	
Prosorhynchoides sp. (Dhaka?, Sylhet?)	Bucephalus sp. (Dhaka)	
Nematoda	Genarchopsis sp. (Dhaka)	
Procamallanus (Spirocamallanus) mysti	Digenea gen. sp. (-)	
(Dhaka)	Cestoda	
Procamallanus (Spirocamallanus) sp.	? Caryophyllaeus sp. (Dhaka)	
(Dhaka?, Sylhet?)	Caryophyllaeidea gen. sp. (Dhaka)	
Acanthocephala	Gymnorhynchus sp. plerocercus (-)	
Acanthogyrus sp. (Dhaka, Sylhet?)	Cestoda gen. sp. (-)	
Remarks: The generic name has often been	Nematoda	
mispelled "Eutropichthys" by Bangladeshi	Ascaridida gen. sp. larva (Dhaka)	
authors.	Contracaecum sp. larva (-)	
	Acanthocephala	
	Pallisentis (Pallisentis) garuai (Dhaka)	
Eutropiichthys vacha (Hamilton) -	Pallisentis sp. (-)	
Status: native bacha	Isopoda	
Environment: fresh water, brackish	Isopoda gen. sp. (-)	
Digenea	Remarks: Froese and Pauly (2001) note that the	
Isoparorchis hypselobagri (Dhaka)	silond catfish occurs in estuaries, ascending	
Palaeorchis sp. (Dhaka)	rivers to spawn.	
Phyllodistomum chauhani (Dhaka)	1	
Digenea gen. sp. (Dhaka)		
Cestoda	FAMILY SILURIDAE	
?Caryophyllaeus sp. (Dhaka)		
Nematoda		
Contracaecum sp. larva (-)	Ompok bimaculatus (Bloch) butter	
Neocamallanus vachaii (Dhaka)	catfish	

Status: native pabda	kani	Pallisentis (Pallisentis) go P. (Demidueterospinus) op	
Environment: fresh w	ater, brackish	(Dhaka)	~· · ·
Digenea		Acanthocephala gen. sp. (I	Jhaka)
	mahaseri (Dhaka)	Branchiura	
?Gonocera cras		Argulus sp. (Dhaka)	
Isoparorchis h	ypselobagri (Dhaka)	Crustacea	
?Phyllodistomu	m folium (Dhaka)	Crustacea gen. sp. (Dhaka)	)
Pleurogenes a	attui (Dhaka)	Remarks: The generic name has	been frequently
P. pabdai (Dh	aka)	misspelled "Ompak" by Banglad	deshi authors.
	p. (Dhaka?, Sylhet?)		
Cestoda	, , ,		
	lea gen. sp. (Dhaka)	Wallago attu (Bloch and Schneider	r)
Nematoda	S S	wallago	,
	. sp. larva (Dhaka?,	Status: native	
Sylhet?)	. sp. iaiva (Biiaica.,	boal	
Capillaria sp.	(Dhalza)	Environment: fresh water, brackis	h
	sp. larva (Dhaka)		11
	- '	Digenea	Dlasta)
	s tubifex larva (Dhaka)	Genarchopsis wallagoni (	
	evicaudatum (Sylhet)	Isoparorchis hypselobagri	(Dhaka,
	spinigerum larva (Dhaka)	Sylhet?)	
	s (Spirocamallanus) alii	Digenea gen. sp. (-)	
(Dhaka)		Nematoda	
	anus) clarius (Dhaka)	Contracaecum sp. larva (-)	)
P. (Spirocama	llanus) mysti (Dhaka)	Gnathostoma spinigerum	larva (Dhaka,
Nematoda gen.	sp. (-)	Sylhet)	
Acanthocephala		Goezia sp. (Dhaka?, Sylhe	et?)
Pallisentis (Pa	allisentis) gaboes (Dhaka)	Procamallanus (Procama	
Acanthocephal		spiculogubernaculus (-)	,
	ic name has been frequently	Spinitectus indicus (Dhaka	1)
	by Bangladeshi authors.	1	,
T	., 8		
		FAMILY SISORIDA	<b>AE</b>
Ompok pabda (Hamilto	n) pabdah		
catfish			
Status: native	madhu	Bagarius bagarius (Hamilton)	
pabda Environment:		goonch	
Digenea	icsii watei	Status: native	
-	n multicaecum metacercaria	baghair	
	i muiticuecum illetaceicaria	Environment: fresh water, brackis	. <b>L</b>
(Dhaka)	(Dlada)		)II
	n sp. metacercaria (Dhaka)	Digenea	1 1
*	ypselobagri (Dhaka)	Opisthorchis bagarius (Dl	1ака)
Pleurogenes at		Nematoda	
P. pabdai (Dh		Ascaridida gen. sp. larva (	Dhaka?,
Digenea gen. s	p. (Dhaka, Sylhet?)	Sylhet?)	
Cestoda		Rhabdochona bagarii (-)	
?Caryophyllaeı	us sp. (Dhaka)		
Nematoda			
Ascaridida gen	. sp. larva (Dhaka, Sylhet?)	ORDER AULOPIFOR	MES
Contracaecum	sp. larva (Dhaka)		
?Eustrongylide		FAMILY SYNODONT	IDAE
(Dhaka)			
	spinigerum larva (Dhaka)		
	s (Procamallanus) clarius	Harpadon neherius (Hamilton)	Bombay-duck
(Dhaka)	(2. Ocamananas) ciarias	Status: native	loitta
1	llanus) mysti (Dhaka)	Environment: marine, brackish	101111
Nematoda gen.	ър. (Впака)	Digenea	of Donasi)
Acanthocephala		Hemiuridae gen. sp. (Bay	oi deligal)

Cestoda	Environment: fresh water, brackish
?Diphyllobothrium latum plerocercoid	Digenea
(Chittagong)	Allocreadium mehrai (Dhaka)
Nematoda	Allogomtiotrema attu (-)
Ascaridida gen. sp. larva (Bay of Bengal)	Cotylogonoporum orfeum (-)
Remarks: The Bombay-duck inhabits deep water	?Rhynchopharynx paradoxa (-)
offshore for most of the year, but also gathers in	Nematoda
large shoals in deltas of rivers to feed during	Camallanus xenentodoni <sup>146</sup> (Khulna)
monsoons (Froese and Pauly 2001). The	Capillaria sp. (-)
generic name has often been misspelled	Paracamallanus sweeti (-)
"Harpodon" by Bangladeshi authors.	Remarks: The status of this species in
	Bangladesh is listed as "questionable" by
	Froese and Pauly (2001). The species name has
Johnius borneensis sharpnose hammer	occasionally been misspelled "aculeatum" by
croaker	Bangladeshi authors.
(Bleeker) -	g
Syn.: Johnius vogleri (Bleeker)	
Status: native	Macrognathus pancalus barred spiny
Environment: marine, brackish, fresh water	eel
Nematoda	Hamilton guchi
Ascaridida gen. sp. larva (Bay of Bengal)	Syn.: <i>Mastacembelus pancalus</i> (Hamilton)
Thousand gone of the telegraphic	Status: native
	Environment: fresh water, brackish
ORDER BELONIFORMES	Digenea
	Macrolecithus sp. (Barisal, Dhaka)
FAMILY BELONIDAE	Nematoda
THE DEED NET	Camallanus (Zeylanema) magna (Khulna)
	Cumunum (Zojiunemu) mugnu (Iznamu)
Xenentodon cancila (Hamilton) freshwater garfish	
Status: native kaikka	Mastacembelus armatus (Lacepède) tiretrack eel
Environment: fresh water	Status: native
Digenea	baim
Isoparorchis hypselobagri (-)	Environment: fresh water, brackish
Digenea gen. sp. metacercaria (-)	Digenea
Cestoda	Allocreadium bengalensis (Dhaka)
Cestoda gen. sp. (Rajshahi)	A. mehrai (Dhaka)
Nematoda	Cotylogonoporum orfeum (-)
Ascaridoidea gen. sp. larva (Dhaka)	Isoparorchis hypselobagri (-)
Camallanus xenentodoni <sup>144</sup> (Sylhet)	Cestoda
Contracaecum sp. larva (-)	?Marsipometra parva (-)
Gnathostoma spinigerum larva (Dhaka)	Nematoda
Paragendria bagarii (Dhaka)	Capillaria sp. (-)
Procamallanus (Procamallanus)	Contracaecum sp. larva (-)
cancilus 145 (Dhaka, Sylhet?)	Paracamallanus sweeti (-)
Acanthocephala	Procamallanus (Procamallanus) clarius (-
Pallisentis (Demidueterospinus)	)
ophiocephali (Dhaka)	?Proleptus inflatus (Sylhet)
· · · · · · · · · · · · · · · · · · ·	Pseudoproleptus vestibulus (-)
ORDER SYNBRANCHIFORMES	
D. 3 64 57 3 6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	Mastacembelus sp.
FAMILY MASTACEMBELIDAE	Status: native
Macrognathus aculeatus (Bloch) lesser spiny eel	Environment: fresh water, brackish
Status: native tara	Protozoa
baim	Trichodina sp. (Rajshahi)
144 Species inquirenda.	146 Canadag inquiron da

Species inquirenda.

Species inquirenda.

#### **ORDER PERCIFORMES**

# FAMILY AMBASSIDAE

Chanda nama Hamilton elongate glass-

perchlet

Syn.: Ambassis nama (Hamilton)

chanda

Status: native

Environment: fresh water, brackish

Nematoda

Cucullanus dogieli (Sylhet)

#### FAMILY ANABANTIDAE

Anabas testudineus (Bloch)

climbing perch Status: native

koi

Environment: fresh water, brackish

Protozoa

Tripartiella sp. (Chittagong)

Digenea

Allocreadium minutum (Dhaka)

Neopecoelina saharanpuriensis (Dhaka)

Monogenea

Dactylogyrus sp. (Rajshahi)

Nematoda

Ascaridida gen. sp. larva (Dhaka) Camallanus (Zeylanema) anabantis

(Barisal, Dhaka, Sylhet?)

C. (Zeylanema) pearsei (Barisal, Dhaka,

Sylhet?)

Contracaecum sp. larva (Dhaka)

Gnathostoma spinigerum larva (Dhaka)

Paragendria wallagonia (Dhaka)

# FAMILY BELONTIIDAE

Colisa fasciatus (Bloch and banded

gourami

Schneider)

khailsha

Status: native

Environment: fresh water, brackish

Nematoda

Cosmoxynemoides sp. (Dhaka?, Sylhet?)

Nematoda gen. sp. (Rajshahi)

Acanthocephala

Pallisentis sp. (Dhaka)

Branchiura

Argulus sp. (Chittagong)

Copepoda

Lernaea cyprinacea (Dhaka)

Remarks: The species name has been mispelled

"fasciata" by Bangladeshi authors.

#### **FAMILY CARANGIDAE**

Atropus atropos (Bloch and Cleffbelly

trevally

Schneider)

Status: native

Environment: marine

Digenea

?Bucephalus polymorphus (Bay of Bengal)

Nematoda

Camallanus atropusi (Bay of Bengal)

Remarks: The species name has been mispelled

"atropus" by Bangladeshi authors.

Parastromateus niger (Bloch) black pomfret

Syn.: Stromateus niger Bloch

Status: native

Environment: marine

Digenea

?Lecithocladium excisum (Bay of Bengal)

Nematoda

Capillaria sp. (Bay of Bengal)

Selaroides leptolepis (Cuvier) yellowstripe

scad

Status: native -

Environment: marine, brackish

Digenea

Hemiurus sp. (Bay of Bengal)

Lecithocladium megalaspis (Bay of

Bengal)

L. seriolellae (Bay of Bengal)

#### FAMILY CENTROPOMIDAE

Lates calcarifer (Bloch)

barramundi

Status: native

bhetki

Environment: fresh water, brackish, marine

Digenea

Hemiuridae gen. sp. (Chittagong?)

Psilostomum sp. metacercaria?

(Chittagong?)

Cestoda

Callitetrarhynchus gracilis plerocercus

(Chittagong?)

Dasyrhynchus indicus

plerocercus 147 (Chittagong?) ? Gymnorhynchus gigas plerocercus (Chittagong?) Pterobothrium lintoni plerocercus (Chittagong?) Acanthocephala Serrasentis sagittifer (Chittagong?) Remarks: The barramundi is a diadromous species, living in rivers but returning to estuaries to spawn (see Froese and Pauly 2001). FAMILY CHANNIDAE	Neocamallanus sp. (-) Paracamallanus sweeti (-) Quimperiidae gen. sp. larva (Barisal, Dhaka) Acanthocephala Pallisentis (Pallisentis) nagpurensis (Dhaka?, Sylhet?) P. (Demidueterospinus) ophiocephali (-) Pallisentis sp. (-) Remarks: The generic name of the junior synonym is frequently misspelled "Ophiocephalus."	
Channa gachua Hamilton		
-	Channa punctata (Bloch) spotted	
Status: native -	snakehead	
Environment: fresh water	Syn.: Ophicephalus punctatus Bloch	
Digenea	taki	
Genarchopsis lobata (Dhaka?, Sylhet?)	Status: native	
Nematoda	Environment: fresh water, brackish	
Camallanus (Zeylanema) pearsei	Protozoa	
(Dhaka?, Sylhet?)	Trichodina sp. (Chittagong)	
Acanthocephala	Digenea	
Pallisentis sp. (Dhaka?, Sylhet?)	Allocreadium handiai (Dhaka)	
Remarks: This snakehead is not listed in Froese	Asymphylodora indica (Dhaka)	
and Pauly (2001) as occurring in Bangladesh,	Euclinostomum heterostomum	
but is noted to occur in Sri Lanka, throughout	metacercaria (Dhaka)	
Southeast Asia (including Mynamar) and in	E. multicaecum metacercaria (Dhaka)	
P.R. China. The species name has occasionally	Eucreadium daccai (Dhaka, Sylhet?)	
been mispelled "gaucha" by Bangladeshi	Genarchopsis bangladensis (Dhaka,	
authors.	Sylhet?)	
authors.	G. dasus (Dhaka)	
	G. macrocotyle (Dhaka)	
Channa marulius (Hamilton) giant	G. ozakii (Dhaka, Sylhet?)	
snakehead	Isoparorchis hypselobagri (Dhaka,	
Syn.: <i>Ophicephalus marulius</i> Hamilton gajar	Sylhet?)	
Status: native	Neopecoelina saharanpuriensis (Barisal,	
Environment: fresh water	Dhaka, Sylhet?)	
Digenea	Neopecoelina sp. (Barisal, Dhaka)	
Allogomtiotrema attu (-)	Palaeorchis sp. (Barisal, Dhaka)	
Crowcrocaecum channai (Dhaka, Sylhet?)		
Isoparorchis hypselobagri (Dhaka,	Philopinna sp. (Dhaka)	
Sylhet?)	Phyllodistomum chauhani (Dhaka) Digenea gen. sp. (-)	
Phyllodistomum sp. (Dhaka)	Cestoda	
Digenea gen. sp. metacercaria (-)		
Cestoda	?Anchistrocephalus sp. (-)	
	Cestoda gen. sp. (-) Nematoda	
?Anchistrocephalus sp. (-) ?Bothriocephalus cuspidatus (-)		
Polyonchobothrium sp. (-)	Ascaridia sp. (Dhaka) ?Ascaris sp. (Dhaka)	
?Taphrobothrium japonense (-)	Contracaceum sp. lorvo ()	
Cestoda gen. sp. (-)	Contracaecum sp. larva (-)	
Nematoda	Neocamallanus ophicephali (Dhaka?,	
Camallanus sp. (Dhaka?, Sylhet?)  Sylhet?)		
Contracaecum sp. larva (-)	Neocamallanus sp. (-)	
?Heliconema brevispiculum (Rajshahi)	Procamallanus (Procamallanus) sp.	
Neocamallanus ophicephali (-)	(Dhaka)	
	Nematoda gen. sp. (-)	
147 Species inquirenda.	Acanthocephala	

147 Species inquirenda.

Pallisentis (Brevitritospinus) allahabadii	P. (Pallisentis) nagpurensis (Barisal,	
(Barisal, Dhaka)	Dhaka, Sylhet?)	
P. (Pallisentis) nagpurensis	P. (Demidueterospinus) ophiocephali (-) Pallisentis sp. (Barisal, Chittagong, Dhaka)	
(Dhaka?, Sylhet?) P. (Demidueterospinus) ophiocephali		
(Dhaka)	Branchiura	
Pallisentis sp. (-)	Argulus sp. (Chittagong)	
Copepoda	Remarks: The species name is often misspelled	
Lernaea cyprinacea (Dhaka)	"striatus," while the generic name of the junior	
Remarks: The generic name of the junior	synonym is frequently misspelled	
synonym is frequently misspelled	"Ophiocephalus."	
"Ophiocephalus."	opiniocopinanasi.	
	FAMILY CICHLIDAE	
Channa striata (Bloch) snakehead murrel		
Syn.: <i>Ophicephalus striatus</i> Bloch shol	Oreochromis mossambicus Mossambique tilapia	
Status: native	(Peters) tilapia	
Environment: fresh water	Syn.: Tilapia mossambica (Peters)	
Digenea	Status: exotic	
Allogomtiotrema attu (-)	Environment: fresh water, brackish	
Euclinostomum heterostomum	Branchiura	
metacercaria (Dhaka)	Argulus sp. (Chittagong)	
E. multicaecum metacercaria (Dhaka)	Remarks: This African cichlid was introduced to	
Isoparorchis hypselobagri (Chittagong, Dhaka, Sylhet?)	Bangladesh from Thailand in 1954 (see Rahman 1989).	
?Phyllodistomum folium (Dhaka)		
Digenea gen. sp. (-)		
Cestoda	Oreochromis niloticus niloticus Nile	
? Anchistrocephalus sp. (Chittagong)	tilapia (Linnaeus) -	
?Bothriocephalus cuspidatus (-)	Syn.: Tilapia nilotica (Linnaeus)	
Polyonchobothrium sp. (-)	Status: exotic	
?Taphrobothrium japonense (-)	Environment: fresh water, brackish	
Cestoda gen. sp. (-)	Protozoa	
Nematoda	Chilodonella sp. (Dhaka)	
Camallanus intestinalus (Dhaka)	Branchiura	
Contracaecum sp. larva (-)	Argulus sp. (Dhaka)	
?Echinocephalus sp. (-)	Remarks: This African cichlid was introduced	
Gnathostoma spinigerum larva (Dhaka, Sylhet?)	into Bangladesh from Thailand in 1974 (see Rahman 1989).	
Neocamallanus ophicephali (Dhaka, Sylhet)		
Neocamallanus sp. (Chittagong)	"Tilapia"	
Paracamallanus sweeti (-)	Status: exotic	
Procamallanus (Spirocamallanus) mysti	Environment: fresh water	
(Dhaka, Sylhet?)	Branchiura	
P. (Procamallanus) spiculogubernaculus (Dhaka?, Sylhet?)	Argulus sp. (-)	
Quimperiidae gen. sp. larva (Barisal,		
Dhaka)	FAMILY GOBIIDAE	
Nematoda gen. sp. (Chittagong)		
Acanthocephala		
Acanthogyrus (Acanthosentis) tilapiae (Barisal)	Glossogobius giuris (Hamilton) tank goby	
Pallisentis (Pallisentis) gaboes	Status: native bele	
(Barisal, Dhaka)	Environment: fresh water, brackish, marine	

# Digenea Allocreadium glossogobium (Dhaka) A. handiai (Dhaka) A. ovatum (Dhaka) Genarchopsis dasus (Dhaka) Genarchopsis sp. (Dhaka) Opegaster beliyai (Dhaka, Sylhet?) Opegaster sp. (Barisal, Dhaka, Sylhet?) ?Phyllodistomum folium (Dhaka) Digenea gen. sp. (-) Monogenea Dactylogyrus glossogobii (Dhaka?, Sylhet?) Cestoda Pseudophyllidea gen. sp. (Dhaka) Tetrarhynchus sp. (-) Cestoda gen. sp. (-) Nematoda Ascaridida gen. sp. larva (Dhaka?, Svlhet?) Ascaridoidea gen. sp. larva (Dhaka) Capillaria sp. (Dhaka) Camallanus sp. (Dhaka?, Sylhet?) Contracaecum sp. larva (-) Quimperiidae gen. sp. larva (Barisal, Dhaka) Acanthocephala

Pallisentis sp. (Dhaka)
Remarks: Froese and Pauly (2001) note that the tank goby is found mainly in fresh water and estuaries, but also enters the sea. The species name is often mispelled "gurius."

P. (Pallisentis) nandai (Dhaka)

Echinorhynchus kushiroensis (Dhaka) Pallisentis (Pallisentis) gaboes (Dhaka)

# FAMILY LUTJANIDAE

Lutjanus argentimaculatus mangrove red snapper (Forsskål) -

Status: native

Environment: marine, brackish

Nematoda

Goezia sp. (Bay of Bengal)

Remarks: This is a marine species; juveniles and young adults occur in mangrove estuaries and in the lower reaches of freshwater streams (see Froese and Pauly 2001). The generic name is frequently misspelled "Lutianus."

#### **FAMILY MUGILIDAE**

Mugil cephalus Linnaeus flathead mullet

Status: native

bhangna<sup>148</sup>

Environment: marine, brackish, fresh water

Digenea

Haploporus sp. (Chittagong?)

Acanthocephala

Neoechinorhynchus chilkaensis

(Chittagong?)

Remarks: This mullet is coastal species that often enters estuaries and rivers. Although noted to be cosmopolitan in coastal waters of the tropical and subtropical zones of all seas, it is not listed by Froese and Pauly (2001) as occurring in Bangladesh.

#### **FAMILY MULLIDAE**

Upeneus sulphureus Cuvier sulphur goatfish

Status: native

Environment: marine, brackish

Nematoda

Quimperia sp. larva (Bay of Bengal)

Remarks: The sulfur goatfish is found in coastal waters and estuaries; it is not listed as occurring in Bangladesh (Froese and Pauly (2001).

#### **FAMILY NANDIDAE**

Nandus nandus (Hamilton) Gangetic leaffish Status: native meni

Environment: fresh water

Digenea

Clinostomum giganticum metacercaria

Euclinostomum multicaecum metacercaria (Dhaka)

Isoparorchis hypselobagri (Chittagong, Dhaka)

?Podocotyle atomon metacercaria (Dhaka)

Digenea gen. sp. metacercaria (-)

Cestoda

? Anchistrocephalus sp. (-)

Bothriocephalus sp. plerocercoid

(Chittagong, Dhaka)

Diphyllobothriidae gen. sp. plerocercoid (Dhaka)

Senga ophicephaliana (Chittagong)

Nematoda

Ascaridia sp. larva (Chittagong)

Ascaridida gen. sp. larva (Dhaka, Sylhet?)

Contracaecum sp. larva (Dhaka)

Gnathostoma spinigerum larva (Dhaka)

<sup>148</sup> The common name is from Chandra (1992a).

Porrocaecum sp. larva (Dhaka) Acanthocephala Pallisentis (Pallisentis) nandai (Barisal, Chittagong, Dhaka, Sylhet?) P. (Demidueterospinus) ophiocephali (Chittagong) Pallisentis sp. (-) Neoechinorhynchus sp. (Chittagong) **FAMILY POLYNEMIDAE** Eleutheronema tetradactylum fourfinger threadfin (Shaw) tailla Status: native Environment: marine, brackish, fresh water Acanthocephala Neoechinorhynchus sp. (Barisal) Remarks: Froese and Pauly (2001) note that the fourfinger threadfin is found in shallow coastal waters and enters rivers; juveniles occur in estuaries. Polydactylus indicus (Shaw) Indian threadfin Status: native lakhua Environment: marine, brackish Nematoda ?Camallanus cotti (Khulna) Porrocaecum trichiuri 149 [larva?] (Khulna) Procamallanus (Spirocamallanus) alii (Khulna) Remarks: Froese and Pauly (2001) note that this species occasionally enters rivers. Polydactylus sextarius blackspot threadfin (Bloch and Schneider) Syn.: Polynemus sextarius Bloch and Schneider Status: native Environment: marine, brackish Nematoda Paraquimperia sp. larva (Bay of Bengal) Procamallanus (Spirocamallanus) sp. (Bay

Polynemus paradiseus paradise threadfin Linnaeus tapasi Status: native Environment: marine, brackish Nematoda Raphidascaris sp. larva (Bay of Bengal) Acanthocephala Neoechinorhynchus topseyi (Dhaka) Remarks: The paradise threadfin regularly enters fresh water during the breeding season (see Froese and Pauly 2001). FAMILY SCIAENIDAE Otolithoides pama (Hamilton) pama croaker Syn.: Pama pama (Hamilton) Sciaenoides pama (Hamilton) Status: native Environment: marine, brackish, fresh water Cestoda Gymnorhynchus sp. plerocercus (Chittagong) Lytocestus sp. (-) Cestoda gen. sp. (-) Nematoda Contracaecum sp. larva (Chittagong) Goezia sp. (-) Nematoda gen. sp. (Dhaka) Acanthocephala Pallisentis sp. (-) Remarks: Froese and Pauly (2001) note that the pama croaker is found in coastal waters, estuaries and rivers. FAMILY SCOMBRIDAE Rastrelliger kanagurta (Cuvier) Indian mackerel Status: native Environment: marine Digenea of Bengal) Dinurinae gen. sp. (Bay of Bengal) The blackspot threadfin is a marine Remarks: Monogenea species that frequently enters estuaries. It is not Pseudoanthocotyle pavlovskyi (Bay of listed by Froese and Pauly (2001) as being Bengal) reported from Bangladesh, but is widely distributed in Indo-Pacific waters, including the

Scomberomorus guttatus (Bloch

and Schneider)

mackerel

Indo-Pacific

king

149 Species inquirenda.

Bay of Bengal.

Syn.: Cybium guttatum (Bloch

bijram

and Schneider)

Status: native

Environment: marine, brackish

Monogenea

Pricea multae (Bay of Bengal)

Nematoda

Ascaridida gen. sp. larva (Bay of Bengal)

#### **FAMILY SILLAGINIDAE**

Sillaginopsis panijus (Hamilton) flathead sillago

Status: native tular

dandi

Environment: marine, brackish

Nematoda

Raphidascaris panijii<sup>150</sup> (Khulna)

#### **FAMILY SPARIDAE**

Acanthopagrus berda (Forrskål) picnic seabream

Syn.: Sparus berda Forrskål

Status: native

Environment: marine, brackish

Nematoda

Procamallanus (Spirocamallanus)

berdii<sup>151</sup> (Khulna)

Remarks: Froese and Pauly (2001) note that the

picnic seabream enters fresh water.

# **FAMILY STROMATEIDAE**

Pampus argenteus (Euphrasen) silver pomfret

Syn.: Stromateus cinereus Bloch fali

chanda

Status: native

Environment: marine

Digenea

Lecithocladium sp. (Bay of Bengal)

Nematoda

Capillaria sp. (Bay of Bengal)

## **FAMILY TRICHIURIDAE**

Lepturacanthus savala (Cuvier) Salvalani

hairtail

150 Species inquirenda.

151 Species inquirenda.

Status: native churi

Environment: marine, brackish

Digenea

Lecithochiriinae gen. sp. (Bay of Bengal)

Nematoda

Camallanus trichiuris (Bay of Bengal)

Trichiurus lepturus Linnaeus largehead

hairtail

Syn.: Lepturacanthus haumela

(Forsskål)

Status: native

Environment: marine, brackish

Nematoda

Camallanus dollfusi (Bay of Bengal) Capillaria sp. (Bay of Bengal) Quimperiidae gen. sp. larva (Bay of

Bengal)

Remarks: This is a marine species that often enters estuaries (see Froese and Pauly 2001).

# ORDER PLEURONECTIFORMES

#### FAMILY CYNOGLOSSIDAE

Cynoglossus arel (Bloch largescale

tonguesole

and Schneider) kukur

jeeb

Syn.: Cynoglossus macrolepidotus (Bleeker)

Status: native

Environment: marine, brackish, fresh water

Nematoda

Dujardinascaris sp. larva (Bay of Bengal) Heterotyphlum sp. larva (Bay of Bengal) Paraquimperia sp. larva (Bay of Bengal) Procamallanus (Spirocamallanus) sp.

(Bay

of Bengal)

Copepoda

Ergasilus sp. (Bay of Bengal)

Remarks: Froese and Pauly (2001) note that this marine flatfish enters estuaries and tidal rivers.

Cynoglossus lingua Hamilton long tongue

sole

Status: native kukur

jeeb

Environment: marine, brackish, fresh water Acanthocephala

Neoechinorhynchus sp. (Barisal)

Remarks: The long tongue sole is a marine species that enters estuaries and tidal rivers

(Froese and Pauly 2001).

# FAMILY PSETTODIDAE

Psettodes erumei (Bloch Indian spiny turbot and Schneider) Status: native Environment: marine Nematoda Capillaria sp. (Bay of Bengal) Cucullanus sp. (Bay of Bengal) Porrocaecum trichiuri<sup>152</sup> [larva?] (Bay of Bengal) Quimperiidae gen. sp. larva (Bay of Bengal) Raphidascaris sp. larva (Bay of Bengal) Isopoda Cymothoidae gen. sp. (Bay of Bengal)

#### **FAMILY SOLEIDAE**

Solea elongata Day elongate sole
Status: native Environment: marine
Nematoda
Capillaria sp. (Bay of Bengal)
Camallanus dollfusi (Bay of Bengal)
Remarks: Although not listed as occurring in the

Remarks: Although not listed as occurring in the waters of Bangladesh, Froese and Pauly (2001) give the distribution of this species as being the "Western Indian Ocean: Red Sea and the "Gulf" to the west and east coast of India and Sri Lanka."

# ORDER TETRAODONTIFORMES FAMILY TETRAODONTIDAE

Tetraodon sp. Status: native

Environment: fresh water, brackish

Isopoda

Isopoda gen. sp. (-)

Remarks: Froese and Pauly (2001) list two species of the genus *Tetraodon* as occurring in Bangladesh.

# FISHES OF UNCERTAIN TAXONOMIC AFFINITY

"Catfish"

Status: native
Environment: fresh water

Digenea
Digenea gen. sp. (Dhaka)
Cestoda
Lytocestus sp. (-)
Caryophyllaeidea gen. sp. (Dhaka)
Nematoda
Gnathostoma spinigerum larva (-)
Procamallanus (Procamallanus)
spiculogubernaculus (Dhaka)
Procamallanus (Procamallanus) sp. (-)
Procamallanus (Spirocamallanus) sp. (-)
Nematoda gen. sp. (Dhaka)

Environment: marine
Cestoda
Lecanicephalidea gen. sp. (Bay of Bengal)
?Pseudophyllidea gen. sp. (Bay of Bengal)
Tetraphyllidea gen. sp. (Bay of Bengal)
Trypanorhyncha gen. sp. (Bay of Bengal)

"Sawfish"
Status: native
Environment: fresh water, brackish
Cestoda
Lytocestus sp. (-)
Nematoda
?Camallanus kirandensis (Khulna)
?Contracaecum brevicaecum larva
(Khulna)

"Fish"

Status: unknown

"Elasmobranch fishes"

Status: native

Environment: fresh water, brackish, marine

Protozoa

*Ichthyobodo* sp. <sup>154</sup> (-) *Chilodonella* sp. (-)

Ichthyophthirius multifiliis (-)

*Ichthyophthirius* sp. (1)

Apiosoma sp. (-)

Trichodina sp. (-)

Myxozoa

Myxobolus sp. (-)

Digenea

Isoparorchis hypselobagri (-)

Digenea gen. sp. metacercaria

<sup>152</sup> Species inquirenda.

<sup>153</sup> Species inquirenda.

<sup>154</sup> Tentative parasite identification.

(Chittagong)

Monogenea

?Dactylogyrus vastator (-)

Dactylogyrus sp. (-)

Nematoda

Ascaridia sp. (Sylhet)

Buckleynema sp. (Sylhet)

Cucullanus sp. (Bay of Bengal)

Dichelyne (Cucullanellus) sp. (Sylhet)

Gnathostoma spinigerum larva (Dhaka,

Sylhet)

 $Procamallanus \ (Spirocamallanus) \ mysti$ 

(Dhaka)

Procamallanus (Spirocamallanus) sp.

(Sylhet, Bay of Bengal)

Hirudinea

Hirudinea gen. sp. (Chittagong)

Branchiura

Argulus sp. (Dhaka)

Copepoda

Lernaea cyprinacea (-)

Crustacea

Crustacea gen. sp. (Bay of Bengal)

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# **BLURB**

This checklist summarizes information on the parasites of Bangladeshi fishes contained in the world literature dating from the earliest known records to the end of 2000. Information is presented in the form of parasite-host and host-parasite lists. Included are 147 named species of parasites. Also included are many records of parasites not identified to species level. The Parasite-Host List is organized on a taxonomic basis and provides information for each parasite species on the environment (fresh water, brackish water, marine), the location (site of infection) in or on its host(s), the species of host(s) infected, the known geographic distribution (by administrative division) in Bangladesh, and the published sources for each host and locality record. The parasite fauna of fishes of Bangladesh remains poorly known. Parasites have been reported from only 85 of the 528 species of marine and freshwater fish occurring in the waters of Bangladesh. The situation is complicated by the large number of reports that are based on apparent misidentifications, the existence of a plethora of poorly described species, and the relatedness of the Bangladeshi fish parasite fauna to that of the larger Indian subregion, which is also poorly known for many of the same reasons.