

ICHTHYOFAUNA OF THE RIVER HALDA, CHITTAGONG, BANGLADESH

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Abstract: Eighty-three species of finfish belonging to 13 Orders, 35 Families, and 69 genera including three exotic species, and 10 species of shellfish (crustaceans) under one order, 3 families and 3 genera were identified from the River Halda during September 2004 to December 2011. Thus a total of 93 species of Ichthyofauna (finfish and shellfish) were recorded from this river during the seven years (2004-2011) of investigation. Maximum number of finfish species were recorded under the family Cyprinidae (19 species) followed by the family Gobiidae (11 species), whereas maximum number of shellfish species were recorded under the family Palaemonidae (8 species) followed by Penaeidae (1 species) and Portunidae (1 species). Of the 83 finfish species, three belonged to the critically endangered, nine to the endangered and eight to the vulnerable category according IUCN (2000). Four species of finfish were new records from inland waters of Bangladesh. A systematic list of the ichthyofauna with local and English names, and habitat preference are provided.

Key words: *Ichthyofauna, Halda River, fin fishes, shellfishes*

INTRODUCTION

The tidal River Halda (22°54'N and 91°48'E to 22°24'N and 91°53' E) is one of the tributaries of the River Karnaphuli and well known as the country's main spawning ground of major carps from which naturally fertilized eggs of carps are collected and hatched in mud-made scoops on the river bank for aquaculture purposes (Patra and Azadi 1985b, Khan and Azadi 2006). Originated from the Khagrachari hills and after traversing 88 km, the river opens into the River Karnaphuli about half kilometer north of the Kalurghat Bridge on the River Karnaphuli. Due to anthropogenic and natural causes the spawn fishery (fry production) of major carps of Halda River has recently declined tremendously, 2470 kg in 1945 to 625 kg in 2013 (Khan and Azadi 2006, DoF 2013). Description of the other features of the River Halda is given elsewhere (Azadi and Arshad-ul-Alam 2011). The inland fisheries of Bangladesh have a diverse fish fauna of 264 species (Rahman 2005) which is the third richest in the world after China and India (Talwar and Jhingran 1991). The vast inland water of 4.57 million hectare with 3.86 million hectare floodplain-rivers-estuarine system provides an excellent ecologically diverse habitat for this taxonomically varied fish fauna. River Halda is a species rich habitat, isolated from Ganges-Brahmaputra river systems with physical barrier. A heterogeneous assemblage of floodplain, riverine, estuarine and marine fishes is found in this river with

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strong dominance of a few species. Some research were conducted on different ecological and fisheries aspects of the River Halda, such as, egg collection (Ahmed 1948, 1955, Patra and Azadi 1984), limnology (Patra and Azadi 1985a), hydrological factors (Patra and Azadi 1985b), ecological studies on plankton (Patra and Azadi 1987), management of spawn fishery (Azadi 2004), revival of carp natural spawning ground (Khan and Azadi 2006) biodiversity and field sites of fish (Azadi and Arshad-ul-Alam 2011), Fishing intensity (Arshadul Alam 2013). Under the Bangladesh Government's Irrigation and Fishery Development Projects some short term works, such as, different fisheries aspects of Halda and Ichamati Rivers and its adjacent flood plains combined were done by Ali and Morris (1977, 1978), on catch survey, fish and prawn fauna by Rainboth (1978), and fishing gears by Chong (1979). Besides, a few working documents of Irrigation and flood control Project, there is no other information on the fish and fishery of Halda River before or after the major interventions (12 sluice gates which blocked 12 major tributaries at lower Halda and 47 km embankment during 1975-76 and 1982-1983) in the river Halda.

Works on the freshwater fish fauna of Bangladesh are represented by the works of Ahmed (1953), Bhuiyan (1964), Doha (1973), Ahmed and Hasan (1981), Shafi and Quddus (1982), Haroon *et al.* (1989), Hafizuddin *et al.* (1989), Rahman (1975, 1989, 2005) and Hossain (2013).

The present investigation was carried out to know the ichthyofauna (finfish and shellfish species) and their (IUCN 2000) status (endangered, critically endangered, vulnerable) in the river Halda and the findings might be useful to the researchers, planners and biologists as the river is declared fish sanctuary in 2007.

MATERIAL AND METHODS

For the study of finfish and shellfish species of the Halda River a total of 1217 samples was collected fortnightly during September 2004 to December 2011 directly from the fishermen catch caught by 34 types of different fishing gears. The sampling area covered all the fishing zones (39 kilometers) from Nazirhat Bridge to Halda mouth opening in the Karnaphuli river near Mohra point. Photographs of these catches were taken in fresh condition in the field. External features with colour patterns were noted in fresh condition. Specimens were preserved in 7% formaldehyde solution and kept in the Department of Zoology, University of Chittagong for further study and future reference.

The classificatory scheme of fish has been followed after Berg (1940) with a few modifications by Lagler (1962) and Rahman (2005). Identification and classification of fin fish were done with the help of Day (1889), Munro (1955),

Bhuiyan (1964), Jayaram (1981), Shafi and Quddus (1982) and Rahman (2005) while for crustaceans help was taken from Ahmed (1957), George (1969), Howlader (1976), Ficinham and Wickins (1976) and Shafi and Quddus (1982). Zoological names of all the genera and species were listed in accordance with the rules and principles as set forth in the international code. Vernacular names are also provided. Website of fishbase was used for information on synonyms. The threat status of the fish species mentioned in the result was as per IUCN Bangladesh (2000). Systematic list with local name, common English name and habitat preference were provided. National biodiversity status (categories of threat) as per IUCN was also cited for fish species.

RESULTS AND DISCUSSION

During seven years of study period (September 2004 to December 2011) a total of 83 finfish species under 13 orders and 35 families and a total of 10 shellfish (9 prawns and one crab) under 1 order and 3 families (Plates 1 to 5) were identified from the River Halda. The systematic index is presented here.

Phylum: Chordata

Subphylum: Vertebrata

Class: Osteichthyes

Order: 1. Anguilliformes

Family: 1. Anguillidae

1. *Anguilla bengalensis* (Gray, 1831) (Plate 1, Sl. No. 1)

Local name: Bara Baim, Cheloch; English name: Indian Long-fin Eel;
Habitat: River, estuary and sea (Migratory catadromous); IUCN status: Vulnerable.

Family: 2. Moringuidae

2. *Moringua raitaborua* (Hamilton, 1822) (Plate 1, Sl. No. 2)

Local name: Rata Boura, Baim; English name: Purple Spaghetti Eel;
Habitat: River and estuary.

3. *Moringua macrocephalus* (Bleeker, 1863) (Plate 1, No. 3)

Local name: Baim; English name: Spaghetti Eel; Habitat: Estuary and sea. Not reported by Shafi and Quddus (1982), IUCN (2000) and Rahman (2005).

Family: 3. Ophichthidae

4. *Pisodonophis boro* (Hamilton, 1822) (Plate 1, No. 4)

Local name: Nol Baim, Hijara; English name: Rice-paddy Eel;
Habitat: Sea, estuary and river.

Order: 2. Clupeiformes**Family: 4. Clupeidae**

5. *Corica soborna* Hamilton, 1822 (Plate 1, No. 5)
Local name: Kachki; English name: Ganges River Sprat; Habitat: River, Kaptai lake.
6. *Gudusia chapra* (Hamilton, 1822) (Plate 1, No. 6)
Local name: Chapila; English name: Indian River Shad; Habitat: Wide freshwater.
7. *Tenualosa ilisha* (Hamilton, 1822) (Plate 1, No. 7)
Local name: Illish; English name: Hilsa Shad; Habitat: Sea, estuary and river.
Family: 5. Engraulidae
8. *Setipinna phasa* (Hamilton, 1822) (Plate 1, No. 8)
Local name: Phaissha; English name: Gangetic Hairfin Anchovy; Habitat: River, Estuary, Kaptai lake.

Order: 3. Osteoglossiformes**Family: 6. Notopteridae**

9. *Notopterus notopterus* (Pallas, 1769) (Plate 1, No. 9)
Local name: Foli; English name: Bronze Feather back; Habitat: Flood plain pond, lake and beel; IUCN status: Vulnerable.

Order: 4. Cypriniformes**Family: 7. Cyprinidae**

10. *Labeo ariza* (Hamilton, 1807) (Plate 1, No. 10)
Local name: Lasso, Bata, Raik; English name: Ariza Labeo; Habitat: Wide freshwater. Not reported by Shafi and Quddus (1982), IUCN (2000) and Rahman (2005).
11. *Labeo calbasu* (Hamilton, 1822) (Plate 1, No. 11)
Local name: Kalibaush; English name: Black Rohu; Habitat: River; IUCN status: Endangered.
12. *Labeo gonius* (Hamilton, 1822) (Plate 1, No. 12)
Local name: Shada Ghoni; English name: Kuria Labeo; Habitat: River; IUCN status: Endangered.
13. *Labeo rohita* (Hamilton, 1822) (Plate 1, No. 13)
Local name: Rui; English name: Ruho; Habitat: River.
14. *Catla catla* (Hamilton, 1822) (Plate 1, No. 14)
Local name: Catla; English name: Catla; Habitat: River.

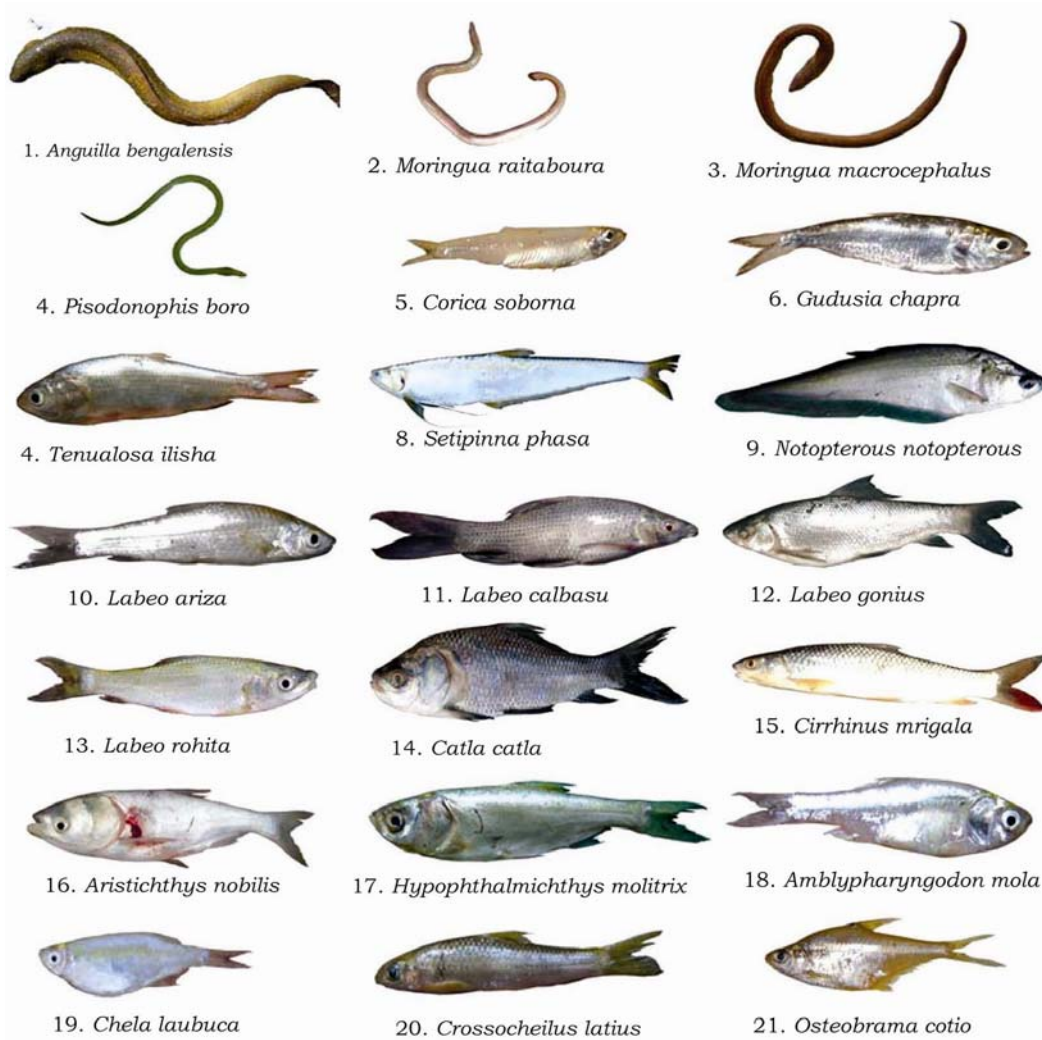


Plate 1. Fin fishes of the River Halda

15. *Cirrhinus mrigala* (Hamilton, 1822) (Plate 1, No. 15)
 Local name: Mrigal; English name: Mrigal; Habitat: River.
16. *Aristichthys nobilis* (Richardson, 1845) (Plate 1, No. 16)
 Local name: Bighead; English name: Bighead Carp; Habitat: River (exotic).
17. *Hypophthalmichthys molitrix* (Valenciennes, 1844) (Plate 1, No. 17)
 Local name: Silver Carp; English name: Silver Carp; Habitat: River (exotic).

18. *Amblypharyngodon mola* (Hamilton, 1822) (Plate 1, No. 18)
Local name: Mola; English name: Mola Carplet; Habitat: Wide freshwater.
19. *Chela laubuca* (Hamilton, 1822) (Plate 1, No. 19)
Local name: Chela; English name: Indian Glass Barb; Habitat: Wide freshwater; IUCN status: Endangered.
20. *Crossocheilus latius* (Hamilton, 1822) (Plate 1, No. 20)
Local name: Sajani, Kala Bata; English name: Latia; Habitat: Wide freshwater; IUCN status: Endangered.
21. *Osteobrama cotio* (Hamilton, 1822) (Plate 1, No. 21)
Local name: Nak-kata; English name: Cotio; Habitat: Wide freshwater; IUCN status: Endangered.
22. *Puntius sophore* (Hamilton, 1822) (Plate 2, No. 22)
Local name: Jathi Punti; English name: Spotfin Swamp Barb; Habitat: Wide freshwater.
23. *Puntius ticto* (Hamilton, 1822) (Plate 2, No. 23)
Local name: Tit Punti; English name: Ticto Barb; Habitat: Wide freshwater; IUCN status: Vulnerable.
24. *Puntius gelius* (Hamilton, 1822) (Plate 2, No. 24)
Local name: Geli Punti; English name: Golden Dwarf Barb; Habitat: Wide freshwater.
25. *Puntius conchoniis* (Hamilton, 1822) (Plate 2, No. 25)
Local name: Kanchon Punti, Tit Punti; English name: Rosy Barb; Habitat: Wide freshwater.
26. *Rasbora rasbora* (Hamilton, 1822) (Plate 2, No. 26)
Local name: Darkina; English name: Gangetic Scissortail Rasbora; Habitat: Wide freshwater; IUCN status: Endangered.
27. *Salmostoma bacaila* (Hamilton, 1822) (Plate 2, No. 27)
Local name: Chela, Bachkuitta; English name: Large Razorbelly Minnow; Habitat: Wide freshwater.
28. *Salmostoma phulo* (Hamilton, 1822) (Plate 2, No. 28)
Local name: Chela, Bachkuitta; English name: Finescale Razorbelly Minnow; Habitat: Wide freshwater.
Family: 8. Cobitidae
29. *Lepidocephalichthys guntea* (Hamilton, 1822) (Plate 2, No. 29)
Local name: Gutum, Puiya; English name: Guntea Loach; Habitat: Wide freshwater.

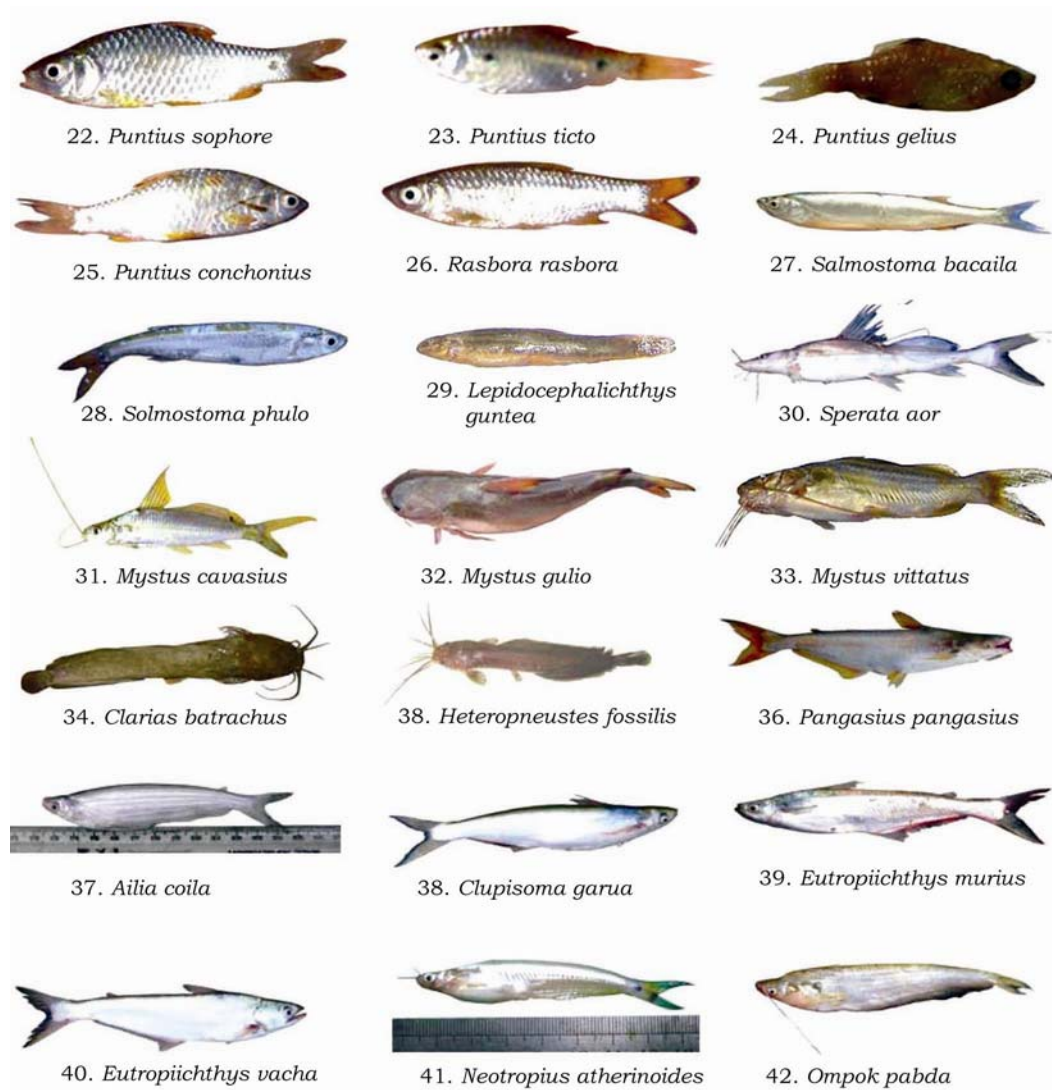


Plate 2. Fin fishes of the River Halda (continued)

Order: 5. Siluriformes

Family: 9. Bagridae

30. *Sperata aor* (Hamilton, 1822) (Plate 2, No. 30)

Local name: Ayre; English name: Long-whiskered Catfish; Habitat: Wide freshwater; IUCN status: Vulnerable.

31. *Mystus cavasius* (Hamilton, 1822) (Plate 2, No. 31)

Local name: Gulsha, Guilla; English name: Gangetic Mystus; Habitat: Wide freshwater; IUCN status: Vulnerable.

32. *Mystus gulio* (Hamilton, 1822) (Plate 2, No. 32)

Local name: Nuna Tengra, Shada Tengra; English name: Long-whiskered Catfish; Habitat: Sea, estuary and river (Anadromous migratory).

33. *Mystus vittatus* (Bloch, 1794) (Plate 2, No. 33)

Local name: Tengra; English name: Striped Dwarf Catfish; Habitat: Wide freshwater.

Family: 10. Clariidae

34. *Clarias batrachus* (Linnaeus, 1758) (Plate 2, No. 34)

Local name: Magur; English name: Walking Catfish; Habitat: Flood plain and beel.

Family: 11. Heteropneustidae

35. *Heteropneustes fossilis* (Bloch, 1794) (Plate 2, No. 35)

Local name: Shingi; English name: Stinging Catfish; Habitat: Flood plain and beel.

Family: 12. Pangasiidae

36. *Pangasius pangasius* (Hamilton, 1822) (Plate 2, No. 36)

Local name: Pangas; English name: Yellowtail Catfish; Habitat: River and estuary; IUCN status: Critically endangered.

Family: 13. Schilbeidae

37. *Ailia coila* (Hamilton, 1822) (Plate 2, No. 37)

Local name: Banspata, Kajuli; English name: Gangetic Ailia; Habitat: River, Kaptai lake.

38. *Clupisoma garua* (Hamilton, 1822) (Plate 2, No. 38)

Local name: Gharua; English name: Garua Bachcha; Habitat: River ; IUCN status: Critically endangered.

39. *Eutropiichthys murius* (Hamilton, 1822) (Plate 2, No. 39)

Local name: Muri Bacha; English name: Murius Vacha; Habitat: River.

40. *Eutropiichthys vacha* (Hamilton, 1822) (Plate 2, No. 40)

Local name: Bacha; English name: Batchwa Vacha; Habitat: River, Kaptai lakre; IUCN status: Critically endangered.

41. *Neotropius atherinoides* (Bloch, 1794) (Plate 2, No. 41)

Local name: Tinkata Batasi, Hil Guilla; English name: Indian Potasi;
Habitat: River.

Family: 14. Siluridae

42. *Ompok pabda* (Hamilton, 1822) (Plate 2, No. 42)

Local name: Pabda; English name: Pabdah Catfish; Habitat: Wide
freshwater; IUCN status: Endangered.

43. *Wallago attu* (Bloch & Schneider, 1801) (Plate 3, No. 43)

Local name: Boal; English name: Wallago; Habitat: Wide freshwater.

Order: 6. Beloniformes

Family: 15. Adrianichthyidae

44. *Oryzias dancena* (Hamilton, 1822) (Plate 3, No. 44)

Local name: Chela, Kagoji gura; English name: Estuarine Ricefish;
Habitat: Wide freshwater. Not reported by Shafi and Quddus (1982),
IUCN (2000) and Rahman (2005).

Family: 16. Hemiramphidae

45. *Hyporhamphus limbatus* (Valenciennes, 1847) (Plate 3, No. 45)

Local name: Thuitta; English name: Congaturi Halfbeak; Habitat:
Wide freshwater.

Family: 17. Belonidae

46. *Xenentodon cancila* (Hamilton, 1822) (Plate 3, No. 46)

Local name: Kakila; English name: Freshwater Garfish; Habitat:
Wide freshwater.

Order: 7. Cyprinodontiformes

Family: 18. Aplocheilidae

47. *Aplocheilus panchax* (Hamilton, 1822) (Plate 3, No. 47)

Local name: Chukkuni; English name: Blue Panchax; Habitat: Flood
plain and beel.

Order: 8. Syngnathiformes

Family: 19. Syngnathidae

48. *Microphis cuncalus* (Hamilton, 1822) (Plate 3, No. 48)

Local name: Kumirer Khil; English name: Crocodile-tooth Pipefish;
Habitat: River and Estuary.

Order: 9. Perciformes

Family: 20. Ambassidae

49. *Chanda nama* Hamilton, 1822 (Plate 3, No. 49)

Local name: Chanda; English name: Elongate Glass-perchlet;
Habitat: Wide freshwater; IUCN status: Vulnerable.

50. *Parambassis ranga* (Hamilton, 1822) (Plate 3, No. 50)

Local name: Lal Chanda; English name: Indian Glassy Fish; Habitat:
Wide freshwater; IUCN status: Vulnerable.

51. *Pseudambassis baculis* (Hamilton, 1822) (Plate 3, No. 51)

Local name: Chanda; English name: Himalayan Glassy Perchlet;
Habitat: Wide freshwater.

Family: 21. Scatophagidae

52. *Scatophagus argus* (Linnaeus, 1766) (Plate 3, No. 52)

Local name: Bishtara; English name: Spotted Scat; Habitat: Estuary
and sea; IUCN status: Endangered.

Family: 22. Sciaenidae

53. *Johnius coitor* (Hamilton, 1822) (Plate 3, No. 53)

Local name: Poa; English name: Coitor Croaker; Habitat: River,
Estuary and Kaptai lake.

54. *Macropsinosa cuja* (Hamilton, 1822) (Plate 3, No. 54)

Local name: Poa; English name: Cuja Bola; Habitat: Sea, estuary and
river (anadromous migratory).

Family: 23. Cichlidae

55. *Oreochromis niloticus* (Linnaeus, 1758) (Plate 3, No. 55)

Local name: Nilotica; English name: Nile Tilapia; Habitat: Freshwater
(exotic).

Family: 24. Anabantidae

56. *Anabas testudineus* (Bloch, 1792) (Plate 3, No. 56)

Local name: Koi; English name: Climbing Perch; Habitat: Freshwater.

Family: 25. Sillaginidae

57. *Sillaginopsis panijus* (Hamilton, 1822) (Plate 3, No. 57)

Local name: Sundra, Tular Dandi; English name: Gangetic Sillago;
Habitat: Estuary and sea.

Family: 26. Gobiidae

58. *Glossogobius giuris* (Hamilton, 1822) (Plate 3, No. 58)

Local name: Byla; English name: Tank Goby; Habitat: Wide
freshwater.

59. *Brachygobius nunus* (Hamilton, 1822) (Plate 3, No. 59)

Local name: Byla-gura, Nuna Byla; English name: Bumblebee Goby;
Habitat: River and estuary.



Plate 3. Fin fishes of the River Halda (continued)

60. *Apocryptes bato* (Hamilton, 1822) (Plate 3, No. 60)

Local name: Fhul Chiring; English name: Goby; Habitat: River and estuary.

61. *Pseudapocryptes elongatus* (Cuvier, 1816) (Plate 3, No. 61)

Local name: Fhul Chiring; English name: Goby; Habitat: Estuary and sea. Not reported by Shafi and Quddus (1982) and IUCN (2000).

62. *Parapocryptes serperaster* (Richardson, 1846) (Plate 3, No. 62)

Local name: Dora Chiring; English name: Goby; Habitat: Estuary and sea.

63. *Oxyurichthys microlepis* (Bleeker, 1849) (Plate 3, No. 63)

Local name: Sabuj Chiring; English name: Maned Goby; Habitat: River and estuary.

64. *Taenioides cirratus* (Blyth, 1860) (Plate 4, No. 64)

Local name: Lal Chew; English name: Bearded Worm Goby; Habitat: River and estuary.

65. *Odontamblyopus rubicundus* (Hamilton, 1822) (Plate 4, No. 65)

Local name: Shada Chew; English name: Rubicundus Eel Goby; Habitat: River and estuary.

66. *Ophieleotris aporos* (Bleeker, 1854) (Plate 4, No. 66)

Local name: Burguni; English name: Aporos Sleeper, Snakehead Gudgeon; Habitat: River and estuary. Not reported by Shafi and Quddus (1982), IUCN (2000) and Rahman (2005).

67. *Stigmatogobius sadanundio* (Hamilton, 1822) (Plate 4, No. 67)

Local name: Burguni; English name: Gudgeon; Habitat: River and estuary.

68. *Periophthalmodon schlosseri* (Pallas, 1770) (Plate 4, No. 68)

Local name: Dok Mach, Dok Chiring; English name: Giant Mudskipper; Habitat: Estuary.

Family: 27. Osphronemidae

69. *Colisa fasciatus* (Bloch & Schneider, 1801) (Plate 4, No. 69)

Local name: Khalisha; English name: Banded Gourami; Habitat: Wide freshwater.

70. *Trichogaster chuna* (Hamilton, 1822) (Plate 4, No. 70)

Local name: Choto Khalisha; English name: Honey Gourami; Habitat: Wide freshwater.

Family: 28. Polynemidae

71. *Polynemus paradiseus* Linnaeus, 1758 (Plate 4, No. 71)

Local name: Thopshe; English name: Paradise Threadfin; Habitat: Estuary.

Family: 29. Channidae

72. *Channa orientalis* Bloch & Schneider 1801 (Plate 4, No. 72)

Local name: Cheng; English name: Walking Snakehead; Habitat: Flood plain and beel; IUCN status: Vulnerable.

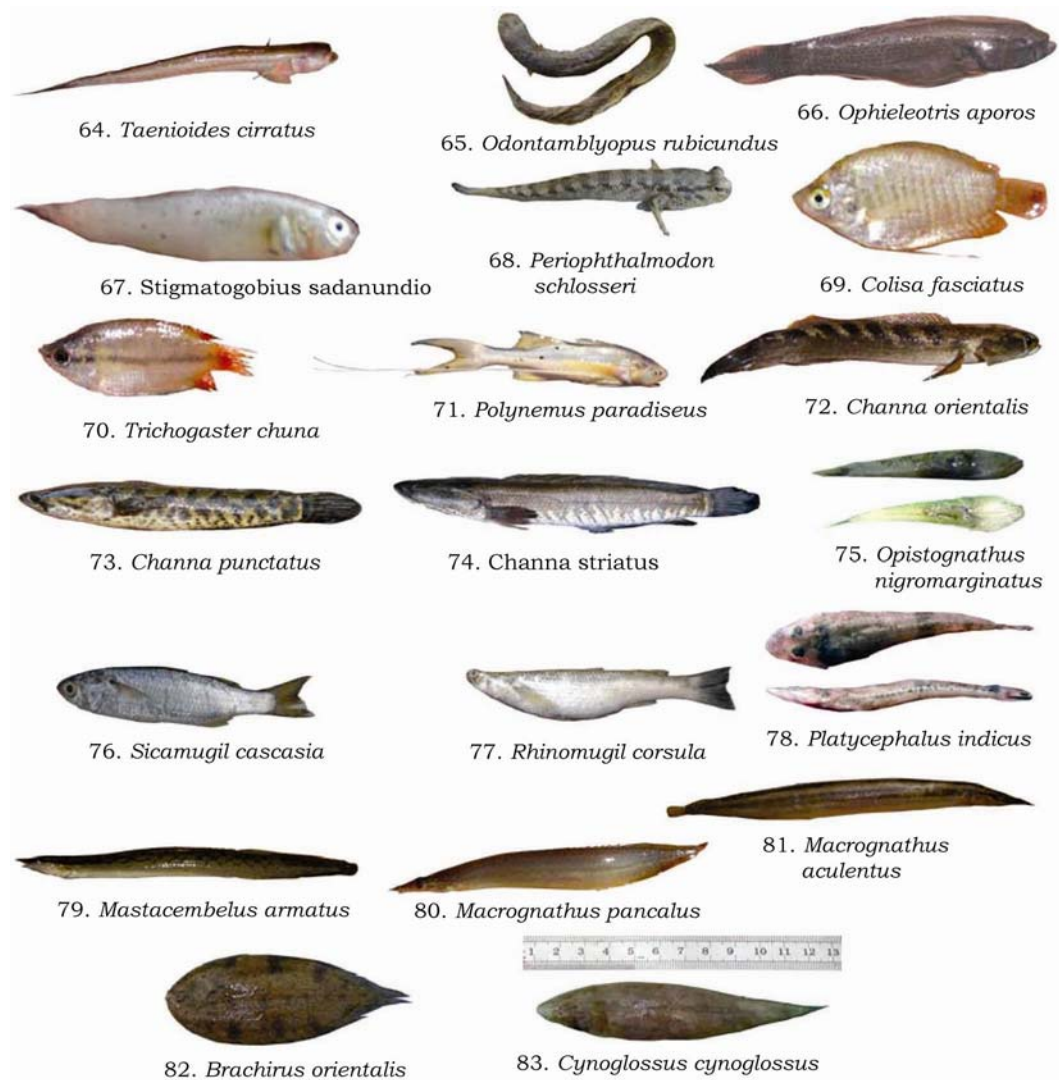


Plate 4. Fin fishes of the River Halda (continued)

73. *Channa punctatus* (Bloch, 1793) (Plate 4, No. 73)

Local name: Taki; English name: Spotted Snakehead; Habitat: Flood plain and beel.

74. *Channa striatus* (Bloch, 1793) (Plate 4, No. 74)

Local name: Shol; English name: Snakehead Murrel; Habitat: Flood plain and beel.

Family: 30. Opistognathidae

75. *Opistognathus nigromarginatus* Rüppell, 1830 (Plate 4, No. 75)

Local name: Bang Mach; English name: Birdled Jawfish; Habitat: Sea. Not reported by Shafi and Quddus (1982), IUCN (2000) and Rahman (2005).

Order: 10. Mugiliformes

Family: 31. Mugilidae

76. *Sicamugil cascasia* (Hamilton, 1822) (Plate 4, No. 76)

Local name: Bada, Bata; English name: Yellowtail Mullet; Habitat: River.

77. *Rhinomugil corsula* (Hamilton, 1822) (Plate 4, No. 77)

Local name: Bada, Bata; English name: Corsula Mullet; Habitat: Estuary.

Order: 11. Scorpaeniformes

Family: 32. Platycephalidae

78. *Platycephalus indicus* (Linnaeus, 1758) (Plate 4, No. 78)

Local name: Chota Byla, Mur Byla; English name: Bartail Flathead; Habitat: River and estuary.

Order: 12. Synbranchiformes

Family: 33. Mastacembelidae

79. *Mastacembelus armatus* (Lacepède, 1800) (Plate 4, No. 79)

Local name: Kata Baim; English name: Zig-zag Eel; Habitat: Wide freshwater; IUCN status: Endangered.

80. *Macrogathus pancalus* Hamilton, 1822 (Plate 4, No. 80)

Local name: Guci Baim; English name: Barred Spiny Eel; Habitat: Wide freshwater.

81. *Macrogathus aculeatus* (Bloch, 1786) (Plate 4, No. 81)

Local name: Tara Baim; English name: Lesser Spiny Eel; Habitat: Wide freshwater.

Order: 13. Pleuronectiformes

Family: 34. Soleidae

82. *Brachirus orientalis* (Bloch & Schneider, 1801) (Plate 4, No. 82)

Local name: Kukur Jib; English name: Oriental Sole; Habitat: River and estuary.

Family: 35. Cynoglossidae

83. *Cynoglossus cynoglossus* (Hamilton, 1822) (Plate 4, No. 83)

Local name: Kukur Jib; English name: Bengal Tongue Sole; Habitat: River and estuary.

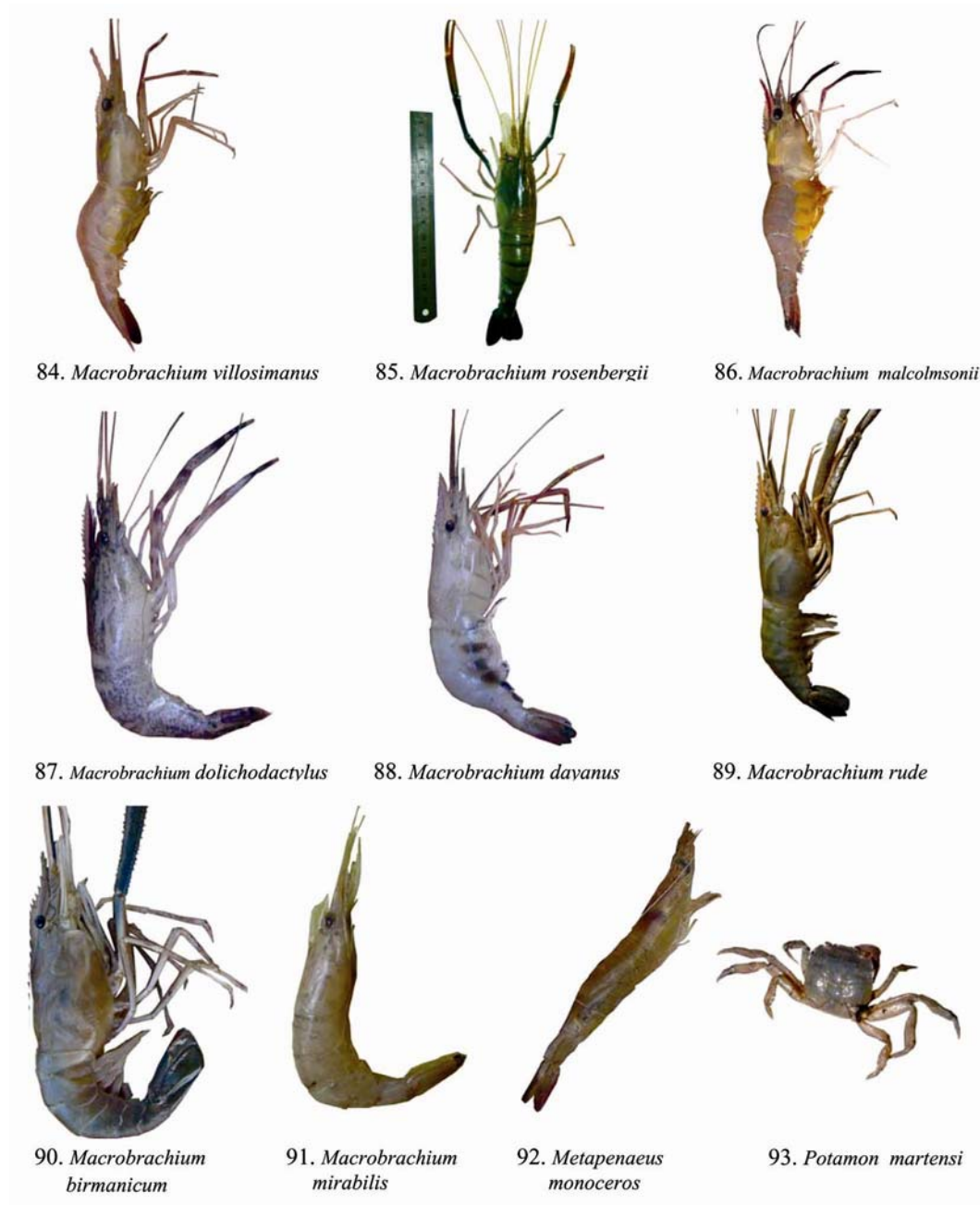


Plate 5. Shellfishes (Crustaceans) of the River Halda

Phylum: Arthropoda**Class: Crustacea****Order: Decapoda****Family: 1. Palaemonidae**

1. *Macrobrachium villosimanus* (Tiwari, 1947) (Plate 5, No. 84)
Local name: Dimua Icha, English name: Dimua River Prawn; Habitat: River.
2. *Macrobrachium rosenbergii* (de Man 1879) (Plate 5, No. 85)
Local name: Golda Chingri, English name: Giant River Prawn; Habitat: River and estuary.
3. *Macrobrachium malcolmsonii* (H.M.Edwards, 1844)(Plate 5, No.86)
Local name: Chotka Icha, Tora Icha, English name: Monsoon River Prawn; Habitat: River and estuary.
4. *Macrobrachium dolichodactylus* (Hilgendorf, 1878) (Plate 5, No. 87)
Local name: Ghoda Icha, English name: Ghoda River Prawn; Habitat: Freshwater.
5. *Macrobrachium dayanus* (Henderson, 1893) (Plate 5, No. 88)
Local name: Ghoda Icha, English name: Kaira River Prawn; Habitat: River.
6. *Macrobrachium rude* (Heller, 1862) (Plate 5, No. 89)
Local name: Paitta Icha, English name: Hairy River Prawn; Habitat: River, estuary and sea.
7. *Macrobrachium birmanicum* (Schenkel, 1902) (Plate 5, No. 90)
Local name: Ghoda Icha, English name: Birma River Prawn; Habitat: Freshwater.
8. *Macrobrachium mirabilis* (Kemp, 1917) (Plate 5, No. 91)
Local name: Lotia Icha, English name: Short-leg River Prawn; Habitat: River and estuary.

Family: 2. Penaeidae

9. *Metapenaeus monoceros* (Fabricius, 1798) (Plate 5, No. 92)
Local name: Harina Icha, Lolia Icha, English name: Brown Shrimp; Habitat: Sea and estuary.

Family: 3. Portunidae

10. *Potamon martensi* (Wood Mason, 1871) (Plate 5, No. 93)
Local name: Cimta Kakra, English name: Crab, Habitat: Freshwater.

Eighty-three finfish and ten shellfish (nine prawns and one crab) species were identified in this study. Rainboth (1978) studied the fishes from catch compositions of three habitats of the Halda and Ichamati area, [i] standing water

habitat (includes floodplains of Halda and Ichamati), ii) upland river habitat (Ichamati River), and iii) Tidal stream habitat (Halda River)] and documented 78 species of finfish and 12 species of prawn where 48 finfish and 8 prawn species from the floodplains, 23 finfish and 5 prawn species from the Ichamati river, and 65 finfish and 12 prawn species from the Halda river. Rainboth (1978) again listed 99 species of finfish and 12 species of prawn from Halda and Ichamati area combined during winter season without mentioning catch composition or other details in the same working documents.

In the present study although finfish species (83) richness in the River Halda is higher with more 18 species in comparison to 65 species of Rainboth (1978) but 23 species of Rainboth (1978) was absent during present investigation. Among the absent 23 finfish species, three are coastal (*Collia sp*, *Leiognathus eqqulus*, *Herpaodon nehereus*) and four are floodplains (*Esomus danricus*, *Dermogenys pusilla*, *Chela cachiuis* and *Oreichthys cosuatis*), which might be the occasional invader to Halda river. Moreover, among the 23 absent species, nine were wide freshwater (*Oryzias malaonostigma*, *Denio rerio*, *Rasbora daniconius*, *Puntius chola*, *Tetraodon cutcutia*, *Mystus bleekeri*, *Badis badis*, *Puntius guganio*, and *Colisa lalia*), which seemed to be recorded from the Halda adjacent flood plains. Among other absent fishes, two were up riverine (*Barilus barna* and *Gagata gagata*), four estuarine (*Pama pama*, *Awaous stamineus*, *Eleotris fusca*, and *Synuaptura pan*) and one (*Taeniodes gracilisis*) is questionable as there is no other records. Due to local short distance migratory nature of (tropical) freshwater fish species, a large number of blackfishes (limnophilic freshwater species that migrates to river) were somewhat frequently found in river and whitefishes (rheophilic species that migrate to the floodplain) in flood plain. Thus flood plain fishes that recorded earlier by Rainboth (1978) from the river Halda can not be concluded as disappeared but during the present study was not found in the catch composition of Halda River. Further investigation on the fish fauna of floodplain, upland river, tributaries and coastal water could be able to conclude whether these species are disappeared or not.

Of the 83 finfish species recorded in this study, three belongs to the critically endangered, nine endangered and eight vulnerable categories according to IUCN (2000). Four finfishes (*Moringua macrocephalus*, *Oryzias dancena*, *Ophieleotris aporos* and *Opistognathus nigromarginatus*) are the new records from inland waters of Bangladesh. Another species *Labeo ariza* was also available in lesser extent in the River Halda, which was not reported by most of the earlier authors except Ahmed *et al.* (2007) and Haque *et al.* (2007) from the some rivers of Netrokona.

Some exotic fishes which are found in the river Halda were also reported from other inland open waters of Bangladesh both from lotic and lentic habitats viz. from BKSB beel of Khulna by Rahman *et al.* (1999), from Kaptai lake by Ahmed *et al.* (2001), from Maljhee-Kangsa floodplain of Sherpur district by Ahmed *et al.* (2005), from Dopi beel in Joanshahi Haor of Kishorgonj by Azhar *et al.* (2007), from River Titas by Ahmed and Akhter (2008), from Titas floodplain by Ahmed (2008), and from Mahananda river by Mohsin and Haque (2009).

The finfish (83 species) and shellfish (9 prawn) species of Halda river were higher than those of Pagla river (75 finfish) (Zafar *et al.* 2007), Mahananda river (56 finfish) (Mohsin and Haque 2009), Irrawady river, Myanmar (79 finfish), Narmada, India (77 finfish), Sepik (New Guinea) (De Silva *et al.* 2007). But the number of fish species in the river Naaf (98 finfish and 23 prawns – Hossain *et al.* 2007) and Padma (110 finfish – Islam and Hossain 1983) were higher than those of the river Halda. It might be due to the directly linkage with the sea in case of river Naaf, where marine species were included and in case of Padma due to vast area of the river. However, while comparing earlier records of Rainboth (1978) with the present one, species richness in the Halda River was found to be 120 (106 finfish, 14 prawns), which is comparable with larger river systems of Asia.

Tidal River Halda is well known as a unique spawning ground of major carps in Bangladesh from where fertilized eggs of major carps are collected and hatched in the mud made scoop on the river bank thus producing considerable number of fries for the country's aquaculture. The River is also well known for producing brood of freshwater giant prawn and other fishery. The river habitat and its living beings are under threat due to unscientific human interventions like loop cutting, blocking natural flow of water of big tributaries by making sluice gates, embankment, pollution from paper mill (Chittagong Asian paper mill) and power plant (Picking power plant), rubber dam over the river at upstream, as well natural causes like siltation, erosion, climate change (irregular and untimely rainfall, drought, temperature increase). Since 2007 the Government has declared Halda River as fish sanctuary to protect the spawning ground of major carps and its fisheries resources. To conserve and protect the resources of this important river, declared regulations should be implemented strictly and properly and illegal fishing should be stopped by the law enforcement agencies and by creating public awareness. Present records of 93 ichthyofauna (83 finfishes and 10 shellfish species) will help the future researchers, planners and policy makers as no published account of ichthyofauna of Halda river is available after or before major interventions (12 sluice gates over 12 major tributaries of Halda River, blocking the migration and

local movement of fish) during 1975-'76 and 1982-'83 by Bangladesh Water Development Board for irrigation and flood control.

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