Fish fauna of Tripura

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Abstract

The ichthyofauna collected from the sub Himalayan region of Tripura from 1976 to 1981 reveals the presence of 93 species of fish belonging to 26 families and 11 orders. Among these Rasbora elanga (Ham), Labeo nandina (Ham), Lepidocephalus berdmorei (Ham), Somileptus gongota (Ham), Glyptothorax cavia (Ham), Glyptothorax telchitta (Ham), Hara hara (Ham) and Apocypris bato (C and V) have been recorded for the first time. Common names of many fishes and location of collection with notes on new occurrences are given.

INTRODUCTION

Tripura, the North-eastern State of India (22° 56' and 24° 22' N and 91° 0' and 92° 20'E latitude) is located in the sub Himalayan region (Anon, 1975). The principal hill ranges of the state are the Jumpai, Sakhan, Ilang, Longtarai, Atharomura and Baramura. These ranges increase in height towards south from the plains of Sylhet in Bangladesh and towards North from the Chittagong District of Bangladesh. In Tripura, they gain height from West to East. All ranges run almost parallel to one another in a northerly direction. The drainage from these hills pour down to the north by Khowai, Dhalai, Manu, Juri, Langai rivers, in the east by Gumti and Howda river and in the South-east the Fenny and Muhuri rivers (Fig. 1). The Fenny and Muhuri are tidal rivers.

Though the location of Tripura and its varying geographical features have contributed a diverse fish fauna, adequate attention has not been given so far to study comprehensively the fish faunal resources as seen from literature (Nair, 1971; Anon, 1975; Dutta, 1977 and Ghosh and Lipton in press). Further, the earlier collections made in the north eastern region of Assam by Day (1876) and northern Bengal by Shaw and Shebbeare (1937) also did not include the hill 'Tipperah', the present day Tripura. Therefore there was a need to investigate the fish faunal resources and to consolidate the information gained. The work reported here deals with the various species collected from field surveys conducted from 1976 to 1981. The classification followed is as that of Greenwood et al., (1966) and Menon (1974).

SYSTEMATIC ACCOUNT

Along with the scientific name, the common names of fishes and locality from where these were collected are given below:

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LIPTON: FISH FAUNA OF TRIPURA

Class: Osteichthyes
Sub class: Actinopterygii
Order: Clupeiformes
Sub order: Clupeoidei
Family: Clupeidae

MAP OF TRIPURA SHOWING PRINCIPAL RIVERS AND FISH COLLECTION CENTRES

CENTRES

SCALE: 16 MILES TO AN INCH

RIVERS
1. *Hilsa ilisha* (Ham) ‘Ilish’
   - Order
   - Family
   - Subfamily

2. *Gudhisia chapra* (Ham) ‘Koira’
   - Super order
   - Order
   - Family
   - Subfamily

3. *Notopterus chitala* (Ham) ‘Chital’
4. *Notopterus notopterus* (Ham) (Pallas)
   - ‘Phoul’
   - Super order
   - Order
   - Family
   - Subfamily

5. *Chela labuca* (Ham) ‘Chapkhowari’

6. *Salmo stoma baccala* (Ham) ‘Chela’
   - Sub Family

7. *Barilius barila* (Ham) ‘Chedra’
8. *Barilius barna* (Ham) ‘Joia’ ‘Bhola’ and ‘Ghol’
9. *Barilius bendelisis* (Ham) ‘Joia’
10. *Barilius shacra* (Ham) ‘Koksha’
11. *Barilius tileo* (Ham) ‘Boola’

12. *Danio (Danio) aequipinnatus* (McClelland)
   - ‘Cheibli’

13. *Danio (Brachydaniio) rerio* (Ham) ‘Anju’
14. *Danio (Danio) dangilla* (Ham) ‘Nipati’
15. *Danio (Danio) devario* (Ham) ‘Nipati’
16. *Esomus darricus* (Ham)
17. *Rasbora daniconius* (Ham) ‘Darkina’

18. *Rasbora elanga* (Ham)*

   1876 *Rasbora elanga*, Day Fish. India, p. 584, pl. 146, Fig. 1.
   1937 *Rasbora elanga*, Shaw and Shebbeare, J. Asiatic. Soc Beng. p. 3,
   31 Text Fig. 26, pl. 2, Fig. 13.

22 examples, length 9.8 to 20.0 cm were collected from Howdah river near
Agartala. D. II. 7, A. II. 5, P. 15, V. 8, C. 19, L. 1.40; length of head 5-5
3/4; height of body 4 1/4 to 5 in total length; barbels 1 pair (rostral) cleft of
the mouth oblique, lower jaw having once central and two lateral prominences
fitting into corresponding emerginations of the upper jaw, which gives the
mouth a wavy opening when viewed from the front. Colour is silvery with
lead coloured band along the upper portion of the side.

*Distribution*: Bihar, West Bengal,
Bangladesh, Assam and Northern
Burma (Menon, 1954).
Sub family

19. Ambharygodon nola (Ham) 'Mowka'
20. Aspidoparia jaya (Ham)
21. Catla catla (Ham) 'Catla' 'Katal'
22. Chagumios chagunio (Ham) 'Puti'
23. Cirrhina beba (Ham) 'Rewah'
24. Cirrhina miriaga (Ham) 'Mirigal'
25. Labeo bata (Ham) 'Bhangna'
26. Labeo boga (Ham) 'Bangum batta'
27. Labeo calbasu (Ham) 'Kalibaus'
28. Labeo goni (Ham) 'Gonya'
29. Labeo nandina* (Ham)

1876 Labeo nandina Day, Fish India, p. 535, pl. 126, Fig. 1 and 2.
1937 Labeo nandina Shaw and Shebbeare J. Asiat. Soc. Bengal, 3, p. 55, pl. 5, Fig. 12, Text Fig. 52.
20 examples—length 8 to 15 cm were collected from a lake near Agartala.
D. II-III. 22–24, A. II. 5, p. 15, V. 9 C. 19 L. 1. 42–44. Length of head

30. Labeo rohita (Ham) 'Rui', 'Rohu'
31. Osteobrama cotio cotio 'Gila Khani'
32. Puntius chola 'Tita puti'
33. Puntius clavatus (McClelland) 'Puti'
34. Puntius conchonius (Ham) 'Kanchan Puti'
35. Puntius sophore (Ham) 'Puti' 'Sar puti'
36. Puntius sara sarana (Ham) 'Sar puti'
37. Puntius ticto (Ham) 'Tituputi'
38. Semiplotus emilplotus 'McClelland 'Bandangi'
39. Tor putitora (Ham)
40. Tor tor (Ham) 'Mahasol'

Family

41. Psilorhynchus balitora (Ham)
42. Botia dario (Ham)
43. Lepidocephalus berdmorei* (Blyth) 'Gunte' 'Gutam'

Cyprinidae

Common in swampy paddy fields and ponds
Common in rivers
Commercially important fish. Widely used in stocking ponds
Gumti river
Gumti river
Widely used in stocking ponds
Gumti river, Manu river and Fenny river
Fenny river
Widely used in stocking ponds
Manu, Gumti rivers

4 1/2–5 of caudal 4 1/4–4 1/2, height of body 3 1/2 in the total length, Barbels 2 pairs, Snout obtuse, slightly projecting beyond the jaws, a few fine pores present on the snout. Lips thick and fringed. Colour is dark greenish above, becoming lighter below.

Distribution: West Bengal, Bangladesh, Assam and Burma.

Throughout Trippura widely used in stocking ponds
Collected from Gumti Khowai and Fenny river
Very common in all water logged areas. Collected from different parts of Tripura
Collected along with P.chola from water logged areas after rainy season
Water logged areas

Streams, ponds and water logged areas
Howda river near Agartala and in fish tanks
Ponds, tanks, beels
Khowai river

Upper reaches of Gumti in Raima rivulet (Gumti reservoir)
Upper reaches of Gumti in Raima rivulet (Gumti reservoir)
Psilorhynchidae
Upper reaches of Gumti river
Cobitidae
Stream near Khowai

*New record
1876 *Lepidocephalichthys berdmorei* Day, *Fish. India*, p. 610, pl. 153, Fig. 3.


25 examples, 8–10 cm length, were collected from Fenny river, Sabroom. D. II, A. II 5–6, P. 10, V. 8, C. 17.

**Distribution**

1. *Lepidocephalus guttea*

2. *Neomachielus bota* (Ham)

3. *Neomachielus spiloroterus*

4. *Neomachielus zonatus*

5. *Somileptes gongota* (Ham)

1876, *Somileptes gongota* Day, *Fish. India*, p. 605, pl. 155, Fig. 2.

1937 *Somileptes gongota*, Shaw and Shebbeare. *J. Asiatic. Soc. Baengl.*, 3, p. 78, Text Fig. 75.

15 examples 7.2 to 10 cm in length were collected from Fenny river, Sabroom D. III, A. II 8, P.I. 10, V.II. 6, C. 16. Length of head 5 of caudal 6+4, height of body 7 in total length. The upper profile of the snout is slightly concave, rising abruptly to above the eye which are also close together near the top of the head. From this point, the body tapers gradually to the peduncle of the tail. Scales are minute. A large erectile suborbital spine is also present. Barbels 3 pairs of which a small erect pair is present above nostrils. Colour is light brown speckled with darker above, yellowish or whitish beneath. Fins yellowish.

**North Bengal and Assam**

Siluriformes

Bagridae

Fenny river at Sabroom

Fenny river at Sabroom

Gumti river and a lake near Agartala

North, south and west Tripura districts in ponds, lakes and rivers

Khowai river at Khowai

Siluridae

Fenny and Khowai rivers

Gumti river and Howda river near Agartala

Fenny river, Gumti river

Schilbeidae

Gumti river, Rudrasagar lake

Gumti and Manu rivers

Gumti river and Rudrasagar

Gumti river (rare species)

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*Recorded by Dutta (1977)*

**New Record**


63. Bagarius bagarius (Ham) ‘Bhaghar’

64. Batasio batalio (Ham) ‘Bojori’

65. Glyptothere cavia (Ham)*

1876 Euglyptosternum lineatum Day, Fish. India, p. 500, pl. 116, Fig. 7.

1937 Glyptothere lineatus, Shaw and Shebbeare, J. Asiat. Soc. Beng., 3, p. 102, Fig. 104.

1948 Glyptothere cavia Hora and Menon, Rec. Indian Mus., 46, p. 60, pl. 2, Figs. 4, 5.

13 examples length 5.5 to 8.5 cm were collected from Khowai river, West District. D.I. 6, D.2.O, A. III. 10.

66. Glyptothere riberoi (Hora)

67. Glyptothere telchitta (Ham)*

1876 Glyptothere telchitta Day Fish. India p. 498, pl. 116, Fig. 2.

1937 Glyptothere telchitta Shaw and Shebbeare, J. Asiat. Soc. Beng. 3. p. 103, Text Fig. 105.

24 examples, length 5.0 to 8.2 cm were collected from Khowai river, West District. D.I. 6, D 2.O, A. II. 9, P.I. 8, Vol. 6, C. 17. Length of head 5 1/4 to 5 3/4, of caudal 5 3/4, height of body 7 1/2 to 8 in the total length. Upperjaw is longer than the lower. Barbels 4 pairs; the outer mandibular pair reach the gill opening. There is a pectoral adhesive apparatus. Skin with small longitudinal elevations. Colour is blackish-brown yellow fins with black bands.

General Distribution: Uttar Pradesh, North Bihar, North Bengal and Nepal.

South District. Length of head 4-4 1/2 of caudal 5 height of body 4 1/2-5 in total length. Head flattened in a horizontal plane and body in the vertical plane. The skin is rough with elevated spots or blunt. Bony spines. Barbels four pairs. Colour is olive brown with darker bands.

Distribution: Gangetic provinces, Assam, Burma and Orissa.

*New record
Family 69. *Clarius batrachus* (Linn) 'Jagur', 'magur'
   Family 70. *Heteropneustes fossilis* (Bloch) 'Singhi'
   Family 71. *Chaca chaca* (vam) 'Kutkutya'
   Family 72. *Olyra longicaudata* (McClell) 'Bhotsinghi'
   Super order 73. *Aplocheilus panchax* (Ham)
   Sub order 74. *Xenentodon cancila* (Ham) 'Kakiya'
   Super order 75. *Channa marulius* (Ham) 'Gajar'
   Family 76. *Channa orientalis* (Schneider) 'Cheng'
   77. *Channa punctata* (Bloch) 'latti' or 'taki'
   78. *Channa striatus* (Bloch) 'Shoal'
   Order 79. *Amphinous cuhia* (Ham) 'Kuchiya'
   Sub order 80. *Chanda baculis* (Ham) 'Chanda'
   Family 81. *Chanda nama* (Ham) 'Chanda'
   Family 82. *Chanda ranga* (Ham) 'Chanda or ronga'
   Family 83. *Badis badis* (Ham) 'Bot koi'
   Family 84. *Nandus nandus* (Ham) 'Nanda or Meni'
   Sub order 85. *Aprocrux bato* (C and V)* 'Cheeng'

*New Record*
1876 *Apocryptes bato* Day, *Fish. India*, p. 302, p. 114, Fig. 6.


Length of head 6-6 1/2 of caudal 4 1/3 height of body 7 in the total length. Body elongated. Eyes are high up and set very closely. The ventral fins united

86. *Glossogobius gutum* (Ham) ‘Bhalia’ or ‘belay’

Sub order
Family
87. *Anabas testudineus* (Bloch) ‘Koi’

88. *Colisa sota* (Ham)

Order
Family
89. *Colisa fasciata* (Schneider) ‘Kholisha’

90. *Mastacembelus armatus* ‘Baim’ Lacepede

91. *Mastacembelus panceulus* (Ham) ‘Baim’

92. *Macragnostus aculeatus* (Bloch) ‘Goichi’

93. *Tetradon cuscus* (Ham)

**DISCUSSION**

The systematic account indicates the occurrence of 93 species belonging to 11 orders, 26 families and 55 genera. Majority of the genera are found to be common to that of the Indo-Gangetic drainage and south-east Asian fauna. Fifteen genera are comparable to that of the South West Asian fish fauna as listed by Menon (1973). Five genera are represented elsewhere only in the Eastern Himalayas. One species (that of *Batasio batasio* (Ham)) is of exclusively Burmese origin and represented elsewhere in the North east India, only in the Manipur state.

Among the new records reported here, the two genera *Somileptes* and *Hara* are considered to be endemic to India (Menon, 1955). The species *Apocryptes bato* (C and V) has been forming a disc attached at their bases. Colour is light greenish yellow with ill defined narrow vertical yellow bands descending from the back to the abdomen.

**Distribution:** Orissa and lower Bengal within tidal reach.

Common in all water-logged areas and in streams

Anabantoidei
Anabantidae
Abundant immediately after the rainy season caught from beels and marshes

Beels and other water-logged areas

Mastacembeliformes
Mastacembelidae

Ponds and tanks and beels

Streams, ponds water-logged areas

Streams, ponds water-logged areas

Rivers and adjoining water-logged areas

Beels, water-logged areas and in streams (Bamutia beel, West Tripura)

recorded for the first time from Tripura and from the North-eastern region as well. While describing the distribution of this species, Day (1876) observed that the species is present only in the tidal reaches of the river. The river Fenny, from where collections were made is connected to the Bay of Bengal through Bangladesh. The collections were made approximately 92 kilometers from the sea mouth and therefore confirms its natural habitat.

The occurrence of these fish species in Tripura and their distribution in different ecosystems provides additional information on the existing knowledge of the fish genetic resources of the North-eastern Himalayan region and may be of interest to those involved in fish geography of the Assam-eastern Himalayas and that of Indo-Malayan Archipelago.
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