

OCCASIONAL PAPER NO. 220

**RECORDS OF THE
ZOOLOGICAL SURVEY OF INDIA**

**Ichthyofaunal diversity of Midnapore, Bankura
and Hooghly Districts, South West Bengal**

**SIDDHARTHA SANKAR MISHRA
PRASENJIT PRADHAN
SUBRATA KAR
SUSANTA KUMAR CHAKRABORTY**

ZOOLOGICAL SURVEY OF INDIA

OCCASIONAL PAPER NO. 220

**RECORDS OF THE
ZOOLOGICAL SURVEY OF INDIA**

**Ichthyofaunal diversity of Midnapore, Bankura and
Hooghly Districts, South West Bengal**

**SIDDHARTHA SANKAR MISHRA, PRASENJIT PRADHAN,
SUBRATA KAR AND SUSANTA KUMAR CHAKRABORTY***

*Vidyasagar University, West Midnapore, 721102, W. B.
Fish Division, Zoological Survey of India, Kolkata, W. B.*

**Correspondent author*

Edited by the Director, Zoological Survey of India, Kolkata



सत्यमेव जयते

**Zoological Survey of India
Kolkata**

CITATION

Siddhartha Sankar Mishra, Prasenjit Pradhan, Subrata Kar and Susanta Kumar Chakraborty, 2003. Ichthyofaunal diversity of Midnapore, Bankura and Hooghly Districts, South West Bengal, *Rec. zool. Surv. India, Occ. Paper No. 220* : 1-65. (Published by the Director, *Zool. Surv. India*, Kolkata)

Published- November, 2003

ISBN 81-8171- 024-X

© *Government of India, 2003*

ALL RIGHTS RESERVED

- No part of this publication may be reproduced stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.
- This book is sold subject to the condition that it shall not, by way of trade, be lent, resold hired out or otherwise disposed of without the publisher's consent, in any form of binding or cover other than that in which it is published.
- The correct price of this publication is the price printed on this page. Any revised price indicated by a rubber stamp or by a sticker or by any other means is incorrect and should be unacceptable.

PRICE

India : Rs. 100.00

Foreign : \$ 7 · £ 5

Published at the Publication Division by the Director, Zoological Survey of India, 234/4, A. J. C. Bose Road, 2nd MSO Building (13th Floor), Nizam Palace, Kolkata - 700020 and printed at Krishna Printing Works, 106, Vivekananda Road, Kolkata - 700 006.

**Records of the
Zoological Survey of India
Occasional Paper**

No. 220

2003

1-65

CONTENTS

| | |
|----------------------------------|----|
| INTRODUCTION | 1 |
| MATERIALS AND METHODS | 1 |
| RESULTS | 1 |
| SYSTEMATIC ACCOUNT | 1 |
| Family 1 NATOPTERIDAE | 1 |
| Family 2 ANGUILLIDAE | 3 |
| Family 3 CLUPEIDAE | 3 |
| Family 4 ENGRAULIDIDAE | 5 |
| Family 5 CHANNIDAE | 6 |
| Family 6 SYNBRANCHIDAE | 8 |
| Family 7 CYPRINIDAE | 9 |
| Family 8 COBITIDAE | 22 |
| Family 9 BAGRIDAE | 24 |
| Family 10 SILURIDAE | 29 |
| Family 11 PANGASIIDAE | 33 |
| Family 12 SISORIDAE | 33 |
| Family 13 CLARIIDAE | 35 |
| Family 14 HETEROPNEUSTIDAE | 36 |
| Family 15 ARIIDAE | 36 |
| Family 16 BELONIDAE | 37 |
| Family 17 CYPRINODONTIDAE | 38 |
| Family 18 CENTROPOMIDAE | 39 |
| Family 19 AMBASSIDAE | 39 |
| Family 20 NANDIDAE | 40 |
| Family 21 MUGILIDAE | 42 |
| Family 22 POLYNEMIDAE | 43 |
| Family 23 GOBIIDAE | 44 |
| Family 24 ANABANTIDAE | 46 |

| | |
|--|----|
| Family 25 BELONTIDAE | 47 |
| Family 26 TERAPONIDAE | 48 |
| Family 27 ELEOTRIDAE | 48 |
| Family 28 GOBIOIDIDAE | 49 |
| Family 29 SILLAGINIDAE | 49 |
| Family 30 SCIAENIDAE | 50 |
| Family 31 MASTACEMBELIDAE | 52 |
| Family 32 CYNOGLOSSIDAE..... | 53 |
| DISCUSSION | 54 |
| SUMMARY | 55 |
| ACKNOWLEDGEMENT | 55 |
| REFERENCES | 56 |
| TABLE I. List of different Ichthyofauna | 58 |
| TABLE II. List of Ichthyofauna inhabiting both in freshwater and saline water..... | 65 |

INTRODUCTION

A knowledge of the kind of fishes that comprise the Ichthyofaunal diversity of South West Bengal is a prerequisite for adopting proper conservation strategies. Six rivers viz. Subarnarekha, Kansai, Keleghai, Shilabati, Dwarakeswar and Rupnarayan originated either from Bihar plateau or from upland of Purulia flowing through the Midnapore District and ultimately ending to Bay of Bengal via Hooghly estuary, constitute the main freshwater habitats of fishes of South West Bengal. Besides natural ponds, beels and collected water in wetlands during monsoon also support the lives of so many non-culturable fishes. Considerable works on taxonomic survey of fishes have been undertaken by different scientist (Day 1878, Shaw and Shebbeare 1937, Sen 1985, Jayaram 1981, Beavan 1990, Talwar and Jhingran 1991, Menon 1999). No such work has so far been undertaken from the South west Bengal.

MATERIALS AND METHODS

Fishes after being collected from harvesting sites directly from the fishermen as well as from the local market were preserved in 4% buffered formaline and subsequently identified following standard literatures (Day 1878, Shaw and Shebbeare 1937, Jayaram 1981, Sen 1985, Beavan 1990, Talwar and Jhingran 1991, Menon 1999). Fishes were collected from freshwater bodies enjoying different ecological features (river flow, creeks, and tributaries of main rivers, irrigation canals, natural ponds, inundated lowland and agricultural fields during monsoon) of three Districts of South West Bengal (22-23.3°N; 86-88.3°E)(Fig 1).

RESULTS

All total 103 species of fishes were recorded in the present study of which 29 species were found to inhabit both in fresh water and brackish water zone (Table-I & Table-II).

SYSTEMATIC ACCOUNT

Order 1. OSTEOGLOSSIFORMES

Family 1. NOTOPTERIDAE

Genus 1. *Chitala* Hamilton.

1. *Chitala chitala* (Hamilton-Buchanan)

1822. *Mystus chitala* Hamilton-Buchanan, *Fishes of Ganges* : 236, 382 (type locality : rivers of Bengal and Bihar).

1991. *Notopterus chitila* Talwar and Jhingran, *Inland fish*; 1 : 63, fig. 24, (Pakistan, Bangladesh, Myanmar).

1999 *Chitala chitala* Menon, *Rec. zool. Surv. India. Occ. Paper No 175* : 8-9.

Material examined : From Rivers (Dwarakeswar 2ex. 20-27cm; Kansai 1ex 78 cm; Subarnarekha 1ex-12 cm).

Local name : Chital (Midnapore, Bankura, Hooghly).

Distribution : India, Pakistan, Bangladesh, Myanmar.

Habitat : Freshwater rivers, nullahs, tributories.

Remarks : The flesh is of good flavour but full of small bones on the upper part (back) of the body. It is very much popular in this region specially for the abdominal part which is endowed with rich oil content and flavour 'The dorsal side contains numerous small bones. A strong prejudice exists against using this fish as food, owing to its being supposed to live on human carcases. 'The abundance of this species is fast declining.

Genus 2. *Notopterus* Lecepede

2. *Notopterus notopterus* (Pallas)

1769. *Gymnotus notopterus* Pallas, *Special. zool*, 7 : 40, Pl. 6, fig 2. (type-locality: ponds and river of Bengal).

1991. *Notopterus notopterus* Talwar and Jhingran, *Inland Fish* ; 1 : 64, fig. 25, (Pakistan, Bangladesh, Burma). Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 9.

Material examined : From rivers (Kansai 3ex 20-27 cm; Subarnarekha 1ex 21 cm; Shilabati 1 ex, 18 cm; Keleghai 1 ex 21 cm) large pond (Jhargram 1 ex 17 cm) Canals (Baghui, Katapal khal, Datan, Estuaries (Bandar).

Local name : Pholui (Midnapore, Bankura, Hooghly).

Distribution : India, Pakistan, Bangladesh, Myanmar.

Habitat : Streams, ponds, brackish water-bodies.

Remarks : It is a carnivorous fish. This fish can only be cultivated in wild water bodies or in productive polyculture ponds in which large fish are cultured. It can breed in stagnant or running water in the rainy season. A ripe female bears relatively fewer eggs which are laid in small clumps on submerged vegetation. Population is abundant. Market price and supply is moderate especially during monsoon and early winter months. It is a good eating fish especially when alive. Soup made from it, is reported to be given to the patient of measles.

Order 2. ANGUILLIFORMES

Family 2. ANGUILLIDAE

Genus 3. *Anguilla* Schrank

3. *Anguilla bengalensis bengalensis* (Gray)

1831. *Muraena bengalensis* Gray, Illust. Indian 2001. Pl. 95, fig. 5 (type-locality : Ganges river).

1991. *Anguilla bengalensis bengalensis* Talwar and Jhingran, *Inland Fish.*, 1 : 74 (Pakistan; India; SriLanka: Burma and East Indies). ; Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 6.

Material examined : From rivers (Kansai 1ex-32.7cm; Keleghai 2ex-19-21.5cm; Shilabati 2ex-29cm; Subarnarekha 1ex-35cm), Estuaries (Haldi,Rupnarayan upstream).

Local name : Jol Kencho, Ban (Midnapore, Bankura, Hooghly).

Distribution : India, Pakistan, SriLanka and Myanmar.

Habitat : Freshwater and brackishwater streams, rarely occur in mud substrates of tanks, catadromus fish; mature females lay their eggs in the sea.

Remarks : It is the most common eel in Indian inland waters. It is rarely found in market. Market price is cheap. This fish species is being eaten by poor people. Population has been declining steadily. These are plentiful in certain estuarine locations in this region.

Order 3. CLUPEIFORMES

Family 3. CLUPEIDAE

Genus 4. *Gudusia* Fowler.

4. *Gudusia chapra* (Hamilton-Buchanan).

1822. *Clupanodon chapra* Hamilton-Buchanan, *Fishes of Ganges* : 248, 383 (type-locality : Ganges river in Northern Bihar).

1991. *Gudusia chapra* Talwar and Jhingrn, *Inland Fish.*, 1 : 96,fig.33 (India and Bangladesh affluent to the Bay of Bengal)., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 7.

Material examined : River (Kansai 2ex, 5.2-8.9 cm; Subarnarekha 3ex, 5.7-9.2 cm), Large pond (Jhargram 4ex, 6.3-8.4 cm).

Local name : Khoira, Chapra (Midnapore, Bankura, Hooghly).

Distribution : India (Ganga, Brahmaputra), Mahanadi, Pakistan and Bangladesh.

Habitat : Fresh water rivers, tanks, inundated agricultural fields.

Remark : It is a purely fluviatile and fresh water clupeoid fish. Market price is very high. Population has been declining steadily.

Genus 5. *Hilsa* Regan

5. *Hilsa (Tenualosa) ilisha* (Hamilton-Buchanan).

1822. *Clupanodon ilisha* Hamilton-Buchanan, *Fishes of Ganges* : 243, 382, pl. 19, fig. 73 (type-locality : Ganges estuaries).

1991. *Tenualosa ilisha* Talwar and Jhingran, *Inland Fish.*, 1 : 100, fig. 35 (India, Bangladesh).

Material examined : River (Subarnarekha 2ex 21.9-26.3 cm; Rupnarayan 3ex 22.5-27.8 cm).

Local name : Hilsa, ilish mach (Midnapore, Bankura, Hooghly).

Distribution : Northern part of Indian Ocean.

Habitat : Marine fish which are breed in fresh water rivers.

Remarks : It is a marine, pelagic, euryhaline, anadromous fish. Breeds mainly in rivers during monsoon season. In recent years the catches of Hilsa are fast declining due to the harmful pollutional effects of industrial wastes discharged indiscriminately in the riverine water and non-judicious catching of breeders with small mesh sized gears. For this reason, large-scale mortality of fish eggs and larvae are observed.

Genus 6. *Escualosa* Whitley

6. *Escualosa thoracata* (Valenciennes)

1847. *Kowala thoracata* Valenciennes, *Hist. nat. Poiss.*, 20 : 363 (type-locality : Pondicherry).

1984. *Escualosa thoracata* Talwar and Kacker, *zool. Surv. India. Hand book : Commercial Sea Fishes of India.*, 4 : 133, Text-fig. 45.

Material examined : River (Subarnarekha 3ex 8-9.2 cm; Haldi 4ex 7-8.3 cm).

Local Name : Ghia morol (Midnapore, Bankura, Hooghly).

Distribution : Indo-West Pacific, Pakistan, Sri lanka, Indo-Malayan Archipelago to queensland (Australia).

Habitat : Marine, Pelagic and inshore, enters estuaries.

Remarks : It is a commercially important fish. The fishing season is from April to November and is caught by gill-nets.

Family 4. ENGRAULIDIDAE

Genus 7. *Thryssa* Cuvier

7. *Thryssa hamiltonii* Gray

1835. *Thryssa hamiltonii* Gray, *Illustrations Indian Zoology*, 2 : pl. 92, fig. 3 (type-locality : not given).

1991. *Thryssa hamiltonii* Talwar and Jhingran, *Inland fish.*, 1 : 144 (India and Bangladesh).

Material examined : Irrigation canal (Khakurda 2ex 8.5-9.3cm), River (Shilabati 2ex 7.9-8.6 cm).

Local Name : Not known.

Distribution : Indo-West Pacific, Pakistan, Sri Lanka, Andaman Island, North Queensland (Australia) and Hongkong.

Habitat : Marine, pelagic and inshore, enters estuaries.

Remarks : This fish is of no interest to fisheries.

Genus 8. *Setipinna* Swainson

8. *Setipinna taty* (Valenciennes)

1988. *Engraulis taty* Valenciennes, *Hist. Nat. Poiss.*, 21 : 60 (type-locality : Pondicherry)

1991. *Setipinna taty* Talwar and Jhingran, *Inland Fish.*, 1 : 134, fig. 55 (India, Bangladesh)

Material examined : River (Subarnarekha 4ex 5.7-7.8 cm; Rupnarayan 3ex 3.9-8.2 cm; Haldi 2ex, 5-9.2 cm).

Local Name : Phansa (Midnapore, Bankura, Hooghly).

Distribution : East Coast of India, Andaman Island, Sri Lanka, and the East Indies.

Habitat : Inhabits the sea, estuaries and freshwater.

Remarks : This is a very common species in the down stream of this region. It is a commercially important fish.

9. *Setipinna phasa* (Hamilton-Buchanan)

1822. *Clupea phasa* Hamilton-Buchanan, *Fishes of Ganges* : 240, 382 (type-locality : brackish rivers of Bengal).

1991. *Setipinna phasa* Talwar and Jhingran, *Inland Fish.*, 1 : 136, fig. 56 (India, Bangladesh).

Material examined : River (Subarnarekha 2ex 7-13 cm; Rupnarayan 2ex 5-11.2 cm; Haldi 3ex 8.2-11.3 cm).

Local Name : Phasa (Midnapore, Bankura, Hooghly).

Distribution : India: Ganga river system and Orissa; Myanmar.

Habitat : Estuaries and ascends rivers.

Remarks : Large sized good food fish, prolific breeder possibly throughout the year. It is most common in the sea, brackishwater and freshwater of this region.

Genus 9. *Coilia* Gray

10. *Coilia ramcarati* (Hamilton-Buchanan).

1822. *Mystus ramcarati* Hamilton-Buchanan, *Fishes of Ganges* : 233, 382 (type-locality : Ganges estuary).

1991. *Coilia ramcarati* Talwar and Jhingran, *Inland Fish.*, 1 : 130, fig. 52 (India and Myanmar).

Material examined : River (Rupnarayan 3ex 3.5-11.8 cm; Subarnarekha 2ex 2.9-12.1 cm; Haldi 1ex 8.9 cm).

Local Name : Not known.

Distribution : India : Ganga delta; Andaman sea south of Rangoon (Myanmar).

Habitat : Coastal water, estuaries and ascends rivers.

Remarks : It is of a minor commercial significance.

Order 4. CHANNIFORMES

Family 5. CHANNIDAE

Genus 10. *Channa* Scopoli

11. *Channa orientalis* Bloch and Schneider

1801. *Channa orientalis* Bloch and Schneider, *Syst. Ichth.* : 496, pl.90, fig. 2 (type-locality : India).

1991. Talwar and Jhingran, *Inland Fish.* 2 : 1019 (Afganistan, Iran, Pakistan, India, Nepal, Sri Lanka, Bangladesh, Myanmar and the East Indies).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 274.

Material examined : Rivers (Kansai 2ex 7.5-11.7 cm; Subarnarekha 1ex 4.9-10.8 cm; Kelaghai 3 ex 5.7-9.8 cm), Irrigation cannal (Gokulpur 3 ex 5.7-9.2 cm; Keleghai 2ex 4.8-8.9 cm), Large pond (Jhargram 2ex 4.3-7.9 cm, Bidyadhari 4 ex 4.9-8.6 cm).

Local Name : Cheng (Midnapore, Bankura, Hooghly).

Distribution : Iran, Afghanistan, Pakistan, India, Nepal, Sri Lanka, Bangladesh, Myanmar, Thailand, Yunan, Malaya, Malay Archipelago, Hainan and Taiwan.

Habitat : Fresh water streams and ponds, also tolerant of poorly oxygenated stagnant dirty ponds.

Remarks : Its marked amphibious mode of life is probably responsible for a certain amount of anatomical variation exhibited by the species. Air breathing fish and can live without water for days together. It breeds with onset of monsoon. It can move comfortably even over the uneven surface of soft and moist soil. They are carnivorous and also eat human faeces. At the onset of the winter season, this fish will be in search of the burrows of crabs and earthworms for their stay. To catch them, artificial large holes are made (with the help of iron GAITI) and some attractants are used in a particular smooth and lower part of the hole in order to get them trapped. It is of minor interest to fisheries in this region.

12. *Channa punctatus* (Bloch)

1793. *Ophiocephalus punctatus* Bloch, *Natur, Aus. Fische*, 7 : 139, pl. 358 (type-locality : Coromandal coast).

1991. *Channa punctatus* Talwar and Jhingran, *Inland Fish.*, 2 : 1020 (India, Pakistan, Sri Lanka, Bangladesh, Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 276.

Material examined : River (Kansai 2ex 4.9-8.7 cm; Subarnarekha 3ex 5.2-9.3 cm), Pond (Khakurda 4ex 7-8.3 cm; Dantan 2ex 5.7-9.3 cm).

Local Name : Lata (Midnapore, Bankura, Hooghly).

Distribution : India, Afghanistan, Pakistan, Nepal, Sri Lanka, Bangladesh, Myanmar, Yunan.

Habitat : Large freshwater ponds, tanks and swamps of the plains.

Remarks : Commonly found in ponds, irrigation cannal, paddy fields. Breeding time throughout the year but peak breeding time is during premonsoon and monsoon months. Market price is moderate. These are more abundant in this region.

13. *Channa stewartii* (Playfair).

1987. *Ophiocephalus stewartii* Playfair, *Proc. zool. Soc. Lond.*, : 14, pl.3 (type-locality : Cachar, Assam).

1991. *Channa stewartii* Talwar and Jhingran, *Inland Fish.*, 2 : 1021 (Eastern Himalaya, Nepal).

1999. *Channa stewartii* Menon, *Rec. zool. Surv. India. Occ. Paper no 175* : 277.

Material examined : Irrigation cannal (Gokulpur 3ex 3.9-5.7 cm).

Local Name : Dudhu-chang, Tel-chang (Midnapore, Bankura, Hooghly).

Distribution : India: Eastern Himalayas, (Brahmaputra, Kosi, Bagmati and Gandak drainages), Nepal.

Habitat : Ponds and Clear stream:

Remarks : Fresh water fish generally found in irrigation cannal, and paddy field. It can also tolerate estuarine water. Population is fast declining. Market price moderate.

14. *Channa striatus* (Bloch)

1791. *Ophiocephalus striatus* Bloch, *Natur. Aus. Fische*, 2 : 141, pl. 359 (type-locality : Malabar).

1991. *Channa striatus* Talwar and Jhingran, *Inland fish.*, 2 : 1022., Menon, 1999, *Rec. zool. Surv. India. Occ. PaperNo. 175* : 277.

Material examined : River (Kansai 3ex 5.7-19.3 cm, Subarnarekha 2ex 9.2-23.7 cm), Nandigram 2ex 10-17.3 cm; Jhargram 1ex 19.3 cm; Narajol 3ex 13-21 cm.

Local Name : Shol (Midnapore, Bankura, Hooghly).

Distribution : India, Cylone, Pakistan, Bangladesh, Nepal, Mayanmar, Thailand upto Philippines.

Habitat : Freshwater ponds, streams, rivers, paddy field, stagnant and muddy water.

Remarks : It is cultured in ponds. This is one of the most popular and economically important fish under this genus for its good taste and less bones. The fish takes baits easily. Breeding time is throughout the year. It can tolerate slightly saline water.

Order 5. SYNBRANCHIFORMES

Family 6. SYNBRANCHIDAE

Genus 11. *Monopterus* Lacepede

15. *Monopterus cuchia* (Hamilton-Buchanan)

1822. *Unibranchapertura cuchia* Hamilton, *Fish. Ganges*, : 16, 363, pl. 16, fig. 74 (type-locality : Freshwater bodies of S.E. Bengal).

1991. *Monopterus (Amphipnous) cuchia* Talwar and Jhingran, *Inland Fish.*, 2 : 776 (North and north eastern India, Nepal and Myanmar)

1999. *Monopterus cuchia* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 280.

Material examined : River (Kansai 2ex 15.3-28 cm; Subarnarekha 3ex 17.1-29.7 cm; Shilabati 3ex 16.3-44.7 cm).

Local Name : Kuchia, Kunche (Midnapore, Bankura, Hooghly).

Distribution : Northern and North Eastern India, Pakistan, Nepal, Bangladesh and Myanmar.

Habitat : Fresh and brackish water, occasionally found during drought season in mud holes of paddy fields.

Remarks : This fish looks like snake, and for this reason people do not take it as food except the very poorer section. Inhabit in freshwater and also found to intrude in brackish water. During drought season, these are occasionally found in mud holes of paddy fields. Hamilton wrote 'Native reject it as food and imagine that its bite is fatal to cattle, although less powerful on the human kind a superstition highly improbable' Population of this species is declining.

Order 6. CYPRINIFORMES

Family 7. CYPRINIDAE

Genus 12. *Chela* Hamilton-Buchanan

16. *Chela cachius* (Hamilton-Buchanan)

1822. *Cyprinus cachius* Hamilton-Buchanan, *Fish. Ganges* : 258, 384, 1822 (type-locality : River Ganges, above the commencement of the Delta).

1991. *Chela cachius* Talwar and Jhingran, *Inland Fish.*, 1 : 313, fig. 111 (Pakistan, India, Bangladesh, Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 35.

Material examined : Irrigation cannal (Gokulpur 2ex 3.5-5.2 cm; Khakurda 3ex 2.3-4.9 cm).

Local Name : Kachni-chela (Midnapore, Bankura, Hooghly).

Distribution : India, Pakistan, Bangladesh and Myanmar.

Habitat : Ponds and rivers.

Remarks : These are small sized and coloured fish. This fish may be treated as a aquarium fish. It is a larvicidal fish, feed mostly on mosquito larvae. Wide range of distribution favours this fish to be used as larvicidal fish. They can easily breed in ponds, tanks, river tributaries and irrigation canals. These occur in large number. This species is used as a live bait to catch *Channa* and other large carnivorous fishes.

Genus 13. *Securicula* Gunther

17. *Securicula gora* (Hamilton-Buchanan)

1822. *Cyprinus gora* Hamilton-Buchanan, *Fish. Ganges* : 263, 384 (type-locality : Ganga river and its tributaries).

1991. *Securicula gora* Talwar and Jhingran, *Inland Fish.*, 1: 329 (Pakistan, North and Eastern India, Bangladesh).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 329.

Material examined : River (Kansai 3ex 24.4-28 cm).

Local Name : Ghora-Chela (Midnapore, Bankura, Hooghly).

Distribution : North and North eastern India, Pakistan and Bangladesh.

Habitat : Ponds, Canals and Rivers.

Remarks : This species is commonly found in river. This fish is of no interest to fisheries.

Genus 14. *Salmostoma* Swainson

18. *Salmostoma bacaila* (Hamilton-Buchanan)

1822. *Cyprinus bacaila* Hamilton-Buchanan, *Fish. Ganges.* : 265, 384, pl. 8, fig. 76 (type-locality : freshwater rivers of Gangetic provinces).

1991. *Salmostoma bacaila* Talwar and Jhingran, *Inland Fish.*, 1 : 321 (Indus: Northern India to Orissa, Bangladesh and Nepal).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 25.

Material examined : Rivers (Kansai 2ex 10.9-12.3 cm; Subarnarekha 3ex 8.7-11.4 cm), Irrigation canal (Gokulpur 2ex 5.7-8.3 cm, Narajol 2ex 4.7-7.9 cm).

Local Name : Jorla, Gang chela, Chela (Midnapore, Bankura, Hooghly).

Distribution : India: Northern India to Orissa, Pakistan, Bangladesh and Nepal.

Habitat : Rivers, Streams, Canals and Beels.

Remarks : They are surface feeder and regarded as a larvivorous fish. Usually inhabits slow running streams. The abundance of this species are declining in this region.

19. *Salmostoma phulo* (Hamilton-Buchanan).

1822. *Cyprinus phulo* Hamilton-Buchanan, *Fsh. Ganges* : 262, 384 (type-locality : North eastern part of Bengal).

1968. *Salmostoma phulo phulo* Banarescu, *Revueroum. Biol. (Zool.)*, 13(1) : 5, fig.2.

1991. *Salmostoma phulo* Talwar and Jhingran, *Inland Fish.*, 1 : 326 (Gangetic and Brahmaputra drainages of India, Bangladesh).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 29.

Material examined : Rivers (Kansai 1ex 9.5 cm; Subarnarekha 3ex 7.3-8.9 cm), Irrigation cannal (Khirai 1ex 7.9 cm).

Local Name : Phul-Chela (Midnapore, Bankura, Hooghly).

Distribution : India : West Bengal and Assam, Bangladesh.

Habitat : Lower stretches of rivers, ponds, beels, canals.

Remarks : This fish is of no interest to fisheries.

Genus 15. *Esomus* Swainson

20. *Esomus danricus* (Hamilton-Buchanan)

1822. *Cyprinus danrica* Hamilton-Buchanan, *Fish. Ganges* : 325, 390, pl. 16. fig. 88 (type-locality : ponds and ditches of Bengal).

1991. *Esomus danricus* Talwar and Jhingran, *Inland Fish.*, 1 : 37, fig. 134.

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 46.

Material examined : Rivers (Kansai 3ex 5.2-7.3 cm; Subarnarekha 2ex 4.7-6.3 cm), Irrigation cannal (Gokulpur 7ex 4.5-6.5 cm; Khakurda 3 ex 3.2-5.7 cm), Swedge (Gokulpur TATA metalics 4 ex 3.5-5.5 cm).

Local Name : Danrika, Danra, Choto nirali, Jongia (Midnapore, Bankura, Hooghly).

Distribution : India: throughout Northern India, Nepal, Bangladesh; Sri Lanka; Thailand and Myanmar.

Habitat : Ponds, agriculture field, weedy ditches, irrigation canal.

Remarks : This small fish is a surface feeder. In rainy season, it can breed in ponds and paddy fields. Without dressing and only adding lemon juice in this fish, it can be cooked. Common people like it too mach. After harvesting they die very soon and get decomposed within a very short time. Market price is minimum. It is a larvicidal fish. This is an accomplished jumper but must be kept in a covered tank.

Genus 16. *Danio* Hamilton-Buchanan.

21. *Danio rerio* (Hamilton-Buchanan).

1822. *Cyprinus rerio* Hamilton-Buchanan, *Fishes of Ganges* : 323, 390 (type-locality : Kosi river and Bihar).

1991. *Brachydanio rerio* Talwar and Jhingran, *Inland Fish.*, 1 : 360.

1999. *Danio rerio* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 46.

Material examined : Ponds (Khakurda 4ex 2.1-3.7 cm; Dantan 3ex 1.9-4.1 cm), Irrigation cannal (Gokulpur 3ex 2.3-2.7 cm; Khirai 2ex 2.7-3.2 cm; Khakurda 3ex 3.1-4.2 cm), Swedge water (Gokulpur TATA metalics 3ex 1.7-2.9 cm).

Local Name : Danra, Anju (Midnapore, Bankura, Hooghly).

Distribution : Throughout India, Pakistan, Nepal, Bangladesh and Myanmar.

Habitat : Rice field, slow moving streams, ponds.

Remarks : This indigenous species are larvivorous in nature. It is a popular aquarium fish for its attractive colour. It is hardy and easy to breed. Market price is minimum. This may be treated as bioindicator species.

22. *Danio aequipinnatus* (McClland).

1839. *Perilampus aequipinnatus* McClland, *Asiat. Res.*, 19(2) : 393, pl. 60, fig. 1 (type-locality : Assam).

1991. *Danio aequipinnatus* Talwar and Jhingran, *Inland Fish.*, 1 : 365, fig. 128 (India, Nepal, Srilanka, Bangladesh, Myanmar and Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 39.

Material examined : Rivers (Kansai 2ex 3-5.2cm; Subarnarekha 1ex 7.3 cm), Irrigation cannal (Khakurda 3ex 5.7-6.8 cm).

Local Name : Chebli (Midnapore, Bankura, Hooghly).

Distribution : Throughout India, Nepal, Bangladesh, Myanmar and Thailand.

Habitat : Clear streams and rivulets at foot hills.

Remarks : It is an ideal aquarium fish for its attractive colour. Commonly found in clear waters. This fish can tolerate wide range of fluctuation of ecological parameters.

Genus 17. *Amblypharyngodon* Bleeker.

23. *Amblypharyngodon mola* (Hamilton-Buchanan)

1822. *Cyprinus mola* Hamilton-Buchanan, *Fishes of Ganges.*, : 334, 392, pl. 38, fig. 92 (type-locality : Ponds and rivers of Gangetic provinces).

1991. *Amblypharyngodon mola* Talwar and Jhingran, *Inland Fish.*, 1 : 338 (Pakistan India ,Bangladesh and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 33.

Material examined : Rivers (Kansai 3 ex 4.9-5.9 cm; Subarnarekha 4 ex 5.2-8.1 cm, Keleghai 3 ex 4.7-5.3 cm), Irrigation cannal (Gokulpur 3 ex 3.5-5.5 cm; Khakurda 3 ex 5.4-8.4 cm, Khiraj 4 ex 2.7-3.9 cm).

Local Name : Murala, Morla (Midnapore, Bankura, Hooghly).

Distribution : India: the foot of Himalayas and Indo-Gangetic plain ,Pakistan: Indus plain and adjoining hills , Assam , Bangladesh and Myanmar.

Habitat : Ponds, canals, beels, slow streams, nullahs, paddy field.

Remarks : These surface feeders are prolific breeders, and their population density increase within a short span followed by mass mortality. It is considered as a pox or measles preventive fish. Market price is very high. After harvesting, they get decomposed within a very short time.

Genus 18. *Barilius* Hamilton-Buchanan.

24. *Barilius bendelisis* (Hamilton-Buchanan).

1807. *Cyprinus bendelisis* Hamilton-Buchanan, *Journey in Mysore*, 3 : 345, pl. 32 (type-locality : Vedawati stream, head waters of Krishna river *nr.* Heriuru, Mysore).

1991. *Barilius bendelisis* Talwar and Jhingran, *Inland Fish.*, 1 : 346 (Pakistan, India, Nepal, Bangladesh and SriLanka).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 14.

Material examined : Rivers (Kansai 2ex 5-7.3 cm; Subarnarekha 3ex 6.7-8.6 cm; Shilabati 4ex 4.9-7.9 cm).

Local Name : Joia (Midnapore, Bankura, Hooghly).

Distribution : Throughout India, Pakistan, Nepal and Bangladesh.

Habitat : Streams, rivers with pebbly and rocky substratum.

Remarks : Sexual dimorphism observed. It bears secondary sexual characters and easily distinguished by their sex. Few in number. Commonly found in clear water.

25. *Barilius barna* (Hamilton-Buchanan)

1822. *Cyprinus (Barilius) barna* Hamilton-Buchanan, *Fishes of Ganges*. : 268, 384 (type-locality : Yamuna river and Brahmaputra river).

1991. *Barilius barna* Talwar and Jhingran, *Inland Fish.*, 1 : 344.

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 13.

Material examined : Rivers (Subarnarekha 2ex 4.6-6.5 cm; Kansai 1ex 3.7 cm).

Local Name : Ghol, Bhola (Midnapore, Bankura, Hooghly).

Distribution : India : Ganga and Brahmaputra river systems and also Mahanadi (Orissa); Nepal; Bangladesh and Myanmar.

Habitat : Clear hill streams and large river with gravelly bed.

Remarks : This small fish is a voracious feeder and fish is of no interest to fisheries.

Genus 19. *Puntius* Hamilton

26. *Puntius sophore* (Hamilton-Buchanan)

1822. *Cyprinus sophore* Hamilton-Buchanan, *Fishes of Ganges* : 310, 389 (*nec* pl.19, fig. 86) (type-locality : Ponds and rivers in Gangetic provinces).

1991. *Puntius sophore* Talwar and Jhingran, *Inland Fish.*, 1 : 288., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 101.

Material examined : Rivers (Kansai 3 ex 5.7-10.3 cm; Subarnarekha 4 ex 3.9-9.3 cm; Keleghai 4 ex 3.7-5.9 cm), Industrial waste water (Gokulpur TATA metalics 7 ex 4.2-7.9 cm).

Local Name : Kanchan punti (Midnapore, Bankura, Hooghly).

Distribution : India: Throughout India; Pakistan; Bangladesh; Nepal; Myanmar; Yunnan (China).

Habitat : Rivers, streams, ponds, paddy field.

Remarks : 'Punti' is found almost every where in irrigation canal, paddy field and very common in ponds. It can breed every where in rainy season. They live in groups and move in groups. They can live both in clear as well as in foul waters, also can live even in extreme adverse condition inside muddy bottom soil covered by aquatic weeds. They are voracious eaters of floating organisms and aquatic plants (Innes, 1944). Out of water, they die very soon and get decomposed within a short while. Market demand is low.

27. *Puntius ticto* (Hamilton-Buchanan)

1822. *Cyprinus ticto* Hamilton-Buchanan, *Fishes of Ganges* : 314, 398, pl. 8, fig. 87 (type-locality : South-eastern part of Bengal).

1991. *Puntius ticto* Talwar and Jhingran, *Inland Fish.*, 1 : 291, fig. 101.

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 103.

Material examined : Rivers (Kansai 4ex 5.3-7.4 cm; Subarnarekha 5ex 3.7-5.2 cm; Shilabati 2ex 3-4.3 cm; Dwarakeswar 2ex 2-3.9 cm), Irrigation cannal (Khirai 3ex 3-5.8 cm; Khakurda 4ex 2.5-7.8 cm).

Local Name : Chit punti (Midnapore, Bankura, Hooghly).

Distribution : India : except Kerala and South Tamil Nadu; Nepal; Pakistan; Bangladesh.

Habitat : Rivers, streams, ponds in clear waters chiefly with muddy substrate.

Remarks : It is common almost everywhere. They are caught by hooks, nets, current foot and traps in the monsoon and post monsoon. Commercially of little importance due to its small size and get decomposed within a very short time. Dorsal fin of the male is reddish in colour but for female it is pale except for a faint rose at breeding time.

28. *Puntius chola* (Hamilton-Buchanan)

1822. *Cyprinus chola* Hamilton-Buchanan, *Fishes of Ganges.* : 312, 289 (type-locality : Northeastern part of Bengal).

1991. *Puntius chola* Talwar and Jhingran, *Inland Fish.*, 1 : 263, fig. 90.

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 88.

Material examined : Estuary (Nandigram 2ex 8.5-9.8 cm.)

Local Name : Kerrundi (Midnapore, Bankura, Hooghly).

Distribution : India : Assam; North East Bengal; Bihar; Uttar Pradesh; Punjab.

Habitat : Rivers, streams and tanks.

Remarks : This fish is common in estuarine water. In Myanmar, it is reported to be rich in fat during the breeding season and an oil is extracted from it.

29. *Puntius sarana sarana* (Hamilton-Buchanan)

1822. *Cyprinus sarana* Hamilton-Buchanan, *Fishes of Ganges* : 307, 388 (type-locality : Ponds and rivers of Bengal).

1991. *Puntius sarana sarana* Talwar and Jhingran, *Inland fish.*, 1 : 383, fig. 96.

Material examined : Rivers (Keleghai 2ex 3.5-7.8 cm), Irrigation cannal (Khakurda 3ex 2.9-8.3 cm).

Local Name : Swarna punti, Saral punti (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India except paninsular India, South of Krishna rivers; Afganistan; Pakistan; Bangladesh; Bhutan.

Habitat : Ponds, canals, streams and rivers.

Remarks : It is one of the most commercially important fish under the Genus *Puntius* because of its comparatively larger size oil and content good test. But the population of this species is fast declining. Breeding time is generally during monsoon in running waters. Market price is high as it is a good table fish.

30. *Puntius conchoni* (Hamilton-Buchanan)

Cyprinus conchoni Hamilton-Buchanan, *Fishes of Ganges* : 317, 389 (type-locality : ponds of northeast Bengal, Kosi river and Ami river).

1999. *Puntius conchoni* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 90.

Material examined : Rivers (Subarnarekha 2ex 6.5-7.8 cm, Shilabati 1ex 4.3-6.7).

Local Name : Kunchon-punti (Midnapore, Bankura, Hooghly).

Distribution : India : Assam, N.E.Bengal, Bihar, Uttar pradesh, Punjab.

Habitat : Inhabits in lakes and streams.

Remarks : It is one of the most important ornamental species and a very beautiful species.

Genus 20. *Osteobrama* Heckel

31. *Osteobrama cotio cotio* (Hamilton-Buchanan)

1822. *Cyprinus cotio* Hamilton-Buchanan, *Fishes of Ganges* : 339, 393, pl. 39, fig. 93 (type-locality : Ponds and ditches of Bengal).

1991. *Osteobrama cotio cotio* Talwar and Jhingran, *Inland Fish.*, 1 : 238.

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 64.

Material examined : Rivers (Kansai 3ex 2.3-5.7 cm; Subarnarekha 2ex 4.8-8.2 cm; Keleghai 3.9-7.9 cm).

Local Name : Maura, Koti (Midnapore, Bankura, Hooghly).

Distribution : India : Assam (Brahmaputra drainage), West Bengal, Bihar, Madhya Pradesh, Uttar Pradesh, Panjub; Pakistan and Bangladesh.

Habitat : Rivers, ponds, lakes and ditches.

Remarks : This fish is of no interest to fisheries. It may be used as larvivorous fish. These fishes are found burried within mud and decomposed aquatic weeds.

Genus 21. *Labeo* Cuvier

32. *Labeo boga* (Hamilton-Buchanan)

1822. *Cyprinus boga* Hamilton-Buchanan, *Fishes of Ganges.* : 286, 386, pl. 28, fig. 80 (type-locality : Brahmaputra river).

1991. *Labeo boga* Talwar and Jhingran, *Inland Fish.* 1 : 200, fig. 73 (Pakistan; India : rivers of Gangetic provinces, Assam, Orissa, Andhra Pradesh, Tamilnadu, Bangladesh: Eastern Nepal and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 127.

Material examined : Rivers (Keleghai 1ex 11.7cm.; Kansai 1ex 15cm.; Subarnarekha 1ex 19cm.), Estuary (Nandigram 1 ex 13.7cm.).

Local Name : Kursha, Katal Kusi, Kulka batta (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India except western face of Western Ghats ; Pakistan; Nepal; Bangladesh; Myanmar.

Habitat : Large rivers and their tributaries, above tidal influence.

Remarks : It is a tasty carpfish but are rarely found. Market price high. The population of this species is fast declining.

33. *Labeo bata* (Hamilton-Buchanan)

1822. *Cyprinus bata* Hamilton-Buchanan *Fishes of Ganges*. : 283, 386 (type-locality : Rivers and ponds of Bengal).

1991. *Labeo bata* Talwar and Jhingran, *Inland Fish.*, 1 : 199, fig. 72 (Through-out India; Bangladesh and Nepal).

Material examined : Rivers (Keleghai 2ex 12-20.7cm; Kansai 2ex 17-21.3cm; Subarnarekha 1ex 19.3cm).

Local Name : Bata, Bhagan bata, Bhanga (Midnapore, Bankura, Hooghly).

Distribution : India : rivers of Gangetic provinces, Assam, Orissa, Andhra Pradesh, Tamil Nadu; Bangladesh; Pakistan; Eastern Nepal and Myanmar.

Habitat : Rivers, ponds, tanks and bheries.

Remarks : It is a tasty minor carp of economic importance in this region. Commonly advised to culture in well managed polyculture ponds with other major carps. It does not breed normally in ponds but breeds in rivers during monsoon months. Induced breeding can be successfully conducted with the help of pituitary or synthetic hormone. At the time of pairing, they used produce to sound.

34. *Labeo calbasu* (Hamilton-Buchanan)

1822. *Cyprinus calbasu* Hamilton-Buchanan, *Fishes of Ganges* : 297, 387, pl. 2, fig. 33 (type-locality : Rivers and ponds of Bengal and in the Western provinces).

1991. *Labeo calbasu* Talwar and Jhingran, *Inland Fish.*, 1 : 203, fig. 74 (Pakistan; India; Bangladesh; Nepal; Myanmar; Thailand and Yunnan).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 129.

Material examined : Rivers (Subarnarekha 1ex 26.5cm; Kansai 2ex 17.8-27.2cm), pond (Khakurda 4ex 18.3-21.3cm; Dantan 2ex 17-20.5cm).

Local Name : Kalbasu, Kalbose (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan; Nepal; Bangladesh; Myanmar; Thailand and South West China.

Habitat : Rivers above tidal reach and ponds.

Remarks : It is a one of the most important Indian Major carp. It is normally a pond breeder but successful breeding through hypophysation with the use of pituitary or synthetic hormone is possible. It is a bottom breeder. It is a tasty carp fish, Natural habitat is flowing water bodies like rivers and large dams. The population is sharp declining. As their growth is not as fast as other culturable major carp species, farmers show less interest for their culture in composite culture system.

35. *Labeo rohita* (Hamilton-Buchanan)

1822. *Cyprinus rohita* Hamilton-Buchanan, *Fishes of Ganges*. : 301, 388, pl. 36, fig. 85 (type-locality : Freshwater rivers of Gangetic provinces).

1991. *Labeo rohita* Talwar and Jhingran, *Inland Fish.*, 1 : 219, fig. 78 (Pakistan; North and Central India; Bangladesh; Terai region of Nepal and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 138.

Material examined : Rivers (Kansai 3ex 18.2-23 cm; Subarnarekha 2ex 21-27.3 cm; Shilabati 2ex 9.7-15.7 cm), Pond (Khakurda 3ex 28-38 cm).

Local Name : Ruae, Rahu (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India; Pakistan; Nepal; Bangladesh; Myanmar; Introduced into Peninsular India and Sri Lanka.

Habitat : Rivers and Culture ponds.

Remarks : 'Rohu' is one of the most esteemed major carp of India. Its natural habitat is river but can be cultured in tanks. In a well managed pond where six species culture is practised, the length and weight of one piece of 'Rohu' is 30-45 cm and 720-1100gm respectively and production of 'Rohu' in six species cultured one hectore pond in 9-12 months rearing period will be 400-800 kg in this region. It is a bottom feeder. Spawning season is generally monsoon. A number of interspecific and intergeneric hybrids have been produced. It can be successfully induced to spawn through hypophysation.

36. *Labeo dero* (Hamilton-Buchanan)

1822. *Cyprinus dero* Hamilton-Buchanan, *Fishes of Ganges* : 277, 385, pl. 22, fig.78 (type-locality : Brahmaputra river).

1991. *Labeo dero* Talwar and Jhingran, *Inland Fish.*, 1 : 204., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 130.

Material examined : Rivers (Subarnarekha 2ex 22-29 cm, Kansai 3ex 14-26 cm, Shilabati 2ex 9-18 cm).

Local Name : Khursha, Kathalkushi (Midnapore, Bankura, Hooghly).

Distribution : India, Pakistan, Sri Lanka, Bangladesh and Mayenmar.

Habitat : Rivers, above tidal reaches and ponds.

Remarks : Its flesh is well flavoured and highly tasty. Easily culturable in pond.

Genus 22. *Chagunius* Smith.

37. *Chagunius chagunio* (Hamilton-Buchanan)

1822. *Cyprinus chagunio* Hamilton-Buchanan, *Fishes of Ganges* : 295, 387 (type-locality : Yamuna river and northern rivers of Bihar and Bengal).

1991. *Chagunius chagunio* Talwar and Jhingran, *Inland Fish.*, 1 : 167, fig. 63 (Brahmaputra and Ganga drainage along the path of Himalayan foot hills).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 73.

Material examined : Rivers (Kansai 1ex 14.3cm; Dwarakeswar 1ex 16.2cm).

Local Name : Terruah (Midnapore, Bankura, Hooghly).

Distribution : India : Brahmaputra and Ganga drainages, Chota-Nagpur: Damodar basin.

Habitat : Upstream of rivers at foot-hills with good water current, rocky bottom with little or no vegetation.

Remarks : This fish is generally found in rocky bottom, clear river water. This carp is not known to be a good migrant for a long range. Sunken pores on the snout and long dorsal rays strongly marked in males, are regarded as secondary sexual characters according to S. L. Hora, 1953.

Genus 23. *Cirrhinus* Cuvier.

38. *Cirrhinus mrigala mrigala* (Hamilton-Buchanan)

1822. *Cyprinus mrigala* Hamilton-Buchanan, *Fishes of Ganges.* : 279, 386, pl. 6, fig. 79 (type-locality : Ponds and freshwater rivers of Gangetic provinces).

1991. *Cirrhinus mrigala mrigala* Talwar and Jhingran, *Inland Fish.*, 1 : 172, fig. 65 (Northern India and Bangladesh).

1999. *Cirrhinus mrigala* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 122.

Material examined : Rivers (Kansai 2ex 18.7-25.3cm; Subarnarekha 3ex 19.3- 26.4cm; Shilabati 3ex 23.7-28.3cm), pond (Khakurda 3ex 25.3-35.7cm).

Local Name : Mrigal (Midnapore, Bankura, Hooghly).

Distribution : India: Northern India from Punjab to West Bengal and Assam; Pakistan: Indus basin and adjacent hill areas; Nepal; Bangladesh; Introduced into Peninsular India.

Habitat : Large rivers and ponds.

Remarks : Mrigal is a popular commercial carp species. It is a detritus feeder. It can be successfully induced to spawn through hypophysation. A number of intergeneric hybrids have been produced. In a well managed pond where six species culture is practised, the size & weight of one piece of Mrigal are 25-35cm & 420-755gm respectively. The production of Mrigal in one hector polyculture pond in 9-12 months rearing period will be 580-890 kg.

Genus 24. *Catla* Valenciennes.

39. *Catla catla* (Hamilton-Buchanan)

1822. *Cyprinus catla* Hamilton-Buchanan, *Fishes of Ganges.* : 287, 318, pl. 13, fig. 81 (type-locality : Rivers and tanks of Bengal).

1991. *Catla catla* Talwar and Jhingran, *Inland fish.*, 1 : 163, fig. 62 (Pakistan; India; Bangladesh; Nepal; Myanmar; SriLanka).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 119.

Material examined : Pond (Khakurda 4ex 28040 cm.).

Local Name : Catla (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India; Pakistan: Indus plain and adjoining hills; Bangladesh; Nepal; Myanmar; introduced into the rivers of Peninsular India and Sri Lanka.

Habitat : Rivers, lakes and Culture ponds.

Remarks : It is a popular major carp fish. It is a plankton and surface feeder. Catla breeds in rivers which are its natural habitat but riverine fish seed are not sufficient to satisfy the growing demand and to overcome the problem of mixing with other unwanted

seeds. To fulfill the demand of pure seed, hypophysation is necessary. Five hybrids have so far been produced artificially. In a well managed pond, where six species culture is practised, the size and weight of one piece of Catla is 28-40 cm and 900-1500 gm respectively. The production of Catla in one hectre six species polyculture pond in 9-12 month rearing period will be 250-450 kg. Population is sharply declined in river.

Genus 25. *Crossocheilus* Kuhl et van Hasselt

40. *Crossocheilus latius latius* (Hamilton-Buchanan)

1822. *Cyprinus latius* Hamilton-Buchanan, *Fishes of Ganges* : 345, 393 (type-locality : Tista river at base of Darjeeling Himalaya).

1991. *Crossocheilus latius latius* Talwar and Jhingran, *Inland Fish.*, 1 : 416, fig. 147 (Ganga and Brahmaputra, Mahanadi and Krishna drainages).

Material examined : Rivers (keleghai 2ex 1.9-2.9 cm; Subarnarekha 2ex 2.1-3.2 cm).

Local Name : Kala batta (Midnapore, Bankura, Hooghly).

Distribution : India : Ganga and Brahmaputra, along the Eastern Himalayas, Mahanadi drainage in Orissa and the Krishna drainage in Bombay Ghat portion of Western Ghats.

Habitat : Mountain streams and rivers.

Remarks : It is very similar to that of the *Garra* adhering to stones in stream beds (Shaw and Shebbeare, 1937). This is of no interest to fisheries.

Family 8. COBITIDAE

Genus 26. *Noemacheilus* Van Hasselt

41. *Noemacheilus botia* (Hamilton-Buchanan)

1822. *Cobitis botia* Hamilton-Buchanan, *Fishes of Ganges* : 350, 394 (type-locality : Rivers of North Eastern Bengal).

1991. *Nemacheilus botia* Talwar and Jhingran, *Inland Fish.*, 1 : 472, fig. 161 (Pakistan; Northern India).

1999. *Noemacheilus botia* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 180.

Material examined : River (Subarnarekha 2ex 4.1-6.8 cm), Irrigation cannal (Gokulpur 2ex 3.9-6.8 cm).

Local Name : Gunpho loch, Gurdol (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India-Brahmaputra and Ganga basins; Pakistan: Indus basin.

Habitat : Inhabits submountane zones.

Remarks : Small sized fish. This species is of no interest to fisheries. Population is declining.

Genus 27. *Botia* Gray

42. *Botia birdi* Chaudhuri

1878. *Botia geto* Day (*nec* Hamilton) (in part), *Fish. India*, : 606 (Sind and Punjab).

1991. *Botia lohachata* Talwar and Jhingran, *Inland Fish.*, 1 : 539, fig. 177 (Pakistan; India; Bangladesh; Nepal).

1999. *Botia birdi* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 156.

Material examined : Rivers (Kansai 3ex 5.2-8.4 cm; Subarnarekha 2ex 4.9-9.2 cm; Shilabati 2ex 5.5-8.7 cm).

Local Name : Loach (Midnapore, Bankura, Hooghly).

Distribution : India : Jammu and Kashmir , Kashmir Vally, Himachal Pradesh; Pakistan : NWFP., Sind and Baluchistan.

Habitat : Clear mountain streams.

Remarks : Economically less important fish, occasionally occur in this region. This fish is of no interest to fisheries.

Genus 28. *Lepidocephalus* Bleeker

43. *Lepidocephalus guntea* (Hamilton-Buchanan)

1822. *Cobitis guntea* Hamilton-Buchanan, *Fishes of Ganges* : 353, 394 (type-locality : Bengal).

1991. *Lepidocephalus guntea* Talwar and Jhingran, *Inland Fish.*, 1 : 525, fig. 171 (Pakistan; India; Bangladesh; Nepal; Myanmar and Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 160.

Material examined : Rivers (Kansai 4ex 2.5-6.9 cm; Keleghai 2ex 4.9-7 cm), Irrigation cannal (Gokulpur 3ex 5.8-7.2 cm), Wet lands (Nandigram 3ex 6.2-7 cm).

Local Name : Rutkal, Atkal, Gumpho Loch, Ruti (Midnapore, Bankura, Hooghly).

Distribution : India : Brahmaputra, Ganges and Indus drainages along the Himalayas and the drainage along the Satpura-Vindhya; Bangladesh; Nepal and Pakistan.

Habitat : Shallow clear streams with sandy bottom.

Remarks : 'Rutkal' live in small holes naturally created in hard soil. They are bottom feeders and are found to live in groups. In rainy season they breed in canals, agricultural fields near running water. Tribal women like the fish to wear in their ears like living rings. Market price moderate. After harvesting they get decomposed within a very short time.

Genus 29. *Garra* Hamilton-Buchanan

44. *Garra mullya* (Sykes)

1841. *Chondrostoma mullya* Sykes, *Trans. zool. Soc. Lond.*, 2 : 359, pl. 62, fig. 3 (type-locality : Bheema river at Daunde, nr. Poona).

1991. *Garra mullya* Talwar and Jhingran, *Inland Fish.*, 1 : 429.

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 148.

Material examined : Rivers (Subarnarekha 2ex 11-15.4 cm, Kansai 2ex 6.7-12.6 cm).

Local Name : Mottu (Midnapore).

Distribution : India : throughout India.

Habitat : Rivers, Hill and Nountain streams.

Remarks : Occasionally occurs in this region with a meagre population is minimum. This species is of no interest to fisheries.

Order 7. SILURIFORMES

Family 9. BAGRIDAE

Genus 30. *Rita* Bleeker

45. *Rita rita* (Hamilton-Buchanan)

1822. *Pimelodus rita* Hamilton-Buchanan. *Fishes of Ganges* : 165, 376, pl. 24, fig. 53 (type-locality : Estuaries of Bengal).

1991. *Rita rita* Talwar and Jhingran, *Inland Fish.*, 2 : 578, fig. 192 (Afghanistan; Pakistan; Northern India; Nepal; Bangladesh; Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 197.

Material examined : River (Kansai 2ex 20.5-28.7 cm; Subarnarekha 3ex 23.7-35.2 cm; Shilabati 3ex 28.5-40.7 cm).

Local Name : Rita, Reta (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India; Afghanistan (Kabul river and Khyber pass); Pakistan; Nepal; Bangladesh and Myanmar.

Habitat : River (Freshwater and tidal waters).

Remarks : It is a common food fish. Commercially important for its large size and good test. Population is declining.

Genus 31. *Batasio* Blyth

46. *Batasio batasio* (Hamilton-Buchanan)

1822. *Pimelodus batasio* Hamilton-Buchanan, *Fishes of Ganges* : 179, 377 (*nec* pl. 23, fig. 60) (type-locality : Tista river, North Bengal).

1991. *Batasio batasio* Talwar and Jhingran, *Inland Fish.*, 2 : 550, fig. 179 (Tista river system, North Bengal, assam and Tripura; Bangladesh and Nepal).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 211.

Material examined : River (Kansai 1ex 3.7 cm; Subarnarekha 2ex 2.9-4.1 cm; Shilabati 3ex 1.9-3.7 cm).

Local Name : Batasio, Batashi, Bajori (Midnapore, Bankura, Hooghly).

Distribution : West Bengal: Tista river system (in North Bengal).

Habitat : Streams of Tarai and Duars; Rivers of South West Bengal.

Remarks : Small sized catfish, its fishery value is limited. It is fairly common in this region. Market value moderate.

Genus 32. *Mystus* Scopoli

47. *Mystus bleekeri* (Day)

1846. *Bagrus keletius* (*nec* Valenciennes) Bleeker, *Nat. Gen. Arch. Ned. India.*, 3(2) : 135 (type-locality : Bengal).

1991. *Mystus bleekeri* Talwar and Jhingran, *Inland Fish.*, 2 : 558, fig. 183 (Pakistan; North India; Bangladesh; Nepal; Myanmar; Sumatra excluded).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 199.

Material examined : River (Kansai 2ex 6.9-9.2 cm; Subarnarekha 3ex 7-8.9 cm; Shilabati 4ex 6.7-8.5 cm; Keleghai 2ex 6.2-10.3 cm), Irrigation canal (Gokulpur 3ex 5.5-8.2 cm; Khakurda 3ex 6.7-9.8 cm; Khirai 4 ex 5.3-7.9 cm).

Local Name : Tengra, Gholsa tengra, Genta tengra (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India, Southern limit upto-Mahanadi head waters; Bangladesh; Nepal; Myanmar and Sumatra.

Habitat : Rivers, tanks, ponds and canals.

Remarks : These are bottom feeder. They are caught by making the water turbid by fishing-sod, which prompted them running and are caught in the fishing-sod. This species are found in abundance during rainy and early winter seasons. Market price is moderate.

48. *Mystus cavasius* (Hamilton-Buchanan)

1822. *Pimelodus cavasius* Hamilton-Buchanan, *Fishes of Ganges* : 203, 379, pl. 11, fig. 67 (type-locality : Gangetic provinces).

1991. *Mystus cavasius* Talwar and Jhingran, *Inland Fish.*, 2 : 559, fig. 184 (Pakistan; India; Nepal; Bangladesh; Myanmar; Thailand; Sri Lanka excluded).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 200.

Material examined : River (Dwarakeswar 4ex 18-22.5 cm; Kansai 5ex 19.8-23.9 cm; Keleghai 2ex 12-19.3 cm; Subarnarekha 3ex 12.2-19.7 cm), Irrigation cannal (Khakurda 2ex 7.8-12.7 cm).

Local Name : Kabasi tengra, Tengra, Sutaphuli tengra (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Nepal; Bangladesh; Myanmar; Malaya; Thailand; Java; Borneo Sumatra.

Habitat : Freshwater, tidal rivers, lakes, freshwater ponds, beels, ditches and inundated fields.

Remarks : This Catfish is a very common food fish in this region. The abundance of this fish is fast declining. Its pectoral spine cause painful wounds. Breeding time is during monsoon. Eggs are adhesive. In half grown and young individuals (with in 12 days) the maxillary barbels do not extend beyond the anal fin. Market price is high.

49. *Mystus gulio* (Hamilton-Buchanan)

1822. *Pimelodus gulio* Hamilton-Buchanan, *Fishes of Ganges* : 201, 379, pl. 23, fig. 66 (type-locality : Higher parts of Gangetic estuaries).

1991. *Mystus gulio* Talwar and Jhingran, *Inland Fish.*, 2 : 560, fig. 185 (Pakistan; India; Sri Lanka; Nepal; Bangladesh; Myanmar and Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 201.

Material examined : River (Subarnarekha 4ex, 15-25 cm; Haldi 2ex, 18-21 cm), Nandigram 3ex, 12-19.8 cm.

Local Name : Nuna tengra (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Nepal; Bangladesh; Burma; Sri Lanka; Malaya; Thailand; Java; Sumatra and Borneo.

Habitat : Estuaries, tidal rivers and lakes ascending to freshwaters and entering the sea.

Remarks : This gregarious catfish, often intrude in marine water. It is a very common species in the fishery catches in the estuary.

50. *Mystus vittatus* (Bloch).

1797. *Silurus vittatus* Bloch, *Ichthyol. Hist. Nat.*, **11** : 40, pl. 371, fig. 2 (type-locality : Tranquebar, Tamil Nadu).

1991. *Mystus vittatus* Talwar and Jhingran, *Inland Fish.*, **2** : 573, fig. 190 (Pakistan; India; Nepal; Bangladesh; Sri Lanka; Myanmar; Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 207.

Material examined : River (Subarnarekha 4ex 10-15 cm; Haldi 2ex 7.9-15.3 cm), Nandigram 3ex 12-17.8 cm.

Local Name : Dorakata tengra, tengra (Midnapore, Bankura, Hooghly).

Distribution : India: Throughout India; Pakistan; Nepal; Bangladesh; Sri Lanka; Myanmar and Thailand.

Habitat : Rivers, streams, ponds and lakes in the plains and submountain regions with muddy substrate.

Remarks : This is one of the most common, small sized catfishes. The population of this species is fast declining. Market price is high.

Genus 33. *Aorichthys* Wu

51. *Aorichthys aor* Hamilton-buchanan

1822. *Aorichthys aor* Hamilton-buchanan, *Fishes of Ganges*: 205, 379, pl. 20, fig. 68 (type-locality : Rivers of Bengal and upper parts of Gangetic estuary).

1991. *Aorichthys aor* Talwar and Jhingran, *Inland Fish.*, 2 : 547 (Northern India upto Krishna river system; Nepal; Bangladesh; Pakistan and upper Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 208.

Material examined : River (Kansai 3ex 15.7-50.3 cm; Subarnarekha 2ex 11.8-45.9 cm; Shilabati 1ex 17.5 cm), Ponds (Khakurda 3ex 18.5-23.7 cm).

Local Name : Aar, Aar tengra (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India upto the Krishna river system in the South (Ganga, Yamuna, Brahmaputra, Mahanadi, Narmada, Tapti, Krishna, Cauvery river system); Pakistan; Bangladesh; Myanmar.

Habitat : Freshwater rivers, ponds, lakes, channels and reservoirs.

Remarks : This is an important giant catfish with fleshy body. They mostly inhabit in rivers. Population of this species is declining. This cat fish takes dead bait and provides a good sport. It breeds before the commencement of the monsoon rains. Some people generally prefer the head and other cut pieces (Jayaram, 1977). This fish used to produce sound after harvesting. Market price is high.

52. *Aorichthys seenghala* (Sykes)

Platystoma seenghala Sykes, *Trans. Zool. Soc. Lond.*, 2 : 371, pl. 65, fig. 2 (type-locality : Mulla Motha river at Poona).

1991. *Aorichthys seenghala* Talwar and Jhingran, *Inland Fish.*, 2 : 548 (Afghanistan; Pakistan; India: Ganga, Yamuna, Krishna, Godavari, Cauvery river systems; Nepal and Bangladesh).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 209.

Material examined : River (Kansai 6ex 18.2-42 cm; Subarnarekha 2ex 15.7-37 cm).

Local Name : Air, Aar, tengra (Midnapore, Bankura, Hooghly).

Distribution : India : Ganga, Yamuna, Krishna, Godavari and Cauvery river system; Afghanistan; Pakistan; Nepal and Bangladesh.

Habitat : Rivers, canals, beels, ditches and inundated paddy fields.

Remarks : 'Aar' is an important giant catfish. This cat fish takes both dead bait and worm. Breeds before the commencement of monsoon. Market price is high.

Family 10. SILURIDAE

Genus 35. *Ompok* Lacepede53. *Ompok bimaculatus* (Bloch)

1797. *Silurus bimaculatus* Bloch, *Ichthyol. Hist. nat. des. Poiss.*, **11** : 17, pl. 364 (Type-locality : Malabar).

1991. *Ompok bimaculatus* Talwar and Jhingran, *Inland Fish.*, **2** : 582, fig. 194 (Afghanistan; Pakistan; India; Sri Lanka; Bangladesh; Myanmar; Thailand; Java; Sumatra; Borneo and China).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 216.

Material examined : River (Kansai 2ex 8-11.6 cm), Nandigram 3ex 9.6-12.6 cm, Khakurda 2ex 9-12.2 cm.

Local Name : Pabda (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan; Nepal; Bangladesh; Sri Lanka; Myanmar; Thailand; Java; Sumatra; Borneo and China.

Habitat : Shallow rivers and ponds with muddy or sandy bottom in the plains and sub mountain regions.

Remarks : It is considered a very tasty fish. Market price is very high. It spawns during the monsoons. Population of this species is fast declining.

54. *Ompok pabda* (Hamilton-Buchanan)

1822. *Silurus pabda* Hamilton-Buchanan, *Fishes of Ganges* : 150, 374, pl. 25, fig. 47 (type-locality : Ponds and rivers of Bengal).

1991. *Ompok pabda* Talwar and Jhingran, *Inland Fish.*, **2** : 584, fig. 195 (Afghanistan; Pakistan: Indus plain and adjoining hilly areas; India; Bangladesh and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 218.

Material examined : Pond (Khakurda 3ex 14-16.3 cm); Nandigram 1ex 10.6 cm.

Local Name : Pabda (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan: Indus plain and adjoining hilly areas; Bangladesh and Myanmar.

Habitat : Clear as well as muddy rivers, streams, ponds and lakes.

Remarks : An esteemed food fish. Its eggs are of dull green colour (Jayaram, 1977). The abundance of this species are fast declining. Market price is high.

55. *Ompok pabo* (Hamilton-Buchanan)

1822. *Silurus pabo* Hamilton-Buchanan, *Fishes of Ganges* : 153, 375, pl. 22, fig. 48 (type-locality : Brahmaputra river).

1991. *Ompok pabo* Talwar and Jhingran, *Inland Fish.*, 2 : 585, fig. 196 (Pakistan; northern India; Bangladesh and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 219.

Material examined : Pond (Nandigram 1 ex 12.3 cm).

Local Name : Pabo, pabda (Midnapore, Bankura, Hooghly).

Distribution : India : West Bengal, Dargeeling dist., Assam; Bangladesh and Myanmar.

Habitat : Rivers, Ponds and Lakes.

Remarks : It is a high priced common food fish. Population of this species has been declined drastically.

Genus 35. *Wallago* Bleeker

56. *Wallago attu* (Schneider)

1801. *Silurus attu* Schneider, *Syst. Ichth.* : 378, pl. 75 (type-locality : Malabar).

1991. *Wallago attu* Talwar and Jhingran, *Inland Fish.*, 2 : 590 (Pakistan; India; Sri Lanka; Bangladesh; Myanmar; Thailand; Vietnam; Kampuchea; the Malay Peninsula; Sumatra and Java).

Material examined : Rivers (Rupnarayan at Bondar 2 ex 42-85 cm; Subarnarekha 2 ex 35-90 cm; Kansai 2 ex 29-87 cm), Irrigation cannal (Gokulpur 3 ex 8.5-15 cm; Khakurda 2 ex 30.5-45 cm).

Local Name : Boal, Bayali (Midnapore, Bankura, Hooghly).

Distribution : India; Sri Lanka; Afghanistan; Pakistan; Bangladesh; Myanmar; Thailand; Indonesia.

Habitat : Large rivers and estuaries with muddy or silty substrate, also tanks and reservoirs.

Remarks : 'Boal' is a carnivorous and bottom feeder fish. It is very destructive to other more valuable food fishes such as major carps. Often it preys upon its own spawned larvae. The fleshy body with rich oil content, is liked by many. It is also offered to Goddess Kali by the Hindus (Jayaram, 1977). This cat fish takes dead bait and also takes live bait as well. It is fished in large numbers by large scoop nets, long

lines and hooks. The fisherman sometimes tried to deceive them by throwing a hand full of dust in vicinity of its probable moving place. Taking it to be a group of small fish moving fast, it moves in an enormous speed that gives a particular type of water movement on surface, indicating its direction of movement. Abundantly found during the premonsoon. It is monsoon breeder. People with Bronchitis usually avoid eating this fish. Market demand is high. Population of this fish is fast declining.

Genus 36. *Ailia* Gray

57. *Ailia coila* (Hamilton-Buchanan)

1822. *Malapterurus coila* Hamilton-Buchanan, *Fishes of Ganges* : 158, 375 (type-locality : Freshwater rivers of Bengal).

1991. *Ailia coila* Talwar and Jhingran, *Inland Fish.*, 2 : 593 (Pakistan; India; Bangladesh and Nepal).

Material examined : River (Kansai 2ex 18-19.2 cm), wetlands of Narajole (5 ex 16.6-23.8 cm).

Local Name : Kajri, Kojoli (Midnapore, Bankura, Hooghly).

Distribution : India : Yamuna, Ganga, Brahmaputra, Mahanadi; Pakistan; Bangladesh and Nepal.

Habitat : Large rivers and connected waters.

Remarks : It is a surface to midwater fish living in shoals in large rivers. Market price is high due to its excellent test. Sometimes fishermen preserved it in saline water for extra hardening. The population of this species has already been declined to an alarming level.

Genus 37. *Pseudeutropius* Bleeker

58. *Pseudeutropius atherinoides* (Bloch)

1794. *Silurus atherinoides* Bloch, *Natuges ausland. Fische*, 8 : 48pl. 371, fig. 1 (type-locality : Tranquebar, Tamil Nadu).

1991. *Pseudeutropius atherinoides* Talwar and Jhingran, *Inland Fish.*, 2 : 606, fig. 200 (Pakistan; India; Bangladesh; Nepal and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 227.

Material examined : River (Kansai 3ex 9.7-10.2 cm; Subarnarekha 2ex 8.9-11.3 cm; Shilabati 1ex 13.2 cm), Irrigation canals (Narajol 2ex 6.7-10.5 cm).

Local Name : Doya, Potasi (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India except Kerala; Pakistan; Bangladesh; Nepal and Burma.

Habitat : Rivers and estuaries.

Remarks : Small sized, bright coloured fish. Market price is moderate.

Genus 38. *Clupisoma* Swainson

59. *Clupisoma garua* (Hamilton-Buchanan)

1822. *Silurus garua* Hamilton-Buchanan, *Fishes of Ganges* : 156, 375, pl. 21, fig. 50 (type-locality : Freshwater rivers of Gangetic Provinces).

1991. *Clupisoma garua* Talwar and Jhingran, *Inland Fish.*, 2 : 596, fig. 198A (Pakistan; India; Bangladesh and Nepal).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 222.

Material examined : River (Kansai 2ex 17.3-22.3 cm; Subarnarekha 1ex 19.7 cm).

Local Name : Garua, Kocha, Puttoshi, Ghero (Midnapore, Bankura, Hooghly).

Distribution : India : Large rivers of Northern and North Eastern India and Orissa; Pakistan; Nepal and Bangladesh.

Habitat : Freshwater and tidal rivers.

Remarks : It is a bottom feeder. Some people do not take this fish as food for its folthy feeding habits. It is a common cat fish in the freshwater rivers. Market price is moderate.

Genus 39. *Eutropiichthys* Bleeker

60. *Eutropiichthys vacha* (Hamilton-Buchanan)

1822. *Pimelodus vacha* Hamilton-Buchanan, *Fishes of Ganges* : 196, 378, pl. 19, fig. 64 (type-locality : Larger freshwater rivers of Gangetic Provinces).

1991. *Eutropiichthys vacha* Talwar and Jhingran, *Inland Fish.*, 2 : 603, fig. 199B (Pakistan; India; Bangladesh; Myanmar and probably also Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 225.

Material examined : Rivers (Kansai 2ex 18.2-19.5 cm; Shilabati 3ex 15.7-21.3 cm; Subarnarekha 2ex 12.7-20.7 cm.).

Local Name : Vacha, Bacha Bhacha (Midnapore, Bankura, Hooghly).

Distribution : India : North India, Orissa, West Bengal, Bihar; Pakistan; Bangladesh; Nepal; Myanmar and Thailand.

Habitat : Freshwater rivers and estuaries.

Remarks : It is a surface feeder and feeds voraciously. It is endowed with smooth skin. The palatable taste makes it commercially important. Population is declining.

Family 11. PANGASIIDAE

Genus 40. *Pangasius* Valenciennes

61. *Pangasius pangasius* (Hamilton-Buchanan)

1822. *Pimelodus pangasius* Hamilton-Buchanan, *Fishes of Ganges* : 163, 376, pl. 33, fig. 52 (type-locality : Estuaries of Bengal).

1991. *Pangasius pangasius* Talwar and Jhingran, *Inland Fish.*, 2 : 613 (Pakistan; India; Bangladesh; Myanmar; Thailand; Malay Peninsula and Java).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 613.

Material examined : River (Kansai 2ex 20-27 cm; Subarnarekha 3ex 18.7-29.8 cm).

Local Name : Pungas, Pangwas (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Bangladesh; Myanmar; Thailand; Malay Peninsula and Java.

Habitat : Large rivers and estuaries.

Remarks : It is an important food fish for its white flesh and for good test. Some people do not like it because of its foul feeding nature. Breeding season is monsoon. It attains a good size. Population is declining.

Family 12. SISORIDAE

Genus 41. *Gagata* Bleeker

62. *Gagata cenia* (Hamilton-Buchanan)

1822. *Pimelodus cenia* Hamilton-Buchanan, *Fishes of Ganges* : 174, 376, pl. 31, fig. 57 (type-locality : Rivers of North Bengal).

1991. *Gagata cenia* Talwar and Jhingran, *Inland Fish.*, 2 : 637 (Pakistan; India; Bangladesh; Nepal; Myanmar)., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 235.

Material examined : River (Shilabati 2ex 6.8-7.5 cm.)

Local Name : Jungla (Midnapore, Bankura, Hooghly).

Distribution : India : Punjab, Delhi, Uttar Pradesh, Bihar, West Bengal, Orissa, Assam; Myanmar; Pakistan; Bangladesh and Nepal.

Habitat : Fresh and tidal rivers.

Remarks : Small sized catfish. Fairly common in this region. This species is considered as a wholesome food.

Genus 42. *Bagarius* Bleeker

63. *Bagarius bagarius* (Hamilton-Buchanan)

1822. *Pimelodus bagarius* Hamilton-Buchanan, *Fishes of Ganges* : 186, 378, pl. 7, fig. 62 (type-locality : Ganga river and its tributaries).

1991. *Bagarius bagarius* Talwar and Jhingran, *Inland Fish.*, 2 : 622 (India).

Material examined : River (Kansai 2ex 15-19.7cm; Subarnarekha 2ex 6.5-21 cm).

Local Name : Vaghair, Baghar (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Bangladesh; Myanmar; Thailand; Laos. Cambodia; Vietnam and Malay Archipelago.

Habitat : Rivers, usually with fast current, rocky pools and estuaries.

Remarks : - It is an inhabitant of running water. This fish is economically less important for its stiff flesh and awful looking. It is generally eaten by the poorer section of this region. Population is moderate.

Genus 43. *Nangra* Day

64. *Nangra viridescens* (Hamilton-Buchanan)

1822. *Pimelodus viridescens* Hamilton-Buchanan, *Fishes of Ganges*: 173, 376, pl. 10, fig. 56 (type-locality : Rivers of Northern Bengal).

1991. *Nangra viridescens* Talwar and Jhingran, *Inland Fish.*, 2 : 677, fig. 216 (India and Bangladesh).

1999. *Gagana Viridescens* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 238.

Material examined : River (Subarnarekha 2ex 5.5-7.2 cm.).

Local Name : Huddah (Midnapore).

Distribution : India : Yamuna at Delhi, Bihar, Uttar Pradesh, North Bengal, Assam; Bangladesh.

Habitat : Freshwater (higher reaches of rivers).

Remarks : Small sized catfish. Occasionally occurred in this region.

Genus 44. *Erethistes* Mullar and Troschel

65. *Erethistes pussilus* Mullar and Troschel

1845. *Erethistes pussilus* Mullar and Troschel, *Horae Ichthyol.*, 3 : 12, pl. 1, fig. 3 (type-locality : Assam).

1991. Talwar and Jhingran, *Inland fish.*, 2 : 628, fig. 204 (India; Bangladesh and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 256.

Material examined : River Shilabati 2ex 4.2-5.7 cm.

Local Name : Tinkantia (Midnapore).

Distribution : India : Bihar and Assam (Ganga and Brahmaputra drainages); Bangladesh and Myanmar.

Habitat : Hill streams, muddy parts of rivers overgrown with vegetation.

Remarks : This small sized catfish, is with no interest to fisheries.

Family 13. CLARIIDAE

Genus 45. *Clarias* Scopoli

66. *Clarias batrachus* (Linnaeus)

1758. *Silurus batrachus* Linnaeus, *Systema Naturae.*, 1, ed. 10 : 305 (type-locality : Asia and Africa).

1991. *Clarias batrachus* Talwar and Jhingran, *Inland Fish.*, 2 : 684, fig. 218 (Pakistan; India; Sri Lanka; Bangladesh; Myanmar; Indonesia; Singapore; Borneo and the Philippines).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 260.

Material examined : River (Kansai 2ex 17-22.3 cm; Subarnarekha 1ex 25.7 cm), Irrigation cannal (Khakurda 3ex 18.2-23.6 cm; Gokulpur 2ex 11.3-19.5 cm).

Local Name : Magur (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Nepal; Sri Lanka; Bangladesh; Myanmar; Indonesia; Singapore; Borneo and the Philippines.

Habitat : Stagnant and slow moving fresh and brackish water, pond and rivers.

Remarks : Commonly found in fresh water and brackish water ponds, rivers and marshy (dried up tanks, paddy field, irrigation canals) or muddy waters. High priced fish.

(Common people liked it for its believed rejuvenating vigor. It can live out of water for a considerable period with accessory respiratory organ) and move short distance over land in rainy day. It is a monsoon breeder and also breeds in inundated paddy fields, stagnant water of ponds and tanks. This catfish is being cultured in polycultur ponds and also cemented tanks and cages.

Family 14. HETEROPNEUSTIDAE

Genus 46. *Heteropneustes* Muller

67. *Heteropneustes fossilis* (Bloch)

1794. *Silurus fossilis* Bloch, *Naturgesch. ausl. fische*, 8 : 46, pl. 370, fig. 2 (type-locality : Tranqueber, Tamil Nadu).

1991. *Heteropneustes fossilis* Talwar and Jhingran, *Inland Fish.*, 2 : 689 (India; Pakistan; Sri Lanka; Nepal; Bangladesh; Myanmar; Thailand and Laos).

Material examined : River (Kansai 2ex, 17.8-20.2 cm; Subarnarekha 3ex, 18.2-21.3 cm), Irrigation cannal (Khakurda 2ex, 16-21.2 cm; Khirai 3ex, 12.8-20.9 cm).

Local Name : Singhi (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Sri Lanka; Nepal; Bangladesh; Burma; Thailand and Laos.

Habitat : Rivers, ponds, ditches, beels, swamps, marshes and paddy fields, able to tolerate slightly brackish water.

Remarks : Economically important fish because of its medicinal value. It is known for its high blood enriching properties and rejuvenating vigor. During dry season it lives in semi liquid and semi dry mud because of its accessory respiratory organs. Breeding time is monsoon period and it can breed in stagnant water of well managed as well as derelict ponds. Fertilised eggs are adhesive, demarsal and spherical. Strong and sharp pectoral spine may cause painful wounds and bleeding if not hold carefully.

Family 15. ARIIDAE

Genus 47. *Arius* Valenciennes

68. *Arius gadora* (Hamilton-Buchanan)

1822. *Pimelodus gadora* Hamilton-Buchanan, *Fishes of Ganges* : 167, 376, pl. 10, fig. 54 (type-locality : Estuaries of Bengal).

1991. *Arius gagora* Talwar and Jhingran, *Inland Fish.*, 2 : 702 (India and Bangladesh)

Material examined : River (Subarnarekha 1ex, 12.2 cm.).

Local Name : Not known.

Distribution : India : West Bengal and Orissa; Bangladesh.

Habitat : Estuaries and tidal rivers.

Remarks : It was reported to be of considerable fishery value, but in this region this species is not abundant.

69. *Arius platystomus* Day

1877. *Arius platystomus* Day, *Fishes of India*: 464, pl. 107, fig. 3 (type-locality: Canara).

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 703, fig. 223 (India and Sri Lanka).

Material examined : River (Haldi 1ex, 16.2 cm.).

Local Name : Not known.

Distribution : India and Sri Lanka.

Habitat : Coastal waters and estuaries.

Remarks : Median sized catfish. This fish species is not common in this region.

Order 8. ATHERINIFORMES

Family 16. BELONIDAE

Genus 48. *Xenetodon* Regan

70. *Xenetodon cancila* (Hamilton-Buchanan)

1822. *Esox cancila* Hamilton-Buchanan, *Fishes of Ganges* : 213, 380, pl. 27, fig. 70 (type-locality : Gangetic Provinces).

1991. *Xenetodon cancila* Talwar and Jhingran, *Inland Fish.*, 2 : 743 (Pakistan; India; Bangladesh; Sri Lanka; Myanmar and Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 265.

Material examined : River (Kansai 4 ex, 13.4-24.2 cm; Subarnarekha 2 ex, 11.8-21.8 cm; Dwarakeswar 3 ex, 9.7-15.3 cm), Large pond (Jhargram 2 ex, 17.3-19.7 cm).

Local Name : Ban, Gang tora (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan; Sri Lanka; Bangladesh; Burma; Malay and Thailand.

Habitat : Freshwater slow moving streams, rivers and ponds with rocky or sandy substrate, usually found basking just near the surface.

Remarks : This fish likes to live in transparent water of rivers and ponds. This surface feeder fish is not liked by the upper class 'Hindus' They imagine its affinity with the carrier of Goddess GANGA. That is why its market is limited by religious taboo. Economically less important fish.

Family 17. CYPRINODONTIDAE

Genus 49. *Aplocheilus* McClelland

71. *Aplocheilus panchax* (Hamilton-Buchanan)

1822. *Esox panchax* Hamilton-Buchanan, *Fishes of Ganges* : 211, 380, pl. 3, fig. 69 (type-locality : Bengal).

1991. *Aplocheilus panchax* Talwar and Jhingran, *Inland Fish.*, 2 : 752, fig. 241 (Pakistan; India; Bangladesh; Burma; Indo Malaysian archipelago).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 269.

Material examined : River (Kansai 2ex, 4-5.2 cm; Subarnarekha 3ex, 3-4.9 cm), Nandigram 2ex, 4.5-5.3 cm.

Local Name : Dhenochune (Midnapore, Bankura, Hooghly).

Distribution : India : Northern India; Pakistan: Lower Indus plain and adjoining hilly areas; Bangladesh; Burma; Thailand; Indo Malayan Archipelago.

Habitat : Clear shallow fresh and brackish waters.

Remarks : It is an important indigenous larvivorous fish and is now being used for mosquito control. Inhabits in fresh and brackish water and it is a perennial breeder but spawn maximum in the monsoon season.

Genus 50. *Oryzias* Jordon and Snyder

72. *Oryzias melanostigma* (McClelland)

Aplocheilus melanostigma McClelland, *Asiat. Res.*, 19(2) : 301, 427, pl. 42, fig. 3 and pl. 35, fig. 4 (type-locality : Calcutta)

1991. *Oryzias melanostigma* Talwar and Jhingran, *Inland Fish.*, 2 : 745, fig. 239 (India; Bangladesh; Myanmar and Sri Lanka).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 266.

Material examined : Irrigation cannal (Khakurda 2ex, 1.9-2.1 cm), Swedge water (Gokulpur TATA metalicks 6ex, 2.3-2.6 cm).

Local Name : Dhenochuna (Midnapore, Bankura, Hooghly).

Distribution : India : Peninsular India, Orissa, West Bengal; Sri Lanka and Bangladesh.

Habitat : Estuaries and brackishwater, also found in freshwater condition and even breed in freshwater.

Remarks : It is an important larvivorous fish and is being used for mosquito control. It is a perennial breeder. This fish is of no interest to fisheries.

Order 9. PERCIFORMES

Family 18. CENTROPOMIDAE

Genus 51. *Lates* Cuvier

73. *Lates calcarifer* (Bloch)

1790. *Holocentrus calcarifer* Bloch, *Naturges. ausland. Fische*, (4) : 100, pl. 244 (type-locality : Indonesia).

Material examined : Nandigram 1ex, 20.2 cm.

Local Name : Bhetki (Midnapore, Bankura, Hooghly).

Distribution : Indo-West Pacific.

Habitat : Coastal waters, estuaries and lagoons, brackish water ponds.

Remarks : It is a high priced good food fish. It ascends freshwater for searching food and shelter but always returns marine environment for spawning. These are commercially important fish. Indiscriminate catching of prawn seeds in its natural breeding areas leads to the destruction of juveniles of this species considerably.

Family 19. AMBASSIDAE

Genus 52. *Chanda* Hamilton-Buchanan

74. *Chanda nama* Hamilton-Buchanan

1822. *Chanda nama* Hamilton-Buchanan, *Fishes of Ganges* : 109, 371, pl. 39, fig. 37 (type-locality : Ponds throughout Bengal).

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 799, fig. 249 (Pakistan; India; Nepal; Bangladesh and Burma).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 283.

Material examined : River (Kansai 2ex, 6.9-8.3 cm; Subarnarekha 3ex, 5.9-8.6 cm), Irrigation cannal (Khakurda 3ex, 5.3-7.1 cm; Gokulpur 3ex, 4.5-7.1 cm; Khirai 2ex, 4.5-7.9 cm), Pond (Narajol 2ex, 5.2-6.7 cm; Nandigram 2ex, 6-7.7 cm; Jhargram 2ex, 4.9-8.2 cm.).

Local Name : Chanda, Nam chanda (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan; Nepal; Bangladesh and Burma.

Habitat : Fresh and brakish water, both stagnant and running water.

Remarks : It is a larvivorous fish. Commonly found in paddy field, irrigation cannal, large pond and polyculture pond. This small sized and low priced fish is preferred by common people. Commonly these are found in fish market with other small fishes. Breeding season is monsoon.

Genus 53. *Pseudambassis* Bleeker

75. *Pseudambassis ranga* (Hamilton-Buchanan)

1822. *Chanda ranga* Hamilton-Buchanan, *Fishes of Ganges* : 113. 371, pl. 16, fig. 38 (type-locality : Freshwater of all parts of Gangetic provinces).

1991. *Pseudambassis ranga* Talwar and Jhingran, *Inland Fish.*, 2 : 805 (Pakistan; India; Bangladesh; Myanmar; Thailand and Malaysia).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 285.

Material examined : River (Kansai 2ex, 3.5-4.8 cm; Subarnarekha 3ex, 2.9-4.5 cm), Irrigation canal (Khakurda 2ex, 2.7-5.3 cm; Khirai 3ex, 1.8-4.9 cm).

Local Name : Chanda, Ranga chanda (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan; Bangladesh; Burma; Thailand and Malaysia.

Habitat : Fresh and brackish waters, both stagnant and running waters.

Remarks : It is common in freshwater. It is a monsoon breeder. These small sized fish is found in fish market with other small fishes.

Family 20. NANDIDAE

Genus 54. *Badis* Bleeker

76. *Badis badis* (Hamilton-Buchanan)

1822. *Labrus badis* Hamilton-Buchanan, *Fishes of Ganges* : 70, 368, pl. 25, fig. 23 (type-locality : Gangetic Provinces)

1991. *Badis badis* Talwar and Jhingran, *Inland Fish.*, 2 : 882 (Pakistan; India; Nepal; Bangladesh and Myanmar).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 289.

Material examined : River (Kansai 4ex, 4.5-6 cm; Subarnarekha 3ex, 2.9-6.2 cm), Irrigation canal (Gokulpur 2ex, 3.9-4.8 cm; Khirai 2ex, 2.9-4.2 cm).

Local Name : Kalo dhoba, Botkoi, Bhedo (Midnapore, Bankura, Hooghly).

Distribution : India : Yamuna, Ganges and Brahmaputra rivers; Pakistan; Bangladesh; Nepal and Burma.

Habitat : Rivers, ponds, paddy field and ditches.

Remarks : It is a bottom-column feeder of the pond, preferably feeds half-decomposed leaves and small branches of macrophytes. It is also a lurking predator that eats only live moving animals like mosquito larvae. In the Family-Nandidae, this is one of the most interesting colourful fish because of the possession of amazing range of pigmentation. This solitary fish spend much of its time motionless. It shows no special colour when feeding other than being cryptically marked (Barlow *et al.*, 1968). Adult males are highly territorial. This fish may be used for ornamental fishery. They are found very little in number. For social taboo, it is not used as table fish.

Genus 55. *Nandus* Valenciennes

77. *Nandus nandus* (Hamilton-Buchanan)

1822. *Coius nandus* Hamilton-Buchanan, *Fishes of Ganges* : 96, 370, pl. 30, fig. 32 (type-locality : Ponds of Gangetic provinces).

1991. *Nandus nandus* Talwar and Jhingran, *Inland Fish.*, 2 : 878, fig. 265 (Pakistan; India; Nepal; Bangladesh; Myanmar and Thailand).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 287.

Material examined : River (Keleghai 3ex, 12.2-14.7 cm), Irrigation canal (Khakurda 2ex, 9.7-11.8 cm), Wet land (Chathra 4ex, 9.8-12.3 cm).

Local Name : Nadosh, Nayna, Bheda (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan: Indus plain; Nepal; Bangladesh and Thailand.

Habitat : Fresh and brackish water ponds, wetlands and rivers.

Remarks : It is a piscivorous species, and eats small sized fishes like *Colisa*, *Channa*, *Danio*, and *Puntius*. It is a high priced fish. This fish can be collected easily from dried up ponds, bheries etc. But the abundance of this species is fast declining from its natural habitats and is very rare in some of its natural habitats.

Family 21. MUGILIDAE

Genus 56. *Rhinomugil* Gill78. *Rhinomugil corsula* (Hamilton-Buchanan)

1822. *Mugil corsula* Hamilton-Buchanan, *Fishes of Ganges* : 221, 381, pl. 9, fig. 97 (type-locality : Ganges river).

1991. *Rhinomugil corsula* Talwar and Jhingran, *Inland Fish.*, 2 : 897, fig. 269 (India; Bangladesh; Nepal and Myanmar)., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 293., Chatterjee, *et al.*, 2000, *Rec. zool. Surv. India. Occ. Paper No. 188* : 59, fig. 41.

Material examined : River (Subarnarekha 2ex, 17.2-18.5 cm; Haldi 1ex, 16.7 cm).

Local Name : Konia, Kannua (Midnapore, Bankura, Hooghly).

Distribution : India : West Bengal, Uttar Pradesh, Bihar, Orissa, Tamil Nadu; Nepal; Bangladesh and Myanmar.

Habitat : Rivers and estuaries also in fresh water Canals.

Remarks : It is a common fish in estuaries. Some time it moves against water current towards up stream of river. Market price high. Population is moderate. Large sized, good taste and is with a good fishery potential.

Genus 57. *Mugil* Linnaeus79. *Mugil cephalus* Linnaeus

1758. *Mugil cephalus* Linnaeus, *Systema Naturae*, ed. 10, 1 : 316 (type-locality : European seas).

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 896 (World wide)., Chatterjee, *et al.*, 2000, *Rec. zool. Surv. India. Occ. Paper No. 188* : 59, fig. 41.

Material examined : River (Subarnarekha 2ex, 12.7-13.9 cm; Haldi 1ex, 14.3 cm).

Local Name : Parshey (Midnapore, Bankura, Hooghly).

Distribution : World wide-temperate and tropical waters.

Habitat : Seas, estuaries and rivers.

Remarks : This is a common mullets. Common in lower reaches of rivers. High market price for its good test. Peak fishing season is during late monsoon to early winter.

Genus 58. *Liza* Jordan an Swain80. *Liza parsia* (Hamilton-Buchanan)

1822. *Mugil parsia* Hamilton-Buchanan, *Fishes of Ganges* : 215, pl. 17. fig. 72 (type-locality : freshwater rivers of Bengal).

1991. *Liza parsia* Talwar and Jhingran, *Inland Fish.* 2 : 893, fig. 268 (Pakistan; India; Sri Lanka)., Chatterjee *et al.*, 2000, *Rec. zool. Surv. India. Occ. Paper No. 188* : 59, fig. 41.

Material examined : River (Subarnarekha 3ex, 18.2-19.7 cm; Haldi 2ex, 17.5-20.2 cm).

Local Name : Parsia, Parsay (Midnapore, Bankura, Hooghly).

Distribution : India : Including Andaman Island, Pakistan and Sri Lanka.

Habitat : Shallow coastal waters, estuaries and lagoons, entering tidal rivers and also in freshwater.

Remarks : It is a common mullet in lower reaches of river. Spawning takes place in sea but they are being cultured successfully in brackish water ponds.

81. *Liza tade* (Forsskal)

1775. *Mugil crenilabis tade* Forsskal, *Descript. Animal* : 74 (type-locality : Arabia).

1991. *Liza tade* Talwar and Jhingran, *Inland fish.*, 2 : 894 (Indo-west Pacific)., Chatterjee *et al.*, 2000, *Rec. zool. Surv. India. Occ. Paper No. 188* : 59, fig. 41.

Material examined : River (Subarnarekha 2ex, 17.5-18.3 cm; Haldi 2ex, 12.8-19.7 cm).

Local Name : Bhangon, Parshey (Midnapore, Bankura, Hooghly).

Distribution : Indo-west Pacific.

Habitat : Primarily marine, but entering estuaries and backwaters.

Remarks : It is also a common mullet in the lower reaches of river. It is abundant from September to November. Occasionally found in freshwater bodies. Easily cultivated in brackishwater. It is a high priced fish when freshly caught. Breeding not observed in confined water. Spawning takes place in the sea.

Family 22. POLYNEMIDAE

Genus 59. *Polynemus* Linnaeus82. *Polynemus paradiseus* Linnaeus

1758. *Polynemus paradiseus* Linnaeus, *Systema Naturae*, 1 (ed.10) : 317 (type-locality : India).

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 911 (Pakistan; India; Sri Lanka; Bay of Bengal).

2000. Chatterjee *et al.*, *Rec. zool. Surv. India. Occ. Paper No. 188* : 61, fig. 43.

Material examined : River (Rupnarayan 3ex, 12.7-15.3 cm).

Local Name : Tapsya (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Sri Lanka; Bay of Bengal.

Habitat : Shallow sandy inshore areas, regularly entering freshwaters during breeding season.

Remarks : It constitutes an important component of capture fishery with high market price. This fish enters into the estuary during breeding season. Peak fishing season is from May to October. It is being caught by bag nets and lines.

Genus 60. *Eleutheronema* Bleeker

83. *Eleutheronema tetradactylum* (Shaw)

1804. *Polynemus tetradactylus* Shaw, *General Zoology*, 5 : 155 (type-locality : Vizagapatnam)..

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 907 (Persian Gulf; Pakistan; India; Sri Lanka; Bangladesh; East Indies; China; Philippines; north and western Australia).. Chatterjee *et al.*, 2000, *Rec. zool. Surv. India. Occ. Paper No. 188* : 61, fig. 43.

Material examined : Rivers (Rupnarayan 2ex, 10.2-12.3 cm), Nandigram 3ex, 8.7-13.3 cm.

Local Name : Guchhia, Sahal (Midnapore, Bankura, Hooghly).

Distribution : India; Persian Gulf; Pakistan; Sri Lanka; Bangladesh; through the East Indies, to China, the Philippines, and north and western.

Habitat : Sandy shores and muddy estuaries.

Remarks : Its contributes to a good fishery. They are caught from September to November by gill nets. It enters in the estuary for breeding. Market price is good.

Family 23. GOBIIDAE

Genus 61. *Glossogobius* Gill

84. *Glossogobius giuris* (Hamilton-Buchanan)

1822. *Gobius giuris* Hamilton-Buchanan, *Fishes of Ganges* : 51, pl. 33, fig. 15 (type-locality : Gangetic provinces).

1991. *Glossogobius giuris* Talwar and Jhingran, *Inland Fish.*, 2 : 936, fig. 274 (Indo-west Pacific)..
Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 294 ., Chatterjee *et. al.*, 2000, *Rec. zool. Surv. India. Occ. Paper No. 188* : 64, fig. 44.

Material examined : Rivers (Kansai 2ex, 12-14.3 cm; Subarnarekha 3ex, 7.8-13.3 cm; Keleghai 4ex, 4.9-8.7 cm), Irrigation cannal (Khakurda 2ex, 7.3-10.3 cm; Gokulpur 3ex, 7.2-7.8 cm), Nandigram 2ex, 5.2-9.3 cm, Jhargram 2ex, 5.9-8.7 cm.

Local Name : Bele (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Bangladesh; East coast of Africa; Ceylon; Andamans; Malay Peninsula; Thailand; China; Japan; Philippines; Australia; the Indo-Australian Archipelago and South Pacific Islands.

Habitat : Fresh water, (agricultural field, canal and rivers) and also occasionally in estuaries.

Remarks : This fresh water, bottom dwelling fish is preferred by people for its tasty flesh. This species is found abundantly in this region.

Genus 62. *Pseudapocryptes* (Bleeker)

85. *Pseudapocryptes lanceolatus* (Bloch-Schneider)

1801. *Eleotris lanceolatus* Bloch-Schneider, *Syst. Ichthyol.* : 67, pl. 15 (type-locality : Tranquebar and Tamil Nadu).

1991. *Pseudapocryptes lanceolatus* Talwar and Jhingran, *Inland Fish.*, 2 : 958, fig. 277 (India; Malaya; China; Japan)., Chatterjee *et al.*, *Rec. zool. Surv. India. Occ. Paper No. 188* : 64, fig. 44.

Material examined : Rivers (Subarnarekha 3ex, 7.2-10.3 cm; Rupnarayan 4ex, 5.5-9.3 cm; Haldi 3ex, 4.9-12.7 cm), Irrigation canals (Nandigram 1ex, 15 cm.).

Local Name : Chema (Midnapore, Bankura, Hooghly).

Distribution : India; Malaya; through the East Indies, to China and Japan.

Habitat : Sea, estuaries, and also in fresh water.

Remarks : This is found abundantly during premonsoon. Its contributes insignificantly to a minor fishery in the lower region.

Genus 63. *Apocryptes* (Val)

86. *Apocryptes macrolepis* Bleeker

1851. *Apocryptes macrolepis* Bleeker, *Nat. Tijdschr. Ned. India.*, 2 : 66.

1991. *Parapocryptes macrolepis*, Talwar and Jhingran, *Inland Fish.*, 2 : 956.

Material examined : Rivers (Subarnarekha 4ex, 8.9-10.3 cm; Rupnarayan 2ex, 6.8-9.3 cm; Haldi 3ex, 7.2-8.3 cm).

Local Name : Not known.

Distribution : India to China, Indo Australian Archipelago.

Habitat : Inhabits in sea estuary and brackishwater waterbodies.

Remarks : This species is of no interest to fisheries.

87. *Apocryptes cantoris* Day

1870. *Apocryptes cantoris* Day, *Proc. zool. Soc. London.* : 693.

1991. *Bolephthalmus cantoris* Talwar and Jhingran, *Inland Fish.*, 2 : 953.

Material examined : Rivers (Subarnarekha 2ex, 4.9-7.2 cm; Rupnarayan 3ex, 5.2-6.9 cm; Haldi 4ex, 5.7-8.3 cm), Irrigation canal (Nandigram 1ex, 12.5 cm.).

Local Name : Dakur mach (Midnapore, Bankura, Hooghly).

Distribution : India; Andaman; China; Java.

Habitat : Inhabits in the coastal water bodies and estuaries.

Remarks : This species is of no interest to fisheries.

Family 24. ANABANTIDAE

Genus 64. *Anabas* Cuvier and Cloquet

88. *Anabas cobojius* (Hamilton-Buchanan)

1822. *Coius cobojius* Hamilton-Buchanan, *Fishes of Ganges.* : 98, 370, pl. 13, fig. 33 (type-locality : Gangetic provinces).

1991. *Anabas cobojius* Talwar and Jhingran, *Inland Fish.*, 2 : 996 (India; Bangladesh And Borneo)., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 296.

Material examined : Rivers (Kansai 2ex, 8.9-12.6 cm; Shilabati 2ex, 7.9-13.2 cm; Subarnarekha 3ex, 7.3-11.4 cm), Irrigation canal (Nandigram 2ex, 10.2-12.3 cm.).

Local Name : Koi (Midnapore, Bankura, Hooghly).

Distribution : India : West Bengal, Orissa and Andhra Pradesh; Bangladesh and Borneo.

Habitat : Fresh water streams, ponds, paddy fields and ditches.

Remarks : This fish is very hardy and able to live out of water by virtue of its accessory respiratory organs. Population is fast declining. It is a good food fish.

89. *Anabas testudineus* Bloch

1795. *Anthias testudineus* Bloch, *Naturges. ausland. Fische*, (6) : 121, pl. 322 (type-locality : mentioned as Japan but it doesn't occur in Japan).

1991. *Anabas testudineus* Talwar and Jhingran, *Inland Fish.*, 2 : 996, fig. 283 (Pakistan; India; Bangladesh; Sri Lanka; Myanmar; Malay archipelago; Singapore and the Philippines).

1999. Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 296.

Material examined : Rivers (Kansai 3ex, 6.3-11.5 cm; Subarnarekha 2ex, 7.4-12.3 cm; Dwarakeswar 3ex, 6.7-13.3 cm; Shilabati 2ex, 6.2-12.3 cm), Irrigation canal (Gokulpur 2ex, 4.8-8.7 cm; Khakurda 4ex, 6.5-9.2 cm; Khirai 3ex, 4.3-7.5 cm).

Local Name : Koi, Kai (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Bangladesh; Sri Lanka; Nepal; Myanmar; Thailand; Cambodia; South China; Indo-China; Malay and Malay-Archipelago.

Habitat : Fresh water and brackish water canals, lakes, swamps, ponds and turbid stagnant water.

Remarks : This fish is a hardy, bony fish and this species is of considerable interest to fisheries. It is a popular food fish specially due to its good taste. Available in pre and post monsoon months. It is also caught during rainy weather when it moves in search of prey out of wetlands. With the help of their 'walking fins', they can propel itself over dry land for a long distances at a stretch by walking. Easily culturable in ponds and in paddy fields. It can be mono cultured or may be cultured in poly culture ponds with other air breathing fishes.

Family 25. BELONTIDAE

Genus 65. *Polyacanthus* Cuvier

90. *Polyacanthus fasciatus* (Schneider)

1801. *Trichogaster fasciatus* Schneider, *Syst. Ichth.* : 164, pl. 36 (type-locality : Tranquebar).

1991. *Colisa fasciatus* Talwar and Jhingran, *Inland Fish.*, 2 : 1006 (Pakistan; India; Nepal; Bangladesh and Upper Myanmar).

1999. *Polyacanthus fasciatus* Menon, *Rec. zool. Surv. India. Occ. Paper No. 175* : 297.

Material examined : Rivers (Kansai 3ex, 3.9-8.2 cm; Subarnarekha 2ex, 3.5-8.6 cm), Irrigation cannal (Gokulpur 2ex, 4.2-5.5 cm; Khirai 1ex, 4.5 cm), pond (Nandigram 2ex, 3.7-6.7 cm.).

Local Name : Khalisha, Kholisa (Midnapore, Bankura, Hooghly).

Distribution : India : Throughout India; Pakistan; Nepal; Bangladesh and upper Myanmar.

Habitat : Fresh water rivers, tanks, ditches, ponds and estuaries, generally preferred weedy environment.

Remarks : It is being considered as ornamental fish for its brilliant coloured vertical bands. It is traditionally liked for its good taste. It is a surface feeder. It is available in rivers, ponds and irrigation cannals, but in very small numbers. It has been regarded as good larvivorous fish (Hora and Mukerji, 1953). It is rarely found in market.

Family 26. TERAPONIDAE

Genus 66. *Terapon* Cuvier

91. *Terapon jarbua* (Forsskal)

1775. *Sciaena jarbua* Forsskal, *Descript. Animalium* : 50 (type-locality : Djedda; Red sea).

1991. *Terapon jarbua* Talwar and Jhingran, *Inland Fish.*, 2 : 811 (Indo-west Pacific).

Material examined : Rivers (Rupnarayan 2ex, 12.2-16.7 cm; Subarnarekha 3ex, 15.3-17.3 cm and Haldi 2ex, 12.7-16.9 cm).

Local Name : Boorgooni, Teerpye (Midnapore, Bankura, Hooghly).

Distribution : Indo - west Pacific.

Habitat : Commonly found in inshore waters and moves towards upstream into fresh waters.

Remarks : It is robust and hardy fish. The fish is usually salt-cured. One of the most common species. It also moves considerable distances upstream into fresh water.

Family 27. ELEOTRIDIDAE

Genus 67. *Eleotris* Schneider

92. *Eleotris fusca* (Schneider)

1801. *Poecilia fusca* Schneider, *Syst. Ichth.* : 453 (type-locality : "Oriadeae insulae rivulis" Pacific islands).

1991. *Eleotris fusca* Talwar and Jhingran, *Inland Fish.*, 2 : 975, fig. 281 (Indo-west Pacific).

Material examined : Rivers (Subarnarekha 2ex, 8.3-9.8 cm; Rupnarayan 3ex, 5.9-9.7 cm; Haldi 2ex, 6.7-10.2 cm), Nandugram 1ex, 7.2 cm.

Local Name : Not known.

Distribution : Indo-west Pacific.

Habitat : Inhabits estuary.

Remarks : It is of no interest in fisheries. This species is very common in estuarine region. This species is every haline and curicious as they are abundantly found in casstal water as well as far away (even more than 10 miles) from the sea.

Family 28. GOBIOIDIDAE

Genus 68. *Odontamblyopus* Bleeker

93. *Odontamblyopus rubicundus* (Hamilton-Buchanan)

1822. *Gobioides rubicundus* Hamilton-Buchanan, *Fishes of Ganges* : 37, 365, pl. 5, fig. 9 (type-locality : estuaries of Ganges).

1991. *Odontamblyopus rubicundus* Talwar and Jhingran, *Inland Fish.*, 2 : 983 (India; Myanmar; China and Japan).

Material examined : Rivers (Subarnarekha 3ex, 14.2-18.3 cm; Rupnarayan 3ex, 13.7-19.3 cm; Haldi 2ex, 12.7-18.7 cm).

Local Name : Not known.

Distribution : India; Myanmar; through the East Indies to China and Japan.

Habitat : Coastal waters and estuaries.

Remarks : This species is of little interest in fisheries.

Family 29. SILLAGINIDAE

Genus 69. *Sillaginopsis* Gill

94. *Sillaginopsis panijus* (Hamilton-Buchanan)

1822. *Cheilodipterus panijus* Hamilton-Buchanan, *Fishes of Ganges* : 57, 367 (type-locality : Ganges estuaries).

1991. *Sillaginopsis panijus* Talwar and Jhingran, *Inland Fish.*, 2 : 816, fig. 253 (India and East coast).

Material examined : Rivers (Subarnarekha 2ex, 14-16.7 cm; Haldi 2ex, 12.2-15.3 cm).

Local Name : Tool-mach, tool-belle (Midnapore, Bankura, Hooghly).

Distribution : India : Southwest Coast, Ganges delta and East Coast, Myanmar.

Habitat : Coastal, open muddy bays, upper reaches of rivers and tidal estuaries.

Remarks : This commercially important fish contributes to demersal fishery and is captured by nets and longlines. Juveniles migrate towards the upper reaches of the river. Flesh are white with good taste. This important fish is being caught during the months of January, February, November and December.

Family 30. SCIAENIDAE

Genus 70. *Pama* Fowler

95. *Pama pama* (Hamilton-Buchanan)

1822. *Bola pama* Hamilton-Buchanan, *Fishes of Ganges*. : 79, 368, pl. 32 fig. 26 (type-locality : Ganges estuaries).

1991. *Pama pama* Talwar and Jhingran, *Inland Fish.*, 2 : 862 (India; Myanmar; Sumatra and New Guinea).

Material examined : Rivers (Rupnarayan 2ex, 8.2-11.2 cm; Subarnarekha 2ex, 7.9-12.3 cm; Haldi 2ex, 7.9-10.8 cm).

Local Name : Pama.

Distribution : India : Ganga and Brahmaputra rivers, Myanmar: Sittang river, Malay Peninsula, Sumatra and New Guinea.

Habitat : Entering estuaries and rivers as far as the tide extends.

Remarks : It contributes a little in the development of fishery in the lower region. This fish rapidly becomes soft and tasteless after death. It is also a fresh water species contributing an important fishery in Hooghly estuary.

Genus 71. *Panna* Mohan

96. *Panna microdon* (Bleeker)

1849. *Otolithus microdon* Bleeker, *Verh. batav. Genoot. Kunst. Wet.*, 22(4) : 10 (type-locality : Madura, East Indies).

1991. *Panna microdon* Talwar and Jhingran, *Inland Fish.*, 2 : 863 (India; Sri Lanka; Myanmar; Malay Peninsula; Sumatra; Borneo to South China sea).

Material examined : River (Subarnarekha 3ex, 6.5-7.3 cm.).

Local Name : Not known.

Distribution : India; Sri Lanka; Myanmar; Malay Peninsula; Sumatra and Borneo to South China.

Habitat : Coastal water, estuaries.

Remarks : This species is found only in freshwater dominated estuaries of this region. Fairly common in the commercial catches on the Orissa-West Bengal coast.

Genus 72. *Nibea* Jordan and Thompson

97. *Nibea soldado* (Lacepede)

1802. *Holocentrus soldado* Lacepede, *Hist. Nat. Poiss.*, 4 : 344, 389 (type-locality : Cayenne, East Indies).

1984. *Nibea soldado* Talwar and Kacker, *zool. Surv. India*, Hand book, *Comm. Sea. Fish. Ind.* 4 : 659-660. Text fig. 264.

Material examined : River (Subarnarekha 2ex 13-17 cm).

Local Name : Not known.

Distribution : India-both coasts of the Indian Peninsula, Sri Lanka, Bangkok, Borneo, Celebes, Northern Australia and Queensland.

Habitat : Found in coastal waters.

Remarks : This is common in the commercial catches on the east coast of India.

Genus 73. *Otolithoides* Fowler

98. *Otolithoides biauritus* (Cantor)

1850. *Otolithus biauritus* Cantor, *J. Asiat. Soc. Beng.*, 18(2) : 1039 (type-locality : Penang, Malaysia).

1991. *Otolithoides biauritus* Talwar and Jhingran, *Inland Fish.*, 2 : 861 (Pakistan; India; Myanmar; Sri Lanka and the Indo Australian archipelago).

Material examined : Rivers (Rupnarayan 2ex, 8-9.8 cm; Subarnarekha 2ex, 5.3-7.9 cm; Haldi 3ex, 6.2-8.2 cm).

Local Name : Not known.

Distribution : India; Pakistan; Myanmar; Sri Lanka and the Indo-Australian archipelago.

Habitat : Estuary.

Remarks : This fish is found only in lower reaches of this river. This large demersal species forms an important element of the capture fisheries.

Order 10. MASTACEMBELIFORMES

Family 31. MASTACEMBELIDAE

Genus 74. *Mastacembelus* Scopoli

99. *Mastacembelus armatus* (Lacepede)

1800. *Macrognathus armatus* Lacepede, *Hist. nat. Poiss.* 2 : 286, 1800 (type-locality : not known).

1991. *Mastacembelus armatus* Talwar and Jhingran, *Inland Fish.*, 2 : 1031 (Pakistan; India; Sri Lanka; Nepal; Myanmar; through Thailand and Malaya, to southern China).

1999. Menon, *Rec. Zool. Surv. India. Occ. Paper No. 175* : 303.

Material examined : Rivers (Kansai 4ex, 5-17.3cm; Subarnarekha 2ex, 5.3-19.7 cm; Keleghai 3ex, 3.7-5.8 cm), Irrigation Cannal (Gokulpur 3ex, 408.3 cm; Khakurda 3ex, 3.9-7.9 cm), Nandigram 2ex, 5.7-9.3 cm.

Local Name : Kath pankal, Bam, Bami panchal (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Sri Lanka; Nepal; Myanmar; through Thailand and Malaya, to southern China.

Habitat : Rivers with sandy, pebbly or rocky substratum.

Remarks : It is a very good food-fish popularly known for its oily taste. Freshly caught fishes are more popular. Owing to its trandy nature, this fish is being named as 'Kath pankal' and it can face extreme drought situation by keeping itself buried inside the mud for months together till the onset of monsoon rains. It is common during the summer and post monsoon months. Market price of this bottom feeder is moderate.

Genus 75. *Macrognathus* Lacepede

100. *Macrognathus pancalus* Hamilton-Buchanan

1822. *Macrognathus pancalus* Hamilton-Buchanan, *Fishes of Ganges* : 30, 364, pl. 22, fig. 7 (type-locality : tanks of Gangetic provinces).

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 1027, fig. 292 (Pakistan; India and Bangladesh)., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 302.

Material examined : Rivers (Kansai 2ex, 6.3-9.3 cm; Subarnarekha 3ex, 5.7-9.2 cm; Dwarakeswar 2ex, 5.9-8.9 cm), Irrigation cannal (Khirai 2ex, 3.9-7.5 cm; Gokulpur 2ex, 4.2-7.2 cm).

Local Name : Turi, Pankal (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan and Bangladesh.

Habitat : Fresh water rivers of Plains and estuaries.

Remarks : This comparatively short sized species is very common in the market. It is bottom feeder but spawns in the upper water level. Market value is moderate.

101. *Macrogathus aral* (Bloch and Schneider)

1801. *Rhynchobdella aral* Bloch and Schneider, *Syst. Ichth.* : 479, pl. 89 (type-locality : Tranquebar, Tamil Nadu).

1991. *Macrogathus aral* Talwar and Jhingran, *Inland Fish.*, 2 : 1026 (Pakistan; India; Sri Lanka; Bangladesh; Nepal and Myanmar)., Menon, 1999, *Rec. zool. Surv. India. Occ. Paper No. 175* : 301.

Material examined : River (Kansai 3ex, 12-15.7 cm; Subarnarekha 4ex, 11.2-17.3 cm; Shilabati 2ex, 5.9-12.3 cm), Irrigation cannal (Khirai 2ex, 7.9-9.8 cm; Khakurda 2ex, 6.9-9.3 cm; Gokulpur 3ex, 6.5-8.2 cm).

Local Name : Pankal (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Sri Lanka; Bangladesh; Nepal and Myanmar; Thailand; Vietnam; Laos. Malaya and East Indies (Borneo and Malusca).

Habitat : Brackish water deltas of large rivers, common in freshwater tanks, ponds and slow flowing rivers with vegetation in the plains.

Remarks : This species is devoid of preorbital spine with distinct lateral line, commonly occurs in lowland habitats. It is considered as a good food fish. Market price is high.

Order 11. PLEURONECTIFORMES

Family 32. CYNOGLOSSIDAE

Genus 76. *Cynoglossus* Hamilton-Buchanan

102. *Cynoglossus lingua* Hamilton-Buchanan

1822. *Cynoglossus lingua* Hamilton-Buchanan, *Fishes of Ganges* : 32, 365 (type-locality; Gangetic estuaries)..

1991. Talwar and Jhingran, *Inland Fish.*, 2 : 1042 (India; East Indies and the Philippines).

Material examined : Rivers (Rupnarayan 3ex, 5.3-12.3 cm; Subarnarekha 3ex, 4.9-9.7 cm; Haldi 2ex, 5.2-8.9 cm).

Local Name : Jivakritir mach (Midnapore, Bankura, Hooghly).

Distribution : India : East coast of India, through the East Indies, to the Philippines.

Habitat : Inshore areas and entering estuaries.

Remarks : This fish is common in the down stream of rivers. Market price is moderate.

103. *Cynoglossus puncticeps* (Richardson)

1846. *Plagusia puncticeps* Richardson, *Rep. Br. Ass. Advmt. Sci.*, 15 : 280 (type-locality : China).

1991. *Cynoglossus puncticeps* Talwar and Jhingran, *Inland Fish.*, 2 : 1043, fig. 298 (Pakistan; India; Myanmar and Australia).

Material examined : Rivers (Rupnarayan 7ex, 7.8-13.7 cm; Subarnarekha 5ex, 6.3-11.7 cm; Haldi 4ex, 7.3-12.2 cm).

Local Name : Jiv mach (Midnapore, Bankura, Hooghly).

Distribution : India; Pakistan; Myanmar; through the East Indies, to the Philippines and Australia.

Habitat : Muddy and sandy bottoms on the continental shelf, also in brackish water bodies.

Remarks : 'Tonguesole' is common in the estuarine water. Market price is moderate.

DISCUSSION

India belongs to one of the top twelve megadiversity countries. Fishes are very much important from the biodiversity point of view enjoying different ecosystems, habitats and niches of aquatic environment. Besides, they are the chief source of protein not only for their diversity but also for their capability of continuous propagation in natural habitats, which are being drastically degraded during last three decades due to rapid pace of urbanization coupled with industrialization. Out of 103 fish species, 101 species have been reported for the first time and the other two species viz. *Chela eachius* (Hamilton Buchanan); and *Esonus danricus* (Hamilton Buchanan) have been reported earlier by Sen, 1992 from Damoder and Rupnarayan respectively. Out of 103 species documented from different fresh water bodies (lentic and lotic) 29 species are found to inhabit in both fresh and saline water bodies. Chatterjee *et al.*, 2000 reported 22 species out of

these 29 species from Midnapore coastal belt. The occurrence of these fishes (29) in both fresh water and saline water is supposed to be due to their wide range of salinity tolerance. Similar studies in other fresh water rivers and wet lands of India revealed the occurrence of 34 species belonging to 9 families and 5 orders from different fresh water bodies of Wynad District, Kerala (Raghunathan, 1993); 18 species belonging to 2 families and 2 orders from Goriganga river, Uttarakhand (Joshi *et al.*, 1993); 30 species belonging to 9 families and 6 orders from Kaveri river, Tamil Nadu (Madhyastha and Murugan, 1996); 32 species belonging to 12 families and 6 orders from the tributaries of Gadana river, Tamil Nadu (Arunachalam and Sankaranarayanan, 1999); 98 species belonging to 34 families and 10 orders from Chalakudy river system, Kerala (Ajithkumar *et al.*, 1999) and 79 species belonging to 19 families and 6 orders from Damodar river, Bihar and West Bengal (Sarkar and Banerjee, 2000). A comparison of the present study with those of mentioned above clearly showed that the fishery potential of fresh water bodies of South West Bengal is still very commandable. As many stresses viz. pollution due to rapid industrialization and urbanization, construction of barrages and dams, nonjudicious lifting of water from riverbed for the purpose of irrigation and municipality, deforestation followed by soil erosion, over exploitation of ichthyofauna during breeding seasons, use of ichthyotoxic chemicals and plant extracts for fish harvesting, use of lilon thread net having smaller mesh sizes etc. causing degradation of fish environment are increasing, an immediate proper conservative strategy should be made for the protection of this valuable bioresources.

SUMMARY

This paper records 103 species of fishes belonging to 76 Genera under 33 families and 11 order of the class pisces from different freshwater habitats of South West Bengal, India. Out of total Ichthyofauna, the maximum number of species (29) belongs to the order Cypriniformes followed by Perciformes (26), Siluriformes (25), Clupeiformes (7), Chenniformes (4), Atheriniformes (3), Mastacembaliformes (3), Osteoglossiformes (2), Pleuronectiformes (2), Anguilliformes (1) and Synbranchiformes (1). 27 species of fishes have been found to intrude in the adjoining brackish water zones. Out of 103 species 101 species have been reported for the first time from this region. The aim of the present paper is to document the occurrence and distribution of freshwater fishes of South West Bengal so that a comparison can be made with the previous record.

Keywords : Ichthyofauna, South West Bengal, Freshwater.

ACKNOWLEDGEMENT

The first two authors are grateful to DST & NES, Govt. of West Bengal for providing them research fellowship. The authors express their gratitude to the Director Zoological Survey of India, Kolkata and Dr. A. Karmakar for confirming our identification. The laboratory and library facilities provided by the authorities of Vidyasagar University are gratefully acknowledged.

REFERENCES

- Ajithkumar, C. R., Rema Devi, K., Raju Thomas, K. and Biju, C.R. 1999. Fish fauna, abundance and distribution in Chalakudy river system, Kerala : *J. Bom. Nat. His. Soc.* **96**(2) : 244-254.
- Arunachalam, M. and Sankaranarayanan, A. 1999. Fishes of Gadana river in Kalakkad Mundanthurai tiger reserve. : *J.Bom. Nat. His. Soc.* **96**(2) : 232-238.
- Barlow, G. W., Liem, K. F. and Wickler, W. 1968. Badidae, a new fish family-behavioral, osteological and developmental evidence. *J. Zool. London*, **156** : 415-447.
- Beavan, Captain R. 1990. Handbook of the freshwater fishes of India, Delhi : vi-viii + 247.
- Chatterjee, T. K., Talukdar, S. R. and Mukherjee, A. K. 2000. Fish and fisheries of Digha coast of West Bengal : *Rec. Zool. Surv. India. Occ. Paper No.* **188** : 1-87.
- Day, F. 1878. The fishes of India, being a natural history of the fishes known to inhabit the seas and freshwaters of India, Burma and Cylon. Text and atlas in 4 parts. London : XX + 778.
- Talwar, P. K. and Jhingran, A. G. 1991. Inland fishes of India and adjacent countries., New Delhi, Bombay, Calcutta, Oxford and IBH Publishing Co. PVT LTD. I & II : 1-1062.
- Hora, S. L. and Mukerji, D. D. 1953. Table for the identification of Indian freshwater fishes with description of certain families and observations on the relative utility of the probable Larvivorous fishes of India. Health Bulletin No. 12, *Malaria Bureau* **4**(ed.3) : 1-47.
- Innes, W.T. 1944. Exotic aquarium fishes. Innes Publishing Company, Philadelphia, U.S.A.
- Jayaram, K.C. 1977. Aid to the identification of Siluroid fishes of India, Burma, Sri Lanka, Pakistan and Bangladesh. 1. Bagridae. *Rec. zool. Surv. India. Occ. Paper No.* **8** : 1-41. 1981. The freshwater fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka. A Hand book No. 2, Calcutta, *Zool. Surv. India* : iii-vii + 1 - 475 + i-xiii (Plates).
- Joshi, S. N., Tripathi, G. and Tewari, H. C. (1993) : *Fish and Fisheries of the Gorigonga*. Advances in Limnology (Ed. H. R. Singh), Narendra Publishing House, Delhi, pp-361-366.

- Menon, A. G. K.** 1999. Check list-Freshwater fishes of india. *Rec. Zool. Surv. India, Occ. Paper No. 175* : i-xxix, 1-366.
- Madhyastha, M. N. and Murugan, S.** (1996) : *Ichthyofauna of the sector of Kaveri River in head region*. Advances in Fish and Wildlife Ecology and Biology (Ed. B. L. Kaul), Daya Publishing House, Delhi-110035, pp I-XV, 1-332.
- Raghunathan, M. B.** (1993) : *Fish and Fisheries of the Gorigonga* Advances in Limnology (Ed. H. R. Singh), Narendra Publishing House, Delhi, pp- 333-338.
- Sarkar, L. and Banerjee, S.** 2000 : Ichthyofauna of Damodar river system. *Proc. Zool. Soc. Calcutta*, **53**(1) : 41-54.
- Sen, T.K.** 1985. The fish fauna of Assam and the neighbouring North-Eastern states of India. *Rec. zool. Surv. India, Occ. Paper No. 64* : 1-216.
- Sen, T K.** 1992. State fauna series 3 : Fauna of West Bengal, Part-2 Edited by the Director, Zool. Surv. India; 101-242.
- Shaw, G. E. and Shebbeare, E. O.** 1937 The fishes of Northern Bengal. *J.Roy.Asiat.Soc.Bengal, (Science) III*(1) : 1-137.

Table-I : List of different Ichthyofauna.

- Order 1 OSTEOGLOSSIFORMES
 Family 1 NOTOPTERIDAE
 Genus 1 *Chitala* (Hamilton)
1. *Chitala chitala* (Hamilton-Buchanan).
- Genus 2 *Notopterus* (Lacepede)
2. *Notopterus notopterus* (Pallas).
- Order 2 ANGUILLIFORMES
 Family 2 ANGUILLIDAE
 Genus 3 *Anguilla* (Schrank)
3. *Anguilla bengalensis bengalensis* (Gray & Hardwicke).
- Order 3 CLUPEIFORMES
 Family 3 CLUPEIDAE
 Genus 4 *Gudusia* (Fowler)
4. *Gudusia chapra* (Hamilton-Buchanan).
- Genus 5 *Hilsa* Regan.
5. *Tenualosa ilisha* (Hamilton-Buchanan).
- Genus 6 *Escualosa* (Whitley)
6. *Escualosa thoracata* (Valenciennes).
- Family 4 ENGRAULIDIDAE
 Genus 7 *Thryssa* (Cuvier)
7. *Thryssa hamiltonii* Gray.
- Genus 8 *Setipinna* (Swainson)
8. *Setipinna taty* (Valenciennes).
 9. *Setipinna phasa* (Hamilton-Buchanan).
- Genus 9 *Coilia* Gray
10. *Coilia ramacarati* (Hamilton-Buchanan)
- Order 4 CHANNIFORMES
 Family 5 CHANNIDAE
 Genus 10 *Channa* (Scopoli)
- 11 *Channa orientalis* Bloch & Schneider.
 12. *Channa punctatus* (Bloch).

13. *Channa stewartii* (Playfair).

14. *Channa striatus* (Bloch).

Order 5 SYNBRANCHIFORMES

Family 6 SYNBRANCHIDAE

Genus 11 *Monopterus* (Lacepede)

15. *Monopterus cuchia* (Hamilton-Buchanan).

Order 6 CYPRINIFORMES

Family 7 CYPRINIDAE

Genus 12 *Chela* (Hamilton)

16. *Chela cachius* (Hamilton & Buchanan).

Genus 13 *Securicula* (Gunther)

17. *Securicula gora* (Hamilton & Buchanan).

Genus 14 *Salmostoma* (Swainson)

18. *Salmostoma bacaila* (Hamilton & Buchanan).

19. *Salmostoma phulo phulo* (Hamilton-Buchanan).

Genus 15 *Esomus* (Swainson)

20. *Esomus danricus* (Hamilton-Buchanan).

Genus 16 *Danio* (Hamilton-Buchanan)

21. *Danio rerio* (Hamilton-Buchanan).

22. *Danio aequipinnatus* (McClelland).

Genus 17 *Amblypharyngodon* (Bleeker)

23. *Amblypharyngodon mola* (Hamilton-Buchanan).

Genus 18 *Barilius* (Hamilton-Buchanan)

24. *Barilius bendelisis* (Hamilton-Buchanan).

25. *Barilius barna* (Hamilton-Buchanan).

Genus 19 *Puntius* (Hamilton-Buchanan)

26. *Puntius sophore* (Hamilton-Buchanan).

27. *Puntius ticto* (Hamilton-Buchanan).

28. *Puntius chola* (Hamilton-Buchanan).

29. *Puntius sarana sarana* (Hamilton-Buchanan).

30. *Puntius conchonius* (Hamilton-Buchanan).

Genus 20 *Osteobrama* (Heckel)

31. *Osteobrama cotio cotio* (Hamilton-Buchanan).

Genus 21 *Labeo* (Cuvier)

- 32. *Labeo boga* (Hamilton-Buchanan).
- 33. *Labeo bata* (Hamilton-Buchanan).
- 34. *Labeo calbasu* (Hamilton-Buchanan).
- 35. *Labeo rohita* (Hamilton-Buchanan).
- 36. *Labeo dero* (Hamilton-Buchanan).

Genus 22 *Chagunius* (Smith)

- 37. *Chagunius chagunio* (Hamilton-Buchanan).

Genus 23 *Cirrhinus* (Cuvier)

- 38. *Cirrhinus mrigala mrigala* (Hamilton-Buchanan).

Genus 24 *Catla* (Valenciennes)

- 39. *Catla catla* (Hamilton-Buchanan).

Genus 25 *Crossocheilus* (Kuhlet van Hasselt)

- 40. *Crossocheilus latius latius* (Hamilton-Buchanan).

Family 8 COBITIDAE

Genus 26 *Noemacheilus* (Van Hasselt)

- 41. *Noemacheilus botia* (Hamilton-Buchanan).

Genus 27 *Botia* (Gray)

- 42. *Botia birdi* (Chaudhuri).

Genus 28 *Lepidocephalus* (Bleeker)

- 43. *Lepidocephalus guntia* (Hamilton-Buchanan)

Genus 29 *Garra* (Hamilton-Buchanan)

- 44. *Garra mullya* (Sykes).

Order 7 SILURIFORMES

Family 9 BAGRIDAE

Genus 30 *Rita* (Bleeker)

- 45. *Rita rita* (Hamilton-Buchanan).

Genus 31 *Batasio* (Blyth)

- 46. *Batasio batasio* (Hamilton-Buchanan).

Genus 32 *Mystus* (Scopoli)

- 47. *Mystus bleekeri* (Day).

48. *Mystus cavasius* (Hamilton-Buchanan).

49. *Mustus gulio* (Hamilton-Buchanan).

50. *Mystus vittatus* (Bloch).

Genus 33 *Aorichthys* (Wu)

51. *Aorichthys aor* Hamilton-Buchanan.

52. *Aorichthys seenghala* (Sykes).

Family 10 SILURIDAE

Genus 34 *Ompok* (Lacepede)

53. *Ompok bimaculatus* (Bloch).

54. *Ompok pabda* (Hamilton-Buchanan).

55. *Ompok pabo* (Hamilton-Buchanan).

Genus 35 *Wallago* (Bleeker)

56. *Wallago attu* (Schneider).

Genus 36 *Ailia* (Gray)

57. *Ailia coila* (Hamilton-Buchanan).

Genus 37 *Pseudcutropius* (Bleeker)

58. *Pseudeutropius atherinoides* (Bloch).

Genus 38 *Clupisoma* (Swainson)

59. *Clupisoma garua* (Hamilton-Buchanan).

Genus 39 *Eutropiichthys* (Bleeker)

60. *Eutropiichthys vacha* (Hamilton-Buchanan).

Family 11 PANGASIIDAE

Genus 40 *Pangasius* (Valenciennes)

61. *Pangasius pangasius* (Hamilton-Buchanan).

Family 12 SISORIDAE

Genus 41 *Gagata* (Bleeker)

62. *Gagata cenia* (Hamilton-Buchanan).

Genus 42 *Bagarius* (Bleeker)

63. *Bagarius bagarius* (Hamilton-Buchanan).

Genus 43 *Nangra* (Day)

64. *Nangra viridescens* (Hamilton-Buchanan).

Genus 44 *Erethistes* (Mullar and Troschel)

65. *Erethistes pussilus* Muller-Troschel.

Family 13 CLARIIDAE

Genus 45 *Clarias* (Scopoli)

66. *Clarias batrachus* (Linnaeus).

Family 14 HETEROPNEUSTIDAE

Genus 46 *Heteropneustes* (Muller)

67. *Heteropneustes fossilis* (Bloch).

Family 15 ARIIDAE

Genus 47 *Arius* (Valenciennes)

68. *Arius gogora* (Hamilton-Buchanan).

69. *Arius platystomus* Day.

Order 8 ATHERINIFORMES

Family 16 BELONIDAE

Genus 48 *Xenetodon* (Regan)

70. *Xenetodon cancila* (Hamilton-Buchanan).

Family 17 CYPRINODONTIDAE

Genus 49 *Aplocheilus* (McClelland)

71. *Aplocheilus panchax* (Hamilton-Buchanan).

Genus 50 *Oryzias* (Jordan and Snyder)

72. *Oryzias melanostigma* (McClelland).

Order 9 PERCIFORMES

Family 18 CENTROPOMIDAE

Genus 51 *Lates* (Cuvier)

73. *Lates calcarifer* (Bloch).

Family 19 AMBASSIDAE

Genus 52 *Chanda* (Hamilton-Buchanan)

74. *Chanda nama* Hamilton-Buchanan.

Genus 53 *Pseudambassis* (Bleeker)

75. *Pseudambassis ranga* (Hamilton-Buchanan).

Family 20 NANDIDAE

Genus 54 *Badis* (Bleeker)

76. *Badis badis* (Hamilton-Buchanan).

Genus 55 *Nandus* (Valenciennes)

77. *Nandus nandus* (Hamilton-Buchanan).

Family 21 MUGILIDAE

Genus 56 *Rhinomugil* (Gill)

78. *Rhinomugil corsula* (Hamilton-Buchanan).

Genus 57 *Mugil* (Linnaeus)

79. *Mugil cephalus* Linnaeus.

Genus 58 *Liza* (Jordan and Swain)

80. *Liza parsia* (Hamilton-Buchanan).

81. *Liza tade* (Forsk.)

Family 22 POLYNEMIDAE

Genus 59 *Polynemus* (Linnaeus)

82. *Polynemus paradiseus* Linnaeus.

Genus 60 *Eleutheronema* (Bleeker)

83. *Eleutheronema tetradactylum* (Shaw).

Family 23 GOBIIDAE

Genus 61 *Glossogobius* (Gill)

84. *Glossogobius giuris* (Hamilton-Buchanan).

Genus 62 *Pseudapocryptes* (Bleeker)

85. *Pseudapocryptes lanceolatus* (Bloch-Schneider).

Genus 63 *Apocryptes* (Val)

86. *Apocryptes macrolepis* Bleeker.

87. *Apocryptes cantoris* Day.

Family 24 ANABANTIDAE

Genus 64 *Anabas* (Cuvier and Cloquet)

88. *Anabas cobojus* (Hamilton-Buchanan).

89. *Anabas testudineus* Bloch.

Family 25 BELONTIDAE

Genus 65 *Polyacanthus* (Cuvier)

90. *Polyacanthus fasciatus* (Schneider).

Family 26 TERAPONIDAE

Genus 66 *Terapon* (Cuvier)

91. *Terapon jarbua* (Forsskal).
Family 27 ELEOTRIDAE
Genus 67 *Eleotris* (Schneider)
92. *Eleotris fusca* (Schneider).
Family 28 GOBIOIDIDAE
Genus 68 *Odontamblyopus* (Bleeker)
93. *Odontamblyopus rubicundus* (Hamilton-Buchanan).
Family 29 SILLAGINIDAE
Genus 69 *Sillaginopsis* (Gill)
94. *Sillaginopsis panijus* (Hamilton-Buchanan).
Family 30 SCIAENIDAE
Genus 70 *Pama* (Fowler)
95. *Pama pama* (Hamilton-Buchanan).
Genus 71 *Panna* (Mohan)
96. *Panna microdon* (Bleeker).
Genus 72 *Nibea*
97. *Nibea soldado* (Lacepede).
Genus 73 *Otolithoides* (Fowler)
98. *Otolithoides biauritus* (Cantor).
Order 10 MASTACEMBELIFORMES
Family 31 MASTACEMBELIDAE
Genus 74 *Mastacembelus* (Scopoli)
99. *Mastacembelus armatus* (Lacepede).
Genus 75 *Macrogathus* (Lacepede)
100. *Macrogathus pancalus* (Hamilton-Buchanan).
101. *Macrogathus aral* (Bloch and Schneider).
Order 11 PLEURONECTIFORMES
Family 32 CYNOGLOSSIDAE
Genus 76 *Cynoglossus* (Hamilton-Buchanan)
102. *Cynoglossus lingua* Hamilton-Buchanan.
103. *Cynoglossus puncticeps* (Richardson).

Table-II : List of Ichthyofauna inhabiting both in freshwater and saline water.

| Sl.No | Species | Nature of Species |
|-------|------------------------------------|-------------------|
| 1. | <i>Hilsa (Tenulosa) ilisha</i> | Migratory |
| 2. | <i>Escualosa thoracata</i> | Coastal pelagic |
| 3. | <i>Thryssa hamiltonii</i> | Coastal pelagic |
| 4. | <i>Setipinna taty</i> | Coastal pelagic |
| 5. | <i>Setipinna phasa</i> | Coastal pelagic |
| 6. | <i>Coilia ramacarati</i> | Coastal |
| 7. | <i>Mystus gulio</i> | Estuarine |
| 8. | <i>Arius gagara</i> | Estuarine |
| 9. | <i>Arius platystomus</i> | Estuarine |
| 10. | <i>Lates calcarifer</i> | Estuarine |
| 11. | <i>Mugil cephalus</i> | Estuarine |
| 12. | <i>Liza parsia</i> | Estuarine |
| 13. | <i>Liza tade</i> | Estuarine |
| 14. | <i>Polynemus paradiseus</i> | Estuarine |
| 15. | <i>Eleutheronema</i> | Pelagic |
| 16. | <i>Pseudapocryptes lanceolatus</i> | Coastal pelagic |
| 17. | <i>Apocryptes macrolepis</i> | Coastal pelagic |
| 18. | <i>Apocryptes cantoris</i> | Coastal pelagic |
| 19. | <i>Terapon jarbua</i> | Coastal pelagic |
| 20. | <i>Eleotris fusca</i> | Estuarine |
| 21. | <i>Odontamblyopus rubicundus</i> | Estuarine |
| 22. | <i>Sillaginopsis danijus</i> | Estuarine |
| 23. | <i>Pama pama</i> | Estuarine |
| 24. | <i>Panna microdon</i> | Estuarine |
| 25. | <i>Otolithoides bfauritus</i> | Estuarine |
| 26. | <i>Cynoglossus lingua</i> | Estuarine |
| 27. | <i>Cynoglossus puncticeps</i> | Estuarine |
| 28. | <i>Anguilla bengalensis</i> | Pelagic |
| 29. | <i>Monopterus cuchia</i> | Pelagic |