# Fishes of River Ganga A Field Identification Manual 

M. K. Das, A. P. Sharma,<br>R. K. Tyagi, P. K. Saha, V. Pathak, V. R. Suresh, D. K. De, S. K. Paul, P. Sett,<br>Munmun Chakrabarty, K. Mondal

Central Inland Fisheries Research Institute (Indian Council of Agricultural Research) Barrackpore, Kolkata - 700120

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Fishes of River Ganga - A Field Identification Manual. Bulletin, Central Inland Fisheries Research Institute,
Barrackpore 700 120, West Bengal. 100 pp
© 2010, Central Inland Fisheries Research Institute ,Barrackpore

ISSN : 0970-616X

Published by :
Dr. A.P.Sharma
Director, Central Inland Fisheries Research Institute
Barrackpore 700 120, West Bengal

Printed at :
Eastern Printing Processor
93 Dakshindari Road, Kolkata - 700048

## PREFACE

|ndia is endowed with a vast expanse of open waters in the form of rivers, canals, estuaries, natural and man-made lakes, backwaters, brackishwater, impoundments and mangrove wetlands. Potentially, the inland fish resources of India are the richest in the world. The Indian fish fauna is an assemblage of about 2500 species depicting diverse characteristics; of which 930 species belonging to 326 genera inhabit the inland waters. For these valuable aquatic resources, a data base of the available fish species with respect to their morphological, biological and adaptive characters along with their common names is absolutely essential for management and conservation of these fish genetic resources and for their optimum exploitation.
The river Ganga is the abode of a large number of economically important and other diverse small fish species and its fishery contribute substantially to meet the dietary and economic requirements of the people of the Gangetic plains. A need has therefore arisen to conserve the vast and diverse fish genetic resources. Based on the studies conducted in the river Ganga, a field identification manual of the available fish species of river Ganga has been prepared. This manual is primarily an effort for taxonomic identification of the fish species available in the river Ganga. It is expected that the publication would fulfill the need for a quick identification guide for students, teachers, extension personnel \& aqua-culturists in their field work.

## ACKNOWLEDGEMENTS

The authors express their indebtedness to Dr. K. K. Vass, Ex-Director CIFRI ,for his keen interest and advice. The assistance rendered by Smt Shabad Masud, Miss Priyanka Mayank, Shri Krishna Raj Singh and Shri D. K. Srivastava is gratefully acknowledged

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## INTRODUCTION

India is endowed with vast freshwater resources consisting of 45,000 Km of rivers, $26,334 \mathrm{Km}$ of canals, 2.36 million ha of ponds and tanks and 2.05 million ha of reservoirs, which presently harbour a rich and diversified fish fauna characterized by many rare and endemic fish species. Fish constitute almost half of the total number of vertebrates in the world. They live in almost all conceivable aquatic habitats. 21,730 living species of fish have been recorded out of 39,900 species of vertebrates Of the recorded fish species in the world; about 2500 species (11.7\%) are found in Indian waters. Out of these so far listed, 73 ( $3.32 \%$ ) belong to the cold freshwater regime, $544(24.73 \%)$ to the warm freshwater domain, 143 ( $6.50 \%$ ) to the brackishwater and 1440 ( $65.45 \%$ ) to the marine ecosystem.

## CLASSIFICATION OF FISHES

Phylum : Chordata
Subphylum : Vertebrata
Grade : Pisces
Class: Osteichthyes
Subclass : Actinopterygii
Subdivision : Teleostei

## ORDER : OSTEOGLOSSIFORMES

1. Anal fin verylong, more than 100 rays, confluent with reduced caudal fin.
2. Pelvic fin rudimentary.
3. Bony tongue with curved teeth.

## FAMILY : NOTOPTERIDAE

1. Body deep and strongly compressed.
2. Abdomen serrate below pelvic fins.
3. Dorsal fin small and slender.
4. Scales very small.
5. Lateral line complete.

Species : Chitala chitala (Chital/Mohi/Moya)


1. Maxilla (gape of mouth) extends beyond posterior edge of eye.
2. Scales on opercle and body are equal in size.
3. Pre-orbital smooth.
4. Pelvic fin rudimentary.
5. Anal fin very long, confluent, with reduced caudal.
6. Transverse silvery bars (about 15) on back.
7. 5 to 9 black rounded spots near caudal region.
8. Lateral line curved and complete.
9. Maximum size: 122 cm .

Species : Notopterus notopterus (Phulo/Pholui/Pholi/Patra/Golhi)


1. Maxilla (gape of mouth) extends to middle of eye.
2. Pre-orbital serrated.
3. Larger scales on opercles than those on body.
4. No transverse bars on back.
5. No rounded spots near caudal origin.
6. Lateral line straight and complete.
7. Maximum size: 61 cm .

## ORDER : ANGUILLIFORMES

1. Body very long, snake like.
2. Gill opening narrow on sides of head.
3. Pelvic fins absent.
4. Dorsal and anal fins devoid of spines.
5. Scales usually absent, if present, they are small and embedded in the skin.

## FAMILY: OPHICHTHIDAE

1. Body without scales.
2. Basket like structure (overlapping branchiostegal rays) present in ventral wall of throat.
3. Anal fin inserted just behind anus.
4. Dorsal and anal fins extending or not extending to the end of caudal tip. Caudal fin absent.

Species : Pisodonophis boro (Kharu/Baim)


1. Upper jaw slightly longer; sharper teeth on jaws and granular teeth on vomer.
2. Cleft of mouth extends beyond post orbit.
3. Dorsal and anal fins low not extending to the tip of the tail.
4. Extreme tip of tail stiff and finless.
5. Pectoral fin broad based and rounded.
6. Lateral line not distinct.
7. Colour: Greenish olive above, lighter below with many minute black spots.
8. Maximum size: 91 cm .

## FAMILY: ANGUILLIDAE

1. Body with minute scales embedded in the skin.
2. Well developed dorsal fin inserted far behind gill opening.
3. Pectoral fins present.
4. Caudal fin well developed.

Species : Anguilla bengalensis bengalensis (Baim)


1. Body elongated, robust head conical, flattened dorsally and tail compressed.
2. Mouth terminal, cleft of mouth wide extending to posterior margin of eye.
3. Lips thick.
4. Eyes very small.
5. Villiform teeth to form bands on jaws and vomer.
6. Dorsal and caudal fins well developed and caudal rounded.
7. Dorsal fin inserted nearer anus than gill opening.
8. Maximum size: 122 cm .

## ORDER: CLUPEIFORMES

1. Body laterally compressed, silvery fishes.
2. Abdomen keeled, scutes present along belly.
3. No fin spines and lateral line.
4. Teeth present or absent on jaws.

## FAMILY: CLUPEIDAE

1. Maxilla not extending beyond eye.
2. Anal fin short (less than 30 fin rays).

Species : Tenualosa ilisha (Ilishmach/Hilsa)


1. Dorsal and ventral profile equally convex.
2. Fronto-partial striae weakly developed.
3. Upper jaw with a distinct median notch at centre.
4. Belly with 30-33 scutes.
5. Caudal fin deeply forked as long as head.
6. A dark blotch behind gill opening followed by a series of small spots along flanks in the immature.
7. 37 to 47 scales in lateral series.
8. Maximum size : 60 cm .

Species: Gudusia chapra (Khoira/Suiya/Suhia)


1. Ventral profile more convex than dorsal profile.
2. Insertion of pelvic fins just before dorsal fin origin.
3. Upper jaw with a distinct median notch at centre.
4. Scales small, 77 to 91 scales in lateral series.
5. Dark blotch behind gill opening often followed by a series of spots along flank.
6. Maximum size: 15 cm .

Species : Corica soborna (Soborna-Khorica)


1. Body silvery, elongated with a faint lateral band.
2. Abdomen keeled with 10 or 11 pre and 7 or 8 post pelvic scutes.
3. Teeth minute or absent.
4. Last two anal fin rays separated from rest of fin forming a distinct finlet.
5. Maximum size : 4 cm . (SL)

## FAMILY: ENGRAULIDIDAE

1. Upper jaw prominent, maxillaries much elongated and extend beyond eye.
2. Teeth in jaws minute or absent.
3. Anal fin long.

Species: Gonialosa manmina (Khoira/Majhali-Suhia/Suhia)


1. Body fairly deep, compressed and ventral profile more convex than dorsal profile.
2. Pre-dorsal scales paired and overlapping in mid line.
3. Mouth inferior, upper jaw slender at tip.
4. Pelvic origin a little in front of dorsal origin.
5. Scales small, 51 to 71 in lateral series.
6. Colour : Body silvery with a dark spot behind gill opening.
7. Maximum size : 28 cm .

8. Dorsal profile nearly horizontal while ventral profile convex.
9. Snout obtuse, lower jaw slightly the longer.
10. Maxilla reaching the middle of eye.
11. Dorsal origin opposite to pelvic origin.
12. Pelvic fin rays 7.
13. Pre-ventral scutes 16 to 18 , post ventral 11 to 12 .
14. 38 to 41 scales in lateral series.
15. Colour : Golden shot with purple, a brilliant silvery band along the sides.
16. Maximum size : 10 cm .

Species: Setipinna phasa (Phasa)


1. Body elongated, compressed but not tapering.
2. Pectoral filament long reaching to middle of anal fin (15th to 39th anal fin ray).
3. Dorsal fin origin posterior to anal fin origin.
4. Anal not confluent to caudal fin.
5. Caudal fin forked its upper lobe truncated and shorter than lower lobe.
6. Pectoral fin black in adult.
7. Maximum size : 28 cm . (SL)

8. Pectoral filament short extending to base of 1 st to 15 th anal ray.
9. Pectoral fins with no dark markings.
10. Maximum size : 26 cm . (SL)

## FAMILY : PRISTIGASTERIDAE

1. Mouth directed upwards.
2. Anal fin long (more than 30 finrays).
3. Lower jaw very prominent.
4. Dorsal fin short or absent.
5. Pelvic fins small or entirely absent.

Species : Ilisha megaloptera (Phansa)


1. Body fusiform and deep.
2. Eyes large, mouth superior.
3. Abdomen with 19 to 23 pre-pelvic and 8 to 12 post-pelvic scutes.
4. Dorsal fin inserted almost mid point of body.
5. Anal fin origin below hind part of dorsal fin base.
6. Maximum size: 27.5 cm .

## ORDER : CYPRINIFORMES

1. Body with scales and head scaleless.
2. No teeth on jaws.
3. Pectoral fin devoid of an osseous spine.
4. Lateral line present and complete.

## FAMILY: CYPRINIDAE

1. Barbels present ( 1 or 2 pairs) or absent.
2. Paired fins (pectoral and pelvic) laterally inserted.
3. Abdomen rounded or with a sharp edge.

Species: Labeo rohita (Rahu/Riu/Ruee/Rohu)


1. Snout obtuse, mouth small and inferior.
2. Lips thick and fringed with a distinct inner fold to each lip.
3. Branched dorsal rays 12 to 14 . (total dorsal fin rays 15 to 18 ).
4. Lateral line scales 40 to 44 .
5. One pair of small, thin maxillary barbels concealed in lateral grooves.
6. Maximum size : 1 m .

Species: Labeo calbasu (Kalbasu/Kalbose/Karnaunehar)


1. Mouth inferior, lips thick and fringed, lower jaw more thickened.
2. Two pairs of barbels (rostral and maxillary).
3. Dorsal fin ( 16 to 18 rays) with a long base, branched dorsal rays 13 to 16 .
4. Lateral line scales 40 to 44 .
5. Easily distinguished from the very dark colour of its body.
6. Maximum size: 90 cm .

7. Mouth sub-inferior, lips thick and fringed, horny covering of both the jaws.
8. Two very short pairs of barbels (rostral and maxillary).
9. Branched dorsal fin rays 12 to 18 (total dorsal fin rays 16 to 19 ).
10. Scales small, lateral line scales 71 to 84 .
11. Maximum size : 1.5 m .

Species: Labeo pangusia (Loannee/Utti/Boalla/Rewa/Loanee)


1. Snout very much obtuse with distinct lateral lobes, studded with pores.
2. Mouth small, lips thick with a distinct fold interrupted across lower jaw, lips not fringed.
3. One pair of small maxillary barbels.
4. Branched dorsal fin rays 10 to 11 , (dorsal fin rays 12 to 14 ).
5. Lateral line scales 40 to 42 .
6. Maximum size : 60 cm .

Species: Labeo dero (Kursha/Katalkusi/Bongsa/Mohaylee)


1. Snout prominent, with a distinct groove and covered with pores.
2. Mouth inferior, lips thick and continuous, with a horny covering inside lower jaw.
3. 'One pair of short maxillary barbels.
4. Dorsal fin with 9 to 12 branched rays (total rays 11 to 15 ).
5. Scales often marked red.
6. Lateral line scales 40 to 44 .
7. Maximum size : 75 cm .

Species : Labeo boga (Bogabata/Bhangan/Bhagan/Bhagna)


1. Mouth narrow, lips thick, a thin horny layer of cartilage to inner surface of lower lip.
2. Dorsal fin with 9 to 10 branched rays (total rays 11 to 13 ).
3. One pair of minute maxillary barbels.
4. Lateral line scales 37 to 39 .
5. Maximum size : 30 cm .

Species: Labeo dyocheilus (Boalla)


1. Snout conical, with a distinct lateral lobe, tubercles on snout prominent.
2. Mouth inferior, lips thick, not fringed.
3. One pair of short maxillary barbels.
4. Dorsal fin with 12 to 14 fin rays (branched rays10-11).
5. Lateral line scales 43 .
6. Maximum size : 90 cm .

Species: Labeo bata (Bata/Dommarcibatta/Bhanga/Bhagan)


1. Mouth inferior, lips thin and continuous, a small tubercle inside lower jaw above mandibular symphysis.
2. Dorsal fin with 11 to 14 rays (branched rays 9 to 10 ).
3. One pair of minute maxillary barbels, not easily seen.
4. Lateral line scales 37 to 40 .
5. Young often with few irregular black spots on anterior scales of lateral line.
6. Maximum size : 61 cm .

Species: Catla (Gibelion) catla (Catla/Katla/Chepi)


1. Body deep, head enormously large.
2. Mouth upturned and upper lip absent.
3. Barbels absent.
4. Dorsal fin with $17-20$ fin rays ( 14 to 16 branched rays).
5. Scales large, lateral line with 40 to 43 scales.
6. Maximum size : 2.7 m .

Species : Labeo angra (Kharsa/Rewa)

1. Dorsal profile of the body more convex than ventral profile.
2. Snout with a distinct lateral lobe on each side.
3. Snout overhanging mouth, mouth small, lips continuous and fringed.
4. A pair of short maxillary barbels.
5. Dorsal fin with 12 to 13 rays, branched rays 10 ).
6. Lateral line with 42 scales.
7. Body with a black stripe along flanks from eye to caudal fin.
8. Maximum size: 22 cm .

Species: Cirrhinus mrigala (cirrhosus) (Mrigal/Nain/Nainea/Mirki)


1. Body streamlined.
2. Lower lip indistinct.
3. One pair of short rostral barbels.
4. Dorsal fin with $15-17$ rays ( 12 to 13 branched rays).
5. Lateral line with 40 to 45 scales.
6. Maximum size : 99 cm .

Species : Cirrhinus reba (Kharge-bata/Rewah/Raicheng/Rewah)


1. Dorsal fin with $10-11$ rays ( 8 branched rays).
2. A thin cartilaginous layer covering lower jaw.
3. Scales hexagonal.
4. A short pair of rostral barbels.
5. Lateral line with 34 to 38 scales.
6. Maximum size : 30 cm .

## Species : Tor tor (Mahasol/Mahseer)

1. Mouth small, lips thick, fleshy with the labial fold continuous; lower lip with an uninterrupted posterior groove forming a median lobe.
2. Barbels 2 pairs (maxillary barbels equal to eye-diameter, rostral pair shorter).
3. A scaly sheath at base of dorsal fin, dorsal spine bony, smooth.
4. Scales large, lateral line with 22 to 27 scales.
5. Maximum size : 150 cm .

Species: Chagunius chagunio (Jerruah/Chaguni/Utta/Galehri)


1. Mouth sub-terminal, lips fleshy with tiny papillae.
2. Two pairs of barbels (rostral \& maxillary), longer than orbit.
3. Dorsal spine strong and serrated, dorsal fin with 13 rays ( 8 branched rays).
4. Scales diamond shaped, lateral line with 44 to 48 scales.
5. Last two anal fin rays elongated in males.
6. Maximum size : 46 cm .

Species : Tor putitora (Putitora/Mahasol/Khamahasur)


1. Body streamlined, head broadly pointed.
2. Mouth small, lips thick and fleshy with the labial fold continuous.
3. Two pairs of barbels (maxillary \& rostral) more or less equal, as long as orbit.
4. Dorsal spine bony, strong and smooth.
5. Scales large, lateral line with 25 to 28 scales.
6. Maximum size : 2.7 m .

Species : Puntius sarana sarana (Saval-punti/Swarna-punti/Giddi-kaoli/Durhie/Potah)


1. Lips thin, no horny covering on inner side of lips.
2. 2 pairs of barbels (maxillary \& rostral).
3. Last un-branched ray of dorsal fin osseous, strong and finely serrated posteriorly.
4. Lateral line complete with 30 to 33 scales.
5. A blotch on lateral line before base of caudal fin.
6. Maximum size: 31 cm .

Species: Puntius sophore (Katcha-karawa/Pottiah/Pothi)


1. Barbels absent.
2. Last unbranched ray of dorsal fin osseous and smooth.
3. Lateral line complete with 22 to 27 scales.
4. A deep black round blotch at base of caudal fin, a similar black blotch on central part of dorsal fin; often with scarlet lateral band.
5. Maximum size : 13 cm .

## Species : Puntius chola (Kerrundi/Katcha-karawa/Siddahari)

1. Body fairly deep, one pair of short maxillary barbels.
2. Last unbranched ray of dorsal fin osseous, strong and smooth.
3. Lateral line complete with 26 to 28 scales.
4. Body marked with two conspicuous dark blotches, 1 st a rosy spot on operculum and 2nd near base of caudal fin.
5. Maximum size : 12 cm .

Species: Puntius conchonius (Kunchon-pungti/Kharauli-pothi/Pothi)


1. Body deep, barbels absent. Dorsal fin spine osseous, moderately strong and serrated.
2. Lateral line incomplete. A large round black spot over posterior portion of anal fin, dorsal fin with its upper half black.
3. Maximum size : 14 cm

Species : Puntius ticto (Kotree/Kaoli/Pothia)


1. Body elongated.
2. Mouth terminal and small. Barbels absent.
3. Dorsal fin inserted slightly posterior to pelvic fin origin. Last unbranched dorsal fin ray osseous, fairly strong and serrated at its posterior edge.
4. Lateral line usually complete, often ceases after 6 to 8 scales; 23 to 25 scales in lateral series.
5. Body often with two lateral spots, the 1 st one extending over 3rd and 4th scales and 2 nd one over 18 th and 19th scales of lateral line. Dorsal fin in males with red border.
6. Maximum size : 10 cm .

## Species: Puntius terio

1. Body fairly deep and compressed. Barbel absent.
2. Dorsal fin with 11 fin rays.(8 unbranched). Last unbranched dorsal fin ray osseous, moderately to very strong and smooth.
3. Lateral line very short, 22 to 23 scales in lateral line series.
4. Dorsal side green, flanks silvery and belly whitish. A black blotch over anal fin and sometimes an oval black spot at base of caudal fin.
5. Maximum size: 9 cm .

## Species: Puntius phutunio



1. Body somewhat deep.
2. Mouth small. Barbel absent.
3. Dorsal fin with 10 to 11 fin rays.( 8 branched). Last unbranched dorsal fin ray osseous, strong and serrated, serrations indistinct in adult.
4. Lateral line incomplete, ceases after 3 or 4 scales.
5. Three black blotches often seen on the body, one behind operculum, 2 nd above anal fin and 3rd on caudal peduncle. Dorsal fin with oblique dark bar.
6. Maximum size: 3.5 cm .

7. Body deep and compressed.
8. Profile over nape concave.
9. Snout bluntly rounded, eyes large.
10. Abdominal edge keeled only between pelvic and anal fins. Rounded abdominal edge in front of pelvic fins.
11. Mouth small and directed upwards.
12. Upper jaw slightly longer.
13. Barbels absent.
14. Dorsal fin spine weak and serrated.
15. Anal fin long with 29 to 36 rays.
16. Scales small, lateral line with 55 to 70 scales.
17. Colour: Silvery often with a lateral band.
18. Maximum size : 15.2 cm .

Species: Laubuca laubuca (Layubuka/Dankena/Bekichela/Dendula)


1. Body deep and strongly compressed.
2. Mouth oblique, its cleft not reaching to front edge of eye.
3. Abdominal edge keeled from below pectoral fin to anal fin.
4. Dorsal fin commences slightly behind the origin of anal.
5. Wing like pectorals stout and elongated.
6. Outer pelvic fin ray elongated and extending to middle or end of anal base.
7. Lateral line complete, curved downwards.
8. Lateral line with 34 to 37 scales.
9. A well defined spot on opercles.
10. Maximum size : 6.7 cm .

Species: Chela cachius (Chela/Kachni)


1. Body deep, long and greatly compressed.
2. Mouth slightly oblique and directed upwards, its cleft not reaching to below the front margin of eye.
3. Abdomen keeled from below pelvic origin to anus.
4. Dorsal fin inserted posterior to anal origin.
5. Pelvic with an elongated ray reaching even end of anal fin base.
6. Lateral line complete with 51 to 68 scales.
7. Colour : Silvery with a greenish longitudinal band on sides of body.
8. Maximum size : 6 cm .

## Species: Cyprinus carpio



1. Body robust, more or less compressed, abdomen rounded.
2. Mouth small, terminal and protrusible; lips thick and fleshy.
3. Barbels 2 pairs, one pair each of rostral and maxillary; maxillary pair longer than rostral.
4. Dorsal fin very long with 3 spines and 18 to 20 rays, dorsal spine stout and serrated.
5. Caudal fin deeply emarginated.
6. Lateral line straight with 30 to 40 scales.
7. Colour: Sides of the body golden-yellow, fins tinged with reddish or golden.
8. Exotic carp.

9. One of the varities of common carp.
10. Body partially covered with scales.

Species: Securicula gora (Ghora-chela/Chelhul/Chelua)


1. Body more or less elongated and compressed.
2. Cleft of mouth reaching to anterior edge of eye.
3. Edge of abdomen with a sharp keel extends from below operculum to anal fin.
4. Short dorsal fin inserted slightly anterior to origin of anal fin.
5. Scales small, lateral line complete and curved downwards with 120-160 scales.
6. Maximum size : 23 cm .

Species: Salmophasia phulo (Phul-chela/Dunnahree)


1. Body elongated and greatly compressed.
2. Lower jaw with a well developed symphysial knob.
3. Dorsal fin inserted opposite to origin of anal fin.
4. Abdominal keel not harden.
5. Scales small, lateral line curves downwards with 99 to 112 scales.
6. Maximum size: 12 cm .

Species : Salmophasia bacaila (Gangchela/Chela/Chelliah/Chilwa)


1. Body elongated and strongly compressed, abdominal keel not hardened.
2. Dorsal fin inserted well behind pelvic fins and in advance of anal fin.
3. Scales very small, lateral line decurved with 86 to 110 scales.
4. Anal fin with 10 to 13 branched rays.
5. A useful larvivorous fish.
6. Maximum size : 18 cm .

Species : Amblypharyngodon mola (Maurala/Mowka/Dhawai)


1. Abdomen more or less rounded.
2. Upper lip absent.
3. Barbels absent.
4. Dorsal fin inserted behind pelvic fin base.
5. Scales small, lateral line incomplete.
6. A broad silvery lateral band on body.
7. Maximum size : 7.5 cm .

Species: Bengala elanga


1. Body elongate, slender and abdomen rounded.
2. Mouth small and lower jaw prominent with a symphysial process.
3. A pair of short rostral barbel present.
4. Dorsal fin inserted behind pelvic fin base; dorsal fin with 9 rays ( 7 branched).
5. Pectoral fin as long as head.
6. Lateral line with 40 to 44 scales.
7. Caudal fin forked.
8. Body silvery, practically no marking on body and fins.
9. Maximum size: 15 cm .

Species : Aspidoparia morar (Morar/Morari/Piyali/Chippuah/Pirohia)


1. Mouth inferior, jaws short, lower jaw without any lip but with a sharp crescentic bony edge.
2. Barbels absent.
3. Dorsal fin inserted well behind pelvic fin base.
4. Dorsal fin with 7 to 8 branched and 2 to 3 unbranched rays and without any spine.
5. Lateral line curved, running in lower half of caudal peduncle with 38 to 42 scales.
6. Maximum size : 17.7 cm .

Species : Aspidoparia jaya (Jaya/Pahrwah)


1. Body elongated, sub-cylindrical, mouth small and inferior.
2. Lower lip absent and lower jaw with a sharp crescentic edge.
3. Dorsal fin inserted slightly behind origin of pelvic fins.
4. Dorsal fin with 9 fin rays ( 7 branched and 2 unbranched).
5. Anal fin also with 9 fin rays ( 7 branched and 2 unbranched).
6. Barbels absent.
7. Decurved lateral line with 52 to 60 scales.
8. Maximum size: 15 cm .

## Species : Brachydanio (Danio) rerio (Anju)



1. Upper lip present.
2. 2 pairs of well developed barbels (rostral and maxillary).
3. Dorsal fin inserted anterior to origin of anal fin.
4. Dorsal fin with 8 or 9 rays (6-7 branched).
5. Anal fin with 14 to 16 rays.
6. Lateral line incomplete.
7. Body with four beautiful, golden longitudinal bands from head to caudal fin.
8. One of the most popular aquarium fishes.
9. Maximum size : 5 cm .

## Species : Barilius barila (Koksa/Chaedra/Gilland/Parsee)

1. Barbels two pairs; rostral pair very short, maxillary barbels extend upto anteriorthird of orbit, often barbels are hidden underneath folds of skin.
2. Dorsal fin inserted behind pelvic fin and devoid of osseous rays.
3. Pectoral fin as long as head with 13 rays.
4. Anal fin rays 13 to 14 .
5. Caudal fin forked and lower lobe slightly longer.
6. Lateral line with 43 to 46 scales.
7. 14 to 15 or sometimes less number of vertical bands extend from dorsal side to lateral line.
8. Number of pre-dorsal scale 22.
9. Maximum size: 10 cm .

10. Body deep.
11. Barbels absent.
12. Tubercles on snout and lower jaw large and well developed.
13. Dorsal fin inserted in advance of anal fin and its last fin ray extends (in young stage) almost to caudal base.
14. Pectoral fin rays 15.
15. Anal fin rays 13 to 14 .
16. Lateral line with 39 to 42 scales.
17. Number of pre-dorsal scale 15 to 16.
18. 7 to 11 distinct vertical dark bars on body, 7 to 9 narrow bands are often seen in young.
19. Maximum size : 7.5 cm .

Species: Barilius bendelisis (Khoksa/Joia/Angura)


1. Barbels two pairs, rostral and maxillary, the rostral pair rudimentary or often absent.
2. A thick layer of spiny tubercles on snout and lower jaw.
3. Dorsal fin inserted in advance of anal fin and nearer to caudal base than to snout tip.
4. Pectoral fin rays 15.
5. Anal fin rays 9 to 11 .
6. Lateral line with 40 to 45 scales.
7. Number of pre-dorsal scale 18 to 20 .
8. 8 to 12 dark bands descending from dorsal side to lateral line. These bands become dots or spots in adults of 12 to 14 cm size group.
9. Maximum size : 15.5 cm .

10. Barbels two pairs, the maxillary pair very short, rostral pair slightly larger than maxillary pair.
11. Dorsal fin inserted behind pelvic fin just anterior to anal fin and its last two fin rays over anal fin.
12. Pectoral fin rays 15 to 16 , pectoral shorter than head.
13. Anal fin rays 12 to 15 .
14. Lateral line with 38 to 44 scales.
15. Number of pre-dorsal scale 21 to 26 .
16. Body with 10 to 14 bluish spots (sometimes indistinct) usually much above lateral line.
17. Maximum size: 12.5 cm .

## Species : Barilius tileo

1. Body deep.
2. A pair of rudimentary maxillary barbels or entirely absent; rostral pair absent.
3. Tubercles on snout and lower jaw large and well developed.
4. Dorsal fin in advance of anal and its last ray extends up to above of first ray of anal.
5. Pectoral fin with 14 rays.
6. Anal fin with 13 rays.
7. Lateral line with 65 to 75 scales.
8. 2 to 3 rows of blue dots or blotches along the sides of body. Dorsal and caudal fins dark grey with slight pinkish edge.
9. Maximum size: 15 cm .

## Species: Barilius shacra

1. Barbel two pairs, well developed, maxillary pair as long as eye, rostral barbels slightly longer.
2. Tubercles on snout and lower jaw, small and poorly developed.
3. Dorsal fin inserted well advance of anal fin and its last ray over first anal fin ray.
4. Pectoral fin with 15 rays.
5. Anal fin with 10 to 11 rays.
6. Lateral line with 59 to 70 scales.
7. 12 vertical dissimilar bands descending from dorsal side to lateral line. The edge of dorsal fin with a black band.
8. Maximum size: 12.5 cm .

Species : Rasbora rasbora (Rasbora/Darkina)


1. Barbels absent, lower jaw with a symphysial process.
2. Lateral line complete, concave with 26 to 29 scales.
3. Origin of dorsal fin behind pelvics.
4. Caudal deeply emerginate.
5. A rainbow like lateral stripe from head to base of caudal fin.
6. A very popular aquarium fish.
7. Maximum size : 13 cm .

Species : Esomus danricus (Danrika/Jongia/Dadhikha/Soomarah/Dendu)

1. Body elongated, slim and strongly compressed.
2. Mouth small, obliquely directed upwards.
3. Two pairs of barbels, maxillary very long extending upto middle of body, rostral comparatively short and fleshy.
4. Dorsal fin origin nearer to caudal base than to snout end. Dorsal with 8 fin rays ( 6 branched).
5. Pectoral fins long and pointed.
6. Anal fin with 5 branched rays.
7. Lateral line incomplete, scales in lateral series 27 to 30 .
8. Body usually with a dark lateral band from mouth to base of caudal fin, which sometimes may be absent.
9. Maximum size : 12.7 cm .

Species: Danio (Devario) devario (Debari/Bashpata/Anju/Potukari)


1. Body rhomboidal and compressed.
2. Mouth small, obliquely directed upwards, maxilla not extending anterior margin of eye.
3. Barbels absent.
4. Dorsal origin in front of anal with 17 to 20 fin rays ( 15 to 17 branched).
5. Caudal fin emarginate to lunate.
6. Lateral line complete with 35 to 38 scales.
7. Anterior part of body reticulated by longitudinal blue and vertical yellow bands. Three bluish lines extending backwards to caudal.
8. Maximum size : 10.2 cm .

## Species : Parluciosoma daniconius

1. Body elongated, compressed and small.
2. Barbel absent.
3. Dorsal fin inserted behind origin of pelvic fin.
4. Dorsal fin with 9 rays ( 7 branched).
5. Pectoral fin smaller than head.
6. Lateral line nearly complete with 31 to 34 scales.
7. A black lateral stripe along centre of body from eye to base of caudal.
8. Maximum size: 20 cm .

Species : Raimas bola (Goha/Bola/Nayer/Gulabi-macchali)


1. Pointed snout, maxilla extending beyond posterior margin of orbit.
2. Lower jaw longer, lower lip present.
3. Barbels absent in adults.
4. Dorsal fin posterior to origin of pelvic fin.
5. Scales small, lateral line with 85 to 95 scales (in adult).
6. Sides of body with 2 to 6 rows of greenish-blue blotches, upper row with 15 to 20 such blotches.
7. Maximum size : 35 cm .

## Species : Schizothorax richardsonii (Trout)



1. Body streamlined, scales very small.
2. Mouth inferior, lower lip fleshy and flat, covered with a set of raised papillae forming the sucker.
3. Lower jaw with a hard, horny and sharp edge.
4. Two pairs of short barbels, maxillary and rostral.
5. Dorsal spine strong and serrated posteriorly.
6. A row of tiled scales on anal fin base.
7. Lateral line with 85 to 110 scales.
8. Maximum size : 61 cm .

Species: Crossocheilus latius latius (Kalabatta/Petphorani/Gauma)


1. Body elongated, snout very prominent and head flattened.
2. Dorsal profile more convex than ventral profile.
3. Mouth inferior, upper lip well developed, upper and lower lips not continuous. A pendulous lobe at corners of mouth.
4. Barbels 2 pairs (maxillary and rostral), maxillary rudimentary.
5. Origin of dorsal fin midway between snout-tip and posterior base of anal. Dorsal with 12 fin rays ( 8 branched).
6. Paired fin horizontally placed.
7. Caudal deeply forked.
8. Lateral line continuous with 36 to 41 scales.
9. Body with a faint longitudinal stripe along sides of the body.
10. Maximum size : 15 cm .

## Species: Garra lamta

1. Undersurface of the body flattened.
2. Head short bluntly pointed and mental disc small but well developed.
3. Snout rounded with a deep transverse groove.
4. Snout covered with horny tubercles.
5. Two pairs of short barbels (maxillary and rostral).
6. Pectoral fin longer than head with 13 rays ( 12 branched)
7. Caudal fin deeply emarginated.
8. Lateral line with 31 to 34 scales.
9. Body with a broad lateral band from gill opening to the caudal fin base; caudal fin with an oblique black bar on its lower lobe.
10. Maximum size: 15 cm .

Species: Hypophthalmichthys nobilis (Bighead carp)


1. Body stout and compressed.
2. Head large, snout short and broad.
3. Mouth terminal and oblique.
4. Abdomen rounded, post-ventral part of abdomen with a keel.
5. Dorsal fin short, inserted behind origin of pelvic fins. Dorsal with 9 finrays (7 branched).
6. Anal with 14 fin rays ( 11 branched).
7. Scales small, lateral line with 115 scales.
8. Exotic carp.

## Species: Hypopthalmichthys molitrix

1. Abdomen strongly compressed with a sharp keel from throat to vent.
2. Mouth terminal, lower jaw slightly longer than upper.
3. Barbel absent.
4. Dorsal fin short, inserted behind pelvic fins, or above tip of pectoral fins with 10 rays (7 branched)
5. Anal fin with 14 to 17 rays( 12 to 14 branched)
6. Scales small, lateral line with 110 to 115 scales.
7. Body silvery white, fins dark. Body with some red spots.
8. It grows to an average length of 82 cm within a period of 4 years.

## Species: Ctenopharyngodon idella

1. Body elongated, dorsal and ventral profile equally arched.
2. Broad head with short rounded snout and eye large.
3. Sub terminal mouth, lips thin, upper jaw slightly larger than the lower jaw and upper jaw protractile.
4. Barbels absent.
5. Dorsal fin short with 10 rays ( 7 branched, 3 simple) and without a spine.
6. Dorsal fin inserted slightly anterior to pelvic fin origin, and nearer to snout tip than caudal fin base.
7. Lateral line complete with 40 to 42 scales.
8. Colour: Dark grey back, silvery sides and belly, fins dark.
9. Maximum length recorded: 1.2 m

## FAMILY: COBITIDAE

1. Pectoral fin with an unbranched (simple) ray.
2. Barbels 3 or 4 pairs.
3. Erectile spine present near eye.

Species : Botia dario (Botya/Bucktee/Baghawa)


1. Body elongated and laterally compressed, dorsal profile more arched than ventral.
2. Head flattened at sides.
3. A bifid erectile spine present before and partly below eye.
4. 4 pair barbels, 2 pairs rostral, 1 pair maxillary and 1 pair mandibular.
5. Dorsal fin origin midway between snout and caudal base. Dorsal fin with 12 to 13 rays ( 9 to 10 branched).
6. Caudal fin forked.
7. Body with 7 to 8 brownish oblique bands descending from dorsal side to abdomen. Caudal with 2 to 4 black bands on each lobe.
8. Maximum size : 15 cm

Species: Botia lohachata (Lohachat)


1. Barbels four pairs, two pairs of rostral, one pair each of maxillary and mandibular.
2. Sub-orbital spine shorter, not extending to below posterior edge of orbit.
3. Scales very small, body with a series of ' $Y$ '-shaped marking.
4. A very graceful aquarium fish.
5. Maximum size : 10 cm .

Species : Botia rostrata (Gangetic loach)


1. Body elongated and greatly compressed.
2. Head long, narrow and pointed.
3. Barbels four pairs, two pairs of rostral, one pair each maxillary and mandibular.
4. Dorsal fin with 12 rays ( 9 branched).
5. Caudal fin deeply forked.
6. Body with cross bands of irregular pattern. Dorsal and anal fins with 2 and pectoral, pelvic as well as each lobe of caudal with 3 brown cross bands respectively.

7. Body elongate and greatly compressed.
8. Head long narrow and pointed.
9. Four pairs of barbels.
10. Dorsal fin with 11 to 12 rays.( 9 branched)
11. Caudal fin deeply forked, sharp and pointed lobes.
12. Body with irregular, reticulated brown cross bands which enclosed yellowish spots of different size. Fines with 2 to 3 black bands.
13. Maximum size: 12 cm .

Species: Lepidocephalus guntea (Guntea loach/Gutum)


1. Mouth inferior.
2. Barbels 3 pairs.
3. Short dorsal fin inserted posterior to origin of pelvic fins, and nearer to caudal base than to snout tip.
4. Dorsal fin with 8 to 10 rays ( 6 to 7 branched).
5. Caudal fin truncated.
6. Scales small, sides and ventral side of head covered with small scales.
7. In juvenile stage, a delicate yellowish stripe extends from snout to caudal base, and there are 10 to 12 black blotches along this stripe grow in size and fuse with one another to form a continuous dark band with age.
8. Maximum size : 15 cm .

## Species : Pangio pangia

1. Body very elongate, worm like and strongly compressed.
2. Scales minute, embedded in skin.
3. Eyes minute.
4. Mouth inferior, small and lips thick.
5. Barbels 3 pairs ( 1 pair of rostral and 2 pairs of maxillary).
6. Dorsal fin small with 8 rays inserted posterior half of the body and well behind origin of pelvic fins.
7. Caudal fin truncate.
8. Maximum size: 6.5 cm .

## FAMILY: BALITORIDAE

1. Body depressed, three to more pairs of barbels present.
2. Paired fins inserted horizontally.
3. Pectoral fin with at least two undivided rays.

Species : Nemacheilus botia (Balichata)


1. Body slender, almost cylindrical.
2. Mouth semicircular; lips thick, fleshy and papillated, upper lip uninterrupted, lower lip interrupted in middle.
3. Barbels well developed.
4. Dorsal fin inserted nearer to snout-tip than caudal base, dorsal with 12-14 finrays ( 9 to 11 branched).
5. Caudal fin slightly emerginate.
6. Reduced number of scales on breast.
7. 12 to 16 blackish vertical cross bands descending below level of lateral line from dorsal side of the body, the cross bands broken up irregularly in patches. Caudal fin with 5 to 7 ' $v$ ' shaped dark bands and a ocellus on upper caudal fin base.
8. Maximum size : 7 cm .

9. Body elongated.
10. Mouth semicircular, lips moderately fleshy, lower lip interrupted in middle.
11. Barbels well developed.
12. Dorsal fin inserted almost equidistant between snout tip and caudal base; dorsal with 11 finrays ( 8 branched).
13. Caudal fin forked.
14. Scales small, imbricate, more prominent in tail region and absent on ventral surface.
15. Body with 9 to 12 dark vertical bands descending from dorsal side and extending below level of lateral line. Caudal fin with one or two series of dots forming ' v ' shaped formation.
16. Maximum size : 5 cm .

## Species: Nemacheilus gangeticus

1. Body slender.
2. Mouth semicircular.
3. Lips moderately fleshy, lower lip interrupted in middle.
4. Barbels well developed.
5. Dorsal fin with 10 rays ( 8 branched).
6. Caudal fin forked.
7. Scales minute, absent in front of dorsal fin and also on ventral side.
8. Lateral line complete.
9. 12 vertical bands, bands situated anterior to dorsal fin breakup into numerous narrow bands. Dorsal fin with a single row of spots and dark base.
10. Maximum size: 8.2 cm .

## Species: Aborichthys elongatus



1. Body greatly elongated and compressed, dorsal and ventral profile almost parallel and horizontal.
2. Eyes small.
3. Mouth semicircular, lips rather fleshy, upper lip interrupted by a small notch, lower lip interrupted in middle.
4. Barbels three pairs, as long as eye.
5. Pelvic fins extend beyond anal opening.
6. Vent placed far forward of anal fin.
7. Scale minute and embedded, lateral line complete.
8. Posterior part of body marked with several broad black rings, alternating with narrow bands of yellowish-orange, a prominent black ocellus at upper corner of caudal fin base.
9. Maximum size: 5.4 cm .

## ORDER: SILURIFORMES

1. Body naked (devoid of scales) or covered with bony plates.
2. Jaws with teeth.
3. Outermost ray of pectoral fin with osseous spine.
4. A single spine often present in dorsal fin.
5. 1 to 4 pairs of barbels present.
6. Dorsal adipose fin generally present, sometimes vestigial or absent.

## FAMILY: BAGRIDAE

1. Usually 4 pairs of barbels present (3 pairs in genus Rita)
2. Pectoral and dorsal spines strong.
3. Anal fin short.
4. Dorsal adipose fin well developed.

Species: Sperata aor (Aar/Kanti/Gaga Tengra/Daryai Tengra)


1. Anterior margin of snout rounded.
2. 4 pairs of barbels ( 1 pair maxillary, 1 pair nasal and 2 pairs mandibular).
3. Maxillary barbels extend to the end of anal or caudal base or beyond.
4. Pectoral spine denticulate posteriorly, pectoral fin rays 10 or 11.
5. Caudal fin deeply forked with pointed lobes, upper longer; caudal fin with 19 rays.
6. Maximum size : 1.8 m .

Species : Sperata seenghala (Aar-tengra/Guji/Gagari/Ari/Seenghala)


1. Outer margin of snout truncate.
2. Barbels four pairs, maxillary pair extend to the base of pelvics or a little beyond.
3. Pectoral spine stronger than dorsal and denticulated posteriorly, pectoral fin rays 8 or 9.
4. Caudal fin rays 19 to 21 .
5. Maximum size : 1.5 cm .

Species: Mystus bleekeri (Golsha tengra/Palwa/ Tengra/Tengara)


1. Maxillary barbels extend posteriorly to anal fin.
2. Dorsal spine smooth, rarely finely serrated.
3. Body with two light longitudinal colour bands one above and below the lateral line.
4. Maximum size : 13.5 cm .

Species: Mystus cavasius (Kabasi-tengra/Palwa/Kala-tangidah)


1. Maxillary barbels very long extend posteriorly to beyond caudal fin base.
2. Upper lobe of caudal fin much longer than lower lobe.
3. A dark spot on base of dorsal spine.
4. Maximum size : 40 cm .

Species: Mystus tengara (Tengra / Tengana)


1. Dorsal spine serrated on its posterior edge, also slightly at its tip on anterior edg
2. Dorsal spine serrated on its posterior edge, also slightly at its tip on anterior edge.
3. Body with five brown to greenish-black longitudinal bands on flanks.
4. Maximum size : 18 cm .

5. Adipose dorsal fin small or short with considerable inter-space between dorsal fin and adipose fin.
6. Body with three or four longitudinal colour bands above and below the lateral line. A narrow dusky shoulder spot often present.
7. Maximum size : 21 cm .

Species: Mystus gulio (Nuna tengra/Kala-tengnah)


1. Upper surface of head rough and granulated.
2. Dorsal spine strong, serrated on its posterior edge. Adipose dorsal fin small.
3. Upper lobe of caudal fin slightly longer than lower.
4. Body plain, no longitudinal bands on flanks of body.
5. Maximum size : 40 cm .

Species : Neotropius (Pseudeutropius) atherinoides (Potasi/Doya/Patasi/Puttahra/Barusa)


1. Head covered with skin.
2. Upper jaw elongated and projecting beyond the lower jaw.
3. Teeth villiform in bands on jaws, vomer and palatine teeth in two narrow crescentic patches.
4. 4 pairs of barbels, maxillary pair reaching pelvic fins, mandibular pairs equal or slightly longer than head length and nasal longer than head length.
5. Dorsal fin inserted anterior to pelvic fins. Pectoral fin spine extends to base of dorsal spine. Anal fin long with 33 to 46 rays.
6. A small, beautiful aquarium cat fish.

Species : Rita rita (Rita/Reta/Ritha/Choua/Chona)


1. Head depressed with osseous plates and flattened ventral side.
2. 3 pairs of barbels (maxillary, nasal and mandibular). Maxillary barbels extend to the end of head.
3. Dorsal spine strong, serrated posteriorly in upper part only.
4. Maximum size : 150 cm .

Species : Batasio batasio (Batasio/Batashi/Bajori)

1. Laterally compressed body. Head small, conical and mental region narrow.
2. Mouth inferior, teeth uniformly villiform in bands on jaws and palate.
3. Barbels 4 pairs, maxillary barbels shorter than head length.
4. Dorsal fin spine strong. Six pelvic fin rays present. Adipose dorsal fin low, but longer than anal fin base.
5. Body with a dark longitudinal band along the lateral line and another faint band midway between the lateral line and dorsal edge.
6. Maximum size : 10 cm .

## FAMILY: SILURIDAE

1. Dorsal fin short, rudimentary or absent, dorsal fin devoid of spine.
2. 2 to 3 pairs of barbels, nasal barbels absent.
3. Anal fin very long.
4. Adipose dorsal fin absent.

Species : Wallago attu (Boal/Boyali/Barwari/Paran/Wallah)


1. Gape of mouth wide and very long reaching beyond eye posteriorly.
2. Dorsal fin short with 5 rays and devoid of spine. Upper lobe of caudal fin longer.
3. Barbels two pairs, maxillary barbels extending beyond origin of anal fin.
4. Maximum size : 2 m .

Species: Ompok bimaculatus (Puffta/Chechera/Papta/Gugli/Jalkapoor)


1. Gape of mouth not extending beyond eye.
2. Maxillary barbels long extend slightly beyond anal fin base.
3. Dorsal fin short with 4 rays, spine absent. Pelvic fin ( 7 to 9 rays) not reaching anal fin origin. Anal fin rays 60 to 75 .
4. One spot behind operculum.
5. Maximum size : 45 cm .

Species : Ompok pabda (Pabda/Pabo/Tambulivapapta)


1. Gape of mouth not extending beyond eye.
2. Maxillary barbels long extend to middle or tip of pectoral fin.
3. Dorsal fin short with 4 to 5 rays, spine absent. Pelvic fin ( 7 to 9 rays) not reaching anal fin origin.
4. Anal fin long with 50 to 56 rays. Maximum size : 17 cm .

## FAMILY : SCHILBEIDAE

1. Barbels 2 to 4 pairs (vestigial or absent in genus Silonia).
2. Nasal barbels always present (except in Silonia).
3. Short based dorsal fin with a spine present or absent.
4. Anal fin very long with 24 to 90 soft rays.
5. Adipose dorsal small, vestigial or absent.

Species : Ailia coila (Kajri/Kojoli/Potasi/Batansi/Minti)


1. Rayed dorsal fin absent.
2. Barbels 4 pairs, well developed.
3. Adipose dorsal fin small.
4. Anal fin very long with 58 to 75 rays.
5. Maximum size : 30 cm .

## Species : Ailia punctata

1. Body elongated and deeply compressed.
2. Upper region of head slightly concave.
3. Upper jaw slightly longer, mouth sub-inferior.
4. Barbels four pairs, well developed.
5. Adipose dorsal fin minute.
6. Pectoral spine smooth, not serrated.
7. Pelvic fin absent.
8. Anal fin long with 76 to 90 rays.
9. A large black spot at caudal fin base.
10. Maximum size : 10 cm

Species : Eutropiichthys vacha (Vacha/Bacha/Bachawa/Neemuch)


1. Mouth wide, cleft of mouth extends to posterior border of orbit.
2. Barbels 4 pairs, nasal, maxillary and 2 pairs of mandibulars.
3. Maxillary barbels reaching end of pre-opercle or even as long as head.
4. Nasal barbels extend to posterior margin of head. Branchiostegal rays 11.
5. Maximum size : 40 cm .

Species : Eutropiichthys murius (Muribacha/Motusi/Golmuhi/Butchua)


1. Cleft of mouth extends to front border of orbit.
2. Maxillary barbels extend beyond base of pectoral fin.
3. Nasal barbels extend to hind border of orbit. Branchiostegal rays 5 .
4. Maximum size : 28 cm .

Species : Clupisoma garua (Garrua/Gharwya/Ghero/Gharuwa/Buchua)


1. Abdominal edge keeled between pelvic fins and vent.
2. Barbels 4 pairs, maxillary barbels extend to base of pelvic fins in adults.
3. Adipose dorsal fin absent. Anal fin with 29 to 36 branched rays.
4. Maximum size : 1 m .

Species : Silonia silondia (Silon/Dhain/Silond/Banspati)


1. Teeth caniniform on jaws.
2. Two pairs of barbels, maxillary pair minute, mandibular pair usually vestigial or absent.
3. Anal fin with 40 to 46 rays.
4. Maximum size : 2 m .

## FAMILY: PANGASIIDAE

1. Nostril wide apart.
2. Adipose dorsal fin well developed.
3. Anal fin elongate with 28 to 34 rays.

Species: Pangasius pangasius (Pungas/Jellum/Payas)


1. Body smooth skinned, eyes large with adipose lids, situated on the lower surface of head.
2. Two pairs of barbels, the maxillary reaches posterior base of pectoral fin, mandibular shorter.
3. Dorsal spine moderately strong, strongly serrated posteriorly and also slightly serrated anteriorly.
4. Pectoral spine stronger than dorsal one and serrated posteriorly.
5. Maximum size : 1.5 m .

## FAMILY : SISORIDAE

1. Nostrils close to each other.
2. Barbels 4 pairs ( 6 pairs in genus Sisor), a pair of distinct nasal barbels present.
3. An adhesive apparatus in the thoracic region often present.
4. Dorsal and pectoral spines strong.

5. Head and body covered by heavily keratinized skin, ventrally flattened and depressed.
6. Barbels 4 pairs, maxillary pair with stiff and broad bases, extends to pectoral fin base. Adhesive apparatus on throat absent.
7. Adipose fin short, inserted anterior to or on origin of anal fin.
8. Pelvic fin short, inserted posterior to base of last dorsal fin ray.
9. Pectoral fin rays 11 to 14 . Body with 3 darkly pigmented bands.
10. Maximum size : 2 m .

Species: Bagarius bagarius (Baghaar/Baghari )


1. Body elongated, head depressed and body covered with keratinized skin.
2. Mouth inferior, upper jaw longer.
3. Barbels 4 pairs, maxillary pair with stiff and broad bases.
4. Dorsal spine smooth.
5. Pelvic fin inserted anterior to base of last dorsal fin rays.
6. Adipose fin inserted posterior to anal fin origin. Pectoral fin rays 9 to 12 .
7. Body with large, irregular brown and black blotches or cross bands.
8. Maximum size : 19 cm .

Species : Gagata gagata (Gangetic gagota)


1. Snout tip broadly rounded.
2. Dorsal fin relatively large, extending to adipose origin. Dorsal spine long, finely serrated along distal third of anterior edge.
3. Maxillary barbels shorter than head.
4. Pelvic fins extend to anal fin.
5. Caudal fin spotless or with fine black margins.
6. Maximum size : 30.5 cm .

Species: Gagata cenia (Jungla/Tinkatiya/Baghi)


1. Snout tip acutely pointed with a distinct notch anteriorly.
2. Maxillary barbels shorter than head length and nasal barbels minute.
3. Dorsal fin spine short and strong, finely serrated along anterior edge.
4. Pelvic fins extend usually to vent.
5. Body with four dark blotches in young stage. Caudal fin with square or round spot on each lobe.
6. Maximum size : 15.2 cm .

Specięs: Gagata sexualis (Koel gagota)


1. Snout tip broadly rounded without any notch.
2. Maxillary barbels longer than head length.
3. Dorsal spine strong, smooth on both edges.
4. Pectoral fins usually long with filamentous extension reach the base of the pelvic fins.
5. Pelvic fins extend beyond anal opening, but not to anal fin.
6. Body with 4 to 5 dark vertical bands and caudal fin with a dark band on each lobe.
7. Sexual dimorphism present. Males are thinner and narrower and the dorsal and pectoral fins have a long filamentous prolongation.
8. Maximum size : 5.8 cm .

Species: Sisor rhabdophorus (Chenua/Bistuiya)


1. Body elongated, whip-like and head depressed.
2. A series of bony plates from basal bone of dorsal fin to caudal fin base.
3. Eyes minute, dorsally placed.
4. Barbels 6 pairs ( 1 pair of maxillary and 5 of mandibulars), maxillary pair extends up to pectoral fin.
5. Weak dorsal spine serrated anteriorly.
6. Adipose dorsal fin rudimentary, reduced as a small spine.
7. Pectoral fins horizontal, each with a compressed spine serrated on both edges.
8. Lateral line with a series of small rough bony plates.
9. Caudal fin truncate, its uppermost ray greatly elongated.
10. Maximum size : 18 cm . (SL)

Species : Nangra viridescens (Huddah/Balsohani)

1. Body elongate.
2. Head large, broad and greatly depressed.
3. Mouth wide and inferior.
4. Teeth villiform in bands on jaws.
5. Four pairs of barbels, (nasal, maxillary and two pairs of mandibular); nasal barbels minute or rudimentary, maxillary barbels much shorter than head with stiff basal portions and mandibular barbels much shorter.
6. A pair of fingerlike processes present between bases of inner mandibular barbels.
7. Dorsal fin spine strong and smooth.
8. Adipose fin small.
9. Pectoral spine strong and serrated on its inner edge.
10. Maximum size : 8.5 cm .

Species: Glyptothorax telchitta


1. Head depressed and bluntly pointed.
2. Mouth inferior.
3. Barbels 4 pairs, one pair each of maxillary, nasal and two of mandibular; maxillary pair with broad base, all pairs shorter than head.
4. Adhesive thoracic apparatus spindle shaped.
5. Dorsal spine feeble and smooth.
6. Caudal fin forked.
7. Body plain, devoid of color bands, ventral side of the body yellowish. Flanks and fins marked with spots.
8. Maximum size: 10 cm .

Species: Glyptothorax cavia


1. Body elongate, mouth inferior and lips papillated.
2. Barbels four pairs, maxillary barbels extend slightly beyond pectoral fin base.
3. Adhesive thoracic apparatus encircling a deep central pit.
4. Dorsal fin with one spine (strong and smooth) and six rays.
5. Caudal fin forked.
6. Ventral side of body yellowish. The flanks and dorsal surface covered with deep colored spots, often with narrow longitudinal bands on flanks. Fins with dark bands at their base.
7. Maximum size: 16.5 cm

## FAMILY : ERETHISTIDAE

1. Ugly looking, small spider like fish.
2. Barbels 4 pairs.
3. Rayed dorsal fin with a spine.
4. Pectoral fin almost horizontally placed, with a spine strongly serrated along with edges.
5. Adipose dorsal fin short.
6. Lateral line complete.

## Species : Erethistes pussilus (Tinkantia)



1. Body flattened ventrally.
2. Barbels 4 pairs; one pair each of maxillary and nasal, and two pairs of mandibular. Maxillary with broad bases reaching $1 / 3$ rd of pectorals, mandibulars reach gill openings and nasal not reaching anterior margin of orbit.
3. Pectoral fin horizontally inserted reaching caudal fin base; pectoral spine serrated along both edges, serrations along outer edge arranged in the form of divergent spines.
4; Caudal fin truncate.
4. Maximum size : 5 cm .

## FAMILY: CLARIIDAE

1. Head covered with heavily ossified plates.
2. Dorsal and anal fin long, dorsal without spine.
3. Nasal barbel present.
4. Adipose dorsal fin absent.

Species: Clarias batrachus (Magur/Manguri/Mangur)


1. 4 pairs of barbels, maxillary pair large and extend beyond base of pectoral fin.
2. Dorsal fin long with 70 to 77 rays.
3. Anal fin with 45 to 58 rays.
4. Pectoral spine strong and serrated on both sides.
5. Maximum size : 45.7 cm .

## Species: Clarias gariepinus



1. Slender bodies, large eel-like, a flat bony head, notably flatter then in the genus Siluris, and a broad, terminal mouth with four pairs of barbels.
2. Usually of dark gray or black coloration on the back, fading to a white belly.
3. A large, accessory breathing organ composed of modified gill arches.
4. Only the pectoral fins have spines.
5. Average length of adults is 1-1.5 meters.

## FAMILY : HETEROPNEUSTIDAE

1. Well developed 4 pairs of barbels, nasal barbels present.
2. Dorsal fin short with 6 to 7 rays and without a spine.
3. Adipose dorsal fin absent.
4. Anal fin extremely long.

5. Head covered with osseous plates.
6. 4 pairs of well developed barbels.
7. Dorsal fin short ( 6 to 7 rays) without a spine.
8. Pectoral fin short and rounded with a strong spine serrated posteriorly and a few serrations at its anterior end.
9. Anal fin long with 60 to 70 rays.
10. Caudal fin rounded not confluent with anal.
11. Maximum size : 30.5 cm .

## FAMILY: ARIIDAE

1. Head covered with bony shield.
2. Nostril close together.
3. 1 to 3 pairs of barbels, nasal barbels absent. (One pair of maxillary and 2 pairs of mandibular).
4. A short adipose dorsal fin present.

## Species: Arius gagora (Gagla)



1. Body elongated, head depressed.
2. Occipital process keeled slightly and reaching the base of the dorsal fin.
3. Mouth sub-terminal, jaw teeth villiform.
4. Dorsal fin spine pungent, serrated posteriorly and also anteriorly in its upper half.
5. Pectoral fin low, pectoral spine externally serrated and internally denticulated.
6. Anal fin with 17 to 19 rays.
7. Maximum size : 25 cm . (SL)

## ORDER : SCORPAENIFORMES

1. Head extremely depressed.
2. Two dorsal fins with a distinct notch between spinous and soft rays.
3. Pectoral fins rounded.
4. Caudal fin rounded.

## FAMILY: PLATYCEPHALIDAE

1. Head usually bearing spines.
2. Scales usually embedded on head and breast.
3. Lateral line complete.

## Species : Platycephalus indicus (Mur Bailla/Belle)



1. Body elongate, head broad and strongly depressed.
2. Lower jaw slightly longer.
3. Mouth large, teeth on jaws villiform.
4. Two pre-opercular spines present, the lower one slightly longer.
5. Two dorsal fins, first one with 8 spines.
6. Lateral line smooth without spines, pored lateral line scales usually 70 to 79 .
7. Maximum size : 30.4 cm .

## ORDER : CYPRINODONTIFORMES

1. Body with scales.
2. Fins devoid of spines.
3. Single dorsal fin.
4. Dorsal and anal fins short to moderate based.
5. Lateral line may be absent.

## FAMILY : APLOCHEILIDAE

1. Upper jaw protrusible.
2. Dorsal fin short, inserted in the posterior part of the body.
3. Pelvic fin bases inserted close together.
4. Lateral line absent on the body.

Species: Aplocheilus panchax (Trichoke/Panchoke/Dendula/Jhingra)


1. Mouth terminal.
2. Cleft of mouth wide, not extending to front border of orbit.
3. Dorsal fin inserted behind posterior end of anal fin, dorsal with 8 soft rays.
4. Anal fin square shaped with 15 to 16 rays.
5. Caudal fin rounded.
6. Scales moderately large, lateral line absent on the body.
7. It is a larvivorous fish and useful for mosquito control.
8. Maximum size : 9 cm .

## FAMILY : BELONIDAE

1. Body elongate, slender, head with scales.
2. Both jaws elongated as a beak.
3. Sharp teeth on jaws.
4. Dorsal and anal fins posterior in position.
5. Paired fins not enlarged.
6. Lateral line low on body.

Species : Xenentodon cancila (Kakila/Kankley/Thona)

2. Both jaws prolonged into a beak.
3. Dorsal fin inserted nearly opposite to anal fin, dorsal fin with 15 to 18 rays.
4. Anal with 16 to 18 rays.
5. Pelvic fin small, inserted nearer to caudal fin.
6. Lateral line on posterior half of the body.
7. Caudal fin truncate.
8. Maximum size : 40 cm .

## Species : Strongylura strongylura



1. Body elongate, sub-cylindrical and compressed.
2. Both jaws prolonged into a beak, both jaws studded with sharp teeth.
3. Dorsal fin inserted slightly posterior to anal fin, and dorsal fin with 12 to 15 rays.
4. Anal fin with 15 to 18 rays.
5. Caudal fin rounded and a distinct black spot at base of caudal fin.
6. Scales small, bases of dorsal and anal fins covered with scales.
7. Maximum size: 40 cm .

Species: Strongylura leiura


1. Both jaws studded with sharp teeth and prolonged into a beak.
2. Dorsal fin inserted slightly posterior to anal fin, and dorsal fin with 17 to 21 rays.
3. Anal fin with 23 to 25 rays.
4. Caudal fin emerginate.
5. Bases of dorsal and anal fins covered with scales.
6. A silvery stripe along sides.
7. Maximum size: 73 cm .

## ORDER : PERCIFORMES

1. Two dorsal fins, first spinous and second soft rayed.
2. A small gap or a notch or a wide gap between two dorsal fins.
3. Spines present in dorsal, pelvic and anal fins.

## SUB-ORDER : PERCOIDEI

1. Head not depressed.
2. Pelvic fins thoracic.
3. Each pelvic fin with a spine and five soft rays.

## FAMILY: AMBASSIDAE

1. Body short, elevated, compressed and slightly translucent.
2. Two dorsal fins close together, but not joined.
3. Lower part of pre-opercular with a double serrated edge.
4. A forward directed recumbent spine before dorsal fin present.
5. Lateral line complete or interrupted.

Species : Chanda nama (Chanda/Channe)


1. Body ovate, strongly compressed, dorsal and abdominal profile convex.
2. Mouth large, lower jaw prominent.
3. 1st dorsal with 7 spines and 2 nd dorsal with one spine and 15 to 17 rays; 2nd spine of 1st dorsal longest.
4. Anal with 3 spines.
5. Caudal fin forked.
6. Lateral line complete with 100 to 107 scales.
7. Maximum size : 11 cm .

Species : Pseudambassis (Parambassis) ranga (Ranga-chanda/Chanari)


1. Body oblong, deeply compressed.
2. 1 st dorsal with 7 spines and 2 nd dorsal with one spine and 11 to 14 rays.
3. Mouth oblique, lower jaw more or less equals to upper jaw.
4. Caudal fin forked.
5. Lateral line with 47 to 63 scales.
6. Maximum size : 8 cm .

Species: Pseudambassis (Parambassis) Iala (Lal chanda)


1. Body small and almost rounded.
2. Mouth oblique.
3. 2nd spine of 1 st dorsal fin elongate.
4. Lateral line with 90 scales.
5. Brilliantly coloured fish, body orange-yellow with longitudinal dusky bands.
6. Maximum size $3 \mathrm{~cm}(\mathrm{SL})$.

## FAMILY: CENTROPOMIDAE

1. Body compressed with a deep caudal peduncle.
2. Pre-opercle and opercle with a strong spine.
3. Two dorsal fins, a deep notch between two dorsal fins; spinous part with 7 to 9 strong spines and rayed part with one spine and 10 to 12 soft rays.
4. Anal and dorsal fins with a scaly sheath.
5. Caudal fin rounded.
6. Lateral line curved and complete.

7. Mouth large, slightly oblique, gape extending to anterior border of eye.
8. Lower jaw longer than upper.
9. Teeth villiform on jaws, some teeth on jaws.
10. First dorsal (spinous) with 7 to 9 strong spines and second dorsal with one spine and 10 to 11 soft rays.
11. Pre-opercle with a strong spine at its angle and lower edge of pre-opercle serrated.
12. Anal fin with 3 spines.
13. Lateral line curved and continued on to caudal fin, lateral line scales 52 to 60 .
14. Maximum size : 150 cm .

## FAMILY: SILLAGINIDAE

1. Body elongate and some what cylindrical.
2. Opercle with a small, sharp spine.
3. Two dorsal fins separated by a short notch.
4. First dorsal fin with 10 to 13 spines.
5. Anal fin with 2 weak spines.
6. Lateral line complete and slightly arched.

Species : Sillaginopsis panijus (Tool-belle/ Tul-dandi)


1. 2nd spine of 1 st dorsal fin very elongate and filamentous.
2. 1st dorsal with 10 spine and 2nd dorsal fin with one spine and 26 to 27 rays.
3. Lateral line with 84 to 88 scales.
4. Maximum size : 44.3 cm .

## FAMILY : SCIAENIDAE

1. Body elongate and compressed.
2. Dorsal fin long continuous with a deep notch between the 1st and 2nd dorsal fins.
3. Distinct sensory pores often present on tip and lower edge of snout as well as on chin.
4. Anal fin with 2 spines; 2 nd one greatly enlarged.
5. Lateral line scales extending to hind margin of caudal fin.

Species: Johnius coitor (Poa)


1. Snout prominent and projecting.
2. Mouth inferior, outer row of upper jaw teeth slightly enlarged.
3. Dorsal fin deeply notched and dorsal spines moderately weak; 1st dorsal with 10 spines.
4. Caudal fin rhomboid and 2nd anal spine strong.
5. Lateral line scales, 48 to 51.
6. Maximum size : $16 \mathrm{~cm}(\mathrm{SL})$.

Species: Johnius gangeticus (Poa)


1. Snout rounded, swollen and projecting, snout equals to or less than eye diameter.
2. Mouth inferior, outer row of upper jaw teeth enlarged and conical.
3. Dorsal fin moderately notched and dorsal spines weak.
4. Caudal fin rhomboid and 2nd anal spine strong.
5. Lateral line scales 48 to 50 .
6. Maximum size : 12 cm .

## FAMILY: SCATOPHAGIDAE

1. Body quadrangular shaped, very deep and strongly compressed.
2. Head small, mouth small and not protrusible.
3. First spine of dorsal procumbent (lying flat).
4. A deep notch between 1 st and 2 nd dorsal fins.
5. Anal fin with 4 strong spines.
6. Lateral line distinct and curved.

Species: Scatophagus argus (Bishtara/Pairachanda)


1. First dorsal with 11 spines and 2 nd dorsal with 16 to 18 soft rays.
2. Pectoral fins relatively small.
3. Caudal fin truncate.
4. Lateral line arched.
5. Large round blackish or greenish spots on body.
6. Maximum size : 30 cm .

## FAMILY: NANDIDAE

1. Body oblong or fairly deep.
2. Mouth large and protrusible.
3. Dorsal fin large, the spinous and soft rayed parts continuous.
4. Anal fin with 3 or 4 spines and 6 to 9 soft rays.
5. Caudal fin rounded.
6. Lateral line incomplete or absent.

7. Mouth very large, highly protrusible, cleft deep, maxillae reach hind edge of orbit.
8. Operculum triangular with a prominent spine.
9. A single notched dorsal with 12 to 14 spines and 11 to 13 rays, spinous part longer than soft part; dorsal spines strong.
10. Three anal spines.
11. Lateral line interrupted; 46 to 57 scales in lateral line series.
12. Three broad patchy bands over body, a dusky blotch on caudal fin base.
13. Maximum size : 20 cm .

## Species: Badis badis (Bhedo/Botkoi/Sumha)



1. Mouth small, lower jaw longer, oblique and slightly protrusible.
2. Operculum distinctly triangular, its posterior corner with a prominent spine.
3. Dorsal fin large with 16 to 18 slender and short spines and 7 to 10 rays.
4. Anal fin with 3 short spines and 6 to 8 rays.
5. Caudal fin rounded.
6. Lateral line interrupted; 26 to 30 scales in longitudinal series.
7. Body with a series of black and dirty red alternate bands in adult fish. A bluish black spot on shoulder, another on opercle and a third near base of caudal fin.
8. Maximum size : 9 cm .

## FAMILY : TOXOTIDAE

1. Body deep and laterally compressed.
2. Head pointed, eyes large.
3. Mouth large and terminal.
4. Dorsal fin inserted in posterior half of body and almost above anal fin.
5. Soft dorsal fin base shorter than soft anal fin base.
6. Scales small, dorsal and anal fins scaly.
7. Several dark spots on sides of body.

Species: Toxotes chatareus (Samudrik-chanda)


1. Head flattened on dorsal surface.
2. Lower jaw prominent.
3. Cleft of mouth oblique.
4. Villiform teeth on jaws.
5. Single dorsal with 4 spines and 12 soft rays, spinous part shorter than soft part.
6. Anal with 3 spines and 16 to 17 soft rays.
7. Caudal fin truncated.
8. Lateral line with 29 to 34 scales.
9. Six to seven black blotches on upper side of body.
10. Maximum size : 30 cm .

## FAMILY : CICHLIDAE

1. Body moderately deep and compressed.
2. Dorsal fin single, the spinous and soft-rayed parts continuous.
3. Anal fin with spines.
4. Lateral line interrupted.

5. Dorsal fin with 15 to 18 spines and 11 to 13 soft rays.
6. Anal fin with 3 spines and 9 to 11 soft rays.
7. Most distinguishing characteristics is the presence of regular vertical stripes throughout depth of caudal fin.
8. Caudal peduncle depth equals to length.
9. Sides of body with 6 to 9 rather indistinct cross bars.
10. Maximum size : 60 cm .

## SUB-ORDER : MUGILOIDEI

1. Spinous and soft portion of dorsal fins well separated.
2. 1 st dorsal fin with four spines.
3. Pelvic fins sub-abdominal, each with a spine.
4. Lateral line vestigial or absent.

## FAMILY : MUGILIDAE

1. Body oblong to elongate, cylindrical or slightly compressed.
2. Head and body with scales.
3. Mouth small, terminal or inferior.
4. Eyes with or without adipose eyelids.
5. Anal fin with 3 spines.
6. Caudal fin forked, emarginate or truncate.
7. Lateral line absent.

8. Body short, head dorsally flattended.
9. Eyes large, adipose eyelid absent.
10. Lips thin, teeth absent.
11. Anal fin origin opposite to 2 nd dorsal fin origin.
12. Caudal fin forked.
13. Lateral line absent.
14. Yellowish-olive on top of head and greenish-yellow on flanks, belly silvery.
15. Maximum size : 10 cm .

Species : Liza parsia (Parshe)


1. Eyes with adipose lids.
2. Short teeth on upper lip only, lower lip toothless.
3. First dorsal fin inserted nearer to snout tip than to caudal fin base.
4. Anal origin about half in advance of the second dorsal.
5. Dorsal and anal fins densely scaled.
6. Caudal fin forked.
7. 31 to 36 scales in lateral series.
8. Colour: Greenish brown above, silvery below.
9. Maximum size: 40 cm .

10. Head depressed, concave between eyes.
11. Eyes prominent, bulging and almost on top of head.
12. Adipose eyelids absent.
13. Mouth distinctly ventral.
14. Jaw teeth indistinct.
15. 1st dorsal fin inserted nearer to caudal fin base than to tip of snout.
16. Caudal fin slightly emerginate.
17. Colour : Brownish above, silvery below.
18. Maximum size : 46 cm .

## SUB-ORDER : GOBIOIDEI

1. Pelvic fins placed below pectoral fins, each with one spine and 4-5 soft rays.
2. Pelvic fins often united to form sucking or adhesive disc.

## FAMILY: GOBIIDAE

1. Body elongate or oblong.
2. Body with scales, often partly or totally absent.
3. Teeth generally small and conical, one to several rows on both jaws.
4. Spinous dorsal fin is separated from soft dorsal fin, spinous dorsal with 2 to 17 flexible spines.

5. Body elongate, anteriorly cylindrical and posteriorly compressed.
6. Head depressed, and naked (with scale) between and before eyes.
7. Mouth slightly oblique, lower jaw prominent.
8. Dorsal fins separated, 1st dorsal with 6 weak spines and 2 nd dorsal with one spine and 8 to 9 rays.
9. Pelvic fins united forming a disc.
10. One weak anal spine.
11. Lateral line with 21 to 30 scales.
12. Colour : Body yellowish-brown with 4 to 5 dark blotches on flank.
13. Maximum size : 30 cm .

Species: Apocryptes bato (Chiring)


1. Body very elongate and compressed.
2. Head totally scaled.
3. Eyes small, not above dorsal profile of head.
4. Mouth nearly horizontal, teeth uni-serial.
5. Dorsal fins closely placed, 1 st dorsal with 5 spines.
6. Pelvic fins united.
7. Caudal fin long and pointed.
8. Scales small, about 100 scales in longitudinal series.
9. Colour: Body greenish-white with 10 to 12 faint transverse bands.
10. Maximum size : 15 cm .

## Species: Pseudapocryptes lanceolatus (Gule)



1. Body very elongate and compressed, head sub-cylindrical.
2. Eyes small and not above the dorsal profile of head.
3. Mouth nearly horizontal, upper jaw prominent and teeth on upper jaw pointed.
4. Dorsal fins much longer than high, 1 st dorsal with 5 spines.
5. Scales very small, about 200 scales in longitudinal series.
6. Colour : Greenish above, lighter below. Fins yellowish.
7. Maximum size : 18 cm .

## FAMILY : ELEOTRIDIDAE

1. Body elongate or oblong but not eel like.
2. Body and most portions of head scaled.
3. Pelvic fins widely separated, pelvic with one spine and five rays.
4. Two dorsal fins, 1 st spinous dorsal with 6 flexible spines and 2 nd dorsal with 18 19 rays.
5. Lateral line absent.

Species: Eleotris fusca (Kuli/Budh Baila/Kalo bele)


1. Head depressed, top of head, cheeks and opercles scaled; snout and below eyes naked.
2. A single downward curved spine at angle of pre-opercle.
3. Mouth oblique, maxilla extends to below middle of eye.
4. Teeth small and conical in several rows on jaws.
5. Two dorsal fins, 1st dorsal with 6 spines, 2nd dorsal with one spine and 8 to 9 rays.
6. 60 to 68 scales in longitudinal series.
7. Colour : Body dark brown to black with numerous horizontal lines on body,
8. Maximum size : 17 cm .

## FAMILY: GOBIOIDIDAE

1. Body eel like, compressed.
2. Pelvic fins usually forming an adhesive disc.
3. Single dorsal fin and anal fin long.
4. Eyes very small to rudimentary or absent.
5. Body naked or with cycloid scales.

Species : Odontamblyopus rubicundus (Lal chewa/Gule)


1. Body very elongate and compressed.
2. Three short barbels on each side below head.
3. Eyes very small, near dorsal profile of head.
4. Mouth oblique, lower jaw prominent.
5. Canine teeth on both jaws.
6. Dorsal, caudal and anal fins continuous.
7. Single dorsal fin with 6 spines and 34 to 40 soft rays.
8. Caudal fin pointed and long.
9. Colour : Greenish-olive above, lighter below. Caudal fin black and other fins reddish. 10. Maximum size : 25 cm .

## SUB-ORDER : ANABANTOIDEI

1. Pelvic fins thoracic usually each with one spine.
2. Dorsal and anal fins with spine.
3. Accessory branchial organ present.
4. Gill membranes scaly and united.

## FAMILY : ANABANTIDAE

1. Body oblong and posteriorly compressed.
2. Operculum and interoperculum serrate with 2 spines.
3. Upper jaw weakly protrusible.
4. Jaws and prevomer with small conical teeth.
5. Dorsal fin with 16 to 18 strong spines.
6. Anal fin with 8 to 11 spines.
7. Caudal fin rounded.
8. Two lateral lines.

Species : Anabas testudineus (Koi)


1. Body elongate and fairly deep.
2. Small conical teeth on jaws and prevomer.
3. Dorsal fin with 16 to 18 spines and 8 to 10 rays.
4. Anal fin with 8 to 11 spines and 9 to 11 rays.
5. Scales large, 21 to 29 scales in lateral series.
6. Two lateral lines.
7. Colour : Light to dark green above, pale yellow to orange below, often with 4 vertical bands of flanks; a distinct black spot on caudal peduncle and a black spot at the base of pectoral fin.
8. Maximum size : 25 cm .

## FAMILY : BELONTIIDAE

1. Body deep and strongly compressed.
2. Opercle and inter-opercle not serrate.
3. Teeth on jaws.
4. Dorsal fin with 4 to 19 spines.
5. Anal fin with 4 to 22 spines.
6. Lateral line usually vestigial or absent.

7. Body oval shaped and strongly compressed.
8. Mouth small, jaws highly protrusible, upper lip thick.
9. Pre-orbital serrate in young stage.
10. Dorsal fin long based with 15 to 17 spines and 9 to 14 soft rays.
11. Anal fin also long based with 15 to 18 spines and 14 to 19 soft rays. Anal fin scaly at base only.
12. Pelvic fins thread like.
13. Caudal fin truncate.
14. Scales large, 29 to 31 in longitudinal series.
15. Lateral line absent.
16. Colour : Greenish with bluish bars on flanks descending obliquely from dorsal to ventral sides. Anal fin with a red margin.
17. Maximum size : 12 cm .

Species : Colisa Ialia (Lal khalisha/Boicha/Ranga Khalisha)


1. Mouth strongly protrusible.
2. Pre-orbital denticulate.
3. Dorsal fin with 15 to 17 spines and 7 to 10 rays.
4. Anal fin with 17 to 18 spines and 13 to 17 rays.
5. Soft dorsal and anal fins rounded.
6. Caudal fin rounded to truncate.
7. Anal fin densely scaled.
8. Lateral line absent.
9. Colour : Body scarlet crossed by oblique bands of pale blue. Fins with scarlet spots and anal fin with a red margin.
10. Maximum size : 5 cm .

## Species: Colisa chuna (Trichogaster chuna)

1. Mouth small, strongly protrusible.
2. Pre-orbital serrated.
3. Dorsal fin with 17 to 18 spines and 6 to 9 rays.
4. Anal fin with 18 to 22 spines and 11 to 13 rays.
5. Anal fin with scales at base.
6. Caudal fin emarginated with a black spot at base.
7. Body with a blackish longitudinal band from eye to caudal fin.
8. Maximum size: 7 cm .

## SUB-ORDER : CHANNOIDEI

1. Dorsal and anal fins very long.
2. Fin spines absent.
3. Accessory branchial (respiratory) organ present.
4. Caudal fin rounded.
5. Scales small but scales on head larger than those of body.

## FAMILY: CHANNIDAE

1. Body elongate and cylindrical.
2. Dorsal and anal fins very long and entirely soft rayed.
3. Supra-branchial organ well developed.
4. Pelvic fins usually present.

5. Body elongated, scales on head large.
6. Mouth large, lower jaw longer, maxilla reaching to below hind border of eye.
7. Lower jaw with 3 to 6 canines.
8. Dorsal fin with $28-33$ rays.
9. Anal fin with $20-23$ rays.
10. Pelvic fin about $75 \%$ of pectoral fin length.
11. Colour : Generally greenish-grey becoming yellow below. Several dark blotches or dark short bands along flanks, numerous black spots on body and also on dorsal, anal and caudal fins.
12. Maximum size : 31 cm .

Species: Channa striata (Shol/Morrul/Soura)


1. Body elongated, scales on head large.
2. Mouth large, lower jaw longer with 4 to 7 canines.
3. Maxilla reaching behind hind border of eye.
4. Dorsal fin with 37-47 rays.
5. Anal fin with 23-29 rays.
6. 50 to 57 scales in lateral series.
7. Colour : Adults grey-green to black-green above, dirty white below. Bands of grey or black from middle of sides to abdomen. Dorsal and anal fins darker in colour than body with dark patches; young with a large black ocellus at the end of base of dorsal.
8. Maximum size : 75 cm .

9. Mouth large, deeply cleft, maxilla extends behind orbit.
10. Dorsal fin with 45 to 55 soft rays.
11. Anal fin with 28 to 36 soft rays.
12. 60 to 70 scales in lateral series.
13. Colour : Grayish-green above and becoming lighter below, 5 or 6 dark oval blotches on flank. Dorsal and anal fins with white spots, a large black ocellus at upper part of the base of caudal fin. Juveniles with an orange band extending from eye to caudal fin.
14. Maximum size : 122 cm .

## Species : Channa orientalis (Cheng/Chainga)



1. Body elongated and head scales large.
2. Mouth moderately cleft, maxilla reaches to below hind border of eye.
3. Villiform teeth on jaws, 3 large canines on vomer.
4. Dorsal fin with 31 to 37 soft rays.
5. Anal fin with 20 to 24 soft rays.
6. Pectoral fin extends to anal fin.
7. Pelvic length less than $50 \%$ of pectorals.
8. 40 to 50 scales in longitudinal series.
9. Colour: Usually greenish becoming lighter below. Pectoral fins with a series of distinct alternating blue and orange vertical bands. Dorsal, anal and caudal fins with scarlet or orange margin, often with a large ocellus on last five dorsal fin rays.
10. Maximum size : 13 cm .

## SUB-ORDER : MASTACEMBELOIDEI

1. Body eel like, compressed and elongated with minute scales, head long and pointed.
2. Dorsal and anal fins long.
3. Anterior part of dorsal fin composed of isolated spinous rays.
4. Caudal fin short either confluent with dorsal and anal or narrowly separated.
5. Pelvic fins absent.

## FAMILY: MASTACEMBELIDAE

1. Snout pointed.
2. Fleshy rostral appendage present.
3. Body with small scales.
4. Dorsal fin preceded by a series of isolated stout spines usually 14 to 35 .
5. Anal fin with 2 to 3 spines.

Species : Macrognathus aral (Golchi/Tara baim/Patgaincha/Gainchi)


1. Long fleshy snout with trilobed tip.
2. No spines on pre-orbital or pre-operculum.
3. Dorsal fin inserted far behind tip of pectoral fin.
4. Dorsal fin with 16-23 spines and last dorsal fin spine small.
5. Soft dorsal fin and anal fin separated by a deep notch from caudal.
6. Caudal fin rounded.
7. Lateral line well developed.
8. Colour : Brownish or greenish above and yellowish below, body with two broad pale longitudinal bands extending its entire length. A series of 3-9 large black ocelli along the base of soft dorsal fin. 6 or 8 vertical brown bars on caudal fin.
9. Maximum size : 38 cm .

Species : Macrognathus pancalus (Pangkal/Gaincha/Patya/Malga)


1. Pre-orbital spine strong and pierces skin.
2. Pre-opercle with 2 to 5 spines.
3. Mouth small, teeth on jaws minute.
4. Dorsal fin inserted above middle of pectoral fins.
5. Dorsal fin with 24 to 26 spines.
6. Caudal fin not united with dorsal and anal fins.
7. Colour : Greenish-olive above and yellowish below, yellowish-white spots on flanks, posterior part of body often vertically striped. Soft dorsal, caudal, anal and pectoral fins yellow with many minute black spots.
8. Maximum size : 18 cm .

Species: Mastacembelus armatus (Bam/Bami)


1. Tri-lobed snout tip.
2. Pre-orbital spine strong.
3. Pre-opercle with 2 or 3 spines.
4. Mouth small, sharp teeth on both jaws.
5. Spinous dorsal fin inserted above middle of pectoral fin, last dorsal spine small.
6. Dorsal fin with 37-38 spines.
7. Dorsal and anal fins broadly joined to caudal fin.
8. Colour : Brownish above and yellowish below, an undulating blackish band goes through the eye to caudal region. Short black bands over the back. A row of black spots along the origin of soft dorsal fin.
9. Maximum size : 61 cm .

## ORDER : PLEURONECTIFORMES

1. Body strongly compressed.
2. Body not bilaterally symmetrical.
3. Dorsal and anal fins long.
4. Head with both eyes on same side either right or left.

## FAMILY: CYNOGLOSSIDAE

1. Body tongue shaped.
2. Pre-opercle margin hidden by skin and scales.
3. Eyes on left side of head, eyes very small and closely placed.
4. Pectoral fin absent.
5. No fin spines.
6. Dorsal and anal fins confluent with caudal fin.

Species: Cynoglossus cynoglossus (Banspata)


1. Snout obtusely pointed, hooked over lower jaw.
2. Eyes with a distinct inter-space.
3. Mouth inferior and contorted (twisted).
4. Teeth only on right (blind) side of jaws.
5. Pelvic fin connected to anal fin.
6. Two lateral lines on ocular side, no lateral lines on blind side.
7. Scales ctenoid on both side of body.
8. Maximum size : 10 cm .

## FAMILY : SOLEIDAE

1. Both eyes on right side of head, eyes small and close together.
2. Pre-opercle edge covered by skin and scales.
3. Pectoral fins often absent in adults.
4. No fin spines.
5. Scales fairly large, one lateral line on the body.

## Species: Brachirus orientalis (Kanthal pata/Danchouka)



1. Mouth cleft extends to below middle of eye.
2. Pectoral fins present and left pectoral slightly smaller.
3. Mouth small and slightly contorted (twisted).
4. Dorsal and anal fins completely confluent with caudal fin.
5. Pelvic fin not connected with anal.
6. Ctenoid scales on both sides of the body, but lateral line scales cycloid.
7. Maximum size : 18 cm .

## ORDER : TETRAODONTIFORMES

1. Mouth small, teeth united to form sharp edged plates.
2. Pelvic fins absent or reduced to one strong spine.
3. Gill opening restricted to lateral slits.
4. Most are highly poisonous.

## FAMILY : TETRAODONTIDAE

1. Head large.
2. Jaws with fused teeth, fused two teeth on both jaws.
3. Eyes widely separated, located high on head.
4. Dorsal and anal fins inserted far posteriorly and no fin spines.
5. Pelvic fin absent.
6. Caudal fin truncate, rounded or emarginated.
7. Lateral line when present, often indistinct.
8. Body covered with spinules on back or sides of the body.

Species: Tetraodon cutcutia (Tepa)


1. Mouth terminal
2. Fins rounded.
3. Skin leathery, without dermal spinules.
4. Dorsal fin with 10-13 rays.
5. Anal fin with 10-12 rays.

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