# Piscine Diversity of River Brahmani-A Checklist

M. K. Das

M. K. Bandyopadhyay

A. P. Sharma

S. K. Paul

S. Bhowmick



Central Inland Fisheries Research Institute (Indian Council of Agricultural Research) Barrackpore, Kolkata 700 120



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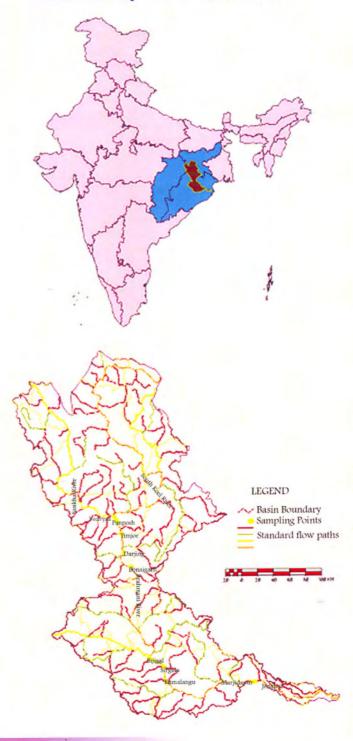
#### The River Brahmani

The river Brahmani is one of the east flowing rivers of India. The river basin has a total drainage area of about 39,268 km² of which 22,516 km² lies in Orissa state, 15,405 km² in Jharkhand and rest 1,347 km² in Chhattisgarh state. It lies between latitude 20°28′ North to 23°35′ North and longitude 83°52′ East to 87°30′ East. The river is formed by its two major tributaries namely Sankh and South Koel which originate in the state of Jharkhand. Brahmani river gets its name from below the point of confluence of river Sankh and river South Koel at Ved Vyas in Orissa.

After assuming the name of Brahmani, the river crosses the Tamra and Jharbera forests, and passes through the town of Bonaigarh in Angul district before being dammed to create the large Rengali reservoir. It then flows through the cities of Talcher and Dhenkanal before splitting up into two streams. The main stream flows by the town of Jajpur Road. The branch stream called Kimiria receives the waters of the Birupa before rejoining the main stream at Indupur. The river then receives the Kharsua, on its left bank before merging with the Baitarani, a major river, to form the Dhamra estuary. A distributary called Maipara branches off here to join the Bay of Bengal a short distance away while the main stream proceeds northward for a few kilometers before ultimately meeting the sea near Chandbali at Palmyras Point. The Brahmani delta is the site of the Bhitarkanika wildlife sanctuary.

The fish samples were collected in course of our investigation on the ecological integrity assessment of river Brahmani. The fishes were caught through different selective and non-selective fishing gears viz. bag net, drag nets, seine nets, falling nets and gill nets and were preserved in 7-10 % formalin. Fish sample were also collected from adjoining fish landing centers and were photographed in the sampling site. The collected fishes were identified as per Day (1989), Mishra (1962), Jayaram (1981), Fisher and Bianchi (1984), Talwar and Jhingran (1991) and Jayaram (2006).

# Location Map of Brahmani Watershed



# Piscine Diversity of River Brahmani - Checklist

# **Order: Osteoglossiformes**

- Body deep and strongly compressed.
- Dorsal fin small, placed in centre of back
- Pelvic fin rudimentary.
- Bony tongue with curved teeth

# Family: Notopteridae

- Abdomen serrate below pelvic fins
- Dorsal fin small and slender
- Scales very small
- Lateral line complete
- 1. Chitala chitala (Hamilton-Buchanan)



Local name: Chitul (Orissa), Chital, Mohi, Moya,

**Identifying features**: Maxilla (gape of mouth) extends beyond posterior edge of eye. Scales on opercle and body is equal in size. Pre-orbital smooth. Pelvic fin rudimentary. Anal fin very long, confluent, with reduced caudal. Transverse silvery bars (about 15) on back. 5 to 9 black rounded spots near caudal region. Lateral line curved and complete.

Conservation Status: Near Threatened

General information: Inhabits freshwater rivers, lakes, beels, in the plains, reservoirs. Feeds on aquatic insects, mollusks, shrimps and small fishes. Maximum size: 122 cm.

**Fisheries**: Commercial, one of the priced palatable food fish. Recently introduced in aquaculture by some progressive prsciculturists.

#### 2. Notopterus notopterus (Pallas)



Local name: Pulli (Orissa), Phulo, Pholui, Pholi, Patra, Golhi,

Conservation Status: Least Concern

Identifying features: Maxilla (gape of mouth) extends to middle of eye. Preorbital serrated.

Larger scales on opercles than those on body. No transverse bars on back. No rounded spots near caudal origin. Lateral line straight and complete.

General information: Found in clear streams and often enters brackish waters. Inhabits standing and sluggish waters of lakes, floodplains, canals and ponds. Maximum size: 61 cm.

Fisheries: Commercial, important food fish. Also considered as aquarium fish.

# **Order: Clupeiformes**

- Body laterally compressed, pectoral fins low on body
- Abdomen keeled, scutes present along belly
- No dorsal adipose fin

# Family: Clupeidae

- Maxilla not extending beyond eye
- Anal fin short (less than 30 fin rays)

#### 3. Gonialosa manmina (Hamilton-Buchanan)



Local name: Phophor (Orissa), Khoira, Majhali-Suhia, Suhia,

Conservation Status: Least Concern

**Identifying features:** Body fairly deep, compressed and ventral profile more convex than dorsal profile. Pre-dorsal scales paired and overlapping in mid line. Mouth inferior, upper jaw slender at tip. Pelvic origin a little in front of dorsal origin. Scales small, 51 to 71 in lateral series. Body silvery with a dark spot behind gill opening.

General information: Found in rivers and pools. Maximum size 28 cm.

Fisheries: No major fishery persists.

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



Local name: Gudua (Orissa), Khoira, Suiya, Suhia,

Conservation Status: Least Concern

Identifying features: Body deep and ventral profile more convex than dorsal. Insertion of pelvic fins just before dorsal fin origin. Upper jaw with a distinct median notch at centre. Scales small, 77 to 91 scales in lateral series. Dark blotch behind gill opening often followed by a series of spots along flank.

**General information:** Found in middle and upper reaches of rivers. Also occurs in ponds, beels, ditches and inundated fields. It attains a length of 15 cm.

Fisheries: Delicious food fish particular in West Bengal.

# **Order: Cypriniformes**

- Body covered with scales and head scaleless
- No teeth on jaws
- Adipose fin absent
- Lateral line present and complete

# Family: Cyprinidae

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

#### 5. Amblypharyngodon mola (Hamilton-Buchanan)



Local name: Moraru (Orissa), Maurala, Mowka, Dhawai.

Conservation Status: Least Concern

**Identifying features:** Abdomen more or less rounded. Upper lip absent. Barbels absent. Dorsal fin inserted behind pelvic fin base. Eye large, scales small, lateral line incomplete. A broad silvery lateral band on body.

**General information:** Found in ponds, canals, beels, slow-moving streams, nullahs and paddy fields. Maximum size 7.5 cm.

**Fisheries**: Though not introduced in aquaculture but considered as good food fish with high market value.

#### 6. Aspidoparia morar (Hamilton-Buchanan)



Local name: Bayi (Orissa), Morar, Morari, Piyali, Chippuah, Pirohia,

**Conservation Status:** Least Concern

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

General information: Found in streams and ponds in plains and mountainous regions

Fisheries: Provides subsistence fishery.

#### 7. Barilius barila (Hamilton-Buchanan)



Local name: Koksa, Chaedra, Gilland, Parsee

Conservation Status: Least Concern

**Identifying features:** Barbels two pairs; rostral pair very short, maxillary barbels extend upto anterior-third of orbit, often barbels are hidden underneath folds of skin. Dorsal fin inserted behind pelvic fin and devoid of osseous rays. Pectoral fin as long as head with 13 rays. Anal fin rays 13 to 14. Caudal fin forked and

lower lobe slightly longer. Lateral line with 43 to 46 scales. 14 to 15 or sometimes less number of vertical bands extend from dorsal side to lateral line. Number of pre-dorsal scale 22.

**General information:** Occurs in large hill streams and shallow clear rivers along foot hills.

Maximum size: 10 cm.

Fisheries: Provides subsistence fishery.

8. Barilius barna (Hamilton-Buchanan)



Local name: Ghol, Bhola, Darangni Conservation Status: Least Concern

**Identifying features:** Body deep. Barbels absent. Tubercles on snout and lower jaw large and well developed. Dorsal fin inserted in advance of anal fin and its last fin ray extends (in young stage) almost to caudal base. Pectoral fin rays 15. Anal fin rays 13 to 14. Lateral line with 39 to 42 scales. Number of pre-dorsal scale 15 to 16.7 to 11 distinct vertical dark bars on body, 7 to 9 narrow bands are often seen in young.

**General information:** Inhabits hill-streams and large rivers. Maximum size 7.5 cm.

Fisheries: Provides subsistence fishery.

9. Barilius bendelisis (Hamilton-Buchanan)



Local name: Bahgra-bahri (Orissa), Khoksa, Joia, Angura,

Conservation Status: Least Concern

**Identifying features:** Barbels two pairs, rostral and maxillary, the rostral pair rudimentary or often absent. A thick layer of spiny tubercles on snout and lower jaw. Dorsal fin inserted in advance of anal fin and nearer to caudal base than to snout tip. Pectoral fin rays 15.

**General information:** Inhabits streams, rivers, particular in hill stream. Also found in fresh water adjacent to rocky substrate.

Fisheries: One of the important hill stream fish and considered as food fish.

#### 10. Catla catla (Hamilton-Buchanan)



Local name: Bhakur (Orissa), Catla, Katla, Chepi,

Conservation Status: Not Evaluated

**Identifying features:** Body deep, head enormously large. Mouth upturned and upper lip absent. Barbels absent. Dorsal fin with 17-20 fin rays (14 to 16 branched rays). Scales large, lateral line with 40 to 43 scales.

**General information:** Occurs in rivers, lakes and culture ponds.Breeds in rivers. Surface and mid-water feeders, mainly omnivorous with juveniles feeding on aquatic and terrestrial insects, detritus and phytoplankton.

**Fisheries**: One of the important fastest growing Indian major carp. Excellent food fish. Introduced commercially in aquaculture in almost every part of the country.

#### 11. Cirrihinus mrigala (Hamilton-Buchanan)



Local name: Mirrgah & Mirikali (Orissa), Mrigal, Nain, Nainea, Mirki,

Conservation Status: Least Concern

**Identifying features:** Body streamlined.Lower lip indistinct.One pair of short rostral barbels. Dorsal fin with 15-17 rays (12 to 13 branched rays).Lateral line with 40 to 45 scales.

**General information:** Inhabits fast flowing streams, rivers, beels, ponds and large water bodies. Can tolerate high levels of salinity. Maximum size: 99 cm.

**Fisheries**: One of the important Indian major carp. Good food fish. Important aquaculture species of the country.

#### 12. Cirrihinus reba (Hamilton-Buchanan)



Local name: Podah, Purha (Orissa), Kharge-bata, Rewah, Raicheng, Rewah, Dumra,

Conservation Status: Least Concern

**Identifying features:** Dorsal fin with 10-11 rays (8 branched rays). A thin cartilaginous layer covering lower jaw. Scales hexagonal. A short pair of rostral barbels. Lateral line with 34 to 38 scales.

**General information:** Inhabits large streams, rivers and tanks. It attains maximum size of 30 cm.

Fisheries: Important food fish and cultivated in ponds.

#### 13. Crossocheilus latius latius (Hamilton-Buchanan)



Local name: Kalabatta, Petphorani, Gauma

Conservation Status: Not Evaluated

**Identifying features:** Body elongated snout very prominent and head flattened. Dorsal profile more convex than ventral profile. Mouth inferior, upper lip well developed, upper and lower lips not continuous.

**General information:** Inhabits streams and rivers. Found over gravel and stony bottom of mountain streams. Maximum size: 15 cm.

Fisheries: Provides subsistence fishery.

# 14. Danio devario (Hamilton-Buchanan)



Local name: Bonkuaso (Orissa), Debari, Bashpata, Anju, Potukari,

Conservation Status: Not Evaluated

**Identifying features:** Body rhomboidal and compressed. Mouth small, obliquely directed upwards, maxilla not extending anterior margin of eye. Barbels absent.

Dorsal origin in front of anal with 17 to 20 fin rays (15 to 17 branched). Caudal fin emarginate to lunate. Lateral line complete with 35 to 38 scales. Anterior part of body reticulated by longitudinal blue and vertical yellow bands. Three bluish lines extending backwards to caudal.

**General information:** Inhabits rivers, canals, ponds, beels and inundated fields. Feeds on worms, small crustaceans and insects. Maximum size attains 10.2 cm.

Fisheries: A popular aquarium fish and intensively reared in NE region.

#### 15. Labeo bata (Hamilton-Buchanan)



Local name: Rajpodah (Orissa), Bata, Dommarcibatta, Bhanga, Bhagan,

Conservation Status: Least Concern

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

**General information:** Found in Freshwater rivers, lakes, reservoirs, ponds. Maximum size: 61 cm.

**Fisheries:** An important food fish of commercial value and cultured along with IMC.

#### 16. Labeo boga (Hamilton-Buchanan)



Local name: Pedusi (Orissa), Bangan, Bhagna, Bogabata

Conservation Status: Least Concern

**Identifying features:** Mouth narrow, lips thick, a thin horny layer of cartilage to inner surface of lower lip. Dorsal fin with 9 to 10 branched rays (total rays 11 to 13). One pair of minute maxillary barbels. Lateral line scales 37 to 39.

General information: Found in tributaries of river Ganga and other flooded rivers. It spawns in flooded rivers and attains a length of 30 cm.

Fisheries: Provides subsistence fishery.

#### 17. Labeo calbasu (Hamilton-Buchanan)



Local name: Kalabeines (Orissa), Kalbasu, Kalbose, Karnaunehar,

Conservation Status: Least Concern

**Identifying features:** Mouth inferior, lips thick and fringed, lower jaw more thickened. Two pairs of barbels (rostral and maxillary). Dorsal fin (16 to 18 rays) with a long base, branched dorsal rays 13 to 16. Lateral line scales 40 to 44. Easily distinguished from the very dark colour of its body.

**General information:** Found in rivers and ponds in slow-moving waters of rivers and feeds on plants filamentous algae and diatoms. Maximum size: 90 cm.

**Fisheries:** An important food fish and can be cultured along with other major carps.

#### 18. Labeo gonius (Hamilton-Buchanan)



Local name: Bahtoor, Kurhi, kuria Conservation Status: Least Concern

**Identifying features:** Mouth sub-inferior, lips thick and fringed, horny covering of both the jaws. Two very short pairs of barbels (rostral and maxillary). Branched dorsal fin rays 12 to 18 (total dorsal fin rays16 to 19). Scales small, lateral line scales 71 to 84.

**General information:** Inhabits rivers. Spawns during the southwest monsoon. Does not normally breed in ponds. Artificial breeding done through hypophysation. Cultured in ponds along with other carp species. Maximum size: 1.5 m.

Fisheries: An important food fish. Cultured in ponds along with other carp species.

#### 19. Labeo rohita (Hamilton-Buchanan)



Local name: Rohi, Rohu (Orissa), Rahu, Riu, Ruee, Rohu

Conservation Status: Least Concern

**Identifying features:** Snout obtuse, mouth small and inferior. Lips thick and fringed with a distinct inner fold to each lip.Branched dorsal rays 12 to 14. (total dorsal fin rays 15 to 18).Lateral line scales 40 to 44.One pair of small, thin maxillary barbels concealed in lateral grooves.

General information: Inhabits Rivers, large water bodies, tanks and ponds. Feeds on plants. Spawning season generally coincides with the southwest monsoon. Spawning occurs in flooded rivers. Fecundity varies from 226,000 to 2,794,000 depending upon the length and weight of the fish and weight of the ovary. Widely introduced outside its native range for stocking reservoirs and aquaculture. Maximum size: 1 m.

Fisheries: An excellent food fish and an important species for aquaculture.

#### 20. Osteobrama cotio cotio (Hamilton-Buchanan)



Local name: Goonta, Koti, Maura, Goordha, Gurda, Muchnee

Conservation Status: Least Concern

**Identifying features:** Body deep and compressed. Profile over nape concave. Snout bluntly rounded, eyes large. Abdominal edge keeled only between pelvic and anal fins. Rounded abdominal edge in front of pelvic fins. Mouth small and directed upwards. Upper jaw slightly longer. Barbels absent.

**General information:** Adults occur in rivers, lakes, ponds and ditches. Possibly useful as larvicide. Maximum size: 15.2 cm.

**Fisheries:** Provides subsistence fishery.

#### 21. Puntius conchonius (Hamilton-Buchanan)



Local name: Putia-kerundi (Orissa), Kunchon-pungti, Kharauli-pothi, Pothi

Conservation Status: Not Evaluated

**Identifying features:** Body deep, barbels absent. Dorsal fin spine osseous, moderately strong and serrated. Lateral line incomplete. A large round black spot over posterior portion of anal fin, dorsal fin with its upper half black.

General information: Inhabits lakes and fast flowing hill streams. One of the hardiest of the barbs, undemanding and beautiful; most impressively colored during the mating period, when the normally silvery male takes on a rich claret flush and the slightly larger female becomes more luminous. size: 14 cm

Fisheries: A potential aquarium fish. Provides subsistence fishery.

#### 22. Puntius sarana (Hamilton-Buchanan)



Local name: Saral-punti, Swarna-punti, Giddi-kaoli, Durhie, Potah

Conservation Status: Least Concern

**Identifying features:** Lips thin, no horny covering on inner side of lips.2 pairs of barbels (maxillary & rostral). Last un-branched ray of dorsal fin osseous, strong

and finely serrated posteriorly. Lateral line complete with 30 to 33 scales. A blotch on lateral line before base of caudal fin.

General information: Occurs in rivers, streams, lakes and backwaters. Tolerant of salinity. Forms schools in groups of four or five to several dozens. Feeds on aquatic insects, fish, algae and shrimps. Spawns in running waters among submerged boulders and vegetation. Small fish have limited demand in the aquarium trade. Maximum size: 31 cm.

**Fisheries:** A good food fish and widely distributed in rivers and inland waters of India.

#### 23. Puntius sophore (Hamilton-Buchanan)



Local name: Putia-kerundi (Orissa), Katcha-karawa, Pottiah, Pothi

Conservation Status: Least Concern

**Identifying features:** Barbels absent.Last unbranched ray of dorsal fin osseous and smooth.Lateral line complete with 22 to 27 scales.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.Maximum size: 13 cm.

General information: Inhabits rivers, streams and ponds in plains and submontane regions. Collected from a large river with high turbid monsoon flow and with diverse substrate consisting of sand, mud, gravel, pebble, cobble, and boulders. A very plentiful shoaling fish. Remains small in domestic aquaria and becomes mature at 7 to 8 cm.

Fisheries: A tasty food fish and a good aquarium fish.

#### 24. Puntius ticto (Hamilton-Buchanan)



Local name: Kudgi-kerundi (Orissa), Kotree, Kaoli, Pothia

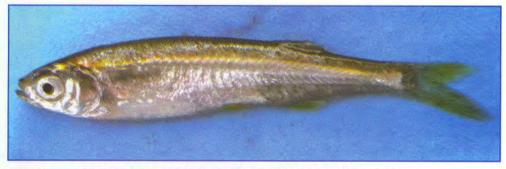
Conservation Status: Least Concern

**Identifying features:** Body elongated. Mouth terminal and small. Barbels absent. Dorsal fin inserted slightly posterior to pelvic fin origin. Last unbranched dorsal fin ray osseous, fairly strong and serrated at its posterior edge. Body often with two lateral spots. Dorsal fin in males with red border.

**General information:** Found in still, shallow, marginal waters of tanks and rivers, mostly with muddy bottoms. Maximum size: 10 cm.

Fisheries: A potential aquarium fish and a food fish.

#### 25. Salmophasia bacaila (Hamilton-Buchanan)



Local name: Jellahri (Orissa), Gangchela, Chela, Chelliah, Chilwa

Conservation Status: Least Concern

**Identifying features:** Body elongated and strongly compressed, abdominal keel not hardened. Dorsal fin inserted well behind pelvic fins and in advance of anal fin. Scales very small, lateral line decurved with 86 to 110 scales. Anal fin with 10 to 13 branched rays. A useful larvivorous fish.

**General information:** Usually found in slow running streams. Occurs in rivers, ponds, beels and inundated fields. A surface feeder on larvae and adults of insects. Maximum size: 18 cm.

Fisheries: Provides subsistence fishery.

#### 26. Securicula gora (Hamilton-Buchanan)



Local name: Humcatchari (Orissa), Ghora-chela, Chelhul, Chelua

Conservation Status: Least Concern

**Identifying features:** Body more or less elongated and compressed. Cleft of mouth reaching to anterior edge of eye. Edge of abdomen with a sharp keel extends from below operculum to anal fin. Short dorsal fin inserted slightly anterior to origin of anal fin. Scales small, lateral line complete and curved downwards with 120-160 scales.

**General information:** Occurs in rivers, beels and canals. Feeds at the surface on insects, insect larvae and crustaceans. Maximum size: 23 cm.

**Fisheries:** Provides subsistence fishery.

# 27. Tor tor (Hamilton-Buchanan)



Local name: Mahasol, Mahseer

Conservation Status: Near Threatened.

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

General information: Inhabit rivers and lakes, also in rapid streams with rocky bottom. Grow better in a river with a rocky bottom. Travel toward headwaters at the start of the rainy season and downstream at the end of the rainy season. Omnivorous, feed on filamentous algae, chironomid larvae, water beetles and crustaceans. Spawn from March to September, over stones and gravel. Reported to reach 150 cm TL, and gain a maximum weight of 68 kg by Thomas, 1897. Considered a long-living species. Maximum size: 150 cm.

Fisheries: Important food and a prized game fish.

# Family: Cobitidae

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

# 28. Lepidocephalus guntea (Hamilton-Buchanan)



Local name: Guntea loach, Gutum

Conservation Status: Not Evaluated

**Identifying features:** Mouth inferior. Barbels 3 pairs. Short dorsal fin inserted posterior to origin of pelvic fins, and nearer to caudal base than to snout tip. Dorsal fin with 8 to 10 rays (6 to 7 branched). Caudal fin truncated. Scales small,

sides and ventral side of head covered with small scales. 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.

**General information:** Found in flowing or even clear standing waters. aquarium: commercial. Maximum size: 15 cm.

Fisheries: An important aquarium fish.

#### **Order: Siluriformes**

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

# Family: Bagridae

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

#### 29. Mystus bleekeri (Day)



Local name: Tengra (Orissa), Golsha tengra, Palwa, Tengra, Tengara

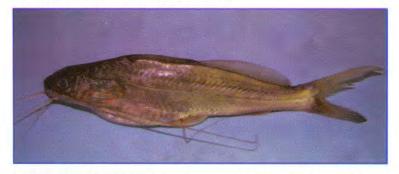
Conservation Status: Least Concern

**Identifying features:** Maxillary barbels extend posteriorly to anal fin. Dorsal spine smooth, rarely finely serrated. Body with two light longitudinal colour bands one above and below the lateral line.

General information: Inhabits lakes, tanks and rivers. Maximum size: 13.5 cm.

Fisheries: A good food fish.

#### 30. Mystus cavasius (Hamilton-Buchanan)



Local name: Tengra (Orissa), Kabasi-tengra, Palwa, Kala-tangidah

Conservation Status: Least Concern

**Identifying features:** Maxillary barbels very long extend posteriorly to beyond caudal fin base. Upper lobe of caudal fin much longer than lower lobe. A dark spot on base of dorsal spine.

**General information:** Found in tidal rivers and lakes; also beels, canals, ditches, ponds, and inundated fields. Maximum size: 40 cm.

Fisheries: An important food fish.

#### 31. Mystus vittatus (Bloch)



Local name: Tengra (Orissa), Kuggur, Palwa

Conservation Status: Least Concern

**Identifying features:** Adipose dorsal fin small or short with considerable interspace between dorsal fin and adipose fin. Body with three or four longitudinal colour bands above and below the lateral line. A narrow dusky shoulder spot often present.

**General information:** Adults inhabit standing and flowing waters. Usually found among marginal vegetation in lakes and swamps with a mud substrate. Feed on plants, shrimps, insects, mollusks and fish. Maximum size: 21 cm.

Fisheries: A good food fish.

#### 32. Sperata aor (Hamilton-Buchanan)



Local name: Singla (Orissa), Aar, Kanti, Gaga Tengra, Daryai Tengra

Conservation Status: Least Concern

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

**General information:** Found in rivers, ponds, lakes, channels and reservoirs. Predatory, adults feed on small fishes and worms. Oviparous, distinct pairing possibly like other members of the same genus. Maximum size: 1.8 m.

Fisheries: An excellent food fish and a potential game fish.

#### 33. Sperata seenghala (Sykes)



Local name: Katrang, Alli, Addi (Orissa), Aar-tengra, Guji, Gagari, Ari, Seenghala

Conservation Status: Least Concern

**Identifying features:** Outer margin of snout truncate.Barbels four pairs, maxillary pair extend to the base of pelvics or a little beyond.Pectoral spine stronger than dorsal and denticulated posteriorly, pectoral fin rays 8 or 9.Caudal fin rays 19 to 21.

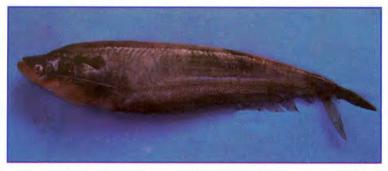
**General information:** Found in rivers, canals, beels, ditches, inundated fields and other freshwater areas. Carnivore. Breeding occurs before the commencement of monsoons. Maximum size: 1.5 cm.

Fisheries: An important game fish and popular to anglers.

#### Family: Siluridae

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

#### 34. Ompok bimaculatus (Bloch)



Local name: Pabtah (Orissa), Puffta, Chechera, Papta, Gugli, Jalkapoor

Conservation Status: Near Threatened

**Identifying features:** Gape of mouth not extending beyond eye.Maxillary barbels long extend slightly beyond anal fin base.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.One spot behind operculum.

**General information:** Found in streams and rivers of all sizes with variable currents. Found in quiet, shallow (0.5-1.5 m), often muddy water, in sandy streams, rivers and tanks. Maximum size 45 cm.

Fisheries: A very tasty and priced fish.

#### 35. Ompok pabda (Hamilton-Buchanan)



Local name: Pabtah (Orissa), Pabda, Pabo, Tambulivapapta

Conservation Status: Near Threatened

**Identifying features:** Gape of mouth not extending beyond eye. Maxillary barbels long extend to middle or tip of pectoral fin. Dorsal fin short with 4 to 5rays, spine absent. Pelvic fin (7 to 9 rays) not reaching anal fin origin. Anal fin long with 50 to 56 rays.

**General information:** Inhabit clear as well as muddy rivers, streams, ponds and lakes. Maximum size: 17 cm.

Fisheries: A tasty food fish of commercial importance.

#### 36. Wallago attu (Schneider)



Local name: Boallee (Orissa), Boal, Boyali, Barwari, Paran, Wallah

Conservation Status: Near Threatened

**Identifying features:** Gape of mouth wide and very long reaching beyond eye posteriorly. Dorsal fin short with 5 rays and devoid of spine. Barbels two pairs, maxillary barbels extending beyond origin of anal fin. Upper lobe of caudal fin longer.

**General information:** Found in large rivers, lakes and tanks. A large, voracious and predatory catfish which thrives in heels with grassy margin; mostly hides under holes in river banks and canals. Associated with deep, still or slow-flowing water with a mud or silt substrate. Sluggish and stays on muddy or silty bottom in search of food. Maximum size: 2 m.

Fisheries: A tasty food fish and a potential game fish.

# Family: Schilbeidae

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

#### 37. Ailia coila (Hamilton-Buchanan)



Local name: Bansputta, Puttuli (Orissa), Kajri, Kojoli, Potasi, Batansi, Minti

Conservation Status: Near Threatened

**Identifying features:** Rayed dorsal fin absent.Barbels 4 pairs, well developed.Adipose dorsal fin small. Anal fin very long with 58 to 75 rays.

**General information:** Found in large rivers and connected waters. Inhabits surface to column-waters. Occurs in shoals. Maximum size: 30 cm.

Fisheries: An esteemed food fish.

#### 38. Clupisoma garua (Hamilton-Buchanan)



Local name: Punia-cathua, Gajri (Orissa), Garrua, Gharwya, Ghero, Gharuwa, Buchua

Conservation Status: Least Concern

**Identifying features:** Abdominal edge keeled between pelvic fins and vent.Barbels 4 pairs, maxillary barbels extend to base of pelvic fins in adults.Adipose dorsal fin absent.Anal fin with 29 to 36 branched rays.

**General information:** Inhabit large fresh water and tidal rivers. Feed on insects, shrimps, other crustaceans and small fish. Oviparous, eggs are unguarded. Maximum size: 1 m.

Fisheries: Commercially important food and game fish.

#### 39. Eutropiichthys murius (Hamilton-Buchanan)



Local name: Muribacha (Orissa), Motusi, Golmuhi, Butchua

Conservation Status: Least Concern

**Identifying features:** Cleft of mouth extends to front border of orbit.Maxillary barbels extend beyond base of pectoral fin.Nasal barbels extend to hind border of orbit.Branchiostegal rays 5.Maximum size: 28 cm.

**General information:** Inhabit rivers, streams and canals. Oviparous, eggs are unguarded.

Fisheries: A relished fish for its rich oil content with less bones.

#### 40. Eutropiichthys vacha (Hamilton-Buchanan)



Local name: Nandi-butchua (Orissa), Vacha, Bacha, Bachawa, Neemuch

Conservation Status: Least Concern

**Identifying features:** Mouth wide, cleft of mouth extends to posterior border of orbit.Barbels 4 pairs, nasal, maxillary and 2 pairs of mandibulars.Maxillary barbels reaching end of pre-opercle or even as long as head.Nasal barbels extend to posterior margin of head.Branchiostegal rays 11.

**General information:** Commonly found in rivers, canals and tidal waters. It attains a length of 40 cm.

Fisheries: An excellent food and game fish.

#### 41. Psedeutropius atherinoides (Bloch)



Local name: Battuli, Bopotassi (Orissa), Potassi, Patasi, Barusa.

Conservation Status: Not Evaluated.

Identifying features: Head covered with skin. Upper jaw elongated and projecting beyond the lower jaw. Teeth villiform in bands on jaws, vomer and palatine teeth in two narrow crescentic patches.4 pairs of barbels, maxillary pair reaching pelvic fins, mandibular pairs equal or slightly longer than head length and nasal longer than head length.

General information: Inhabits freshwater and tidal water

Fisheries: Provides subsistance fishery.

#### 42. Silonia silondia (Hamilton-Buchanan)



Local name: Silon, Dhain, Silond, Banspati

Conservation Status: Least Concern

**Identifying features:** Teeth caniniform on jaws. Two pairs of barbels, maxillary pair minute, mandibular pair usually vestigial or absent. Anal fin with 40 to 46 rays.

**General information:** Inhabit rivers. Occur in shoals. Adults ascend from estuaries into large rivers for breeding during monsoons. After the water level recedes, they often get stranded in small pools. Oviparous, eggs are unguarded. Attains a length of 1 m.

Fisheries: A food fish as well as a game fish.

# Family: Pangasiidae

- Nostril wide apart
- Adipose dorsal fin well developed
- Anal fin elongate with 28 to 34 rays

#### 43. Pangasius pangasius (Hamilton-Buchanan)



Local name: Pungas, Jellum (Orissa), Payas, Ponga, Pangsa.

Conservation Status: Least Concern

**Identifying features:** Body smooth skinned, eyes large with adipose lids, situated on the lower surface of head. Two pairs of barbels, the maxillary reaches posterior base of pectoral fin, mandibular shorter. Dorsal spine moderately strong, strongly serrated posteriorly and also slightly serrated anteriorly. Pectoral spine stronger than dorsal one and serrated posteriorly.

**General information:** Found in large rivers and estuaries. Feeds on snails, other mollusks and plants. Excellent food fish with very white fine grained sweet flesh. Maximum size 1.5 m.

Fisheries: An aquaculture species and considered an important game fish.

#### Family: Sisoridae

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

#### 44. Bagarius bagarius (Hamilton-Buchanan)



Local name: Baghaar, Baghari

Conservation Status: Near Threatened

**Identifying features:** Body elongated, head depressed and body covered with keratinized skin. Mouth inferior, upper jaw longer. Barbels 4 pairs, maxillary pair with stiff and broad bases. Dorsal spine smooth. Pelvic fin inserted anterior to base of last dorsal fin rays. Adipose fin inserted posterior to anal fin origin. Pectoral fin rays 9 to 12. Body with large, irregular brown and black blotches or cross bands.

General information: Inhabits rapid and rocky pools of large and medium-sized rivers. Feeds on insects, small fishes, frogs and shrimps. Breeds in rivers prior to the beginning of the annual flood season. Marketed fresh. Important as a food fish, but the meat spoils rapidly and can cause illness. Reported length of 200 cm is incorrect (Maurice Kottelat, pers. comm. with hint to Roberts 1982 (not seen). Maximum attaining length 19 cm.

Fisheries: Provides subsistance fishery.

#### 45. Erethistes pussilus (Muller & Troschel)



Local name: Tinkantia

Conservation Status: Least Concern

**Identifying features:** Body flattened ventrally.Barbels 4 pairs; one pair each of maxillary and nasal, and two pairs of mandibular. Maxillary with broad bases reaching 1/3<sup>rd</sup> of pectorals, mandibulars reach gill openings and nasal not reaching anterior margin of orbit.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.Caudal fin truncate.

**General information:** Occurs mainly in hill streams. Found in muddy parts of rivers overgrown with vegetation. Maximum attaining length 5 cm.

Fisheries: Little commercial value.

#### 46. Gagata gagata (Hamilton-Buchanan)



Local name: Gagla

Conservation Status: Near Threatened

**Identifying features:** Snout tip broadly rounded. Dorsal fin relatively large, extending to adipose origin. Dorsal spine long, finely serrated along distal third of anterior edge.

Maxillary barbels shorter than head. Pelvic fins extend to anal fin. Caudal fin spotless or with fine black margins.

**General information:** Inhabits rivers, also found in tidal water. Maximum size: 30.5 cm.

Fisheries: Provides subsistance fishery.

# **Order: Cyprinodontiformes**

- Body with scales
- No spines on fins
- Single dorsal fin
- Dorsal and anal fins short to moderate based
- Lateral line may be absent

## Family: Belonidae

- Body elongate, slender, head with scales
- Both jaws elongated as a beak
- Sharp teeth on jaws
- Dorsal and anal fins posterior in position

#### 47. Xenentodon cancila (Hamilton-Buchanan)



Local name: Gongituri (Orissa), Kakila, Kankley, Thona

Conservation Status: Least Concern

**Identifying features:** Body very elongate. Both jaws prolonged into a beak. Dorsal fin inserted nearly opposite to anal fin, dorsal fin with 15 to 18 rays. Anal with

16 to 18 rays. Pelvic fin small, inserted nearer to caudal fin. Lateral line on posterior half of the body. Caudal fin truncate.

**General information:** Inhabits Freshwaters Rivers. This is an elegant surface-living fish Maximum size 40 cm.

Fisheries: An important food fish.

#### **Order: Perciformes**

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

## Family: Ambassidae

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

### 48. Chanda nama (Hamilton-Buchanan)



Local name: Cart-kama, Goa-Chappi (Orissa), Chanda, Channe

Conservation Status: Least Concern

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

**General information:** Found in lentic and lotic waters; clear streams, canals, beels, ponds, and inundated paddy fields.

Fisheries: Afood fish with potential of rearing as a aquarium fish.

#### 49. Pseudambassis lala (Hamilton-Buchanan)



Local name: Lal chanda (Orissa), Kat chanda

Conservation Status: Near Threatened

**Identifying features:** Body small and almost rounded.Mouth oblique.2<sup>nd</sup> spine of 1<sup>st</sup> dorsal fin elongate.Lateral line with 90 scales.Brilliantly coloured fish, body orange-yellow with longitudinal dusky bands.

General information: Found in ponds, rivers, ditches and pools. Enters brackish waters. Maximum size 3 cm (SL).

Fisheries: A potential aquarium fish.

#### 50. Pseudambassis ranga (Hamilton-Buchanan)



Local name: Laal-chandee (Orissa), Ranga-chanda, Chanari

Conservation Status: Least Concern

**Identifying features:** Body oblong, deeply compressed.1st dorsal with 7 spines and 2nd dorsal with one spine and 11 to 14 rays. Mouth oblique, lower jaw more or less equals to upper jaw. Caudal fin forked. Lateral line with 47 to 63 scales.

General information: Found in sluggish and standing water. A common species proliferating in impoundments. Most abundant during the rainy season. Feeds on invertebrates, worms and crustaceans. Breeds everywhere during the rains. Builds a nest and guards its young. Rare in markets and often found in the aquarium trade. Maximum size 8 cm.

Fisheries: A food fish and an important aquarium fish.

## Family: Nandidae

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

#### 51. Badis badis (Hamilton-Buchanan)



Local name: Bundej, Kahleepoce, Kunkakie (Orissa), Bhedo, Botkoi, Sumha

Conservation Status: Least Concern

**Identifying features:** Mouth small, lower jaw longer, oblique and slightly protrusible. Operculum distinctly triangular, its posterior corner with a prominent spine. Dorsal fin large with 16 to 18 slender and short spines and 7 to 10 rays. Anal fin with 3 short spines and 6 to 8 rays. Caudal fin rounded. Lateral line interrupted; 26 to 30 scales in longitudinal series. Body with a series of black and dirty red alternate bands in adult fish.

General information: Inhabits freshwaters; in rivers, ponds and ditches. Maximum size 9 cm.

Fisheries: A potential aquarium fish.

#### 52. Nandus nandus (Hamilton-Buchanan)



Local name: Bodisis, Gossiporah (Orissa), Nadosh, Meni, Bheda, Vaadhul

Conservation Status: Least Concern

**Identifying features:** Mouth very large, highly protrusible, cleft deep, maxillae reach hind edge of orbit. Operculum triangular with a prominent spine. A single notched dorsal with 12 to 14 spines and 11 to 13 rays, spinous part longer than soft part; dorsal spines strong.

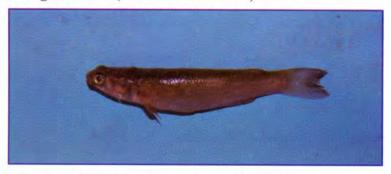
General information: Inhabits fresh and brackish waters, ditches and inundated fields. Maximum size 20 cm.

Fisheries: A priced food fish particular in West Bengal.

## Family: Mugilidae

- Body oblong to elongate, cylindrical or slightly compressed
- Head and body with scales
- Mouth small, terminal or inferior
- Eyes with or without adipose eyelids
- Caudal fin forked, emarginate or truncate
- Lateral line absent

#### 53. Rhinomugil corsula (Hamilton-Buchanan)



Local name: Kakunda (Orissa), Khursula, Elanga, Kannua.

Conservation Status: Least Concern

**Identifying features:** Head depressed, concave between eyes. Eyes prominent, bulging and almost on top of head. Adipose eyelids absent. Mouth distinctly ventral. Jaw teeth indistinct. 1<sup>st</sup> dorsal fin inserted nearer to caudal fin base than to tip of snout. Caudal fin slightly emerginate. Colour: Brownish above, silvery below.

**General information:** Inhabits fresh and brackish water. Attains a length of 46 cm.

Fisheries: A tasty food fish.

# Family: Gobiidae

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

## 54. Glossogobius giuris (Hamilton-Buchanan)



Local name: Bele, Bailla Conservation Status: NE

**Identifying features:** Body elongate, anteriorly cylindrical and posteriorly compressed. Head depressed, and naked (with scale) between and before eyes. Mouth slightly oblique, lower jaw prominent. Dorsal fins separated, 1<sup>st</sup> dorsal with 6 weak spines and 2<sup>nd</sup> dorsal with one spine and 8 to 9 rays. Pelvic fins united forming a disc. Body yellowish-brown with 4 to 5 dark blotches on flank.

**General information:** Inhabits primarily freshwater and estuaries; also the sea. Maximum size 30 cm.

Fisheries: An important food fish.

#### Family: Belontiidae

- Body deep and strongly compressed
- Opercle and inter-opercle not serrate
- Dorsal fin with 4 to 19 spines
- Anal fin with 4 to 22 spines
- Lateral line usually vestigial or absent

#### 55. Colisa lalia (Hamilton-Buchanan)



Local name: Lal khalisha, Boicha, Ranga Khalisha

Conservation Status: Not Evaluated

**Identifying features:** Mouth strongly protractible. Pre-orbital denticulate. Dorsal fin with 15 to 17 spines and 7 to 10 rays. Anal fin with 17 to 18 spines and 13 to 17 rays. Soft dorsal and anal fins rounded. Caudal fin rounded to truncate. Anal fin densely scaled. Lateral line absent. Colour: Body scarlet crossed by oblique bands of pale blue. Fins with scarlet spots and anal fin with a red margin.

**General information:** Inhabits stagnant puddles and small river. Maximum size 5 cm.

Fisheries: An important aquarium fish.

## Family: Channidae

- Body elongate and cylindrical
- Dorsal and anal fins very long and entirely soft rayed
- Snake-like head and covered with scale
- Pelvic fins usually present

#### 56. Channa marulius (Hamilton-Buchanan)



Local name: Chenga (Orissa), Sal, Gajal, Bhor

Conservation Status: Least Concern

**Identifying features:** Mouth large, deeply cleft, maxilla extends behind orbit. Dorsal fin with 45 to 55 soft rays. Anal fin with 28 to 36 soft rays. 60 to 70 scales in lateral series. 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 occllus at upper part of the base of caudal fin. Juveniles with an orange band extending from eye to caudal fin.

**General information:** Inhabits large lakes and rivers; prefers deep, clear stretches of water with sandy or rocky bottom. Maximum size 122 cm.

Fisheries: A good food fish and potential sport fish.

#### 57. Channa punctatus (Bloch)



Local name: Gorissa (Orissa), Lata, Taki, Phool-dhok

Conservation Status: Not Evaluated

**Identifying features:** Body elongated, scales on head large. Mouth large, lower jaw longer, maxilla reaching to below hind border of eye. Lower jaw with 3 to 6 canines. Dorsal fin with 28-33 rays. Anal fin with 20-23 rays. Pelvic fin about 75% of pectoral fin length. 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.

**General information:** Found in large freshwater ponds, tanks, rivers generally in the plains. Prefers stagnant water in muddy stream. Prolific breeders. It attains a length of 31 cm.

Fisheries: A good food fish.

#### 58. Channa striatus (Bloch)



Local name: Sola (Orissa), Shol, Morrul, Soura

Conservation Status: Not Evaluated

**Identifying features:** Body elongated, scales on head large. Mouth large, lower jaw longer with 4 to 7 canines. Maxilla reaching behind hind border of eye. Dorsal

fin with 37-47 rays. Anal fin with 23-29 rays. 50 to 57 scales in lateral series. 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.

**General information:** Inhabits freshwater ponds, streams and tanks of plains; prefers stagnant muddy waters and grassy tanks. Maximum size75 cm.

Fisheries: A good food fish.

## Family: Mastacembelidae

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

## 59. Macrognathus pancalus (Hamilton-Buchanan)



Local name: Turi, Behru, Baira (Orissa), Pangkal, Gaincha, Patya, Malga

Conservation Status: Least Concern

**Identifying features:** Pre-orbital spine strong and pierces skin. Pre-opercle with 2 to 5 spines. Mouth small, teeth on jaws minute. Dorsal fin inserted above middle of pectoral fins. Dorsal fin with 24 to 26 spines. Caudal fin not united with dorsal

and anal fins. 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.

**General information:** Inhabits Rivers of plains and estuaries. Maximum size 18 cm.

Fisheries: A food fish.

#### 60. Mastacembelus armatus (Lacepede)



Local name: Bammi, Gonti, Bahm (Orissa), Bam, Bami

Conservation Status: Least Concern

Identifying features: Tri-lobed snout tip.Pre-orbital spine strong.Pre-opercle with 2 or 3 spines.Mouth small, sharp teeth on both jaws.Spinous dorsal fin inserted above middle of pectoral fin, last dorsal spine small.Dorsal fin with 37-38 spines.Dorsal and anal fins broadly joined to caudal fin.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.

**General information:** Inhabits fresh and brackish waters in plains and hills. Also available in fresh water rivers. Maximum size attaining 61 cm.

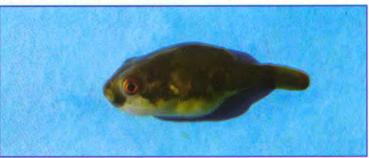
Fisheries: A food fish.

#### **Order: Tetraodontiformes**

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

## Family: Tetraodontidae

- Head large
- Jaws with fused teeth, fused two teeth on both jaws
- Eyes widely separated, located high on head
- Dorsal and anal fins inserted far posteriorly and no fin spines
- Pelvic fin absent
- Caudal fin truncate, rounded or emarginated
- Lateral line when present, often indistinct
- Body covered with spinules on back or sides of the body
- 61. Tetraodon cutcutia (Hamilton-Buchanan)



Local name: Teepa-Bengti (Orissa), Tepa

Conservation Status: Least Concern

**Identifying features:** Mouth terminal. Fins rounded. Skin leathery, without dermal spinules. Dorsal fin with 10-13 rays. Anal fin with 10-12 rays.

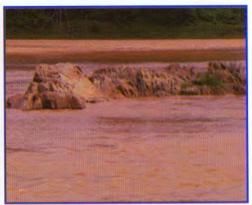
General information: Inhabits fresh and brackish waters.

Fisheries: Not commercially utilized.

# Habitat profile of river Brahmani

# Vedvyas (US)







Elevation	196 m
Width of wetted channel	400 m
Depth	9ft (Av.)
Water velocity(m/sec)	1.4 (Av.)
Substrate composition	Boulders 35%, cobbles 25% Clay / others 35%
Other information	Confluence Koel/Shank Crematory, Ritual activities

# Panposh





Elevation	190 m
Width of wetted channel	350 m
Depth	12ft (Av.)
Water velocity(m/sec)	1.3 (Av.)
Substrate composition	Sand 25% Clay / others 75%
Other information	Domestic sewage

# Timjor

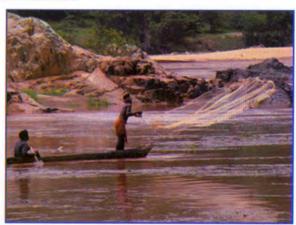




Elevation	187 m
Width of wetted channel	500 m
Depth	10ft (Av.)
Water velocity(m/sec)	1.3 (Av.)
Substrate composition	Sand 45%, Cobbles 30% Clay / others 25%
Other information	Erosin, Sandification, Agricultural runoff

# Darjing





Elevation	178 m
Width of wetted channel	600 m
Depth	12ft (Av.)
Water velocity(m/sec)	1.4 (Av.)
Substrate composition	Clay and sand55% Boulders 30%, cobbles 20%
Other information	

# Sirigida







Elevation	136 m
Width of wetted channel	400 m
Depth	5.9ft (Av.)
Water velocity(m/sec)	0.5 (Av.)
Substrate composition	Coarse sand 65%, Clay 35%
Other information	Discharge point of Talcher collieries

# Kamalanga





Elevation	90 m
Width of wetted channel	400 m
Depth	5 ft (Av.)
Water velocity(m/sec)	0.7 (Av.)
Substrate composition	Sand 70%, Clay 30%
Other information	Effluent discharge point of NALCO

# Bijigol

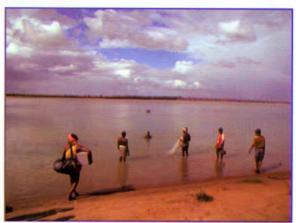




Elevation	86 m
Width of wetted channel	500 m
Depth	21ft (Av.)
Water velocity(m/sec)	0.3 (Av.)
Substrate composition	Boulders 35%, Cobbles 25% Clay 65%, Sand 35%
Other information	Effluent discharge point of Talcher power plant

# Marjidapur





Elevation	48 m
Width of wetted channel	400 m
Depth	7.4ft (Av.)
Water velocity(m/sec)	0.2 (Av.)
Substrate composition	Sand 75%,Clay 25%
Other information	Pollution absent

# Jenapur





Elevation	34 m
Width of wetted channel	700 m
Depth	5ft (Av.)
Water velocity(m/sec)	0.2 (Av.)
Substrate composition	Sand 85% ,Clay 15%
Other information	Pollution absent

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