



Gobies (Actinopterygii, Gobiiformes) diversity in the Rupnarayan River, West Bengal, India

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Abstract

A total of 16 species under 13 genera in 4 families of Gobiiformes have been recorded from the Rupnarayan river. Of these *Bostrychus sinensis* is being reported for the first time from Indian mainland and *Bathygobius ostreicola* is being recorded for the first time from West Bengal. Four species viz., *Acentrogobius viridipunctatus*, *Butis butis*, *Taenoides buchanani* and *Taenoides cirratus* are being reported for the first time from Purba Medinipur district and 14 species viz., *Acentrogobius viridipunctatus*, *Apocryptes bato*, *Bathygobius ostreicola*, *Boleophthalmus boddarti*, *Bostrychus sinensis*, *Butis butis*, *Butis koilomatodon*, *Eleotris fusca*, *Eleotris melanosoma*, *Odontamblyopus rubicundus*, *Periophthalmus modestus*, *Pseudapocryptes elongatus*, *Taenoides buchanani* and *Taenoides cirratus* are being reported for the first time from Rupnarayan river. *Periophthalmus weberi* appears to have gone locally extinct in this River.

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Introduction

Gobiiformes, the gobies and their relatives, is one of the world's most varied vertebrate lineages with over 2200 species distributed under more than 200 genera (Nelson *et al.*, 2016). Gobies are found in tropical and subtropical waters, especially on coral reefs and estuaries and only 10% of which are found in freshwater (Helfman *et al.*, 2009). Although some species are consumed by man mostly these are prey of economically valuable fish species. Some species are also valuable as ornamental fish (Patzner *et al.*, 2012). Chatterjee and Mishra (2012) reported 174 gobioid species under 69 genera from India of which 45 species under 37 genera are found in Sundarbans of West Bengal (Chatterjee *et al.*, 2013) and 23 species have been recorded so far from Purba Medinipur district (Jayram, 1981; Chatterjee *et al.*, 2000; Yennawar *et al.*, 2015, 2017; Payra *et al.*, 2018; Hossain *et al.*, 2019; Pahari *et al.*, 2020; Khan and Mandal, 2024). Yennawar *et al.* (2017) and Chatterjee *et al.* (2000) recorded 14 and 9 species of gobies respectively from the coastal region of Digha, Purba Medinipur district, whereas, Payra *et al.* (2018) and Khan and Mandal (2024) each have reported 4 species of gobies from Egra and Ramnagar of this district. While Hossain *et al.* (2019) recorded *Butis koilomatodon* from Sankarpur, Sit *et al.* (2020) recorded *Glossogobius giuris* and *Stigmatogobius sadanundio* from Purba Medinipur district. River Rupnarayan, however, has remained rather unexplored in this regard. Gobiids recorded so far from this river are *Periophthalmus weberi*, *G. guiris* and *S. sadanundio* as reported by Jayram (1981), Ghorai (2018) and Pahari *et al.* (2020) respectively. Under such backdrop the present study on the diversity of order Gobiiformes of the Rupnarayan River, which constitutes the eastern border of Purba Medinipur district, was under taken.

Materials and methods

A survey was conducted in the Rupnarayan river (22°30'29"N 87°53'12"E- 22°12'21"N 88°02'53"E), Purba Medinipur district, West Bengal between October 2020 to September 2022. Specimens were collected from 10 sampling sites viz., Saluka, Marberya, Kolaghat, Jamitya, Mathuri, Tamluk, Narayanpur, Danipur, Banka, Geonkhali along a 45 km stretch of the estuarine zone of the river (Fig. 1). The specimens, collected using trawl and cast nets, were immediately preserved in 70% ethanol. Taxonomically important body parts were dissected and examined under a stereoscopic binocular (Magnus MSZ - Bi) in laboratory for identification. Species were identified using standard literature including Day (1889), Jayram (1981) and Nelson *et al.* (2016).

Jamitya, Mathuri, Tamluk, Narayanpur, Danipur, Banka, Geonkhali along a 45 km stretch of the estuarine zone of the river (Fig. 1). The specimens, collected using trawl and cast nets, were immediately preserved in 70% ethanol. Taxonomically important body parts were dissected and examined under a stereoscopic binocular (Magnus MSZ - Bi) in laboratory for identification. Species were identified using standard literature including Day (1889), Jayram (1981) and Nelson *et al.* (2016).

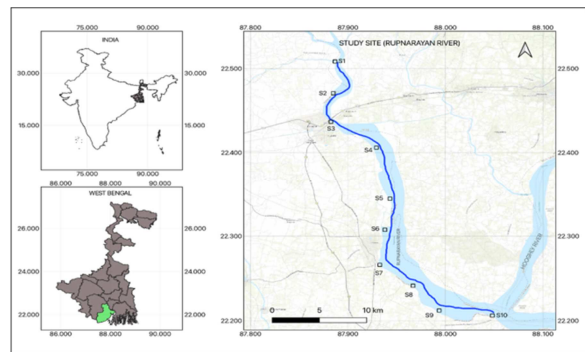


Fig. 1. Sampling sites (Rupnarayan river) S1: Saluka, S2: Marberya, S3: Kolaghat, S4: Jamitya, S5: Mathuri, S6: Tamluk, S7: Narayanpur, S8: Danipur, S9: Banka, S10: Geonkhali.

Results and discussion

In all 52 examples of Gobiiformes were collected during the survey which represented 16 species belonging to 13 genera under 4 families. An annotated list, including synonyms, diagnostic characteristics and distribution, is given below:

I. Family: Eleotridae Bonaparte, 1835

01. *Eleotris fusca* (Forster, 1801) [Fig. 2]

Common Name: Dusky sleeper

Synonyms:

Poecilia fusca Forster, 1801

Culius fuscus (Forster, 1801)

Culius niger (Quoy & Gaimard, 1824)

Eleotris niger Quoy & Gaimard, 1824

Eleotris nigra Quoy & Gaimard, 1824

Eleotris fornasini Bianconi, 1855

Eleotris fornasinii Bianconi, 1855

Eleotris cavifrons Blyth, 1860

Eleotris klunzingerii Pfeffer, 1893



Fig. 2. *Eleotris fusca*

Material examined: Tamluk (Streamer ghat) 2 (5.7 cm, 3.6 cm), 24.11.2020; Mathuri 1 (4.1 cm), 27.02.2021; Geonkhali 1 (3.3 cm), 10.02.2021; Danipur 2 (6.6 cm, 5.2 cm), 28.09.2021.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 8 rays; anal fin with 1 spine, 8 soft rays; caudal fin with 24 rays; pectoral fin with 15 rays; pelvic fin separated with 1 spine, 5 soft rays; caudal fin rounded; longitudinal line with 60-64 scales; tongue rounded; preopercular spine present; dark brown to black in colour; horizontal lines on body; mouth oblique, cleft extended to anterior portion of eyes.

Distribution:

Global: Bangladesh, East and South Africa, French Polynesia, India, New Caledonia, Red Sea, Ryukyu Islands.

India: Andhra Pradesh, Kerala, Odisha, West Bengal.

West Bengal: Digha Coast, Hooghly estuary, Sundarbans.

Remark: Commercially used as aquarium fish. Reported for the first time from Rupnarayan River.

02. *Eleotris melanosoma* Bleeker, 1853 [Fig. 3]

Common Name: Broadhead sleeper

Synonym:

Eleotris melanura Bleeker, 1849

Eleotris pseudacanthopomus Bleeker, 1853

Culius melanosoma (Bleeker, 1853)

Culius insulindicus Bleeker, 1875

Eleotris hainanensis Chen, 1933



Fig. 3. *Eleotris melanosoma*

Material examined: Tamluk (Sankarwara canal) 2 (9.6 cm, 12.5 cm), 05.06.2021; Saluka 1 (3.4 cm), 31.10.2020; Mathuri 1 (8.9 cm), 22.03.2022.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 8 rays; anal fin with 1 spine, 8 soft rays; caudal fin with 22 rays; pectoral fin with 17 rays; pelvic fin separated with 1 spine, 5 soft rays; tongue rounded; longitudinal line with 64-66 scales; body dark brown to black with longitudinal lines; fins spotted in young, black in mature individuals; mouth oblique, cleft extended to anterior portion of eyes.

Distribution:

Global: East Africa, Japan, Society Islands in the Pacific, Vanuatu.

India: Andhra Pradesh, West Bengal.

West Bengal: Digha Coast, Hooghly estuary, North and South 24 Parganas, Sundarbans.

Remark: Reported for the first time from Rupnarayan River.

II. Family Butidae Bleeker, 1874

03. *Bostrychus sinensis* Lacepède, 1801 [Fig. 4]

Common Name: Four-eyed sleeper

Synonym: *Bostrichthys sinensis* (Lacepède, 1801)



Fig. 4. *Bostrychus sinensis*

Material examined: Banka (Mahishadal) 2 (7.9 cm, 8.5 cm), 29.11.2020.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 11 rays; anal fin with 1 spine, 8 soft rays; pelvic fin separated; pectoral fin with 17 rays; small cycloid scales, 90-92 scales on longitudinal line; lacks canine teeth on jaws; a dark spot on the base of caudal fin.

Distribution:

Global: Indo-Pacific: Australia, China, India, Japan, Taiwan.

India: Andaman Islands.

Remark: The species being recorded for the first time from West Bengal as well as from mainland India.

04. *Butis butis* (Hamilton, 1822) [Fig. 5]

Common Name: Duckbill sleeper

Synonyms:

Cheilodipterus butis Hamilton, 1822

Eleotris butis (Hamilton, 1822)



Fig. 5. *Butis butis*

Material examined: Tamluk (Sankarwara canal) 2 (8.3 cm, 11.2 cm), 04.12.2020; Narayanpur 1 (11.5 cm), 10.05.2021.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 8 rays; anal fin with 1 spine, 8 soft rays; anal fin with 8-9 rays; longitudinal line with 29-30 scales; pre-dorsal scale 20-25 in number; dark longitudinal lines on body; caudal fin black with light margin dorsally; pectoral fin base with 1 black spot; teeth in outer row enlarged; head flat, snout pointed, lower jaw projecting beyond snout, upper jaw extending to anterior part of eye.

Distribution:

Global: Indo-West Pacific: East Africa to Fiji.

India: Andhra Pradesh, Kerala, Odisha, West Bengal.

West Bengal: South 24 Pargana, Sundarbans.

Remark: Reported for the first time from Purba Medinipur district.

05. *Butis koilomatodon* (Bleeker, 1849) [Fig. 6]

Common Name: Mud sleeper

Synonyms:

Butis caperatus (Cantor, 1849)

Prionobutis koilomatodon (Bleeker, 1849)

Eleotris koilomatodon Bleeker, 1849

Eleotris caperatus Cantor, 1849

Eleotris delagoensis Barnard, 1927

Hypseleotris raji Herre, 1945



Fig. 6. *Butis koilomatodon*

Material examined: Geonkhali 1 (6.9 cm), 06.08.2021; Tamluk (Sankarwara canal) 1 (8.7 cm), 17.01.2022; Narayanpur 1 (8.4 cm), 23.04.2022.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 8 rays; anal fin with 1 spine, 8 soft rays; caudal fin rounded with 16 rays; pectoral fin with 19 rays; pectoral fin base start slightly down to the operculum; pelvic fin separated with 1 spine, 5 soft rays; tongue rounded; longitudinal line with 30-32 scales; pre-dorsal scale 37-39 in number; body colour and edged of scales dark brown; anterior part of 1st dorsal fin dark; 2nd dorsal, caudal fin with alternating dark brown and white bands; anal, pelvic fins dusky to black.

Distribution:

Global: Indo-Pacific: Brazil, China, Delagoa Bay, Madagascar, Mozambique, Panama, Philippines, Venezuela.

India: Andaman Islands, West Bengal.

West Bengal: Purba Medinipur (Sankarpur).

Remark: Reported for the first time from Rupnarayan river.

III. Family Oxudercidae Günther, 1861

06. *Boleophthalmus boddarti* (Pallas, 1770) [Fig. 7]

Common Name: Boddart's goggle-eyed goby

Synonyms:

Gobius boddarti Pallas, 1770

Gobius striatus Bloch & Schneider, 1801

Gobius plinianus Hamilton, 1822

Boleophthalmus inornatus Blyth, 1860

Boleophthalmus sculptus Günther, 1861



Fig. 7. *Boleophthalmus boddarti*

Material examined: Jamitya 2 (10 cm, 6.7 cm), 14.12.2020; Kolaghat 1 (11.5 cm), 10.08.2021; Geonkhali 1 (8.6 cm), 10.09.2022.

Diagnostic characters: First dorsal fin with 5 spines, second dorsal fin with 27 rays; anal fin with 24-25 soft rays; caudal fin oblong with 17 rays and pectoral fin with 18 rays; pelvic fin united with 11 soft rays; longitudinal line with 77-78 scales; pre-dorsal scale in 25-30 in number; body with 7-8 oblique bands; tongue truncate; mouth cleft extend beyond anterior portion of the eye; eyes are prominent, present on top of the head and close together.

Distribution:

Global: Bangladesh, Cambodia, India, Malaysia, Myanmar, Singapore, Sri Lanka, Thailand, Vietnam.

India: Andaman & Nicobar Islands, Andhra Pradesh, Goa, Gujrat, Maharashtra, Odisha, Tamil Nadu, West Bengal.

West Bengal: North 24 Pargana, Purba Medinipur (Digha coast), Sundarbans.

Remark: Reported for the first time from Rupnarayan river.

07. *Apocryptes bato* (Hamilton, 1822) [Fig. 8]

Common Name: Chiring goby

Synonyms:

Gobius bato Hamilton, 1822

Apocryptes batoides Day, 1876

Parapocryptes batoides (Day, 1876)

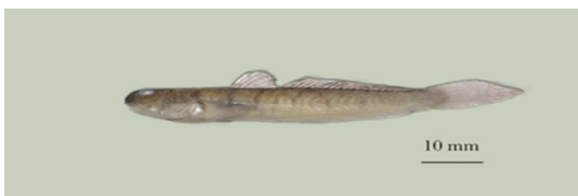


Fig. 8. *Apocryptes bato*

Material examined: Banka (Mahisadal) 1 (8 cm), 07.11.2021; Mathuri 1 (8.3 cm), 01.04.2022.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 21-22 rays; anal fin with 21-23 rays, pectoral fin with free silk like rays, pelvic fin united; caudal fin with 17-18 rays; tongue rounded; body with 6-7 vertical narrow, brown stipes along dorsal side.

Distribution:

Global: Indian Ocean: Bangladesh, India, Myanmar.

India: Odisha, Tripura, West Bengal.

West Bengal: Purba Medinipur (Digha coast), Paschim Medinipur.

Remark: Commercially used as food resource. Reported for the first time from Rupnarayan river.

08. *Taenioides cirratus* (Blyth, 1860) [Fig. 9]

Common Name: Bearded worm goby

Synonyms:

Amblyopus cirratus Blyth, 1860

Gobioides cirratus (Blyth, 1860)

Amblyopus brachygaster Günther, 1861

Taenioides brachygaster (Günther, 1861)

Taenioides snyderi Jordan & Hubbs, 1925



Fig. 9. *Taenioides cirratus*

Material examined: Geonkhali 1 (14.6 cm), 10.07.2021; Danipur 1 (12.3 cm), 22.12.2021; Tamluk (Sankarwara canal) 1 (13.1 cm), 13.01.2022.

Diagnostic characters: Dorsal fin with 6 spines, 43-45 soft rays; anal fin with 1 spine, 42-45 soft rays; dorsal, anal fin separated from caudal fin by a distinct notch; pectoral fin much shorter than pelvic fin; pelvic fin united; tongue rounded; canine teeth present in both jaws; mouth nearly vertical.

Distribution:

Global: Bangladesh, China, India, Indonesia, Japan, New Caledonia, Papua New Guinea, Philippines, Thailand.

India: Andaman Islands (Port Blair), Andhra Pradesh, West Bengal.

West Bengal: Kolkata, North and South 24 Parganas, Sundarbans.

Remark: Reported for the first time from Purba Medinipur district.

09. *Taenioides buchanani* (Day, 1873) [Fig. 10]

Common Name: Burmese gobyeel

Synonyms:

Amblyopus buchanani Day, 1873

Gobioides buchanani (Day, 1873)



Fig. 10. *Taenioides buchanani*

Material examined: Danipur 1 (20 cm), 06.12.2020; Tamluk (Steamer Ghat) 2 (15.3 cm, 19.2 cm), 30.04.2021.

Diagnostic characters: Dorsal fin with 6 spines, 42-43 rays; anal fin with 1 spine, 41 rays; pelvic fin united, pectoral fin with 15-17 rays, much shorter than pelvic fin; dorsal fin, anal fin continuous with caudal fin; vertical fin with black edge; pectoral fin and pelvic fin blackish at the marginal end; 11 and 8 canine teeth on lower jaw and upper jaw projecting outside the mouth.

Distribution:

Global: Bangladesh, China, India.

India: Andaman (Port Blair), Andhra Pradesh, West Bengal.

West Bengal: Kolkata, Sundarbans.

Remark: Reported for the first time from Purba Medinipur district.

10. *Odontamblyopus rubicundus* (Hamilton, 1822) [Fig. 11]

Common Name: Rubicusdus eel goby

Synonyms:

Gobioides rubicundus Hamilton, 1822

Taenioides rubicundus (Hamilton, 1822)

Amblyopus mayenna Valenciennes, 1837

Amblyopus taenia Günther, 1861



Fig. 11. *Odontamblyopus rubicundus*

Material examined: Tamluk 1 (9.5 cm), 26.10.2021; Saluka 1 (10.8 cm), 11.06.2022.

Diagnostic characters: First dorsal with 6 spines, second dorsal with 35-38 rays; anal fin with 33-35 rays; dorsal, anal fins almost continued with caudal fin; caudal fin with 15 rays; pectoral fin long with 28-30 rays; pelvic fins united; caudal fin pointed and long; caudal fin black, other fins reddish; body elongated; 8 canine teeth present on upper jaw and 8-10 canine teeth on lower jaw; barbells present on chin; mouth oblique, cleft widely extended.

Distribution:

Global: Indo-West Pacific: Bangladesh, India, Indonesia, Myanmar, Philippines, South Korea, Thailand.

India: Andhra Pradesh, Gujrat, Kerala, Odisha, West Bengal.

West Bengal: Kalyani, Purba Medinipur (Digha coast), Paschim Medinipur.

Remark: It has good market value due to its taste. Reported for the first time from Rupnarayan river.

11. *Periophthalmus modestus* Cantor, 1842 [Fig. 12]

Common Name: Shuttles hopfish

Synonym:

Apocryptes cantonensis Osbeck, 1757

Cyprinus cantonensis Osbeck, 1765

Periophthalmus cantonensis (Osbeck, 1765)



Fig. 12. *Periophthalmus modestus*

Material examined: Geonkhali 1 (6.9 cm), 29.10.2021; Banka (Mahisadal) 1 (7.2 cm), 09.05.2022.

Diagnostic characters: First dorsal with 10-17 spines, second dorsal with 12-14; dorsal fins not connected by membrane; anal fin with 11-13 rays; pelvic fins united anteriorly by a frenum; longitudinal scale count 75-90.

Distribution:

Global: Northwest Pacific: India, Japan, Korea, Vietnam.

India: West Bengal.

West Bengal: Purba Medinipur, Paschim Medinipur.

Remark: Reported for the first time from Rupnarayan River.

12. *Pseudapocryptes elongatus* (Cuvier, 1816) [Fig. 13]

Common Name: Elongate Mudskipper

Synonyms:

Apocryptes lanceolatus (Bloch & Schneider, 1801)

Eleotris lanceolata Bloch & Schneider, 1801

Pseudapocryptes lanceolatus (Bloch & Schneider, 1801)

Gobius elongatus Cuvier, 1816

Pseudopocryptes elongatus (Cuvier, 1816)

Apocryptes changua (Hamilton, 1822)

Gobius changua Hamilton, 1822

Apocryptes dentatus Valenciennes, 1837

Boleophthalmus taylori Fowler, 1934

Apocryptodon edwardi Fowler, 1937



Fig. 13. *Pseudapocryptes elongatus*

Material examined: Geonkhali 2 (9.3 cm, 8.5 cm), 25.03.2021; Tamruk (Sankarwara canal) 2 (12.4 cm, 11.6 cm), 14.08.2021; Danipur 1 (7.6 cm), 30.01.2022.

Diagnostic characters: Dorsal fins nearly continuous; first dorsal fin with 5 spines, second dorsal fin with 27-29 rays; pelvic fin united and oblong; pectoral fins without free silk-like rays and base scaled; anal fin with 28-31 rays; caudal fin lanceolate; body very elongate; head sub-cylindrical; eyes small; mouth nearly horizontal, teeth on both jaws, uniserial, pointed; tongue rounded; gill-openings not very wide.

Distribution:

Global: Bangladesh, Cambodia, China, India, Indonesia, Japan, Malaysia, Myanmar, Singapore, Tahiti, Taiwan, Thailand, Vietnam.

India: Found in mudflats mostly in east coast of India: Kerala, Odisha, Tamil Nadu, West Bengal.

West Bengal: North and South 24 Parganas, Purba Medinipur, Paschim Medinipur, Sundarbans.

Remark: Reported for the first time from Rupnarayan River.

13. *Stigmatogobius sadanundio* (F. Hamilton, 1822) [Fig. 14]

Common Name: Spotted goby

Synonyms:

Gobius sadanundio Hamilton, 1822

Gobius apogonius Cantor, 1849



Fig. 14. *Stigmatogobius sadanundio*

Material examined: Narayanpur 2 (5.7 cm, 6.1 cm), 21.12.2020; Saluka 2 (6.3 cm, 4.9 cm), 08.02.2021; Danipur 1 (4.6 cm), 16.03.2021.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 8 soft rays; anal fin with 1 spine, 8 soft rays; caudal fin rounded with 20 rays; pectoral fin with 17 rays; pelvic fin united; longitudinal line with 30 scales; pre-dorsal scale 9 in number; tongue rounded; the body grey with three or four roughly aligned rows of round black spots along the sides; bases

of dorsal and anal fins with elongate spots and streaks; elongate blackish spot on first dorsal fin between third to fifth dorsal fin spines.

Distribution:

Global: Asia: India, Indonesia, Singapore, Sri Lanka.

India: Andaman & Nicobar Islands, Andhra Pradesh, Odisha, West Bengal.

West Bengal: North and South 24 Parganas, Purba Medinipur.

Remark: Important ornamental fish. Potential bio-control agent of mosquito larvae (Pahari *et al.*, 2020).

IV. Family Gobiidae G. Cuvier, 1816

14. *Acentrogobius viridipunctatus* (Valenciennes, 1837) [Fig. 15]

Common Name: Spotted green goby

Synonyms:

Creisson sealei Smith, 1931

Acentrogobius sealei (Smith, 1831)

Gobius viridipunctatus Valenciennes, 1837

Ctenogobius viridipunctatus (Valenciennes, 1837)

Gobius chlorostigma Bleeker, 1849



Fig. 15. *Acentrogobius viridipunctatus*

Material examined: Mathuri 1 (8.2 cm), 19.03.2021; Tamluk 1 (7.5 cm), 25.09.2021.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 9 rays; anal fin with 1 spine, 9 rays; pectoral fin with 13 rays; pelvic fin united; longitudinal line with 35-36 scales; pre-dorsal scale 30 in number; upper part of cheek and operculum scaled.

Distribution:

Global: Africa, Australia, Bangladesh, China, India, Indonesian archipelago, Philippines, Ryukyu Island, Thailand.

India: Andaman & Nicobar Islands, Andhra Pradesh, Tamil Nadu, West Bengal.

West Bengal: Paschim Medinipur, Sundarbans.

Remark: Reported for the first time from Purba Medinipur district.

15. *Bathygobius ostreicola* (Chaudhuri, 1916) [Fig. 16]

Common Name: No common name

Synonyms:

Gobius ostreicola Chaudhuri, 1916

Paragobiopsis ostreicola (Chaudhuri, 1916)

Paragobiopsis orbicularis Visweswara Rao, 1971

Bathygobius orbicularis (Visweswara Rao, 1971)



Fig. 16. *Bathygobius ostreicola*

Material examined: Jamitya 1 (10.8 cm), 23.12.2020; Saluka 1 (11.4 cm), 04.05.2021.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 10 rays; anal fin with 1 spine, 9 soft rays; pectoral fin with 18 rays; pelvic fin with 8 soft rays; longitudinal line with 36-37 scales; pre-dorsal scale 24-26 in number; tongue rounded; body greyish with dark spots; dorsal and caudal fins spotted.

Distribution:

India: Andhra Pradesh, Odisha (Chilika).

Remark: Endemic to India. Recorded for the first time from West Bengal.

16. *Glossogobius giuris* (Hamilton, 1822) [Fig. 17]

Common Name: Tank goby

Synonyms:

Gobius giuris Hamilton, 1822

Acentrogobius giuris (Hamilton, 1822)

Glossogobius giuris giuris (Hamilton, 1822)

Gobius gutum Hamilton, 1822

Awaous gutum (Hamilton, 1822)

Glossogobius gutum (Hamilton, 1822)

Gobius russelii Cuvier, 1829

Glossogobius tenuiformis Fowler, 1934

Gobius catebus Valenciennes, 1837

Gobius kora Valenciennes, 1837

Gobius kurpah Sykes, 1839

Gobius phaiospilosoma Bleeker, 1849

Gobius sublitus Cantor, 1849

Gobius spectabilis Günther, 1861

Euctenogobius striatus Day, 1868

Gobius striatus (Day, 1868)

Gobius grandidierii Playfair, 1868



Fig. 17. *Glossogobius giuris*

Material examined: Tamruk (Steamer Ghat) 2 (13.2 cm, 12.5 cm), 28.03.2021; Geonkhali 2 (12.9 cm, 10.4 cm), 09.07.2021.

Diagnostic characters: First dorsal fin with 6 spines, second dorsal fin with 1 spine, 10 rays; anal fin with 1 spine, 9 soft rays; dorsal fins with small spots forming longitudinal stripes; pelvic fins united, oblong, attached to the body only from their anterior part with 11 soft rays; body brownish yellow with 5 to 6 dark, rounded spots on its sides; dorsal fins light with brownish spots; pelvic fins grey; pectorals, caudal grey, often hyaline; tongue bilobed; suborbital pit line with small posterior branch near eye; longitudinal line with 28-32 scales.

Distribution:

Global: Australia, Bangladesh, China, East and South Africa, India, Indonesia, Japan, Malaysia, Mauritius, Melanesia, Myanmar, Pakistan, Philippines, Polynesia, Sri Lanka, Taiwan, Thailand, Vietnam.

India: Andhra Pradesh, Arunachal Pradesh, Assam, Maharashtra, Manipur, Meghalaya, Nagaland, Odisha, Tamil Nadu, Tripura, West Bengal.

West Bengal: Hooghly estuary, Purba Medinipur, Paschim Medinipur.

Remark: Commercially of high market value, used as human food.

Conclusion

Till date 23 species of Gobiiformes were known from Purba Medinipur district of which only *P. weberi*, *G. giuris* and *S. sadanundio* were recorded from Rupnarayan river. 16 species under 13 genera and 4 families have been recorded from Rupnarayan river during the present study. Of these *B. sinensis*, which has been previously recorded from Andaman Islands only has been recorded for the first time from Indian mainland and *B. ostreicola* is being recorded for the first time from West Bengal. Fourteen species are being recorded for the first time from Rupnarayan river. Thus, present number of species in Purba Medinipur stands at 27 and recorded species in Rupnarayan river stands at 17. *P. weberi*, which could not be collected in the present investigation might be considered as locally extinct since it has been not recorded from Rupnarayan river after 1981. As Purba Medinipur district is rich in river and estuaries further investigation may reveal existence of more gobies species.

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