

# Short Communication First record of *Butis koilomatodon* (Bleeker, 1849) (Gobiiformes: Eleotridae) from West Bengal, India

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## Abstract

Occurrence of *Butis koilomatodon* (Bleeker, 1849) (Gobiiformes: Eleotridae) is reported for the first time from West Bengal, India based on two specimens collected from Sankarpur fishing harbour. Systematic account of the species is provided for distinction. Only eight species in the family Eleotridae were known from West Bengal earlier and the present report adds one more to the list.

Keywords: Butis koilomatodon, Digha Coast, Eleotridae, Gobiiformes

#### Introduction

The family Eleotridae contains small to moderate gobioid fishes (order Gobiiformes) characterised in having short and stout body, covered with scales; a series of sensory canals, pores and cutaneous papillae on head; two dorsal fins and well separated pelvic fins and with no lateral line system. The family have 179 species in 34 genera worldwide (Froece and Pauly 2017), but only 18 species in 11 genera from India (Gopi and Mishra, 2015). The genus Butis Bleeker, 1856 can be distinguished in having a bony irregular ridge or row of spiny serrations above eye and on top of snout; lower jaw longer than upper jaw, chin protruding; head without fleshy knobs or barbels on chin; distinct black spot on pectoral fin base or on bases of pectoral fin rays; preopercle without spine; predorsal scales fewer than 30; scales on body ctenoid (Larson and Murdy, 2001). Only six species are known to be placed in this genus, if Butis prismatica (Bleeker, 1849) is to be treated as valid (Eschmeyer et al., 2018). All other five species were recorded from India. However, Butis koilomatodon (Bleeker, 1849) is hitherto not known to occur in coastal waters of West Bengal.

The present paper reports occurrence of *Butis koilomatodon* (Bleeker, 1849) for the first time from West

Bengal based on specimens collected from Sankarpur fishing harbour.

## **Materials and Methods**

Two specimens of gobiod fishes have been collected from Sankarpur fishing harbour from trawl catches (exact catch locality not known). Photographs were taken in fresh condition immediately after collection. Measurements were taken using dial callipers. Identification was following Koumans (1941) and Talwar and Jhingran (1991), while generic allocation following Larson and Murdy (2001) and Kottelat (2013). The specimens were deposited with Marine Aquarium and Research Centre, Zoological Survey of India, Digha, West Bengal.

Material examined: 2 ex., 64-73 mm SL; Sankarpur fishing harbour (trawl catch), 8 October 2017, Dipanjan Ray and Sk Samim Hossin, Reg. No. MARC/ZSI F5049.

## Results

The specimens were identified as *Butis koilomatodon* (Bleeker, 1849) belonging to the family Eleotridae of the

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order Gobiiformes and the systematic account is provided hereunder based on the specimens collected. This family along with 8 other families, earlier placed in suborder Gobioidei, was recently separated from the large order Perciformes and elevated to order Gobiiformes (Nelson *et al.*, 2016; Eschmeyer and Fong, 2018).

#### Systematic Account

Butis koilomatodon (Bleeker, 1849) (Mud sleeper)

1849. Eleotris koilomatodon Bleeker, Verh. Batav. Genoot. Kunst. Wet., 22: 21 (Type locality: Madura Straits near Surabaya and Kammal, Java, Indonesia).

*Diagnosis*: D VI + I, 8; A I, 8; P 20-21; C 12-13 segmented rays; GR 12, narrow and spine-like; LSS 28-29; Ltr 10-11; predorsal scales 13; circumpeduncular scales 11. Body depth about 4 times in standard length; head length about 3.3-3.4 in SL; snout slightly longer than eye diameter, 3.6-4.2 in head length; least depth of caudal peduncle 10.9% and predorsal distance 34-38% of standard length; pelvic fins separate, bases close to each other and tips almost reaching level of anus; a bony irregular ridge or row of spiny serrations above eye and on top of snout. Colour: Dark brown, scales edged with dark brown, distinct above midline of flanks; body with 4-5 oblique bands; anterior part of 1st dorsal fin dark, 2nd dorsal and caudal fin with alternating dark brown and white spots, anal and pelvic fins dusky to black, pectorals clear, with a dark spot at base (edged red in life) and an upper, smaller, dark spot at times evident; caudal fin base with 4 to 5 small black spots.

*Distribution:* Indo-Pacific - Delagoa Bay, Mozambique and Madagascar, India, Andaman Islands, to China, Philippines and Papua New Guinea, also introduced in eastern and western Atlantic (Froece and Pauly 2017). It usually inhabits lower reaches of freshwater rivers, estuaries and mangrove creeks, and coastal marine waters.

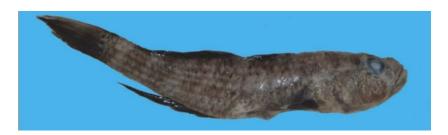
#### **Discussion**

This species was placed under the genus *Prionobutis* Bleeker 1874 (type species: *Eleotris dasyrhynchus* Günther, 1868) by several authors (Koumans 1941; Hoese 1986; Tawar and Jhingran 1991). However, Larson and Murdy (2001) distinguished *Prionobutis* as having 'lower jaw about equal to upper jaw, chin not protruding; chin with small to elongate fleshy barbels; pectoral-fin base and bases of pectoral-fin rays dusky or mottled, but without distinct black spot'. Hence, absence of barbels on chin and presence of distinct black spot on pectoral fin base warrants its placement in the genus *Butis* Bleeker 1856 (type species: *Cheilodipterus butis* Hamilton, 1822) (Larson and Murdy, 2001; Kottelat, 2013).

There are only seven species of sleepers (Eleotridae), viz. Butis butis, Butis humeralis (=Butis melanostigma), Eleotris fusca, Eleotris melanosoma, Odonteleotris macrodon, Giuris margaritaceus (=Ophieleotris aporos) and Ophiocara porocephala, are known from Indian Sundarbans, West Bengal (Chatterjee et al., 2013; Mishra and Gopi, 2017) and an additional species, Eleotris lutea, is also stated to occur in West Bengal (Talwar and Jhingran, 1991; Sanyal et al., 2012). However, only three species, i.e., Eleotris fusca, Eleotris melanosoma and Butis humeralis, are known from Digha coast of West Bengal (Yennawar et al., 2015). The present paper records the 8<sup>th</sup> species of sleepers, Butis koilomatodon, from West Bengal coast, India.

### **Acknowledgements**

The authors are thankful to Dr. Kailash Chandra, Director, Zoological Survey of India (ZSI), Kolkata and Dr. L. Kosygin Singh, Scientist-D, Fish Division, ZSI, Kolkata for permission and facilities. The first author wishes to thank Prof. S.K. De, Head of Dept. of Life Sciences and Dean of Science, Vidyasagar University, Midnapur, West Bengal for his kind and helpful guidance.



## References

- Chatterjee, T.K., Barman, R.P. and Mishra, S.S. 2013. Mangrove associate gobies (*Teleostei: Gobioidei*) of Sundarbans. *Rec. Zool. Surv. India*, **113** (3): 59-77.
- Eschmeyer, W.N. and Fong, J.D. 2018. Species by Family/Subfamily. Retreived from: http://researcharchive.calacademy.org/research/ ichthyology/catalog/SpeciesByFamily.asp
- Eschmeyer, W.N., Fricke, R. and van der Laan, R. (eds) 2018. Catalog Of Fishes: Genera, Species, References. Retrieved from: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp
- Froese, R. and Pauly, D. (Editors). 2017. FishBase. World Wide Web electronic publication. Retrieved from: www.fishbase.org
- Gopi, K.C. and Mishra, S.S. 2015. Diversity of marine fish of India. In, Venkataraman, K. And Sivaperuman, C. (eds.). Marine Faunal Diversity in India- Taxonomy, Ecology and Conservation, Academic Press, Elsevier, London: 171-193. https://doi.org/10.1016/ B978-0-12-801948-1.00012-4
- Kottelat, M. 2013. The fishes of the Inland Waters of Southeast Asia: A catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. *Raffles Bulletin of Zoology*, **27**: 1-663.
- Koumans, F.P., 1941. Gobioid fishes of India. Mem. Indian Mus., 13(3): 205 -329.
- Larson, H.K. and Murdy, E.O. 2001. Families Eleotridae, Sleepers (gudgeons). In: Carpenter, K.E. and Niem, V.H. (eds.), Species identification guide for fishery purposes. The living marine resources of the western central Pacific. Bony fishes part 4 (Labridae to Latimeriidae), estuarine crocodiles, sea turtles, sea snakes and marine mammals. *FAO, Rome*, **6**: 3574-3577.
- Mishra, S.S. and Gopi, K.C. 2017. Fish diversity of Indian Sundarban. In, Chandra, K., Alfred, J.R.B., Mitra, B. and Chowdhury, B.R. (Eds.), Fauna of Sundarban Biosphare Reserve. *Zoological Survey of India, Kolkata*: 107-127.
- Nelson, J.S., Grande, T.C. and Wilson, M.V.H. 2016. Fishes of the World. 5th edition. John Wiley & Sons, Hoboken, N.J.: v-xli + 1-707. https://doi.org/10.1002/9781119174844
- Talwar, P.K. and Jhingran, A.G., 1991. Inland fishes of India and adjacent countries. Oxford & IBH Publishing Co., New Delhi, vol. 2: 1158 p. Hoese, D.F. 1986. Family No. 241: Eleotridae. In: Smith, M.M. and Heemstra, P.C. (eds), Smiths' Sea Fishes. Macmillan South Africa, Johannesburg : 807-811.
- Sanyal, A.K., Alfred, J.R.B., Venkataraman, K., Tiwari, S.K. and Mitra, S. 2012. Status of Biodiversity of West Bengal. Zoological Survey of India, Kolkata: 1-969, 35 pls.
- Yennawar, P., Mohapatra, A., Ray, D. and Tudu, P. 2015. Ichthyofauna of Digha coast, India. In, Venkataraman, K. and Sivaperuman, C. (eds.). Marine Faunal Diversity in India- Taxonomy, Ecology and Conservation, Academic Press, Elsevier, London: 235-248.