



Short Communication

First record of the family Plesiopidae in the Bay of Bengal, Bangladesh coast

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Abstract. The family Plesiopidae is reported for the first time from the marine waters of Saint Martin's Island, Bay of Bengal Bangladesh coast based on the record of the species *Plesiops coralicora* (Bleeker, 1853). The findings added a new distributional range for this kingfish (roundhead family) from Northern Bay of Bengal and an important addition of ichthyofauna to marine fishes of Bangladesh.

Keywords: Marine Fishes, *Plesiops coralicora*, Bay of Bengal

The family Plesiopidae (Günther, 1861) is generally known as kingfish (roundheads). The Plesiopidae is a reef-associated fish family distributed in small tropical and subtropical areas across the Indo-Pacific region (Mooi 1993). They inhabit in rocky and coralline reefs and tide pools from nearshore to a depth of 30 m, sometimes deeper (Mooi, 1993). The family Plesiopidae comprises two subfamilies: Plesiopinae (Günther, 1861) which includes 34 valid species and Acanthoclininae (Günther, 1861) which has 17 species worldwide (Fricke *et al.* 2021).

The marine fish diversity of Bangladesh coast is encouraging. In the last three years, several marine fish species have been added to the country's fish inventory and are still being added to the existing list of fish fauna of Bangladesh. There are approximately over 750 marine fish species recorded in the marine waters of Bangladesh (Ahmed *et al.* 2020, Hasan and Parvej 2020, Hanif *et al.* 2020, Hossain *et al.* 2020, Islam and Habib 2020, Islam *et al.* 2020a, 2020b, Naznin *et al.* 2020, Siddik and Hanif 2020, Habib and Islam 2021, Habib *et al.* 2021a, 2021b, Hanif *et al.* 2021, Islam *et al.* 2021, Saha *et al.* 2021, Sarkar *et al.* 2021, Sharifuzzaman *et al.* 2021a, 2021b, 2021c, Siddiqueki *et al.* 2021). However, there is no record of any species of the family Plesiopidae from the northern Bay of Bengal, Bangladesh. Moreover, three species from the family Plesiopidae have been recorded from India, *Acanthoplesiops indicus*, *Plesiops coeruleolineatus*, *Plesiops coralicora* (Mooi 1995, Froese and Pauly 2021), and one species *Plesiops auritus* from Myanmar (Psomadakis *et al.* 2019). Hence, the present article is the confirmation of the family Plesiopidae into the northern Bay of Bengal, Bangladesh.

Sample collection, preservation and identification: The specimens were collected from local angler of Saint Martin's Island, Bangladesh, coordinate 20.59391° N, 92.32361° E (Fig. 1), by Md Rasel Mia on 5 January 2021. Two specimens were preserved (Specimen voucher no. F2005SM-19, F2005SM-19) in Aquatic Bioresource Research Laboratory (ABR Lab.), Sher-e-Bangla Agricultural University, Dhaka and Marine Park of Saint Martin's Island. The specimens were identified by the morphological study followed by Moori (1993) and Psomadakis *et al.* (2019). All measurements were taken with a Vernier caliper to 0.1 mm.

FIRST RECORD OF THE FAMILY PLESIOPIDAE IN THE BAY OF BENGAL, BANGLADESH COAST

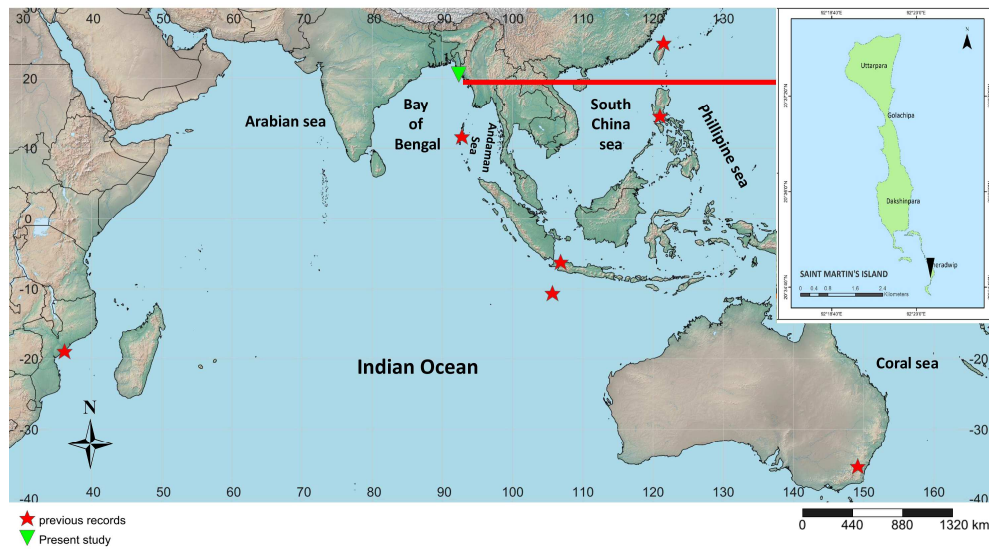


Fig. 1. Saint Martin's Island of Bangladesh, the sampling location of *Plesiops corallicola* in the northern Bay of Bengal (▼) and previously reported distribution (★).

A species *Plesiops corallicola* (Bleeker, 1853) from the family Plesiopidae was identified in the present study. Diagnostic characters of this species are given below:

Family: Plesiopidae

Genus: *Plesiops* Oken, 1817

Species: *Plesiops corallicola* Bleeker, 1853

English name: Bluegill longfin (Fig. 2 A, B, Table I)

Diagnostic characters: Body elongates and oval, compressed. Dorsal profile convex, dorsal origin just above pectoral base or opercle; fin pointed posteriorly; spines increasing in size to tenth, dorsal fin has black membrane with a blue stripe. Ventral profile weakly convex, sloping in straight line from snout to pelvic; snout bluntly pointed shorter than eye; mouth slightly oblique; maxilla reaching behind orbit; posterior nostril just before orbit; lower half of opercle with a round dark bluish spot, usually with a narrow light border. Pectoral fin with an orange tip; caudal with narrow white margin; pelvic fin dark, without spots. Pectoral fin rounded; inserted just below midline of side. Pelvic inserted before base of pectoral; spine sub-equal to longest dorsal spine. Anal origin opposite tenth of dorsal spine; shape similar to that of dorsal; longest soft anal subequal to longest soft dorsal ray. Caudal fin rounded.

Table I. Morphometric measurements and meristic counts of *Plesiops corallicola*

	F2005SM-19	F2005SM-19 (01)
Morphometric measurements		
Total Length	169	168
Standard length	131	129
Percentage of standard length		
Body depth	26.92	26.48
Dorsal fin base length	53.05	52.79
Pectoral fin length	21.16	20.25
Pectoral fin base length	8.00	8.12
Pelvic fin length	34.43	34.19
Pelvic fin base length	3.92	3.80
Anal fin length	27.18	26.43
Anal fin base length	18.74	17.91
Caudal fin length	28.99	27.22
Caudal fin base length	18.30	17.15
Caudal peduncle length	13.51	12.79
Head length	35.11	34.11
Percentage of head length		
Pre-orbital length	22.09	7.43
Eye diameter	20.76	6.74
Meristic counts		
Dorsal-fin spines	XII	XII
Dorsal-fin soft rays	7	7
Pre-dorsal scale	9	9
Pectoral-fin soft rays	20	20
Pelvic-fin spine	I	I
Pelvic-fin soft rays	4	4
Anal-fin spines	III	III
Anal-fin soft rays	8	8
Caudal-fin soft rays	18	18

Distribution: They are distributed in the Eastern Indian Ocean, Indo-Pacific: Madagascar to the Line Islands; north to southern Japan, western Pacific: Andaman Sea, Christmas Island and Cocos-Keeling Islands east to Howland and Baker islands and Suvarrow (Cook Islands), north to Ryukyu Islands, south to Queensland (Australia) (Frick *et al.* 2021, Froese and Pauly 2021).

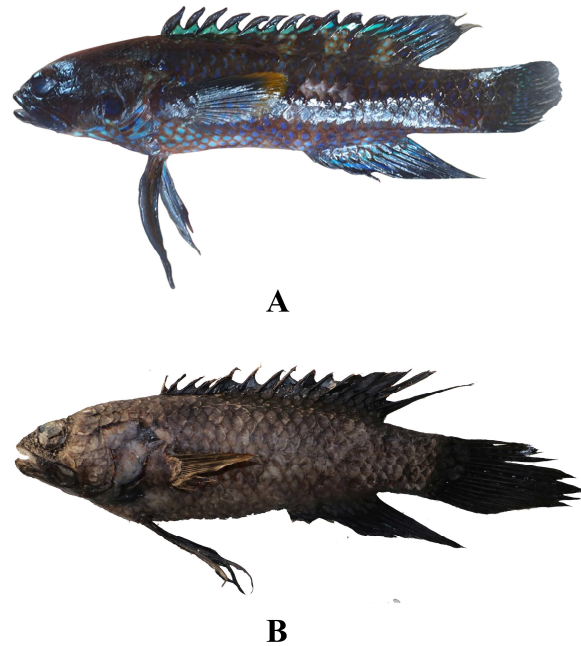


Fig. 2. A. Lateral view of live specimen of *P. corallicola*; B. preserved specimen (F2005SM-19, SL 169 mm).

The description of the studied species agrees with the description of *Plesiops corallicola* and distinguished from its closely related species *P. nigricans* (Ruppell 1828) and *P. coeruleolineatus* (Ruppell, 1835) by dark blue ocellus of slightly less than eye diameter on ventral portion of opercle, and small blue spots throughout the head, body, and caudal fin. Previous distribution of *P. corallicola* was Eastern Indian Ocean to western Indian Ocean, including northwest pacific, eastern and western central pacific (Frick *et al.* 2021, Froese and Pauly 2021) (Fig 1). However, there was no valid record of any species from the family Plesiopidae in Bangladesh waters. Therefore, the report of *P. corallicola* from St. Martin's Island confirms the presence of the family Plesiopidae for the first time in Bangladesh waters and as well as from the Northern Bay of Bengal.

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