

NEW GEOGRAPHICAL RECORD OF SPOTFIN FROGFISH *ANTENNATUS NUMMIFER* (ACTINOPTERYGII: LOPHIIFORMES: ANTENNARIIDAE) FROM THE COAST OF NORTHERN BAY OF BENGAL, BANGLADESH

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This study describes a Spotfin Frogfish as a new record from marine waters of Bangladesh in the Northern Bay of Bengal. Based on a single specimen, this fish is identified as *Antennatus nummifer* (Cuvier, 1817), based on the absence of (or only barely distinguishable) esca, and an immobile third dorsal spine, (characteristic to genus *Antennatus*), and on the presence of a distinctive large, round and dark basidorsal spot at base of the posterior soft dorsal fin, surrounded by a pale brownish ring.

Frogfishes (Lophiiformes: Antennariidae) are small to moderate fishes having short, deep, globose, and slightly compressed body; a small pore like opercular opening; first dorsal-fin spine free from rest of fin, bearing a well-developed terminal bait or esca; and elongated, and leg-like pectoral-fin lobe (Pietsch 1984, 1999; Motomura 2009). This family contains 52 valid species from 14 genera distributed widely in the Indo-Pacific (Fricke *et al.* 2020). The genus *Antennatus* is distinguished from closely related *Antennarius* with the absence of (or only barely distinguishable) esca and an immobile third dorsal spine (Pietsch 1999). So far, a single species of Antennariidae, *Antennarius hispidus* (Bloch and Schneider, 1801) is known to occur in Bangladesh coast (Hussain 1969). However, an individual of *Antennatus nummifer* (Cuvier, 1817) was found in a catch of trawl survey conducted by Marine Fisheries Survey Management Unit, Department of Fisheries, Government of Bangladesh. The present study reports this species as a first record from Bangladesh marine water.

A single specimen of frogfish (Figure 1) was captured in a demersal trawl fishing catch (Survey No. 2019203, Survey Station No. 74; Research Vessel Meen Shandhani; Date 17 March 2020) conducted at ~40 km south-southwest from Cox's Bazar in Bangladesh territorial zone (21° 1.428'N, 92° 2.358'E)

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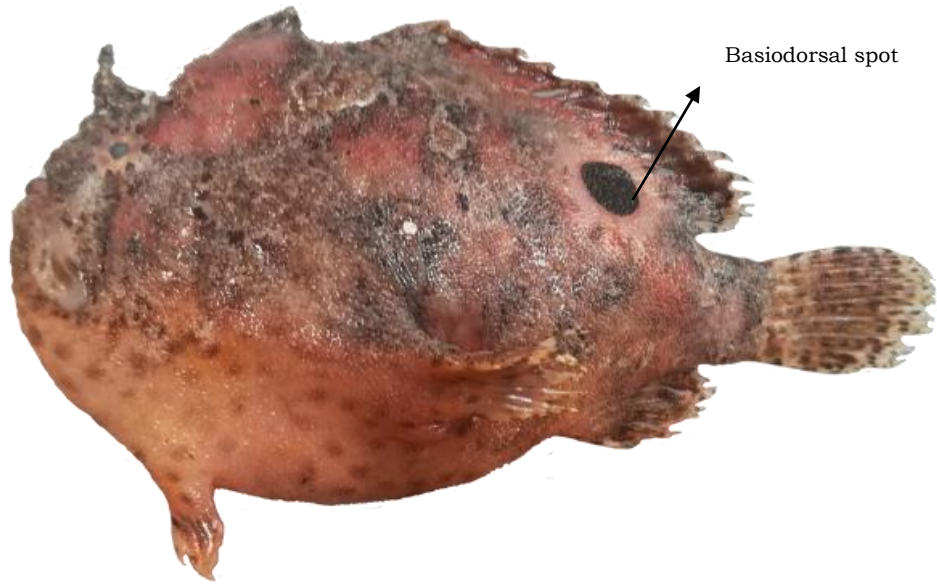


Fig. 1: *Antennatus nummifer*, 51 mm SL; lateral view of present study specimen

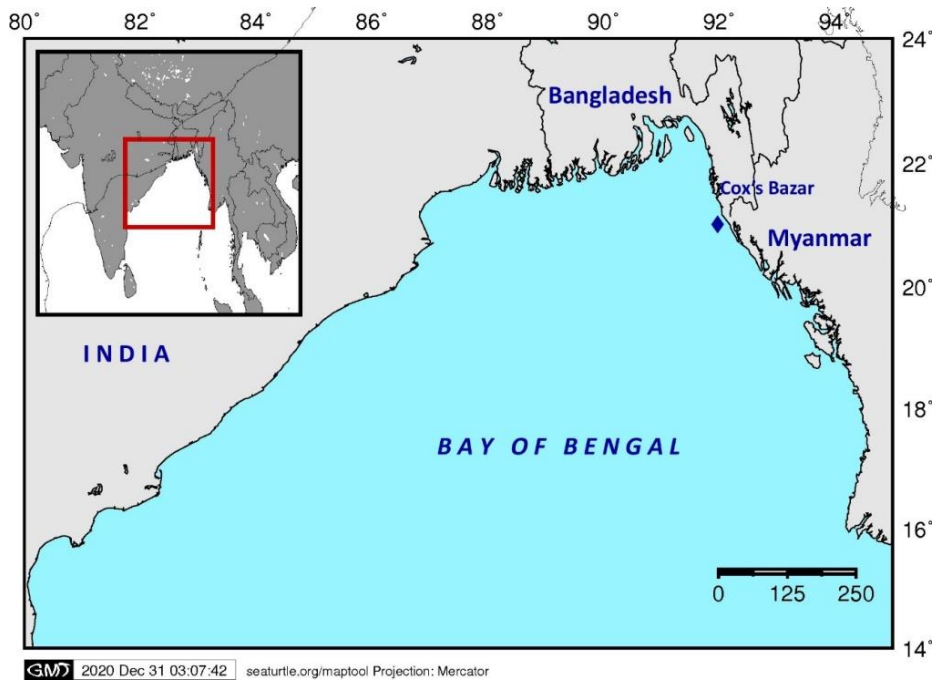


Fig. 2: Collection location of *Antennatus nummifer* in south-east coast of Bangladesh near Cox's Bazar district (◆). Map source: seaturtle.org/maptool.

(Figure 2). The demersal trawl net with 30 mm mesh size was operated at 17 m depth and at ~3 knots towing speed. Collected specimen was immediately stored in an onboard freezer and brought to the laboratory of Marine Fisheries Survey Management Unit, Department of Fisheries, Chattogram, Bangladesh for further inspection. Counts and morphometric measurements were taken using a digital Vernier caliper up to 0.1 mm precision following Hubbs and Lagler (2004).

Taxonomic Position:

Class: Actinopterygii Goodrich, 1830

Order: Lophiiformes Rafinesque, 1810

Family: Antennariidae Jarocki, 1822

Genus: *Antennatus* Schultz, 1957

Species: ***Antennatus nummifer*** (Cuvier, 1817)

Diagnoses and Descriptions: Body short (51 mm SL, 70 mm TL, 12 gm) and globose. Mouth large and oblique with numerous small villiform teeth. Dorsal fin rays I+I, 12; Pectoral fin rays 11; Pelvic fin rays I, 5; Anal fin rays 7; Caudal fin rays 9. At the base of posterior soft dorsal fin a distinctive large, round and dark basidorsal spot (Ocellus) surrounded by a pale brownish ring. First dorsal spine with a fleshy tentacle, spine base located behind upper jaw symphysis. Second dorsal spine 9.2% of SL. Illicium short (10.2% of SL) and almost equal to second dorsal spine. Esca small and round. Skin rough. Posterior end of dorsal fin and anal fin not connected to caudal peduncle. Pectoral-fin rays unbranched. *Colour:* Body reddish pink to brownish; ventral side pinkish with diffused dark circles. Dorsal, anal and caudal fin with tiny numerous dark spots, more or less evenly placed. All the above characters support the identification of the specimen as *Antennatus nummifer* according to Motomura (2009: 41) and Psomadakis *et al.* (2019: 330).

Habitat and Distribution: The present specimen was collected from south-eastern inshore areas of Bangladesh coast at 17 m depth. Elsewhere *Antennatus nummifer* is reported to inhabit in lagoon and seaward reefs, at least up to 25 m depth (Psomadakis *et al.* 2019). It is widely distributed in the Indo-Pacific, from western Indian Ocean (east coast of Africa), to the central Pacific (Hawaiian and Marquesas Islands), and also in eastern Atlantic islands (See Fricke *et al.* 2020). In the Bay of Bengal region it is reported from Sri Lanka (Munro 1955), east coast of India (Krishnan and Misra 1993, Misra and Krishnan 2003), Andaman Sea coast of Thailand (Motomura 2009), and Myanmar Coast (Psomadakis *et al.* 2019).

Remarks: Material based ichthyofaunal studies are still limited in Bangladesh marine waters of Bay of Bengal (Hussain 1969; Rahman *et al.* 2009). However

some 193 species of finfish have been incorporated in a pictorial catalogue (Singha *et al.* 2019) which includes a single species of Frogfish, *Antennarius hispidus* (Bloch and Schneider, 1801). Another frogfish species, *Batrachomoeus trispinosus* (Günther, 1861), (Family: Batrachoididae, Order: Batrachoidiformes), has been reported from south-west coast of Bangladesh recently (Ahmed *et al.* 2020). The present study provides occurrence and distribution record of *Antennatus nummifer* (Cuvier, 1817) in Bangladesh coast proposing a Bangla Name as 'Kalophonta Bengmach' based on a single specimen. More records of occurrence of this species may be found by further surveys.

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