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First record of angry worm eel *Skythrenchelys zabra* (Anguilliformes: Ophichthidae) from the east coast of India

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Skythrenchelys zabra (Castle and McCosker, 1999) a species belonging to the family Ophichthidae is reported for the first time from the east coast of India on the basis of 11 specimens collected from various fishing harbours along the West Bengal, Odisha and Andhra Pradesh coasts. The species was first described from south-west coast of India in the Arabian Sea. The present report extends the range of distribution of the species to the Bay of Bengal along the east coast of India.

[Keywords: Myrophinae; Range extension; New record; Bay of Bengal]

Introduction

The family Ophichthidae (Teleostei: Anguilliformes) comprises 337 valid species of which 69 species are in the sub-family Myrophinae and 268 species in Ophichthinae[1]. The Myrophinae contains 15 genera[2], 6 with a moderately developed pectoral fin and 3 with the pectoral fin reduced to a minute flap. The other 6 genera, *Glenoglossa, Muraenichthys, Schismorhynchus, Schultzidia, Scolecenchelys* and *Skythrenchelys,* are lacking a pectoral fin. Among these last six genera, the genus *Skythrenchelys* was described as a distinct genus on the basis of its large and unconstricted gill opening, more or less below the lateral line. The dentition (large, conical and mostly uniserial) and the inclination of the suspensorium and associated elongation of the jaws[3]. The genus *Skythrenchelys* is at present represented by only two species, *S. macrostomus* (Bleeker, 1864) and *S. zabra* (Castle and McCosker, 1999)[4], while another nominal species, *Skythrenchelys lentiginosa* (Castle & McCosker, 1999), has been relegated to the synonymy of the former[5]. Only *S. zabra* is known to occur in Indian waters, from south-west coast.

During a survey for Angulliformes of the east coast of India, specimens of *Skythrenchelys zabra* were collected from various places from West Bengal, Odisha and Andhra Pradesh coasts of India. The present paper reports the range extension of the species to the east coast of India and is the first report from the Bay of Bengal filling the gap in its distribution.

Materials and Methods

During the collection of anguilliform fishes along the east coast of India for study of their diversity, four specimens (MARC/ZSI/F4453 & F4742) from Visakhapatnam fishing harbour, Andhra Pradesh, one (MARC/ZSI/F4450) from Paradip fishing harbour, Odisha, and seven (MARC/ZSI/F3489 & F3704) from Shankarpur fishing harbour, West Bengal, were collected. For identification, generic allocation was done following McCosker *et al.*[2] and assigned to the species as *Skythrenchelys zabra* in accordance with the original description[3]. Counts and measurements follow Castle and McCosker[3]. The vertebrae count was done by digital x-ray and the mean vertebral formula (MVF) expressed as the average of predorsal, preanal and total vertebrae[6].

Results

Twelve specimens obtained from Visakhapatnam (Andhra Pradesh), Paradip (Odisha) and Sankarpur (West Bengal) have been determined as *Skythrenchelys zabra* Castle and McCosker, 1999 and detailed diagnostic characters are being provided hereunder.

Classification

Class: Actinopterygii Klein, 1885

Order: Anguilliformes Berg, 1943

Family: Ophichthidae Gunther, 1870

Sub-family: Myrophinae Kaup, 1856

Genus: *Skythrenchelys* Castle and McCosker, 1999

Species: *Skythrenchelys zabra* Castle and McCosker, 1999

Diagnosis

Specimens are moderately elongated with rounded body throughout its length (Fig. 1), its depth at gill opening 36-48 times in total length; pre-anal length 1.7-1.8 in total length; and head length 7.0-7.9 in total length. Dorsal fin originates nearly half way between gill opening and level of anus with predorsal length 2.6-3.1 in total length. Pectoral fins absent, reduced to a very small ridge behind the gill opening; both dorsal and anal fin low, and caudal fin short and flat. Gill opening below lateral midline, its length about equal to isthmus. Snout pointed and 7.3-8.2 in head length, jaws elongated and curved, not capable of closing completely, upper jaw slightly larger than lower jaw and tip of snout turned downwards over tip of lower jaw; lower lip with irregular ridges along inner side; rictus reaching well behind eye; eye very small about 22.0-32.0 in head length; and inter orbital space moderately broad 8.3- 12.9 in head length. Anterior nostril a short tube located slightly behind tip of the snout; posterior nostril before eye, just below eye line and above free edge of upper lip, entirely outside of mouth. Anterior portion of posterior nostril has a free flap anteriorly, tending to form an anteroventral channel leading downwards to upper edge of mouth. Supra-orbital pores 1+4, infra-orbital pores 4+1, and pre-operculo mandibular pores 6+3.

All teeth distinctly visible, pointed and slightly curved towards posteriorly. Teeth not arranged in a uniform manner and widely separated from each other. Teeth uniserial with 2-3 inter-maxillary teeth, 8-9 maxillary teeth and 2 large vomerine teeth followed by 7 smaller teeth on roof of mouth. In lower jaw, 11 teeth one each side and some overlapping teeth found in some samples at the tip of lower jaw.

Fig. 1 ─ *Skythrenchelys zabra* Castle and McCosker, 1999

Pre-dorsal vertebrae 33-34, pre-anal vertebrae 55-58 and total vertebrae 110-115 (MVF 33-56-112).

Body colour tanned brown with very scattered minute freckles in dorsal portion as well as head and snout.

Discussion

Skythrenchelys zebra, described with the holotype from Thevara, Ernakulam, Kerala, southern-west coast of India, is known to occur from the south-west coast of India, through the Straits of Malacca, Indonesia, to the Philippines, and northern Australia, but hitherto not reported from any place around the Bay of Bengal. The genus *Skythrenchelys,* as a separate genus from *Muraenichthys,* was established[3] with its type species *S. zabra*. As stated earlier, only two valid species, *Skythrenchelys macrostomus* (Bleeker, 1864) and *Skythrenchelys zabra* (Castle and McCosker, 1999), represent the genus at present. *Skythrenchelys macrostomus* is known to occur in Indonesia (type locality), typically in the western Pacific, and the Red Sea, based on the type locality of *S. lentiginosa,* a junior synonym[5]. *Skythrenchelys zabra* differs greatly from *S. macrostomus* in the greater pre-anal length, dorsal fin origin nearly half way between the gill opening and the level of anus, and lips and inner mouth cavity without any small brown or black spots.

The present study further extends the range of distribution of *Skythrenchelys zabra* to the Bay of Bengal along the east coast of India, filling the gap area, showing continuity of its distribution from the south-west coast of India to the Straits of Malacca, Philippines, Indonesia, and northern Australia.

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