



Short Communication

First record of *Ophichthus johnmccoskeri* (Ophichthidae : Ophichthinae) from Chilika lagoon, India

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Abstract

McCosker's snake eel, *Ophichthus johnmccoskeri*, a species of the family Ophichthidae is reported for the first time from Chilika Lagoon, Odisha, India, on the basis of 5 specimens collected during the Chilika expedition from Satapada in the year 1987. The species was recently described from West Bengal coast. The report of the species from Chilika lagoon provides the distributional range extension as well as more morphometric information on the species.

Keywords: Bay of Bengal, New Record, Odisha, Snake eel

Introduction

Ophichthus johnmccoskeri Mohapatra, Ray, Mohanty, Mishra, 2018 (Ophichthidae: Ophichthinae) is described recently on the basis of 3 specimens collected from West Bengal coast (Mohapatra *et al.*, 2018). The authors, while working out on some old collections of Chilika lagoon, collected during the year 1987, identified 5 (335 – 398 mm TL) specimens collected from Satapada area in the outer channel sector of the Chilika lagoon as *O. johnmccoskeri*, and reports it for the first time from Chilika lagoon. The species is known only from its type locality and the record of the species from Chilika lagoon provides the distributional range extension as well as further information on the recently described species.

Material and Methods

Specimens were collected during the Chilika expedition from Satapada, in the year 1987 and deposited in the unidentified collection at Estuarine Biology Regional Centre, Zoological Survey of India, Gopalpur-on-Sea. Five specimens (335 – 398 mm TL) were identified on the basis of the characters described in Mohapatra *et al.* (2018). Measurements and head pore terminology were following McCosker *et al.* (1989). Generic allocation

of the species follows Smith and McCosker (1999). All measurements (except the total length measured to the nearest 1 mm) are in mm, recorded to the nearest 0.1 mm, and taken using digital calipers. Head pores and teeth were counted using a Magnüs MS13/MS24 microscope. Vertebrae of the specimens could not be obtained by X-ray so counting of vertebrae was not possible. The specimens were deposited in Estuarine Biology Regional Centre, ZSI, with registration number EBRC/ZSI/ F 10517.

Systematic Accounts

Phylum CHORDATA
Class ACTINOPTERYGII
Order ANGUILLIFORMES
Family OPHICHTHIDAE

Ophichthus johnmccoskeri Mohapatra, Ray, Mohanty, Mishra, 2018

Material examined: India, Chilika Lagoon, 23.09.1987, 5 ex., 335–398 mm TL, coll. Dr. K. V. Rama Rao (Reg. No. EBRC/ZSI/ F 10517).

Characters: The species is a moderately elongated eel (Figure 1) with dorsal fin origin well behind the pectoral

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fin origin with pre-dorsal length 5.8 to 6.2 times in total Length (TL). Dorsal fin medium and anal fin high and both end before the tail tip, thus tail tip finless. Preanal length 2.6-2.7 times in TL and tail 1.6 in TL. Head length 11.6-12.8 in TL snout pointed upper jaw slightly longer than the lower jaw. Pectoral fin well developed and rounded. Anterior nostril small and tubular not reaching the snout tip posterior nostril a hole covered by a flap in the upper lip, opening towards the mouth. Upper lip is having single barbel between the anterior and posterior nostrils. The details of morphometric measurements along the comparison with type specimens were given in Table 1.

Head pores small, 1 frontal pore; supraorbital pores 1+3; infraorbital pores 4+2; preopercular pores 2; mandibular pores 6; nine lateral-line pores before gill opening and pectoral fin origin; 23-25 pores before



Figure 1. *Ophichthus johnmccoskeri* Mohapatra, Ray, Mohanty, Mishra, 2018 from Chilika lagoon, Odisha, India.

dorsal fin and 53-54 lateral line pores before anus. The pre pattern is exactly as that of the holotype. Teeth sharp and conical and almost in the same pattern as that of type specimens as described by Mohapatra *et al.*, (2018).

Table 1. Morphometric measurements of *Ophichthus johnmccoskeri* collected from Chilika lagoon, Odisha, India compared with the type specimens

Characters	Mohapatra <i>et al.</i> , 2018 Shankarpur fishing harbour	Resent Study Chilika
Total length in mm	246 – 365 mm	335 – 398 mm
Preanal length in TL	2.6	2.6 – 2.7
Predorsal length in TL	5.5 – 6.0	5.8 – 6.2
Tail length in TL	1.6	1.6
Head length in TL	11.8 – 12.7	11.6 – 12.8
Body depth at GO in TL	48.7 – 52.6	45.3– 52.9
Body depth at anus in TL	28.1– 35.1	29.0 – 33.5
Eye diameter in HL	12.4 – 13.7	11.6 – 13.4
Snout length in HL	6.0 – 6.8	5.8 – 6.1
Interorbital space in HL	10.3 – 10.8	9.7 – 9.8
Upper jaw length in HL	3.7– 3.9	3.4 – 3.9
Lower jaw length in HL	4.1– 4.4	3.6 – 4.2
Predorsal vertebrae	24	-
Preanal vertebrae	51– 52	-
Total vertebrae	156 – 158	-
Supraorbital pores	1+3	1+3
Infraorbital pores	4+2	4+2
Preopercular pores	2	2
Mandibular pores	6	6
Frontal pore	1	1
Lateral– line pores before GO	9	9
Lateral line before anus	53 – 54	53 – 54

Discussion

The ichthyofauna of Chilika lagoon is well studied by various workers and the entire work till 2015 on the Ichthyofauna of Chilika lagoon was summarised by Mohanty *et al.* (2015). Mohanty *et al.* (2015) list out only 3 species of Ophichthidae eels i.e. *Pisodonophis boro* (Hamilton), *Pisodonophis cancrivorus* (Richardson) and *Lamnostoma orientalis* (McClelland). No species of the genus *Ophichthus* was reported during the last century of research except *Ophichthus chilensis* Chaudhuri, 1916, which was later synonymised to *P. cancrivorus*. Although few more species were added by various workers after Mohanty *et al.* (2015), none of these works reported occurrence of any eel (Anguilliform) species from Chilika lagoon. Though the specimens were collected long back during the year 1987, the specimens were kept unidentified probably due to lack of taxonomic identity conformation. During recent surveys (2016-2018) to

Chilika lagoon, authors have not collected any specimen of *O. johnmccoskeri*. The species *O. johnmccoskeri* was first described only in the year 2018 based on only three specimens with the largest one being 36.5 cm. The present record adds the distributional range extension of the species as well as some more morphometric information on the species with record of maximum size of the species as 39.8 cm. Slight deviations in the ratio of preanal length, predorsal length, head length and body depth may be attributed to the large size of the specimen than the original description.

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