

First report of the Snake Eel *Neenchelys cheni* (Chen and Weng, 1967) (Anguilliformes: Ophichthidae: Myrophinae) from Indian waters

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This paper reports the first occurrence of *Neenchelys cheni* (Chen and Weng, 1967) from Indian waters. The only species of the genus previously reported from the Indian coast, *Neenchelys buitendijki* Weber and de Beaufort, 1916 differs from *N. cheni* in its dorsal fin origin (well before anal opening) and other characters discussed in this paper.

[**Keywords:** *Neenchelys cheni*; Bay of Bengal; India; West Bengal; Fish]

Introduction

The family Ophichthidae comprises about 290 species within 52 genera and two sub families Myrophinae and Ophichthinae^{1,2}. Subfamily Myrophinae consists of 13 genera and the subfamily Ophichthinae has 44 genera; the Myrophinae differ from the Ophichthinae by having a conspicuous caudal fin, a flexible tail tip, the dorsal and anal fins are confluent with caudal fin. *Neenchelys* Bamber, 1915 comprises nine valid Indo-Pacific region species and differs from other genera of Myrophinae by having a pectoral fin, uniserial vomerine teeth, a pointed snout, the snout length twice or more than the eye diameter, posterior nostril located above the lips and open outside the mouth, and two pre-opercular pores. Members of this family are associated with a variety of marine habitats including sandy or muddy substrates, midwater and reefs. Some ophichthid species are known from few or even single specimens due to their tail burrowing nature, nocturnal activity and habitat preference^{3,4}. During a survey to the Shankarpur Fishing harbour the authors collected four specimens of *Neenchelys cheni* (Chen and Weng, 1967) which are reported for the first time from Indian waters, as well as four specimens of *Neenchelys buitendijki* Weber and de Beaufort, 1916 previously unreported from the West Bengal coast.

Materials and Methods

During a local survey around Shankarpur fishing harbour the authors collected four specimens of snake eels and identified them as *Neenchelys cheni* (Chen and Weng, 1967), (SL: 354-342 mm, Registration No MARC/ZSI/F3540). Four

specimens of *Neenchelys buitendijki* Weber and de Beaufort, 1916 (SL: 190-293 mm, Registration No MARC/ZSI/F3541) were also collected from the same locality. Fishermen of Shankarpur fishing harbour generally collect fish by bottom trawl nets and do not exceed the Indian territorial limits. Fresh photographs of the specimen were taken and the fishes were preserved in 10% formalin. The taxonomic key, measurements and counts follow those of Ho *et al.*³. Measurements were made with digital calipers and recorded to the nearest 0.1 mm. Vertebrae were counted from digital x-rays and teeth and head pores were counted using a Leica EZ4 microscope.

Neenchelys cheni (Chen and Weng, 1967)

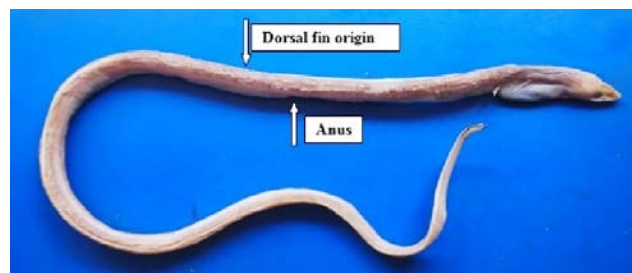


Fig. 1—*Neenchelys cheni* (Chen and Weng, 1967), (SL: 354-342 mm, Registration No MARC/ZSI/F3540)
Diagnostic Characters

Dorsal-fin origin behind the anal opening. Predorsal length more than 40 % of total length. Percentage of gill opening to dorsal-fin origin is more than 90 % of the trunk length.

Table-1. Morphometric characters of *Neenchelys cheni* (Chen and Weng, 1967)

Characters	Present Study (n=4)	Ho <i>et al.</i> , 2013 (n=17)
Total length	354-342 mm	334-414 mm
	% of TL	
Head length	9.24-10.51	8.6-12.2
Pre-dorsal length	40.43-41.7	37.7-41.9
Trunk length	27.27-27.96	26.9-31.1
Pre-anal length	38.35-39.47	36.2-39.8
Tail length	59.88-61.4	60.2-64.4
	% of HL	
Snout length	19.57-20	19.1-24.2
Eye diameter	6.28-7.14	6.2-10.2
Inter-orbital space	11.14-12.57	10.8-15.6
Body depth at head	27.21-28.85	27.2-37.3
Body depth at anus	19.42-20.85	19.4-30.1
Post-orbital length	70.6-71.9	69.5-75.6
Upper-jaw length	25.7-27.6	26.6-37.1
Gill-opening height	4.71-5.94	5.6-13.5
Pectoral-fin length	10.29-13.7	10.3-16.4

Description:

Body moderately elongate, robust, anteriorly cylindrical and slightly compressed in caudal region (Fig-1). Tail more longer than head and trunk combined; body scaleless. Pectoral fin present; caudal fin confluent with dorsal and anal fins. Head terete; snout broad and pointed; lower jaw shorter than upper jaw; lips without barbels. Anterior nostril tubular, posterior nostril an elongate slit present below lower margin of eye. Eye relatively small, rictus of mouth beneath a vertical through a posterior margin of eye. Gill opening constricted and rounded. Dorsal-fin origin behind the anal opening. Teeth uniserial, posterior end of maxilla small, outer rows of teeth present; vomerine teeth uniserial and reach to ends of maxillae; lower jaw with uniserial teeth and posterior

part of it having small outer rows of teeth. Total vertebrae 182-183. Temporal and inter-orbital pore 1; Supra-orbital pores 1+4; infra-orbital pores:5+2; mandibular pores 5; pre-opercular pores 2; supra-temporal pores 3; cephalic lateral line pores 10; predorsal pores 57-59; pre-anal pores 61-64.

Colour:

In fresh specimens body whitish brown, head brownish red; posterior-most part of dorsal and anal fins and caudal fin with black margin. In preservative colour pale brown, margin of tail tip black.

Distribution:

Southern Taiwan, Vietnam, Australia, Gulf of Oman³.

Conclusion

Indian coastal water comprise 24 species of ophichthid eel within 16 genera⁵. Though the genus *Neenchelys* is well distributed in the Indo-Pacific region, there is only one species of the genus *Neenchelys buitendijki* Weber and de Beaufort, 1916 reported from Indian coast⁵. The present paper reports the first occurrence *Neenchelys cheni* from India. *Neenchelys buitendijki* differs (Fig 1 & 2) from *Neenchelys cheni* in the following characters: origin of dorsal fin well before anal opening, % of predorsal in total length less than 20 % (40% or more in *Neenchelys cheni*), of gill opening to dorsal fin origin in trunk length is less than 21% of trunk length (more than 90 in *Neenchelys cheni*). Morphometric data of present study matches well with data provided by Ho *et al.*³(Table-1). Our report of *Neenchelys cheni* (Chen and Weng, 1967) from extends the range of the species to Indian waters.



Fig. 2—*Neenchelys buitendijki* Weber and de Beaufort, 1916 (SL: 190-293 mm, Registration No MARC/ZSI/F3541)

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