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Short Communication

First record of sepiolid squid, *Euprymna berryi* Sasaki, 1929 from the west coast of India

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Abstract

The sepiolid, *Euprymna berryi* Sasaki, 1929 has been reported for the first time from the west coast of India. This species, commonly called as humming-bird bobtail squid, was observed in trawl catches off Mumbai in December 2006 – January 2007. It is an upper sublittoral pelagic coastal species occurring up to 60 m depth.

Keywords: *Euprymna berryi,* humming-bird bobtail squid, sublittoral pelagic species

Introduction

Cephalopods form about 10.3% in trawl landings off Maharashtra (CMFRI, 2006). With the increased exploitation and expansion of fishing grounds, new records of cephalopods are reported from various places all along the Indian coast.

Material

During December 2006, a new squid species *Euprymna berryi* was observed at New Ferry Wharf and Versova landing centres in trawl and handtrawl catches respectively at Mumbai. About 20 specimens ranging in dorsal mantle length from 14 to 20 mm with a mean length of 16 mm were observed. Sexes could not be ascertained. This species has not been recorded from the west coast of India earlier and its occurrence was deemed to be questionable in this region (Jereb and Roper, 2005). The depth of operation was 10-20 m off Mumbai for the landings by hand trawl at Versova and about 30-40 m at 70-80 km off northwest coast for the landings at New Ferry Wharf. At New Ferry Wharf these were observed along with juveniles of *Nemipterus* spp. and at Versova along with the catch of non-penaied prawns.

Taxonomic position of *E. berryi* Sasaki, 1929 (Silas *et al*., 1985)

Phylum: Mollusca, Class: Cephalopoda, Subclass: Coleoidea

- Ten circumoral appendages (8 arms and 2 tentacles). The suckers/hooks are mounted on stalks, with chitinous supporting rings. No external shell.

……Superorder Coleoidea

- Internal shell is either straight and laminate or rudimentary and straight. Tentacles contractile and retractile into pockets between arms III and IV.

…..…… .Order Sepioidea

- Internal shell or gladius present (except in *Euprymna*). One only or both dorsal arms or one dorsolateral arm hectocotylised.

..……. .Family Sepiolidae

- Only third and forth arms united by a broad web. Dorsal border of mantle fused with head.

…… Subfamily Sepiolinae

- Light organs present on ink sac. Gladius absent. Tentacular club with more than 16 suckers in a row at bases and tips. Light organ saddle shaped.

…..…….Genus *Euprymna*

Description

Morphometric characteristics: Genus *Euprymna* has 10 species. They are small, benthic sepiolids sometimes found in water less than 1 m in depth. They possess visceral photophores. The distinguishing characteristics include a short, stout and saccular mantle, rounded posteriorly (Fig. 1), the body and head are united by a broad dorsal commissure in the nauchal region and except for this connective commissure the head is free from the mantle opening. The fins are semi-circular in outline and inserted at midlength of the mantle. The fin length from the point of intersection is about 33.3% of mantle length. The funnel is long and reaching the base of the ventral arms and the

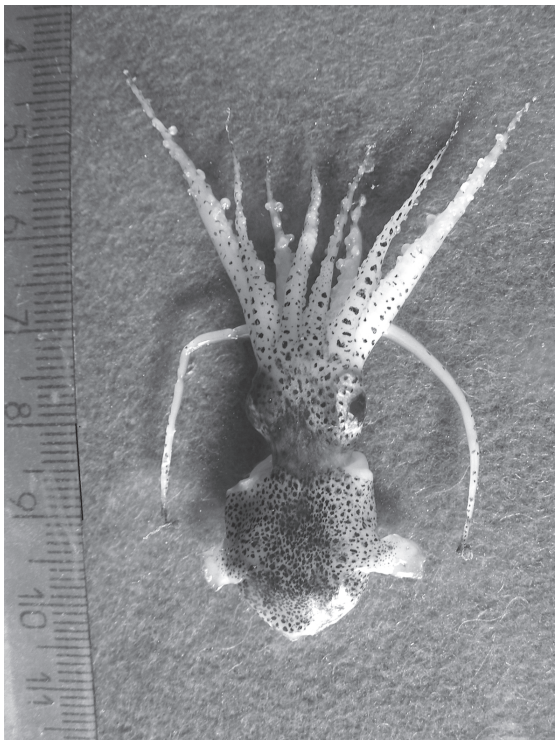

Fig.1. Dorsal view of *Euprymna berryi* Sasaki, 1929

funnel valve is short and triangular in shape. The arm formula is usually 3:2:1:4. The arm suckers are arranged in four longitudinal rows and large suckers are present on the lateral rows of II and IV arms. The protective membrane is not well developed on arms and the web is present between III and IV arms. In males the left arm I is hectocotylised. This arm is shorter and thicker with the proximal half possessing normal suckers and two prominent suckerless nipple like papillae and the distal half is closely packed with modified papillae and rudimentary suckers. The tentacles are stout and the stem is rounded. The tentacular clubs are short with swimming keel extending proximally along stalk and the suckers are extremely numerous, minute, elongated and goblet shaped giving it a 'swab' like appearance. The gladius is absent. Light organs or photophores are present and they are bean-shaped and placed on lateral lobes of ink sac. The body is transparent when fresh and the mantle is whitish with numerous dark brown chromatophores both on dorsal and ventral sides. The fins have few chromatophores at the base where they are united with the mantle. These squids are commonly known as 'humming-bird bobtail squid'.

A single specimen of 18 mm dorsal mantle length and weighing 1.904 g was examined for further morphometric measurements. For uniformity, measurements were taken from the right side of the body parts (Table 1).

Table 1. The morphometric measurements of *Euprymna berryi* Sasaki, 1929

Characters	Measurement (mm)
Dorsal mantle length	18
Dorsal mantle breadth	14
Ventral mantle length	16
Ventral mantle breadth	14
Maximum length of fin (right)	7
Maximum breadth of fin (right)	6
Length of head	10
Breadth of head	10
Length of the connective commissure of the head	6
Eye diameter	2.5
Outer diameter of mouth	2
Arm length (I) (right)	23
Arm length (II) (right)	34
Arm length (III) (right)	36
Arm length (IV) (right)	20
Tentacle length (right)	35
Tentacular club length (right)	2.5
Siphon length	7.5
Siphon diameter	3

Distribution

E. berryi is a pelagic coastal species occurring up to 60 m depth. It is known to be distributed along the coast of China, south to Hong Kong and Japan, Taiwan and possibly Andaman Islands and Sri Lanka (Jereb and Roper, 2005). Females grow much larger than males and the maximum mantle length is 30 mm in males and 50 mm in females (Jereb and Roper, 2005). These animals live with their body partially buried in the bottom and covered by sand. It swims at night, using the light organ for camouflage when approaching preys, which are normally benthic crustaceans (Young and Vecchione, 1996; *http://tolweb.org/Euprymna/20036/1996.01.01*).

This species is currently not exploited commercially because of their small size, scattered distribution and relatively poor quality of flesh. They are reported to be consumed in China. This species was reared successfully in aquaculture experiments by Choe (1966).

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