

# Record of *Octopus lobensis* Castellanos and Menni, 1969 from Maharashtra waters

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Octopuses popularly called as 'devilfish' are caught mainly as bycatch in the bottom trawl. Due to the growing demand for octopus in the international market, octopus fishery is catching up in Maharashtra. The main fish landing centers for octopus at Mumbai are New Ferry Wharf and Sassoon Docks. Octopus contribute 3% towards the total cephalopod catch in Mumbai (CMFRI, 2008). *Cistopus indicus* dominates the octopus fishery in Mumbai waters (Sundaram and Sarang, 2004). The other species of octopus recorded from Mumbai waters are *Octopus membranaceus*, *Octopus dollfusi* and *Octopus aegina*.

With the increased exploitation and expansion of fishing grounds, new records of cephalopods are

reported from various places all along the Indian coast. Ommen (1971 and 1977) identified few species of octopus along the west coast of India. Thirty eight commercially important species have been reported from the Indian seas (Silas *et al.*, 1985), however targeted fishery for octopus is lacking.

A new entrant to the octopus fishery in Mumbai waters is *Octopus lobensis* Castellanos and Menni, 1969 (Fig. 1). This octopus is commonly known as 'lobed octopus'. The species was observed in trawl landings at New Ferry Wharf. The depth of operation is about 30-40 m at 70-80 km off north-west coast. The occurrence of *O. lobensis* is reported for the first time from this region. Kripa *et al.* (2000) recorded

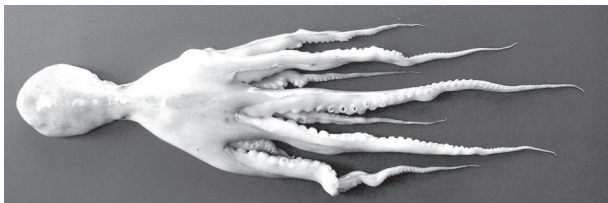


Fig. 1. *Octopus lobensis* Castellanos and Menni, 1969

the occurrence of this species from Kerala waters and is the second dominant species in the fishery contributing 12% of the total octopus catch. The species entered the fishery in Mumbai waters probably from 2006 onwards and present in the fishery almost throughout the year with peak period of abundance during January-April.

*O. lobensis* is a benthic species occurring in shallow waters down to 60 to 80 m depth. They are found in south-west Atlantic region (Roper *et al.*, 1984). The body of *O. lobensis* is smooth and bulky and the male is larger and heavier than females. Mantle is broad, short and globular with its width almost equal to length. Arms are broad, moderately long and very robust at bases. The arm lengths of twelve specimens were measured to arrive at the arm formula and it was observed that *O. lobensis* has an arm formula of  $1 > 2 > 3 > 4$ . The 3<sup>rd</sup> left arm of males is shorter as compared to females of the corresponding size. The species has a striking similarity with *Cistopus indicus* but for its stout body and comparatively shorter arm lengths.

According to Roper *et al.* (1984) the maximum mantle length of the species is 100 mm. However, the mantle length of the species landed at Mumbai ranged from 65 to 190 mm with weight ranging from 213 to 1120 g. The mantle length ranged from 35 to 136 mm and weighed 5 to 400 g in Kochi waters (Kripa *et al.*, 2000).

Thirty specimens of *O. lobensis* were analysed for biological studies. Majority had guts with 'trace' and 'empty' condition and the food was in finely macerated state. The species seems to mainly feed on 'fish' (66.7%) followed by 'prawn' (15.2%), squids (1.6%) and 16.5% was digested matter. Unlike other octopods, where males are more in number, this species has a sex ratio of 1:1.5. About 50% of the specimens analysed for the maturity studies were in 'mature condition' followed by 'gravid' (37.5%) and very few 'immature' specimens (12.5%) were present. The fecundity of the species ranged from 700 to 4660 numbers and the ova diameter ranged from 1-3 mm. Some octopods are known to make seasonal migrations, which are influenced by breeding activity. It seems that in all probability this species may have come to nearshore waters for breeding.

Octopus resources are almost totally exported and *O. lobensis* fetches high price owing to its bigger size and better quality of flesh. The price range between ₹ 50-70 per kg at the landing centre.