

CEPHALOPOD RESOURCES OF INDIA: DIVERSITY, STATUS AND UTILIZATION

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Abstract: Exclusively marine, cephalopods represent a curious class of Phylum Mollusca, represented by around 800 extant species, commonly classified under the categories of squid, octopuses, cuttlefish and the chambered nautilus. Exhibiting remarkable diversity in size and lifestyle patterns, they are commercially important as a valuable food item and a source of bioactive compounds, besides serving as potential indicators to predict environmental changes. Of late, cephalopods form a major item in marine fishery export from India, with increasing demand from various parts of the world. The average annual fishery of cephalopods from India during 1963- 1969 was 901tonnes. Cephalopod landings increased steadily in the last 40 years, from 1617 tonnes in 1970 to 1,65,394 tonnes in 2010. During the initial phases cephalopod fishery was mainly supported by three species, the squid *Loligo duvaucelii* and the cuttlefishes *Sepia pharaonis* and *S. aculeate*. The export of *S. pharaonis* from India started in 1973. The gears used for cephalopod collection were shore seine, boat seine, hooks and line, dol net, trawl net and jigs. Currently, cephalopod fishery is done by deploying temporary fish aggregating devices such as artificial reefs deployed at 15-30m depth along the coastal waters and using jigging; coconut spadix are primarily used for making the reefs. The location of deployment of reefs is noted with GPS. Trawlers contributed about 90% of the cephalopod fishery in India. Octopus forms less than 10% of the total catch. Cephalopods are the second major seafood export item from India. Initially cuttlebone was the only item of export but from 1973 onwards frozen cuttlefish and from 1975 frozen squids were included. Currently squids, cuttlefish and octopuses are exported from India; frozen items forms top the fishery export of cephalopods from India. Cuttlebones are regularly exported to U.K, U.S.A and Burma. Since the cephalopods have emerged as a valuable resource in recent times because of the demand in export trade, constant monitoring of the fishery resource position and relevant biological aspects has become imperative. The on going study on the diversity of cephalopod mollusc along the Kerala coast (2008-2011) recorded the presence of 35 species of cephalopods including twenty species of octopus,

seven species of squid and eight species of cuttlefishes. Peak abundance was observed during August - October period. The dominant species in the collection were *S. pharaonis*, *S. aculeata* and *Sepiella inermis* (Cuttlefishes), *Loligo duvaucelii* (squid) and *Amphioctopus marginatus* and *A. neglectus* (octopus) and *Cistopus indicus*. All the cephalopod resources in the catch form an item of export from India, with *S. pharaonis* representing the major item. This paper analyses the resource potential, utilization and management of cephalopod resources in India.

Key words: Cephalopod, Diversity, marine diversity