

Recent Trends in Cephalopod Fishery of Kerala Coast

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 resource characteristics and biological aspects of cephalopods are being regularly monitored at Vizhinjam, Cochin and Calicut by

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The squids, cuttlefishes and octopuses commonly known as cephalopods have emerged in recent times as one of the prime foreign exchange earners for India. In 1992, a total of 28,263t of

still in vogue.

Kerala's share of all-India cephalopod production has been the highest in most of the years ranging



A squid catch by trawl net; a few numbers of small cuttlefishes also can be seen

cephalopod products valued at Rs. 90.28 crores were exported from India. Concomitant with the demand in export the catches also increased over the years. During the 1981-90 decade the annual cephalopod production increased from 9,600 to 56,200t and reached 63,900 t in 1991 and the all-time high of about 89,500t in 1992. Almost the entire quantity is taken as by-catch in trawl fishing, as no targeted fishing is

between 22% and 43%, leaving this position only to Maharashtra or Gujarat for some years. This is because the southern coast of Kerala, especially off Cochin, Quilon and Vizhinjam, is productive for cephalopods and exploitation here is also high.

The growth of cephalopod fishery in Kerala was remarkable during the last three decades. The landings during the year 1991 were just about 100t which

increased to 500t in 1971, 9,500t in 1981, reached 24,000 t. in 1990, slightly decreased to 19,500t in 1991 but again shot up to 30,600t in 1992, accounting for about 34% of the all-India production that year.

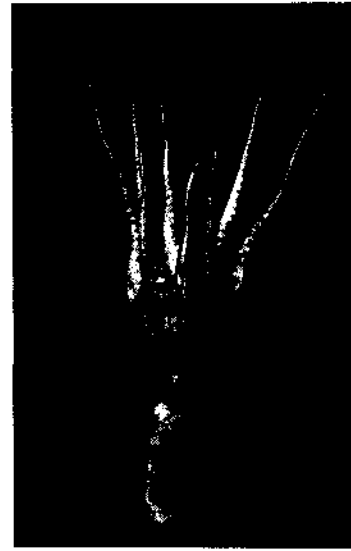
The cephalopod production by the mechanised sector has increased remarkably in recent times with an average share of 92% of the total cephalopod landings of the state in the last few years. Among the mechanised gears, shrimp trawl accounts for over 87% of the total production; the rest is contributed by a variety of gear like boat seine, gill net, drift net, ring seine and hooks and line operated from boats and catamarans fitted with outboard motors. The non-mechanised sector has a share of 8% of the total cephalopods, taken in a number of traditional gear like shore seine, boat seine, gill net and hooks-and-line. One welcome change in the fishing pattern recently is that during the cephalopod season (August-December) the fishermen aim at catching more cephalopods, and so instead of the usual one-day fishing, they often resort to 2 day fishing, thereby saving fuel.

Loligo duvauceli among squids and *Sepia pharaonis* among cuttlefishes are the two species that support the cephalopod fishery along the Kerala coast. They together form about 85%, and the rest is contributed by *Doryteuthis sibogae*, *D. singhalensis* (squids),



The common Indian squid, *Loligo duvauceli*

Sepia aculeata, *S. elliptica* and *Sepiella inermis* (cuttlefishes). The octopus fishery is insignificant at present but



The octopus *Octopus membranaceus*

with the growing export demand, there is scope for improving it by developing suitable fishing methods. The common species that occur along the Kerala coast are *Octopus dollfusii*, *O. membranaceus* and *Cistopus indicus*.

Though the maximum size of *Loligo duvauceli* may go up to about 350 mm for males and 240 mm for females, its fishery is supported by squids within the length range of 100-200 mm. This squid becomes mature at a minimum size of 90 mm, and spawning may occur throughout the year.

In the case of *Sepia pharaonis* the males attain a maximum size of 430 mm and females 330 mm but the fishery is generally composed of cuttlefish in the size range 150-250 mm. Both the males and females mature at a minimum size of 130 mm, and spawning takes place over a long period extending from October to April or even further.

Among other squids, *Doryteuthis singhalensis* grows to a larger size but the quantity in the fishery is very small. Most other squids and cuttlefishes have very little export value because of small size; these are consumed locally.

There are over 55 firms in Kerala dealing with processing and export of the cephalopods. The common items of cephalopod products are frozen whole cuttlefish, squid and octopus, frozen cuttlefish fillets and squid tubes, dried squid, cuttlefish and octopus and cuttlebone. Of these, frozen squid is the single major item both in quantity and value, followed by frozen cuttlefish and frozen cuttlefish fillets, the three items together forming over 95% of the total export of cephalopod products. The major buyers of these product are countries like Spain, Portugal, Italy and Japan.

