

Cephalopod Fisheries of Karnataka State - An Overview

The cephalopod production from the coastal waters of Karnataka state shows a rising trend (Fig. 1), which is in tandem with the all India trend in their production. Until the mid-eighties the cephalopod production in the state remained below 1000 tonnes/annum. From 1986, production crossed the 2000 t mark and in 1993 and 1994 production as estimated increased four fold to cross the 8000 t/ annum mark.

Presently Karnataka state contributes about 8% of Indian cephalopod production, which is significant considering that the State's coastline (300 km) is less than 4% of the total Indian coastline. Cephalopods comprising squids, cuttlefish and very rarely octopus are mainly exploited by the trawl fleet all along Karnataka coast (Fig. 2). Since cephalopods are an exportable commodity fetching high price, it has become the second most important revenue earner after shrimps for the trawl fishermen in the state.

Considering the magnitude of the resource and its economic value, the CMFRI has been studying the biology and dynamics of the resource in the state since 1980s. Presented here is a brief account on the salient findings of the studies.

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Exploitation

Cephalopods are generally considered as a midwater resource. During the sixties and seventies they were mainly caught by shore seines and hook and line all along the Karnataka coast. With increased mechanisation and expansion of fishing grounds, trawl nets have become the principal gear used for exploiting them. In Karnataka, there are two types of trawl fleets (see Zacharia *et al.*, 1996 for description) - SDF (single day fleet) consisting of small coastal trawlers making daily trips in the inshore waters upto 25 m depth zone and a MDF (multi-day fleet) made up of relatively large trawlers operating in 25-100 m depth zone (Fig. 2). More than 95% of the cephalopod production in the state is caught by the MDF, mainly because of the high opening type of trawl nets used. In some years,

(Jun-Aug) is the closed season due to the ban on trawling and inclement weather. Sep-Oct is the peak period of abundance (high catch rates) for both squids and cuttlefishes, although maximum catches are obtained during Jan-Mar period. Among the fishing ports in Karnataka, Mangalore and Malpe account for the bulk of the State's cephalopod catch. Other important fishing ports are Gangolli, Honavar, Tadri and Karwar.

Exploited Species

Currently cephalopods form 13% of the trawl catch and nearly 6% of the total marine fish production from the State. The principal species exploited is the Indian squid *Loligo duvauceli*, which in most years constitutes more than 80% of the catch. A list of species occurring is given in Table 1.

The occurrence of *Doryteuthis spp* is very seasonal and is usually associated with the north flowing coastal current during Nov-Dec (Mohamed and Nagaraja, 1991). During recent years, the percentage of cuttlefishes in the total catch is increasing due to increased effort of MDF trawlers in Sep-Oct

Table 1: List of cephalopod species occurring in Karnataka

Squids	Cuttlefishes
<i>Loligo duvauceli</i> (A)	<i>Sepia pharaonis</i> (A)
<i>Doryteuthis spp</i> (L)	<i>S. aculeata</i> (A)
<i>Sepioteuthis lessoniana</i> (R)	<i>S. prashadi</i> (L)
	<i>Sepiella inermis</i> (L)

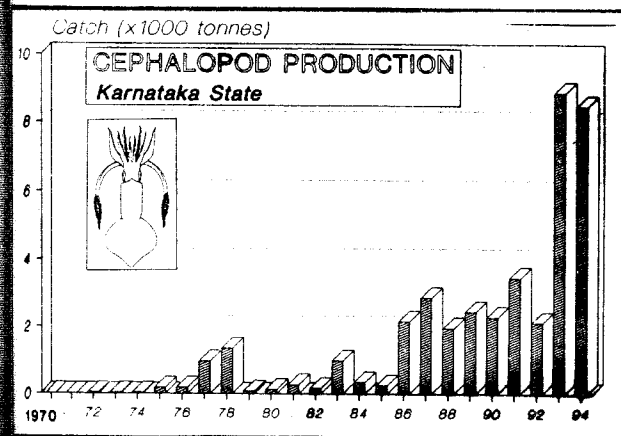


Fig.1

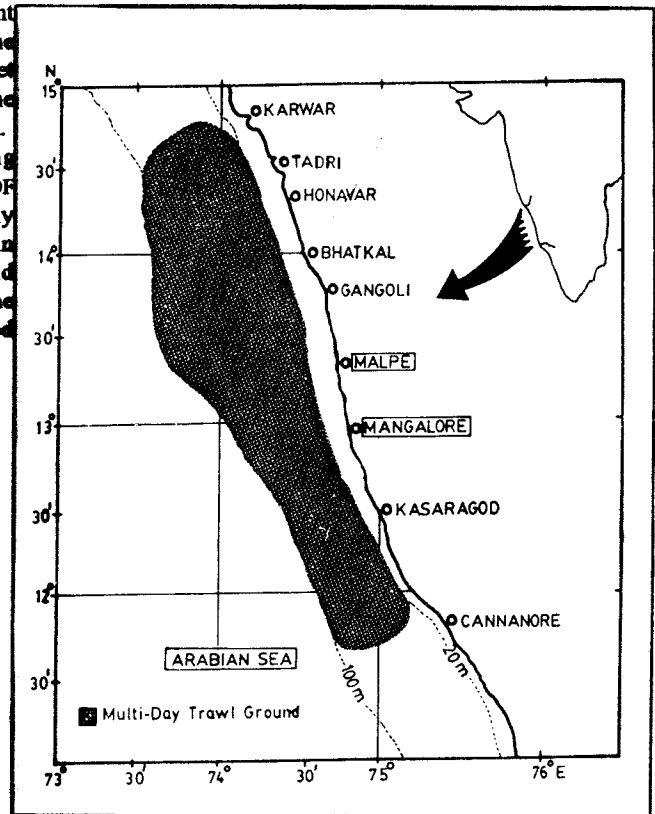


Fig.2