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CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
कोचिन, भारत COCHIN, INDIA

भारतीय कृषि अनुसंधान परिषद
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ON THE EMERGENCE OF OIL SARDINE FISHERY ALONG MADRAS COAST*

Oil sardine *Sardinella longiceps*, though forms one of the major pelagic fishery resources in India, has never formed a sizeable fishery along the Madras coast earlier and the present report deals with the emerging fishery along this coast since May to September, 1987.

* Prepared by J.C. Gnanamuttu and V. Thangaraj Subramaniam, Madras Research Centre of CMFRI, Madras.

Fishing operations and fishery

Boat seine locally called *Eda valai* - a traditional gear used by fishermen to catch pelagic shoals along this coast accounted for the bulk of the catches of oil sardine during May to September, '87. 'Eda valai' is a kind of bag net which is shallow with an extremely wide mouth nearly square measuring 18 m along each side. Two

large and two small catamarans are used for operating the net. One of the smaller catamarans is sent as a pilot which looks for fish shoal. If found, the larger catamarans are towed to the fishing area by mechanised boats which are also used as carrier boats to bring the catch quickly to the shore for auctioning. The catches were made at 6 to 10 m depth range off Tiruvaniyur about 15 km south of Kasimedu fish landing centre at Madras.

Unusually heavy landings of oil sardine were noted during the second fortnight of May and the first fortnight of June along with mackerel, lesser sardine, mullets and shads (Fig. 1). The estimated number of units (*Eda valai*) operated, catch of oil sardine and catch per unit and percentage composition based on the observations made by the senior author are given below.

Lorries loaded with ice from Kerala sent by wholesale fish merchants especially from Calicut were used for transporting the fish for marketing in Kerala when the catch was heavy in May and June (Fig. 1). A basket of 50 kg was sold at the landing place for Rs. 100 to 150 depending upon the catch. At the other end a basket was sold for Rs. 200 or 250.

Biological observations

Fishes of 90 to 200 mm total length were represented in the landings. However, in the regular fishery, fish of 120-145 mm length range were brought by the boat seines. The bulk of oil sardine catches (90%) was formed by fish between 120 and 135 mm. The dominant size groups encountered in different months were 120-124 mm in May and August, 130-134 mm in June and July, 110-114 mm in September and 155-159 mm in January and March. Fish examined during May-September period were all immature and measured below 150 mm. In January and March, adult fish measuring above 150 mm were all mature in stages IV

and V. Among mature fish, males predominated in the catches. The present observation on the mature oil sardine coincides with the observations already made during 1978 (Gnanamuttu, *Indian J. Fish.*, 31 (3), 1984). Stomach contents examined during May-September, '87, and January and March, '88 revealed the presence of copepods in small numbers and digested greenish matter in smaller quantities. More than 90% of the stomachs examined were empty.

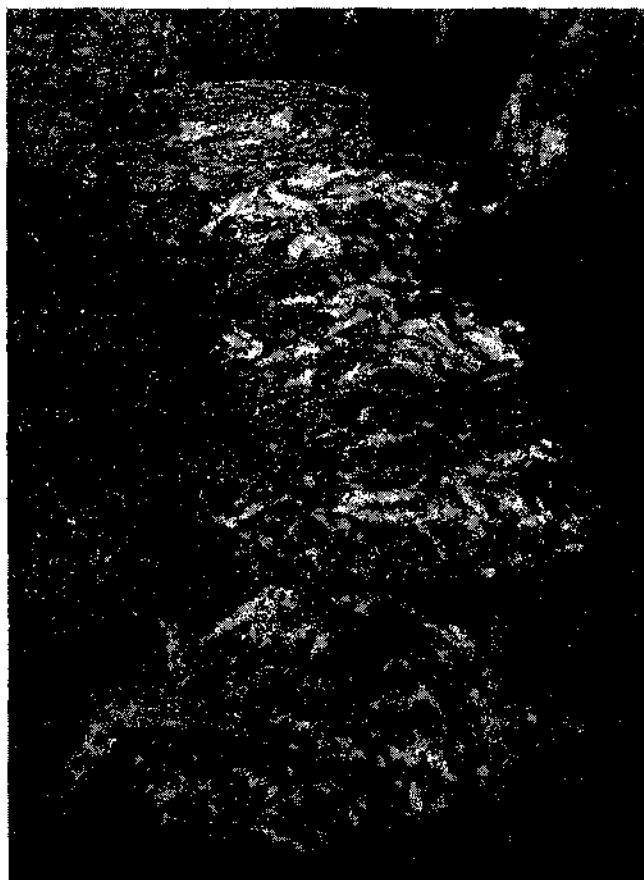


Fig. 1. Oil sardines being packed in baskets prior to transportation by trucks.

Month	Units	Est. catch (kg)	CPUE (kg)	% of oil sardine in <i>Eda valai</i> catch
May	130	69,600	535.3	50
June	395	76,100	200.0	40.2
July	347	22,723	65.5	31.4
August	144	1,545	10.7	11.0
September	150	2,064	13.8	4.2

A close consideration of the fishery data available from areas south of Madras especially between Pondicherry and Parangipettai indicates that the occurrence of oil sardine along the coast is a regular phenomenon than incidental, although in Madras the fishery appeared for the first time in 1987. Investigations on the resource of oil sardine have been initiated on this coast only in 1987. Regular monitoring and intensive studies have to be carried out for finding out factors responsible for the emergence of oil sardine fishery along this coast.

