

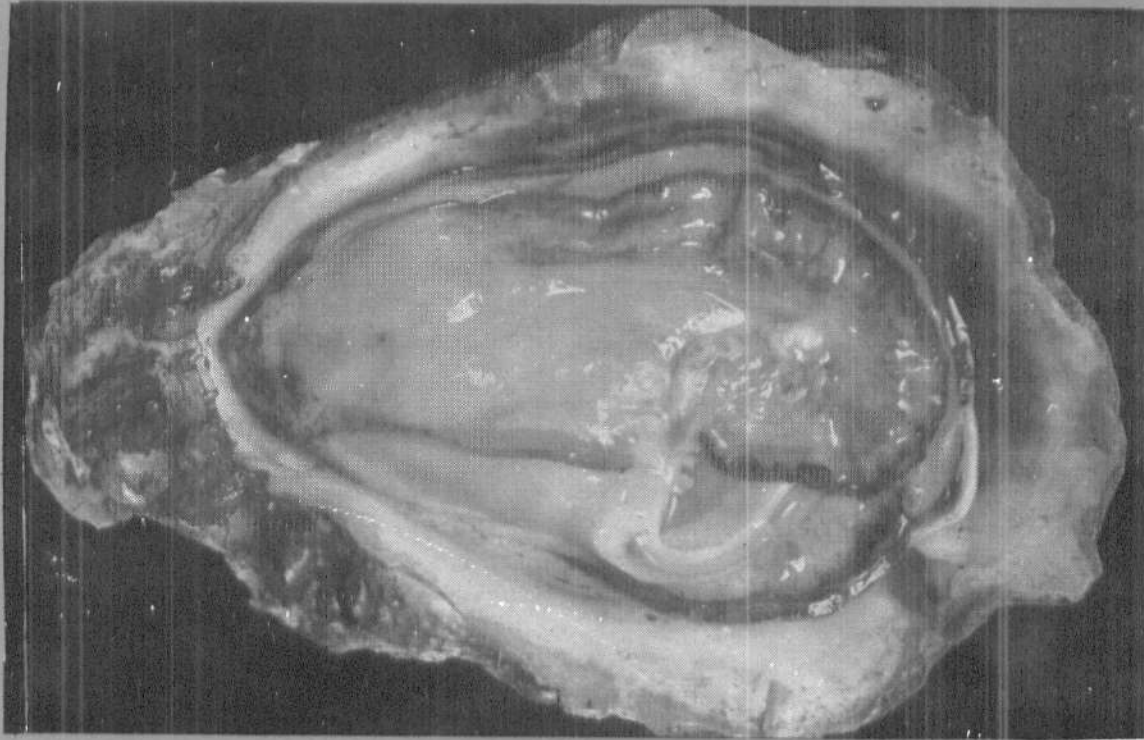


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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

848 Mackerel landings in Gujarat

Till late seventies, the Indian mackerel, *Rastrelliger kanagurta* (Cuvier) has been reported to be caught predominantly on the west coast extending from Ratnagiri to southern tip of Kerala. Few unusual catches have been reported farther north of Karwar. Till 1978 it has not been reported from the Gujarat coast.

Since early eighties, mackerel started appearing in the catches at various fish landing centers of Gujarat and gradually there has been an increasing trend in the mackerel catches off the coast (Table 1). Of late it

TABLE 1. Mackerel landings in Gujarat (1985-'93)

Year	Mackerel catch (t)	% in total marine catch
1985	41	0.014
1986	44	0.017
1987	17	0.007
1988	81	0.039
1989	132	0.040
1990	24	0.007
1991	162	0.036
1992	399	0.086
1993	278	0.068

is seen that good quantity of *R. kanagurta* is landed all along the Gujarat coast in the trawl as well as gill nets.

Mackerel catches has been recorded regularly from the trawl units at Porbandar, Mangrol, Bhidia and Old Light House in Veraval and Vankbara. Similar observations are also made from gill net units (mesh size varying from 55-88mm, monofilament) at Veraval, Jaleshwar, Sutrapada, Chorwad, Mangrol, Vankbara, Madhwad, Goghla, Porbandar, Miani, Sheel and all other gill net centres of Gujarat. The mackerel caught by trawl and gill net at Veraval are given in Fig. 1.

Exceptional catches of mackerel were observed in trawlers of Veraval and Mangrol during the months of March-April; predominantly during the last week of April (Table 2) with C/U even more than 200 kg (Fig. 3). Some of the one day trip boats also landed catches more than one tonne/day. Later the catches declined in trawl units and quantitatively increased in gill net (OBM), operated in shallow coastal waters during May-July. This clearly indicates the shoreward movement of the shoals as the monsoon approaches. By the end of May trawling ceases due to monsoon.



Fig. 1. A portion of the catch.

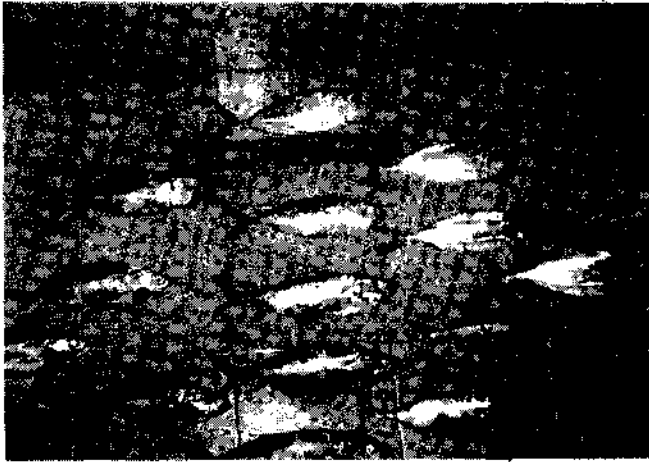


Fig. 2. Enlarged view of specimens.

Initially the local consumption of the mackerel in the domestic market was very poor. Later on it gradually picked up and now-a-days it fetches Rs. 3-5 a piece. It is even called "Malabari Bangadi" based on its consumption pattern (in southern India) and its profound abundance in the Malabar coast.

TABLE 2. Catches of *R. kanagurta* from January to June 1997 at Veraval

Months	Trawl				Gillnet			
	Catch	Effort	C/E	%	Catch	E	C/E	%
Jan.	96.7	12.376	7.81	0.53	11.2	3.353	3.35	1.40
Feb.	37.7	11.875	3.18	0.49	12.9	3.762	3.45	2.60
Mar.	42.5	12.600	3.38	0.39	18.2	4.247	4.30	2.82
Apr.	409.7	12.505	32.76	2.74	9.5	3.250	2.94	3.73
May.	63.9	8.696	7.35	0.56	34.7	3.012	11.53	7.22
Jun.	No trawling				11.1	735	15.17	9.39

Biology

During February-June 1997 the catch comprised only large sized fishes with total length ranging from 221 to 270 mm. The dominant size group was from 231-250 mm (Fig. 4). Fishes belonged to the one year group with the dominance of females (55.6 %). Forty per cent of the females were found to be in the early maturing phase (stage III) and the rest mostly in the mature and ripe conditions (stage IV & V). Fishes

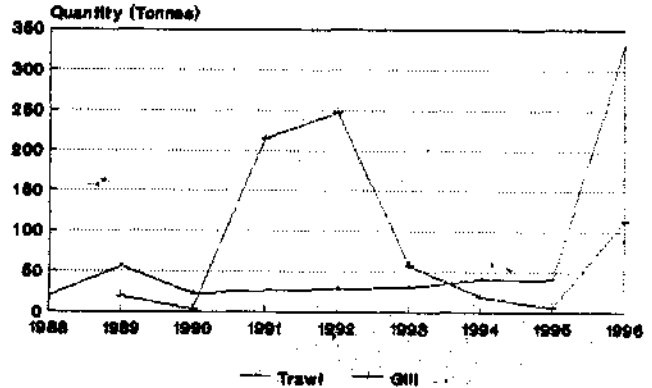


Fig. 3. (Catch of *R. kanagurta* in trawl & gill net at Veraval during 1988-'96.

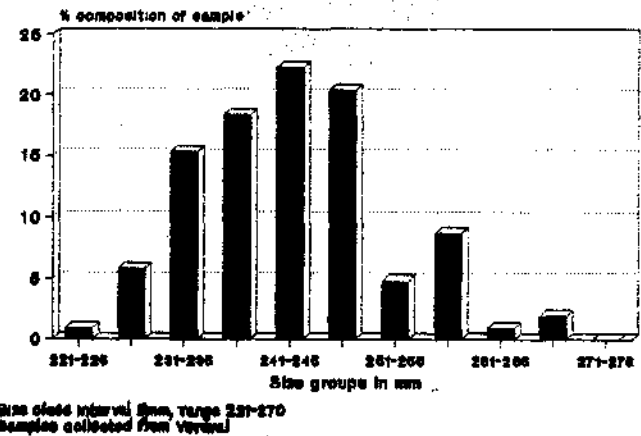


Fig 4. Length-frequency distribution of mackerel. (period Feb.-June 1997).

approaching complete ripeness have their gut rather partially filled or empty, while in the remaining ones (35 %) the gut remained full.

Fishing is carried out in neritic waters along the coast generally upto the depth of 25 m. The fishery of mackerel in general commences with periodic large scale movement of shoals from the offshore to the inshore waters.

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