

A NOTE ON THE PRAWN FISHERY AT ADESAR CAMP

The prawn fishery at Adesar Camp, situated in the Little Rann of Kutch (Fig. 1) is mainly seasonal with an estimated landing of 4.5 m. tons. Yet the fishery is of importance in that large-sized prawns are caught from this area. During the south-west monsoon period of July-August, the flood waters of the rivers Banas and Saraswati establish connection with the creeks of the inner Gulf of Kutch through the Little Rann. With the cessation of the monsoon, the water in the Little Rann gets land-locked and the prawn fishery in this lagoon commences then. This fishery actually represents the stock that had migrated from the creeks into this area during the monsoon season.

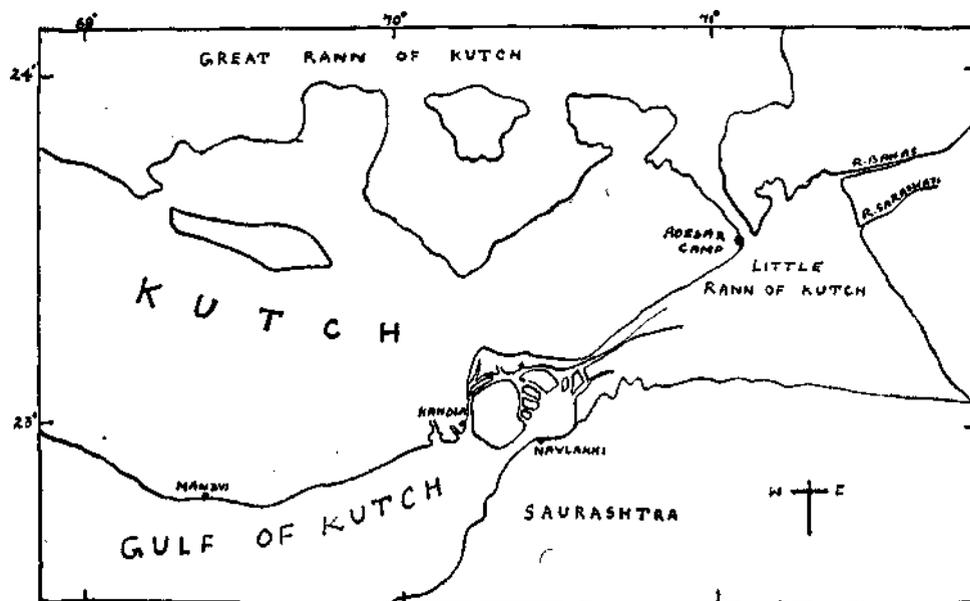


FIG. 1

The fishing season under observation lasted from September to December 1960. The maximum depth of the water was 6 ft. and the water almost completely dried up in summer. The salinity (determined by the Mohr's method of titration of the chlorides) of the land-locked water increased from 10.64‰ on 20-9-60 to 47.16‰, on 31-12-60 and the water temperature decreased respectively from 27.9°C. to 13.8°C.

Metapenaeus monoceros always dominated the catches with *Leander stylifera* appearing towards the fag end of the season. Observations on the biological aspects such as length-frequency,* maturity and sex composition were made in regard to *M. monoceros*. A total of 800 specimens was examined. Maturity condition of *M. monoceros* occurring outside in the sea was also studied from the in-shore catches of Kutch for comparison. The size range, modal sizes and sex composition for the different months are shown in Table I.

* Length from the tip of the rostrum to the tip of the telson.

TABLE I

Males			Females		Sex composition	
Month	Size range in mm.	Modal size in mm. & percentage	Size range in mm.	Modal size in mm. & percentage	Males %	Females %
September	81-123	106-110 (11.4%)	87-135	111-115 (15.4%) & 121-125 (9.7%)	40.0	60.0
October	102-130	111-115 (13.3%)	109-144	126-130 (16.0%)	44.0	56.0
November	103-140	116-120 (11.2%)	108-146	121-125 (13.2%) & 131-135 (12.5%)	42.3	57.7
December	106-134	116-120 (20.3%)	112-145	121-125 (9.3%) & 131-135 (9.2%)	61.0	39.0

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The size groups occurring at Adesar camp are comparable to those recorded in the sea off Cochin by George (1959). Males measuring over 100 mm. from this area as well as from the Kutch coastal waters were found to be mature while females of all [sizes up to the maximum observed size of 146 mm. at Adesar camp were immature. On the other hand, from the inshore catches of the Gulf of Kutch, maturing or mature females were found among the individuals measuring over 135 mm. during September-February. Similarly the presence of large-sized (maximum size 160 mm.) mature females of *M. monoceros* was noticed in the trawl-net catches off Cochin, whereas the back water fishery for the same species was composed of smaller (maximum size 120 mm.) immature individuals (George 1959). *M. monoceros* or a closely related species is known to breed in the shallow brackish waters of Australia (cited by Panikkar & Menon 1956). The present study which afforded an advantage to examine for maturity, the sizes of prawns comparable to those from the sea, confirms that females of *M. monoceros* do not attain maturity except in the sea.

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REFERENCES

- GEORGE, M. J. 1959. *Indian J. Fish.* 6 : 268-279.
- PANIKKAR, N. K. AND MENON, M. K. 1956. *Proc. Indo-Pacific Fish. Counc. Sec. III.* Madras, India.