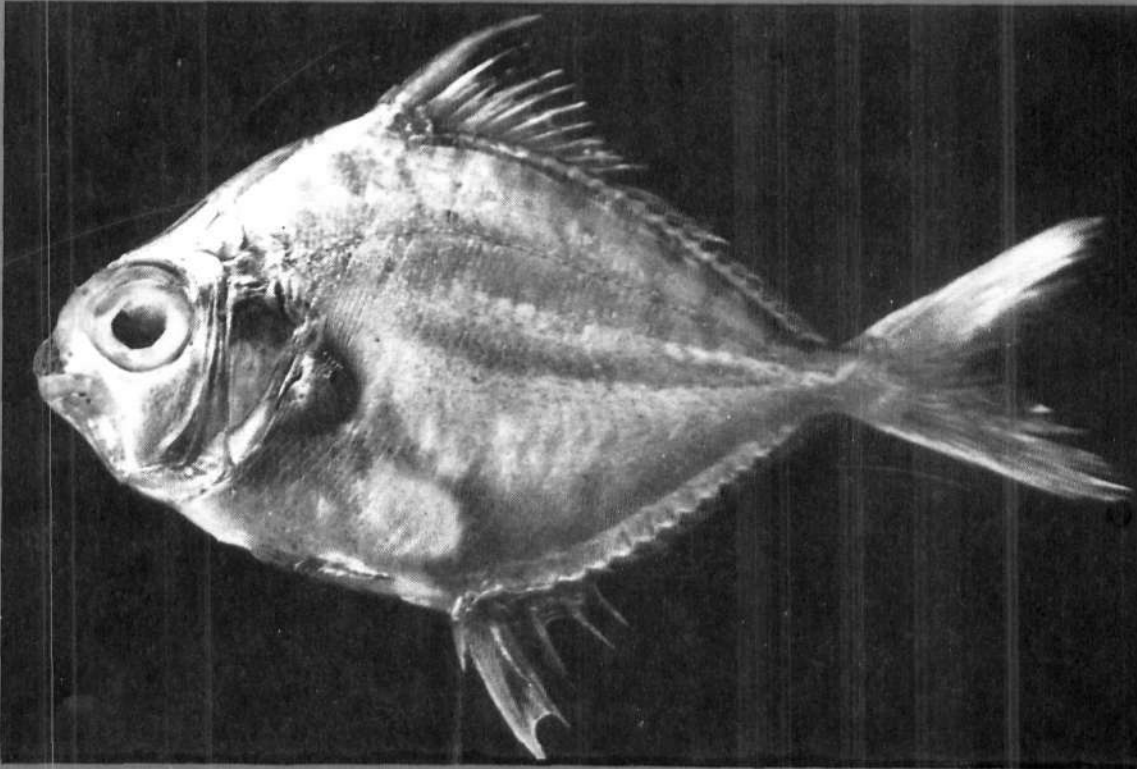




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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

A NOTE ON THE COMMERCIAL FISHERY OF THE KING PRAWN OFF TUTICORIN*

The king prawn *Penaeus latisulcatus* Kishinouye is distributed in the Indo-West Pacific region from Africa through India to Japan. The occurrence of this species in Indian waters was reported as early as 1969 from the southwest coast of India (George, CMFRI *Bulletin*, No. 14, 1969). However, there is no information on its contribution to the commercial prawn fishery of India. Therefore, the data collected on the catch, percentage composition, size-frequency distributions etc. of this species landed by the mechanized trawlers at Tuticorin Fisheries Harbour during the years 1987-'90 are presented in this short note.

The prawn fishing off Tuticorin is carried out by mechanized trawlers of medium size (12 to 13 m) using shrimp trawl net with a mesh size

of 20 mm at the cod end. The depth in the area of operation ranges between 20 and 60 metres. During the four year period of observation, a total catch of 8.7 tonnes of *P. latisulcatus* were landed at Tuticorin Fisheries Harbour with the monthly catch showing wide fluctuation ranging between 6 and 1,725 kg. Among *Penaeus* spp. *P. latisulcatus* occupies third place in terms of abundance, the first two species being *P. semisulcatus* and *P. indicus*. The landing of *P. latisulcatus* was recorded only during two months in 1987 and 1988. But in the subsequent two years its occurrence in the catches was observed during five months. It was totally absent in the catches in November, December and January during all the four years of observation (Table 1).

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TABLE 1. Estimated catch and percentage composition of *P. latisulcatus* landed by mechanized trawlers at Tuticorin Fisheries Harbour during the years 1987 - '90

Years	Months	Estimated catches of <i>Penaeus</i> spp. (kg)	Estimated catches of <i>P. latisulcatus</i> (kg)	Composition of <i>P. latisulcatus</i> in the total catches of <i>Penaeus</i> spp. (%)
1987	February	1,884	6	0.3
	July	38,200	290	0.8
1988	April	7,525	550	7.3
	May	10,251	432	4.2
1989	April	34,524	180	0.5
	June	60,375	1,725	2.9
	August	16,375	1,500	9.2
	September	10,500	1,500	14.3
	October	6,996	864	12.3
1990	February	8,436	36	0.4
	March	7,750	1,390	17.9
	June	32,144	240	0.7
	July	19,435	13	0.1
	August	10,491	13	0.1
Total		264,886	8,739	3.3

The percentage composition of *P. latisulcatus* among *Penaeus* spp. landed during the four year period was worked out and it was observed that its contribution to the commercial prawn fishery was almost negligible with its composition ranging between 0.1 and 17.9%, the average composition being 3.3%. It constituted above 10% of the catches of *Penaeus* spp. only during three months viz. September and October in 1989 and March in 1990.

The size-frequency distribution in males and females of *P. latisulcatus* landed during 1990 was studied and it was observed that in males, the size ranged between 143 and 178 mm with the dominant mode at 156-160 mm whereas in females the size ranged between 158 and 218 mm with the dominant mode at 201-205 mm (Fig. 1). Males were predominant in the catches forming 60.4%. Among females, prawns in spent-recovering stages dominated the catches forming 57.9%. Females in mature and late maturing stages constituted 31.6 and 10.5% respectively. Immature females were not recorded in the catches.

At Tuticorin, this species is considered inferior to other *Penaeus* spp. in terms of quality of the meat and hence it is not preferred for export by the prawn merchants. Consequent to this, the

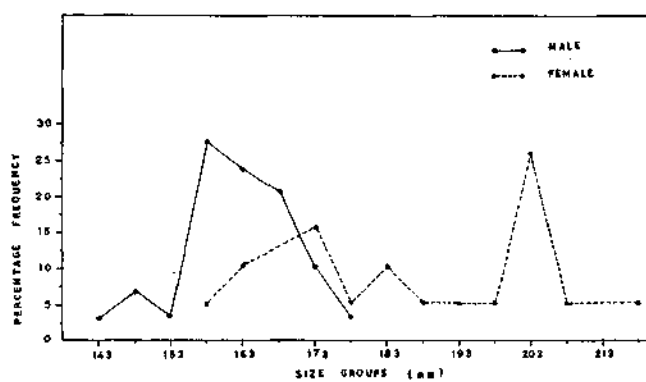


Figure 1. Size-frequency distribution of *P. latisulcatus* landed at Tuticorin Fisheries Harbour during the year 1990.

market price of this species is very low ranging between Rs. 40 and Rs. 60 only per kilogram for the first quality prawn whereas the price of other *Penaeus* spp. namely, *P. semisulcatus* and *P. indicus* is high ranging between Rs. 125 and Rs. 200 per kg. However, it is worth mentioning here that according to Motoh (*Southeast Asian Fish. Res. Center*, 1980) there is a great demand for this species in countries like Philippines where it is sold at par with *P. japonicus* and *P. indicus*.