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केन्द्रीय समुद्री मात्स्यकी CENTRAL MARINE FISHERIES  
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## ON THE SEASONAL HOOKS AND LINE FISHERY AT PAMBAN, NEAR MANDAPAM\*

Hooks and line fishery at Vizhinjam (*Mar. Fish. Infor. Serv., T & E Ser., 69 : 23-28*) and Calicut (*Mar. Fish. Infor. Serv., T & E. Ser., 83: 23*) have been described earlier. The present account is on the seasonal hooks and line fishery at Pamban, near Mandapam in the Gulf of Mannar.

The hooks and line fishermen of Tuticorin migrate toward Mandapam region and carryout fishing operation during December - March. They employ 10.5 m long plank - built boats fitted with 10 HP diesel inboard engine.

Each unit with 6 - 7 fishermen onboard operates hooks and lines along the coral reefs off Dhanushkodi at a depth of 18 - 25 m. The actual number of fishing days ranged from 10 in January to 25 in February during the present observation.

Iron hooks of about 7 cm long, numbering about 1000 - 3000 are operated from each boat with monofilament line of about 1 mm thickness. *Sardinella* spp. are used exclusively as bait. During each trip, 2 - 3 hauls are made and the actual fishing hours vary from 4 to 5 h. Several quality fishes, such as perches and elasmobranchs were represented in the catch. The average

catch per trip was 20.76 kg for the entire period. The gross income from a boat ranged from Rs. 150 - 1,000/- per trip with an average income of Rs. 400/-.

Particulars of catch (kg) and the species composition are furnished in Table 1. It could be seen that the maximum catch was brought in February and the minimum in January. *Lethrinus* spp. (34.01%) and *Lutjanus* spp. (22.95%) were the most dominant species landed by hooks and line. Sharks (9.58%), rays (8.36%) *Epinephelus* spp. (6.87%) *Plectorhynchus* spp. (4.73%) and *Pristipomoides* spp. (4.67%) were the other important species caught during the period. Size ranges in *Lethrinus* spp., *Lutjanus* spp. and *Epinephelus* spp. were, respectively, 160 - 775 mm, 150 - 685 mm and 200 - 800 mm.

There has been no report of confrontation of any sort between these group of migratory fishermen and the local traditional fishermen over the fishing rights. Their fishing activity is seldom affected by mechanised trawlers as they operate hooks and lines along the coral reefs. The good catches obtained by them, particularly perches (73%), are indicative of the richness of commercially important fishes in this fishing ground in the Gulf of Mannar.

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TABLE 1. Species composition (in kg) of catch landed by hooks and line at Pamban (Given in the parenthesis is the percentage in total catch)

Species	December, 1988	January, 1989	February 1989	March 1989	Total
Sharks	875 (11.22)	175 (10.49)	957 (12.00)	200 (3.57)	2207 (9.58)
Rays	1004 (12.87)	205 (12.29)	479 (6.01)	238 (4.25)	1926 (8.36)
<i>Caranx</i> spp.	48 (0.62)	17 (1.02)	205 (2.57)	29 (0.52)	299 (1.30)
Sail fish	37 (0.47)	35 (2.10)	30 (0.38)	65 (1.16)	167 (0.72)
Tunas	-	15 (0.90)	65 (0.82)	-	80 (0.35)
<i>Tachysurus</i> spp.	67 (0.86)	37 (2.22)	239 (3.00)	47 (0.84)	390 (1.69)
<i>Lethrinus</i> spp.	3681 (47.20)	462 (27.70)	1454 (18.23)	2242 (40.00)	7839 (34.01)
<i>Lutjanus</i> spp.	1551 (19.89)	465 (27.88)	1452 (18.21)	1821 (32.49)	5289 (22.95)
<i>Epinephelus</i> spp.	74 (0.95)	98 (5.88)	921 (11.55)	490 (8.74)	1583 (6.87)
<i>Plectorhynchus</i> spp.	62 (0.71)	35 (2.10)	798 (10.01)	195 (3.48)	1090 (4.73)
<i>Pristipomodies</i> spp.	100 (1.28)	24 (1.44)	875 (10.97)	78 (1.39)	1077 (4.67)
Miscellaneous	300 (3.85)	100 (6.00)	500 (6.27)	200 (3.57)	1100 (4.77)
Total catch	7799	1668	7975	5605	23047
Catch rate	26.0	18.5	21.3	16.3	20.8