समुद्री मात्स्यिकी सूचना सेवा MARINE FISHERIES INFORMATION SERVICE

No. 103

JANUARY, FEBRUARY, MARCH 1990



तकनीकी एवं TECHNICAL AND विस्तार अंकावली EXTENSION SERIES

EXTENSION SERIES

केन्द्रीय समुद्री मात्स्यिकी CENTRAL MARINE FISHERIES अनुसंधान संस्थान RESEARCH INSTITUTE कोचिन, भारत COCHIN, INDIA

> भारतीय कृषि अनुसंधान परिषद INDIAN COUNCIL OF AGRICULTURAL RESEARCH

UNUSUAL FISHERY OF PARAPENAEOPSIS ACCLIVIROSTRIS IN TADRI AREA (KARWAR)*

Over the years it has been observed that the fishing activities by trawlers are restricted to the period September to May in the Karwar - Tadri area. It is observed that the occurrence of *Oratosquilla nepa* and *Acetes johni*, (in particular the appearance of the latter shrimp species) only for a few days before the beginning of the night fishing for prawns, serves as an indicator of the commencement of the intensive prawn fishery in this area. Table 1 depicts the sequence of *Acetes* and prawn fishery.

The Acetes johni forms favourite food item of some fishes, which is related to the appearance of Lepturacanthus savala at Tadri. Thus L. savala, A. johni and O. nepa alongwith commercially less important but small

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 Table 1. Dates of appearance of Acetes johni and commencement of night fishing for prawns

Year	Date of occurrence of Acetes johni at Tadri	Date of commen- cement of night fishing for prawns at Tadri	Date of occurrence of Acetes johni at Karwar	Date of commen- cement of night fishing for prawns at Karwar
1986	20-11-86	20-11-86	22-11-86	24-11-86
1987	28-11-87	28-11-87	24-11-87	24-1187
1988	22-11-88	23-11-88	20-11-88	13-12-88



Fig. 1. Map of coastal districts of Karnataka showing the movement path of prawns from south to north from Mangalore to Tadri.

fishes and crabs serve as indicator species for the intensive occurrence of prawns in the fishing grounds.

On the morning of 23rd November, 1988, the trawlers landed from 18-20 fathoms depth, *P. acclivirostris* which is called as young 'Karikadi' (misnomer for *P. stylifera* by local fishermen) amounting to as high as 350 kg/boat. The fishery of this species continued upto 18th December, 1988 at Tadri. This species appeared at Mangalore area on 4-11-1988 as revealed by the fish merchants. On an average, each day 25 units landed 200 kg/boat during the period from 23rd November to 18th December, 1988. As the species is small in size and appeared for the first time, fishermen were not conversant, which resulted in poor returns. Most of the catch was diverted for sundrying. The species appeared in meagre quantity (2 kg/boat) at Karwar during 1987-'88 period. The species is observed during December-February at Tadri.

The species ranged from 29 to 68 mm in total length, the size range of females being 35-68 mm with a mode at 45-50 mm and that of males 29 to 52 mm with a mode at 36-40 mm. Though this species is small in size, the specimens were fully mature, and were in the stage III of ovarian maturity. It was interesting to note that the sex ratio for females to males was 96:4 respectively during 1987-'88 at Karwar.

Similarly, M. monoceros appeared at Mangalore on 2nd November, 1988, which may have moved northwards and gradually started appearing in a sizeable quantity at the northern fishing centres. At Tadri, M. monoceros also made its first appearance on 23rd November and at Tengingundi on 17th November, which is 85 km south of Tadri. Thus, its first catch at Tadri was made after 6 days of its appearance at Tengingundi. An interesting feature was that the fishery of P. acclivirostris was restricted only upto Tadri and not beyond in the north.

Thus, the above observations provide a clue to the appearance of prawns from south to north at the beginning of the prawn fishery season in the Tadri-Karwar area during November over the years. This may help the fishermen to plan their fishing activities accordingly.

