Bull. zool. Surv. India, 8 (1-3) : 323-324, 1987

OBSERVATION ON THE ABNORMALITIES IN THE PORTUNID CRAB, *PORTUNUS PELAGICUS* (LINNAEUS)

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During the routine survey of Pulicat Lake, Chengalput District, Tamil Nadu, in connection with the studies on Portunid crabs of Tamil Nadu Coast, the author has come across an interesting female Portunid crab, *Portunus pelagicus* (Linn.), on 27th June, 1984. This is one of the dominant species and contributes substantially to the crab fishery of the Pulicat Lake area. This abnormal specimen was found among the 149 specimens collected and the same was photographed before preserving in spirit.

Out of 149 specimens collected, one female showed abnormal characters. Eventhough abnormality is a common phenomenon in Portunid crabs, this is the first record of abnormality found in the female of *Portunus pelagicus* (Linn.). However, abnormality in male of the same species has already been observed. James (1968) recorded two additional dactyli on the left cheliped and Hamsa (1973) noted the abnormal condition on the right cheliped.

Earlier, Sankarankutti (1951) reported the total absence of second walking leg in the right side of a male, *Thalamita integra* Dana. Further, he observed the total absence of 4th pair of antero-lateral teeth in the same specimen. Noble (1964) reported two additional thumbs on the left cheliped of *Neptunus* (*Neptunus*) *sanguinolentus* Herbst. Abnormalities in the number and size of the antero-lateral lobes of carapace have been observed in *Lissocarcinus orbicularis* Dana (Sankarankutti and Thomas, 1964).

In the present study abnormal condition is observed in the right cheliped and the right swimming leg. The abnormal parts are slightly larger than the normal size (Figs. 1 & 2). Further, the dactylus of the right cheliped is shorter than the immovable finger (Figs. 3 & 4). The following is the brief taxonomic description which facilitates to distinguish the abnormal characters from the normal one.

Carapace normal and 45 mm in length, 97 mm in width ; left cheliped normal and 109 mm in length, 35 mm in thick ; right cheliped abnormal measuring 115 mm in length, 50 mm in thick (Figs. 1 & 2) ; length of the left dactylus and the immovable finger normal and more or less equal to each other, measuring 21 mm and 22 mm long respectively ; length of the right dactylus is only 16 mm whereas the right immovable thumb is 24 mm long. This clearly shows that the thumb is 8 mm longer than the dactylus (Figs. 3 & 4). Likewise, slight differences are noticed between the right and the left walking legs. First walking leg of the right side measures 74 mm, whereas that of left one measures 70 mm long. Second and third walking legs of the right side are 74 mm and 61 mm long, whereas those of the left side measure 61 mm and 58 mm long respectively. Left swimming

leg and its dactylus normal with 48 mm and 17 mm long respectively ; right swimming leg and its dactylus slightly larger in size than those of left, measuring 55 mm and 21 mm long respectively (Figs. 1 & 2) ; the colour of the right swimming leg slightly darker than the left.

Besides these features the abdomen also shows certain variations. The abdominal segments are unequal in size ; an incision is found on the right side of the penultimate segment of the abdomen, forming an irregular edge, whereas the left side is with normal edge (Fig. 2).

In spite of the fact that there are several reports on the abnormalities of Portunid crabs (Sankarankutti, 1951 ; Sankarankutti and Thomas, 1964 ; Noble, 1964 ; James, 1968 ; Hamsa, 1973), little is known about the unequal size of the dactylus of thumb and the difference in length between the swimming and walking legs. Further, this is the first record of abnormality found in a female Portunid crab, *Portunus plagicus* (Linn.).

The unequal size of the dactylus and the immovable finger of the right cheliped may be due to some accident and regeneration of the same. It is not known whether the small movable dactylus will grow and attain the actual length, i.e., equal to the length of the immovable finger in due course. According to McVean and Findlay (1979) regeneration in crustacea, especially in crabs is very common, but the regeneration occurs when the whole of a leg is amputated but not partially as in the present study.

Acknowledgements

The author wishes to express his thanks to Dr. B. K. Tikader, former Director, Zoological Survey of India, Calcutta and Dr. A. Daniel, Joint Director, Marine Biological Station, Zoological Survey of India, Madras for the facilities and encouragements. He also deeply indebted to Shri. P. Krishnamoorthy, Marine Biological Station, for his valuable suggestion to take up this study. His thanks are due to Shri M. Srinivasan and Shri J. Jothinayagam, Assistant Zoologists, Marine Biological Station, for their guidance. The author also wishes to express his thanks to Shri E. Seshan, Photographer, Marine Biological Station, Madras, for making the photographs available for publication.

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