

NOTES

ON AN ABNORMALITY IN THE PENAEID PRAWN *METAPENAEUS AFFINIS* (H. MILNE EDWARDS)

STRUCTURAL abnormalities in the genital organs of decapod crustaceans have been observed by several authors (Marshall, 1902; Hay, 1905; Ridewood, 1909; Matsumoto, 1955; Gordon, 1957 and Hartnoll, 1960). George (1963) has reported the occurrence of an undeveloped petasma in the first pleopod of a female specimen of the prawn *Metapenaeus monoceros* (Fabricius). During the course of a routine observation on trawl catches off Cochin an abnormal specimen of *Metapenaeus affinis* (H. Milne Edwards) possessing both male and female external genitalia (Fig. 1) was collected in November 1967, from a depth of about 25 metres. The specimen measured 152 mm. in total length and 41 mm. in carapace length.

A detailed study of the reproductive system of this specimen revealed that it is a fully grown female with well developed ovary in the late maturing stage and typical adult thelycum. The male character is represented by a pair of partly developed petasmas on the first pair of pleopods. Other male secondary sexual characters are lacking. The petasmas are not fused with each other along the median edges and are of unequal size, the left half being smaller than the right. In structure, they are closely similar to those of the juvenile specimens des-

cribed by George and Rao (1967); the left half resembling the petasmal endopodite of a 45 mm. specimen and the right that of a 65 mm. specimen. Hall (1962) has recorded a hermaphrodite specimen of the species from a Singapore prawn pond.

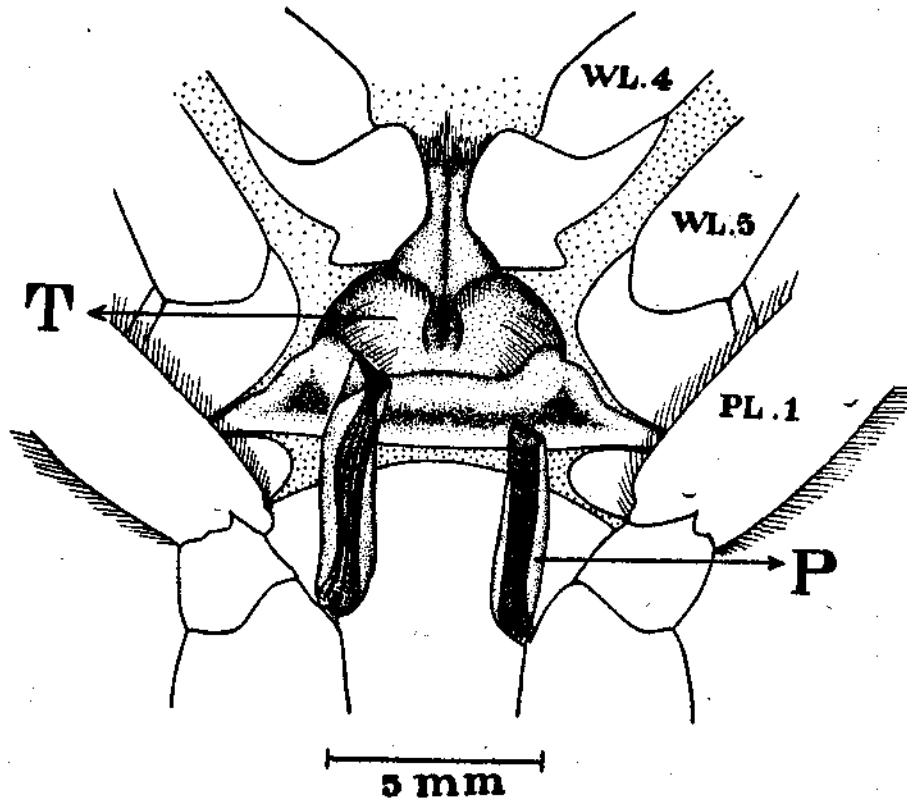


Fig. 1. *Metapenaeus affinis* (H. Milne Edwards), ventral view of the region between 4th walking leg and 1st pleopod. P—petasma. T—thelycum. PL. 1—1st pleopod. WL. 4 & WL. 5—4th & 5th walking legs.

The present specimen is decidedly a female with abnormally developed petasma and is not a hermaphrodite.

It is well known that the androgenic gland in crustaceans plays an important part in sex determination and that its regression inhibits the appearance of external male sexual characters (Charniaux-Cotton, 1960). In the present specimen it would appear that the regression of androgenic gland cells got delayed during the course of early development resulting in simultaneous growth of both petasma and thelycum for some more time. The left petasmal endopodite seems to have stopped its growth a little earlier than the right as evidenced from its size and structure.

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Central Marine Fisheries Research Institute,
Mandapam Camp.

C. SUSEBLAN

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**THE OCCURRENCE OF THE PROCELLANID CRAB,
PETROLISTHES TERES MELIN IN INDIA**

Petrolisthes teres Melin is a porcellanid crab which has not been reported from India so far. During the course of our study on the systematics of anomuran fauna of Waltair coast, 8 specimens of *P. teres* were collected from Lawson's Bay, Waltair. In this paper a short account of the diagnostic features of *P. teres* is given.

***Petrolisthes teres* Melin 1939**

(Fig. 1)

Diagnosis: Carapace a little longer than broad, smooth except for few bristles here and there. No epibranchial and supraocular spines. The 2nd and 3rd seg-



Fig. 1. *Petrolisthes teres* Melin.

ments of the antenna, each having a single spine on the inner margin. Chelipeds covered with red dots. Manus with a lobe on the inner anterior margin. Carpus with a strong tooth on the proximal inner margin and the rest of the margin finely serrated. Propodus longer than broad and with fine long plumose setae on the outer margin. Dactylus of walking legs with a single terminal spine and four accessory spinules on the lateral margin.

Measurements : Length 6.0 mm., width 5.0 mm.

Distribution : Pacific islands.

Remarks : This species is recorded for the first time from the Indian coast.

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*Zoology Department,
Marathwada University,
Aurangabad.*

R. SAROJINI
R. NAGABHUSHANAM

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