

## NOTES

### ON AN ABNORMALITY IN THE PROTOZOEAL LARVA OF THE PRAWN *PENAEUS SEMISULCATUS* DE HAAN

#### ABSTRACT

The note reports on the observation of an abnormal rostrum in a Protozoa larva of the prawn *Penaeus semisulcatus* de Haan which was reared from egg under laboratory conditions at Tuticorin.

THE GREEN TIGER PRAWN *Penaeus semisulcatus* de Haan, which is widely distributed in the Indo-Pacific region, is one of the commercially important species of prawns in the Gulf of

prawn is very much limited (Devarajan *et al.*, 1978). The work on the breeding and rearing of the prawn *P. semisulcatus* was started at Tuticorin during 1980. During the course of

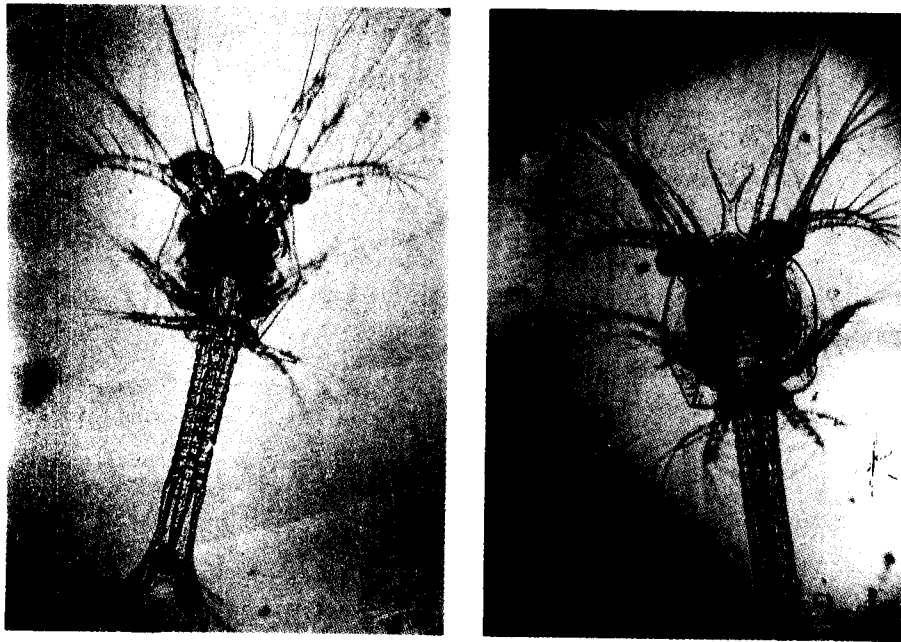


Fig. 1. Protozoa II of *Penaeus semisulcatus* : a. with normal rostrum and b. with abnormal rostrum (bifurcated).

Mannar. Although aspects of its biology has been studied in detail by Thomas (1974, 1980), information on the early development of the

our study we observed in one of our experiments that the rostrum of a larva in Protozoa II stage was abnormal. Normally the rostrum is

a single spine as an outgrowth of the anterior middle edge of the carapace (Fig. 1 a). But in the present case it was found that the anterior half of the rostrum was bifurcated into two spines (Fig. 1 b).

The larva was obtained from the brood of *P. semisulcatus* collected from the sea off Tuticorin by the Institute's *M. V. Cadalmin IV* on 23rd August 1982. The mother prawn which measured a total length of 145 mm was kept in a spawning tank in the field laboratory at Karapad. It spawned in the same night at 2240 hours. The nauplii obtained from the brood were counted on 25th by random sampling and were found to be 21,440 numbers. Which was very low when compared to the numbers obtained from different broods of the same species. When observed on 26th and 27th the larvae were in Protozoa I stage. They were fed with mixed phytoplankton, which was cultured under open sunlight. It was on 28th that the larva in Protozoa II stage was observed

with bifurcated rostrum. The larva was isolated from the normal ones and transferred to an one-litre beaker for the purpose of further observation. After isolation the larva was fed with *Isochrysis galbana*. When observed on 29th the larva was alive and the gut was full. However, on 30th (i.e. seven days after hatching out from the egg) the larva died. During the course of the experiment the ambient temperature ranged between 28°C and 29°C and the salinity between 33.31 and 35.53‰.

Such an abnormality in the early larval stages of prawns has not been reported by previous workers. However, Deshmukh and Vidyasagar (1968) reported that the rostrum of an adult prawn *Parapenaeopsis stylifera* collected from the sea off Veraval was bifurcated.

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## ELECTROPHORETIC STUDIES ON MUSCLE PROTEINS OF SOME PRAWNS FROM PORTO NOVO

#### ABSTRACT

Eleven species of prawns belonging to six genera (*Penaeus*, *Metapenaeus*, *Parapenaeopsis*, *Metapenaeopsis*, *Solenocera* and *Macrobrachium*) were electrophoretically studied for the muscle myogen protein patterns. The results have been discussed in the light of their genetic affinity and species relationships.