

## HYDROZOA — AN ECTOCOMMENSAL IN A PENAEID PRAWN

## ABSTRACT

Occurrence of an ectocommensal hydroid *Hydractinia* sp. on the carapace of the penaeid prawn *Parapenaeopsis maxillipedo* is reported. The mechanism of relationship between the host and commensal is also explained.

DOCUMENTED reports on parasites and diseases in prawns are limited. With the emerging interest in culture of prawns, greater attention is now being given to the above aspects as infestations due to parasites and diseases affect the growth of prawns in culture systems. Overstreet (1973), who dealt elaborately with the parasites and diseases of prawns, reported the occurrence of a few epizotic forms such as ectocommensalic relationship between a commercially important prawn *Parapenaeopsis maxillipedo* (T.L. : 116 mm ; C.L. : 135 mm ; sex : female) collected from the landing centre of Porto Novo (Lat. 11°29' N and Long. 79° 46'E) and a hydroid *Hydractinia* sp. This commensal was found attached as a cluster on the middorsal line of the carapace of prawn (Fig. 1) which hitherto has not been reported

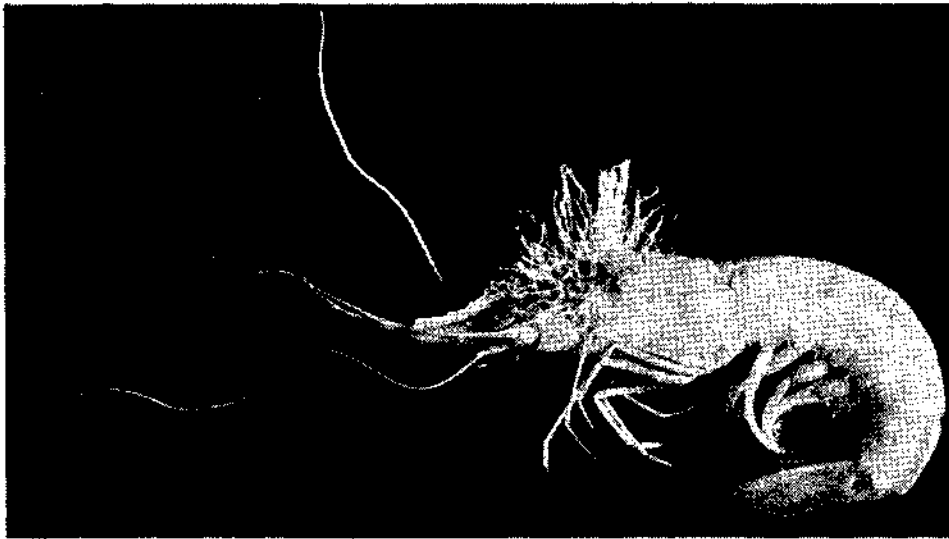


FIG. 1. *Parapenaeopsis maxillipedo* with the ectocommensal hydrozoa *Hydractinia* sp.

barnacles and hydroids (*Obelia bicuspidata*) in prawns. Such hydroid colonies may benefit on the carapace and abdominal regions of their hosts by protecting them from the predators with their zooids. *Hydractinia* sp. feeds between the host and commensals was not explained. The present report explains the and it drains water to catch organisms

from plankton. This may perhaps be shared with the prawn. In turn the hydroid colony which will get smothered by sediments, if it grows in a stationary place, is kept intact by the locomotor activity of prawns. Prawns are omnivorous detritus feeders. They scoop up the bottom with the maxillipeds and legs and select their food. The unwanted materials are sifted above from which the hydroids can collect their food. Ectocommensalic relationship between the hydroid *Hydractinia* sp. and the hermit crab has been reported (Wright, 1973). The basal plate of hydroid was found to be helpful in enlarging the shell. In the

same way the basal plate of hydroid colony may induce growth in prawns also. Thus the association between the hydroid and the prawn is of advantage to both the partners, a clear case of true mutualism.

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### PRELIMINARY STUDY ON THE TOXICITY OF FISHES OF CUDDALORE AND PARANGIPETTAI WATERS

## ABSTRACT

Among the eight fishes collected from Cuddalore and Parangipettai waters and screened for toxicity tests, three tetrodontiformes exhibited positive results and other fishes belonging to Flat-head, sole fish and another three tetrodontiformes showed negative results. The results obtained from the analyses of different tissues of different fishes are discussed in the present note.

MARINE toxins have been extensively studied in Japan and other developed countries (Tani, 1945; Tsuda and Kawamura, 1962; Goto, 1964; Russell, 1965; Halstead, 1967; Hashimoto, 1969; 1979; Clarke and George, 1979; 500 species of marine fishes are known to be toxic. Studies on marine toxins are very limited from Indian waters. Such studies are immediately warranted as they would pose problems to fishing industry and public health. The present work was carried out to find out the toxic fishes from Cuddalore and Parangipettai waters.

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*Material and methods*

The fishes were collected from Cuddalore and Parangipettai waters for toxicity tests. The method described by Hashimoto (1979) was followed with slight modifications to prepare the test solutions for toxicity studies. The skin, gonad and liver of the experimental