

## EPIZOIC AND ECTOPARASITIC PROTOZOANS FROM CRAB LARVAE

V. SANTHAKUMARI

National Institute of Oceanography, Regional Centre, Cochin-682 018.

### ABSTRACT

A suctorian, *Ephelota gemmipara* Hertwig, infesting the zoea of the pea-crab, *Porcellana* and an ectoparasitic flagellate *Ellobiopsis chattoni* Caullery infecting the zoea of the crab were observed from off Cape Comorin, the south-east coast of India.

**Key-words** : Parasites, copepods, crab larvae,

Occurrence of *Ephelota gemmipara* on copepods and other hosts was reported from colder waters (Sand, 1895; Schroder, 1907; Hamburger and Buddenbruck, 1913; Rose, 1924). *Ellobiopsis chattoni* was also reported from copepods (Santhakumari and Saraswathy, 1979).

While analysing zooplankton samples for associates and parasites, very interesting associations were observed from crab larvae. So far there is no record of associate or parasite from the crab larvae and hence this information is recorded.

Zooplankton samples collected with Bongo net of 0.5 mm mesh size and preserved in 4% formaldehyde solution in sea water, were utilized for the present study. Specimens were examined under the microscope, and drawings were made with the aid of camera-lucida.

The suctorian *Ephelota gemmipara* was found infecting the zoea of the pea-crab, *Porcellana*. The body is almost cup-shaped with a diameter of 40-70  $\mu$ . The stalk is very long and measures 400-1300  $\mu$ .

Eventhough a large number of specimens were examined for associates only one specimen was found to be infected with this species. The host specimen was collected at 15 m depth off Cape Comorin, latitude 8°51.3' south and longitude 76°33' east.

Steuer (1928) observed *E. gemmipara* from marine planktonic copepods, *Pleuromamma borealis* and *P. gracilis* from 600 m depth from South African coasts. Steuer (1932) doubted whether *E. gemmipara* is limited only to cold waters.

The associates were attached all over the body, chiefly on the spines and thoracic region (Fig. 1 a & b) and also near the eye (Fig. 1 c). Thirty individuals



Fig 1 a



Fig 1 b



Fig 1 c

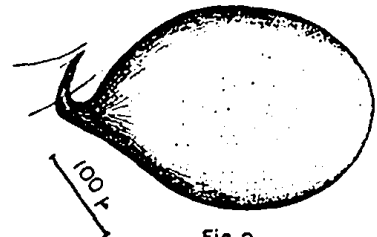


Fig 2

Fig. 1. *E. gemmipara* infested on spines (a), thoracic region (b) and near eye of the zoea (c), of pea-crab (x 160)

Fig. 2. *E. chattoni* infected on the zoea of edible crab.

were collected from this host specimen. Apparently no ill-effect was found on the host.

The parasitic protozoan, *Ellobiopsis chattoni* was found infecting the first leg of the zoea of edible crab. *E. chattoni* is pyriform and possesses a stout stalk by which it is attached to the appendage of the host (Fig. 2) and was collected at 110 m depth off Cape Comorin. This parasite absorbs nourishment from the host and hence it may be injurious (Jøpss, 1937). *E. chattoni* was described also by Santhakumari and Saraswathy (1979) from copepods.

#### ACKNOWLEDGEMENT

The author expresses her gratitude to Dr. V. V. R. Varadachari, former Director, N.I.O., Goa and Dr. M. Krishnan Kutty, Scientist-in-Charge, Regional Centre of N. I. O., Cochin for facilities and encouragement.

## REFERENCES

- Hamburger, C. L. and V. Buddenbruck, 1913. Nordische Suctorien, In : *Nord Plankton Zoology*, 13
- Jepps, M. W., 1937. On the protozoan parasites of *Calanus finmarchicus* in the Clyde sea area. *Quarterly Journal of Microscopical Society*, 79 : 589-658.
- Rose, M., 1924. Notes faunistiques s.1. Copepodes pel. de France. In : *Bulletin of Society of Zoologists, France*, 49-50.
- Sand, R., 1895. Les Acinetiens. In: *Annales Society of Belgium Microscopic*, 19
- Santhakumari and M. Saraswathy, 1979. On the Ellobiopsidae, parasitic Protozoa from Zooplankton. *Mahasagar — Bulletin of the National Institute of Oceanography*, 18 : 83-92.
- Schroder, O., 1907. Die Infusorien. In; *Deutschen Sudpolar Expedition* 9 : *Zoologie*, 15.
- Steuer, A., 1928. Uber *Ellobiopsis chattoni* Caullery 1910, einer ectoparasitischen flagellaten mariner copepoden. *Archive fur Protistenkunde*, 501-510.
- Steuer, A., 1932. Copepoda, 6. *Pleuromamma* Giesbr, 1898 der *Deutschen Tiefsee Expedition Valdivia* 1898-1899, 24 : 1-119.