

CIROLANA SPP. (ISOPODA) ASSOCIATED WITH MARINE WOOD-BORING AND FOULING ORGANISMS

Cirolana fluviatilis Stebbing and *Cirolana willeyi* Stebbing are isopods found associated with marine wood-boring and fouling organisms. They belong to the family *Cirolanidae* and are very common in the estuaries of Kerala. Cherian^{1,2} has reported that these species are essentially euryhaline, tolerating wide ranges of salinity variations and are capable of living in waters with low oxygen tension. Further observations on these animals are summarised below.

Both the species are swift moving and very common on submerged timber. Very often they are found in the burrows of borers and are likely to be mistaken as wood-borers. Usually they avoid light and are found hiding in the burrows, crevices and empty shells of foulers. Laboratory studies reveal that they are carnivorous and natural enemies of wood-borers and foulers feeding on living and dead organisms especially shipworms, sphaeromids and barnacles. It has been observed that a group of 15 or 20 animals are capable of eating up one entire specimen of a 2-3 inch long shipworm, within a few minutes (Fig. 1). Wood-boring sphaeromids are also their favourite food.



FIG. 1. Photograph showing *Cirolana* spp. attacking a shipworm (*Nausitora hedleyi*).

Pertinereis sp., a polychaete which is also common on submerged wood and considered to be an enemy of shipworms is another victim of *Cirolana* spp. When

a piece of shipworm or an injured *Sphaeroma* is put in the aquarium tank where these animals are kept they become aware of it and come out of their hiding places within 10-20 seconds and feed on it leaving behind only the hard parts. They have been found to chase slow moving organisms like small crabs, etc., and eat the soft parts of the prey while it is alive. They are so voracious that after feeding the body swells to the extent of hindering their swift movement. Development of the young ones takes place in a brood pouch. The young ones in a brood vary from 5 to 15. Breeding is throughout the year and the young ones liberated from the brood pouch are very active in movement and feeding.

Sellius³ suggested that an increase in the number of the enemies of shipworms may check their ravages. The observation that *C. fluviatilis* and *C. willeyi* are predators of wood-borers and foulers makes these animals economically important and further studies on these natural enemies of wood-boring pests will be rewarding.

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1. Cherian, C. J., *Bull. Dept. Mar. Sci., Univ. Cochin*, 1978, 9, 1.
2. —, *Ibid.*, 1978, 9, 15.
3. Sellius, G., *Historia naturalis teredinis seu xylophagi marini tubuloconchoidis speciatim Belgici, Trajecti ad Rhenum*, 1773, p. 1.

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