

SHORT COMMUNICATION

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ON A NEW ASSOCIATION BETWEEN PEA-CRAB *PINNOTHERES CARDII* BÜRGER AND THE BIVALVE *MACTRA LUZONICA* DESHAYES IN INDIAN WATERS

The Pinnotherids are popularly known as pea-crabs, have been known to associate with bivalves and regarded as an example of mutual friendship. More recently they have been recognized to occur as associates in bivalves, brachiopods, holothurians, ascidians and even in the tubes of polychaetes.

During a recent collection trip to Digha coast in the mouth of river Hooghly, West Bengal, India, undertaken by the senior author, five examples of bivalves were collected. While narcotizing the material, one pea-crab was found to occur in the internal cavity of one of the bivalves. The pea-crab has been determined as *Pinnotheres cardii* Burger 1895 and its partner, the bivalve, as *Mactra luzonica* Deshayes. The present report deals with the new locality record of the pea-crab in Indian waters and also a new association.

Pinnotheres cardii Burger

Material : One example ; mouth of Hooghly river, Digha, West Bengal, India ; 12.2.78 ; ♀ ; Coll. A. Misra ; Regd. No. D 2017/2.

Measurement : Length of the carapace 6.9 mm. ; Width 7.2 mm. ;

Distribution : Burias, Philippines ; Gulf of Siam ; Broome, Australia ; Japan (Tokyo Bay, Izu, Peninsula, Ise Bay, Nagasaki Yueyama).

Remarks : *Pinnotheres cardii* was described by Burger (1895) from the host *Cardium unedo* from Burias, Philippines. Later, it was reported from other parts of the world in association with other species of molluscs by various authors, as shown below :

Author	Host	Locality
Rathbun (1910)	<i>Cardium unedo</i>	Gulf of Siam
Rathbun (1924)	<i>Finna bicolor</i>	Broome, Australia,
Sakai (1939)	<i>Ostrea denselamellosa</i>	Tokyo Bay, Japan
	<i>Mactra sachalinensis</i>	Kyusyu, Japan
	<i>M. sulcataria</i>	Simoda, Japan
	<i>Mytilus crassitesta</i>	Ise Bay, Japan

Now this pea crab, *Pinnotheres cardii* is reported for the first time from the Indian waters in association with a new host, *Mactra luzonica* Deshayes.

Recent observations on the association between pea crabs and other marine animals revealed that these are mainly commensalic association, though in some of the balance may tilt in the direction of parasitism.

Though the senior author did not observe any damage on the part of the host containing the pea-crab, a detailed study in the field as well as in the laboratory, is required definitely to say whether the particular association is parasitic or not. Hence the term association has been used and the individual partner is termed as an associate.

This brackish water clam is commercially important because of its use as an item of food article at least in some parts of India. As observed by Silas and Alagarwami (1967), the pea crabs are responsible for quite a good deal of damages on their hosts, and hence it is now badly needed to make a thorough investigation on the problem in the eastern coast of India, so as to indicate effective measures to save the edible molluscs.

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