

Recent Benthic Ostracoda in the Mullipallam Creek, Near Muthupet, Tamil Nadu, India

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ABSTRACT. Ostracods are one of the best documented groups within the whole of the animal kingdom, due to the most characteristic features of their bodies and a well calcified, tiny, bivalved carapace which fossilizes easily. They are known to inhabit a wide variety of aquatic environments such as marine, brackish, freshwater, even terrestrial, and also dwell as parasites in the intestines of fishes. The studies on Recent ostracod fauna from the seas and other marine marginal water bodies of India, especially along the east coast, are still not known fully. For the first time a study on the systematics of Recent Ostracoda from the Mullipallam creek, India. The present work on morphological studies of Recent Ostracoda from the Mullipallam creek, (Lat. 10°18'093" - 10°20'710" N and Long. 078°30'840" - 79°34'876" E) has been undertaken to enhance the existing knowledge on ostracods of east coast of India. The Mullipallam creek area is located near Muthupet, belonging to Nagapattinam and Thiruvavarur Districts of Tamil Nadu. The area of investigation is a marshy mangrove wetland located in the southernmost end of the Cauvery delta along the coastal zone of Bay of Bengal and Palk Straits, India. Mangrove wetlands found along the coastal zones and often dominate in estuarine and the inter-tidal zones which act as a barrier against cyclones and tsunamis protect coastal erosion and provide good nursery ground for a number of commercially important aquatic organisms. A mangrove species *Avicennia marina* is the dominant in the creek followed by *Acanthus ilicifolius*, *Egiceras corniculatum*, *Excoecaria agallocha* and *Rhizopora mucronata*. The Muthupet mangrove wetland area is drained by the distributaries of the Cauvery viz., Paminiyar, Koraiyar, Kandankurichanar, Kilathangiyar and Marakkakoraiyar and forms a large lagoon before reaching the sea.

A fieldwork has been carried out twice in a year representing Pre monsoon (June, 2006) and Post monsoon (Jan, 2007). The depth of sample collection ranges from 1.0 mts to 3.5 mts. A total of forty-eight sediment samples were collected with the help of Van veen grab and by using motor boat from the selected sites of the study area. The classification proposed by Hartmann and Puri (1974) has been followed in the present study, through which 35 ostracod taxa belonging to 24 genera, 17 families, 2 superfamilies and 2 suborder of the order Podocopida have been identified. *Basslerites liebauti*, *Jankeicythere mckenziei*, *Kalingella mckenziei*, *Neomonoceratina jaini* are endemic to Indian waters only. *Neomonoceratina iniqua* is recorded in all the samples collected and studied. It outnumbered the entire ostracod population and represented by above 90% of the total population in few samples. *Hemicytheridea paiki* is represented second to *N. iniqua* in the study area. Some ostracod species characteristic of brackish water such as *Hemicytheridea* and *Neosinocythere dekrooni* occur in the creek. The occurrence of *Cytherelloidea leroyi*, *Keijella reticulate* and *Neocytheretta murilineata*, may be due to the tidal influence. All the species are well preserved. In general, the recorded ostracod assemblage is strongly of tropical, shallow and brackish water habitat in nature.

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