

FOULING GAMMARIDEA (AMPHIPODA) FROM BOMBAY OFFSHORE WATERS

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ABSTRACT

Five hitherto unreported gammarids encountered in Bombay offshore waters have been reported here. These fouling amphipods fall under four families. Their brief taxonomic and distributional notes have been included.

Key words : Amphipods, fouling, Bombay offshore

A considerable amount of work has been done on the amphipods of India some of these are Walker (1905); Nayar (1965); Pillai (1957); and Sivaprasadam (1966). But most of the studies have been conducted on amphipods resident in planktonic community or on those collected from sediments, seaweeds etc. in coastal waters. Amphipods of the fouling community, which form an integral part of the latter, have largely been neglected. The authors had an opportunity to study the fouling organisms on an oil-producing and processing platform located in the offshore waters of Bombay High and the gammaridean amphipods encountered in this locality are listed below. This note forms the first record on the fouling amphipods from the offshore waters of India. For a list of fouling amphipods see Purushottam and Rao (1971).

The four depths selected for sampling the site (where the water depth was about 78 meters) were 2, 22, 42 and 62 m respectively. Test panels made of mild steel and aluminium were used for the collection of animals; the panels were fixed in vertical and angular positions and kept immersed for one month duration.

The amphipod species collected during the period (1983-84) are described below.

Family: *Stenothoidae*

Genus: *Stenothoe* Dana

Stenothoe gallensis Walker, 1904

Stenothoe gallensis Nayar, 1959, p. 17, pl. 5, fig. 19

Stenothoe crenatus Shoemaker, 1935, p. 237, fig. 2

Remarks

This species was very common mainly at the first and second depths and was found almost throughout the year. It is a free-living form and does not make a tube to reside in.

Distribution

So far, its distribution has been reported to be restricted to east coast of India. This is the first record of this form from the west coast of India.

Family : *Melitidae*

Genus : *Maera* Leach

Maera pacifica Schellenberg, 1938

Maera pacifica Nayar, 1959, p. 23, pl. 8, figs. 16 and 17.

Remarks

M. pacifica was observed only occasionally. It was generally restricted to the upper two depths. Many times it was found among algal and hydroid mat.

Distribution

This species had been reported earlier from Hawaii islands. It was also reported from the east coast of India by Sivaprakasam (1966).

Genus: *Elasmopus* Costa

The specific identification of this amphipod is yet to be confirmed. However, it was very common and found at all depths.

Family : *Podoceridae*

Genus *Podocerus* Leach

Podocerus brasiliensis (Dana, 1953)

Remarks

Podocerids were very common on many of the panels and during certain months present in great numbers. In fact, they were the most abundant amphipods observed in this locality. They were found at all depths but were more at upper two depths.

Distribution

It had been recorded previously from Gulf of Mannar by Nayar (1965). This is the first record from the West coast.

Family: *Ischyroceridae*

Genus : *Erichthonius* Milne-Edwards

Erichthonius brasiliensis (Dana, 1852)

Erichthonius brasiliensis Bousfield, 1973, p. 1985

Remarks

It is a tube-dwelling form. On certain panels, the tubes of these organisms occupied a good portion of the total area. The males are readily identified by the bidentate carpal process of the second gnathopod. Both the sexes were represented in the present collections.

Distribution

This is a cosmopolitan amphipod, present in the tropical and temperate waters of Atlantic, Pacific and Indian oceans. In India it was reported from Gulf of Mannar (Nayar, 1965). From west coast, this is the first record.

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REFERENCES

- Bousfield, E. L., 1973. *Shallow water gammaridean amphipods of New England*. Ithaca and London (Cornell University Press) 312 pp.
- Dana, J. D. 1853, *United States Expedition* during the years 1838, 1839, 1840, 1841 and 1842 under the command of Charles Wilkes 54 : 54-59.
- Nayar K. N. 1959. The amphipoda of the Madras coast. *Bulletin of the Madras Government Museum*, 6 : 1-59.
- Nayar, K. N., 1965. On the gammaridean amphipoda of the Gulf of Mannar, with special reference to those of the Pearl and chank beds. *Proceedings of the symposium on crustacea*, Marine Biological Association of India, Ernakulam, Part I, 133-168.
- Pillai, N. K., 1957. Pelagic crustacea of Travancore. III Amphipoda *Bulletin of the Research Institute of University of Kerala, Series C*, 5 : 29-68.
- Purushotham, A and K. S. Rao, 1971. The first progress report of the committee for the protection of timber against marine organisms attack in the Indian coastal waters for the period, 1953-1970. *Journal of Timber Development Association of India* 17 : 75-139.
- Schellenberg, A., 1938. Report on the Amphipoda collected by Cambridge Expedition to the Suez Canal. 1924. *Transactions of the Zoological Society of London*, 22 : 633-692.
- Shoemaker, C. R., 1935. The amphipods of Porto Rico and Virgin Islands *Scientific survey of Porto Rico and Virgin Islands, New York Academy of Sciences* 15 : 229-253.
- Sivaprakasam, T. E., 1966. Amphipoda of the East Coast of India Part I Gammaridea. *Journal of the Marine Biological Association of India* 8 : 82-122.
- Walker, A. O., 1904. *Report to Government of Ceylon of pearl oyster fisheries of the Gulf of Mannar*, 2 : 229-300.
- Walker, A. O., 1905. Marine crustaceans, XVI. Amphipoda. *fauna and geography of Maldiva and Laccadive Archipelagoes*, 2 : 923-932.