

Surface dynamics of *Cypridina multipilosa* (Ostracoda; Crustacea) in the Gulf of Aqaba (Eilat), Red Sea

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Numerous taxonomic studies of zooplankton have been conducted in the Gulf of Aqaba, but few ostracod species have been reported (Echelman, 1989) and less is known of ostracod seasonal population dynamics.

Ostracods were usually more abundant 2 km offshore than near the reef. They were quite rare in mid-day surface zooplankton collections (Echelman, 1989), and in seasonal night collections most abundant during February and March. The Ostracod collections included six species: *Asterope* sp., *Conchoecia* sp., *Cypridina multipilosa*, *Cypridinodes* sp., *Philomedes* sp., and *Synasterope* sp., of which only *C. multipilosa* was numerous. Maximum *C. multipilosa* abundances (419 m^{-3}) were observed during a relatively full moon (March 1, 1988), at this time comprising 47.2 % of the total zooplankton ind. and a significant portion of the total biomass ($86.1 \text{ g wet weight m}^{-3}$). Horizontally this high concentration was quite patchy, where at a distance of less than 600 m concentrations as low as 61 ind. or a total biomass of $8.3 \text{ g wet weight m}^{-3}$ were observed. With the exception of these March abundances, maxima never exceeded 27 m^{-3} and were generally much lower.

Ostracod maxima have been observed in the same season (February to April), in the Atlantic Ocean (Deevey, 1982) and Andaman Sea (Boonruang, 1985), but reported maxima were much lower ($24-46 \text{ ind. m}^{-3}$). To our knowledge only one other seasonal ostracod maximum has been reported, of similar magnitude to our findings during March 1988, and according to Paulinose and Aravindakshan (1977), this phenomena had previously been unreported from any region of the world oceans. There in the northern Arabian Sea *Cypridina dentata* was observed at concentrations of ca 179 ind. m^{-3} , which set record zooplankton displacement volumes for the upper 200 m of the Indian Ocean, and appeared associated with swarming for planktonic mating and bioluminescence (Daniel and Jothinayagam, 1977; Paulinose and Aravindakshan, 1977). Like *Cypridina multipilosa*, *C. dentata* was observed in dense vertically migrating patches (Daniel and Jothinayagam, 1977; Paulinose and Aravindakshan, 1977).

The assemblage of ostracod species from the Gulf of Aqaba appears similar to that of the Gulf of Suez, where seven species are known (Halim, 1969). However, four of the six species from the Gulf of Aqaba, including: *Conchoecia* sp., *Cypridina multipilosa*, *Cypridinodes* sp., and *Synasterope* sp. have not been reported from the Gulf of Suez or the Red Sea proper. For most planktonic taxa, more species are known from the Red Sea proper than either of the two northern Gulfs; however, ostracods appear to be an exception to this trend (Halim, 1969; Echelman, 1989).

Acknowledgments: The authors wish to express their sincerest thanks to Dr. R. Lerner-Seggev for her help in identifications, A. Cushnier and others for their help in collections, and the H. Steinitz Marine Biological Laboratory for providing facilities and equipment.

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