Abundance of Macrofauna in the Mandovi and Zuari estuaries, Goa.

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The variability of macrofaunal assemblage in the Mandovi–Zuari estuarine complex was studied during 2002-2003 and compared with earlier data of the same area. Sediment samples in duplicate were collected from 15 stations using a van Veen grab. A total of 68 taxa were identified with polychaetes dominating in terms of abundance and diversity. Faunal density was the highest in Zuari estuary (582- 1911 ind m^{-2}) than in the Mandovi, (663-1236 ind m^{-2}). However, biomass was high in the Mandovi (5.59 -17.42 g m^{-2}), mainly due to the presence of bivalves, than in the Zuari (3.38 -10.42 g m^{-2}). *Cossura* sp. and *Mediomastus* sp. dominated during May 2002 and April 2003 while, *Prinospio pinnata* dominated during September 2003.

The present data indicates a major change in the macrofaunal community compared to the earlier published literature. In 2002-03, the polychaete community was dominated by opportunistic species of family Capitellidae, Spionidae and Cossuridae compared to the carnivorous species belonging to family Eunicidae, Nephtyidae and Glyceridae in 1972-73. The fauna reduced from 1604 ind m^{-2} (1972-73) to 573 ind m^{-2} in 1992 but showed significant increase in 2002-03 (1073 ind m^{-2}). However, the numbers of species were reduced from 111 (1972-73) to 68 species (2002-2003). Many species, endemic to the estuarine system, were recorded in low abundance or were absent. Clam bed of *Meretrix casta* reported earlier from these estuaries, had very low abundance in 2002-03. It can be concluded that, the macrofaunal community in the Mandovi-Zuari estuary has changed during the last few decades but the reason is not clearly understood. Hence a detail investigation is necessary to understand the factors responsible for such changes.