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Hydrology of two water sheds influencing the density and distribution of venerid clam *Paphia malabarica*

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An estuary is a unique region exhibiting environmental and biological gradients where estuarine species prefer an optimum niche. The environmental parameters exert relative influence on species diversity, biomass and population density of macrobenthos. For two years we analysed the density and distribution of the edible clam, *Paphia malabarica* in two tropical estuaries deep estuary (a deep lake) and shallow estuary (a shallow lake) in the south-west coast of India in relation to the varying environmental factors. Our observations clearly indicated the existence of significant relationship between the environmental and biological variables. The density and distribution of the clam illustrated, spatio-temporal variations in relation to the changing hydrologic and sediment parameters. Peak clam density values were obtained in the premonsoon season followed by postmonsoon season and the monsoon season. The lower reaches of the estuary were denser than the upper reaches. The result of the study revealed that the density and distribution of the clam *Paphia malabarica* in the two estuaries were predominantly influenced by the environmental parameters such as salinity, organic carbon, sediment pH, potassium and sand fraction of sediment. The density and distribution of the clam was found to be decreasing in a decreasing gradient of these factors.

Biography

Ampili M completed her PhD at Mahatma Gandhi University, Kottayam, Kerala. Currently she is working as Associate Professor in N.S.S. Hindu College, Changanassery, Kerala. She has published 5 papers in international journals.

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