

Theme 7: Lakes, rivers, estuaries: water quality, biotic resources, sustainable management

T7_Oral_05

A COMPARISON OF MEIOFAUNAL DENSITY FROM MANGROVE WETLAND, ESTUARY AND BEACH SEDIMENT, WITH SPECIAL REFERENCE TO FREE-LIVING MARINE NEMATODES

G. Chinnadurai¹, A. Arockiamary², S. Panigrahi³, K.K. Satpathy³

¹Periyar Arts College, Cuddalore - 607 001, Tamil Nadu, India.

²CAS in Marine Biology, Annamalai University, Parangipettai, Tamil Nadu, India

³Environment and Industrial Safety Section, Indira Gandhi Centre for Atomic Research, Kalpakkam - 603102, Tamil Nadu, India.

The aim of this study is to determine the density and distribution of meiofaunal communities and nematodespecies diversity on the intertidal area of Pichavaram mangrove wetland, Vellar eatuary and Parangipettai beach sediment, southeast coast of India. Nine major meiofaunal taxa were identified. Nematodes were the most dominant taxon, contributing 60-95% of the total fauna. A maximum meiofaunal density of 1850 ind. 10cm² was recorded in mangrove wetland and minimum of 150 ind. 10cm² was recorded in beach sediment. A total of 54 species of nematodes belonging to 44 genera and 26 families were recorded. Of these, 50 species belonging to 40 genera and 22 families were recorded from mangrove wetland, 32 species belonging to 28 genera and 19 families were recorded from estuary and 21 species belonging to 18 genera and to 14 families from beach sedimentwhile 15 species were common at all the three sampling sites. Therefore, we conclude that the highest meiofaunal density was found in the mangrove wetland and lowest density was recorded in the beach sediment.