

Characteristics of Meiofaunal Communities in Intertidal Habitats Along Albanian Adriatic Sea Coast

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Abstract : Benthic ecosystems constitute important ecological habitats, providing fundamental services for spawning, foraging, and sheltering aquatic organisms. Benthic faunal communities are characterized by a large biological diversity, supported by a great physical variety of benthic habitats. Until late, the study of meiobenthic communities in Albania has been neglected thus excluding an important component of benthos. The present study aims to bring characteristics of distribution pattern of meiofaunal communities with further focus on nematode genus-based diversity from different intertidal habitats along Albanian Adriatic Sea Coast. The investigation area is extended from Shkodra to Vlora District, including six sandy sampling sites in beaches and areas near river estuaries. Sediment samples were collected manually in low intertidal zone by using a cylindrical corer, with an internal diameter of 5 cm. The richness on meiofaunal major taxon level did not show any significant change between different sampling sites compare to significant changes in nematode diversity at genus level, with distinct nematode assemblages per sampling sites and presence of exclusive genera. All meiofaunal communities under study were dominated by nematodes. Further assessment of functional diversity on nematode assemblages exhibited changes as well on trophic groups and life strategies due to diverse feeding behaviors and c-p values of nematode genera. This study emphasize the need for lower level taxonomic identification of meiofaunal organisms and extending of ecological assessments on trophic diversity and life strategies to understanding functional consequences.

Keywords : benthos, meiofauna, nematode genus-based diversity, functional diversity, intertidal, albanian adriatic coast

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