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DIVERSITY AND DISTRIBUTION OF INFAUNAL MACROBENTOS IN MANGROVE FORESTS OF THE MALDIVES ARCHIPELAGO

The Maldives is renowned for its exceptional coral reefs, yet limited scientific attention has been given to other significant marine ecosystems such as mangrove forests. Mangrove forests of the archipelago are vital ecosystems that provide numerous ecological services and support high biodiversity. Within the diverse fauna inhabiting mangrove ecosystems, macrobenthos in mangrove sediment play a vital role in maintaining ecosystem function, nutrient cycling, supporting biodiversity, and providing food and habitat for other organisms. Understanding the diversity and distribution patterns of infaunal macrobenthos within these unique habitats is essential for effective conservation and management. This study aimed to investigate the diversity and distribution of infaunal macrobenthos in the mangrove forests of the Maldives archipelago.

Field surveys were conducted in seven representative mangrove sites across the Maldives archipelago, covering different geographical locations and environmental conditions. A standardised sampling protocol involving sediment core sampling was employed to collect infaunal macrobenthic organisms. The collected samples were analysed in the laboratory, where macrobenthic organisms were sorted and identified. Species richness, abundance, and diversity indices were calculated to assess the overall biodiversity of the macrobenthos. The distribution patterns of different taxonomic groups were analysed using statistical techniques.

Results indicate a diverse assemblage of infaunal macrobenthos in the mangrove forests of the Maldives. The identified taxa include polychaetes, bivalves, gastropods, and crustaceans, among others. Species richness and abundance varied among sites, suggesting potential local environmental factors influencing community composition. Site-specific variations in the composition of infaunal macrobenthic communities were observed. Environmental variables, such as sediment characteristics, salinity, and temperature, were identified as potential drivers of community structure.

This study provides important baseline data on the diversity and distribution of infaunal macrobenthos in mangrove forests of the Maldives archipelago. The findings contribute to our understanding of the ecological dynamics within these unique ecosystems and can inform conservation strategies and management plans aimed at preserving the biodiversity and functioning of mangrove habitats in the face of global environmental change.

Si prega di indicare:

Comunicazione orale



Poster



- 1 Simposio** - Innovazione della didattica nella Zoologia e Scienze naturali
- 2 Simposio** - Sfide e opportunità per la conservazione della biodiversità: il contributo degli zoologi
- 3 Simposio** - Biodiversità evolutiva: adattamento morfologico e funzionale
- 4 Simposio** - Tassonomia, Filogenesi e Biodiversità: l'importanza e il ruolo dei musei zoologici

Tema libero (solo poster)

PREMIO GIOVANI RICERCATORI (poster, riservato a giovani ricercatori under 35^{*})

** i poster finalisti saranno selezionati da una giuria indicata dal Direttivo, l'autore che concorre al premio dovrà presentare il proprio lavoro nella sessione del congresso come indicato nel programma*