

Metadata Details

Title

Benthic Fauna of the Antarctic Ocean - Quantitative Aspects

Science Keywords

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| Category | Biosphere |
| Topic | Ecological Dynamics |
| Expedition Year | 1981-1982 1981-1982 |
| ISO Topic | Biodiversity and Biotechnological Potential |

Summary

Abstract

Quantitative studies on the macro and meiobenthos of the less explored (between 11 and 41°E longitude) part of the Indian Ocean Sector of Antarctic Ocean, revealed the existence of rich fauna and high standing crop in the depth range of 200 to 3600 m. Population density contributed by 12 meiofaunal and 3 macrofaunal taxa, was of a high magnitude and it varied from 1110 to 29774 (= 6780 m⁻²) and from 118 to 354 (= 221 m⁻²) for meio and macrofauna respectively. Nematodes (64.20%) and polychaetes (53.33%) were dominant components of meio and macrofauna, respectively. Meiofauna was more abundant in sandy sediments than in clayey bottom deposits and the richness of fauna showed positive correlation with increasing depth. In contrast, the macrofauna showed decreasing abundance with increasing depth. Ratio of macro to meiofauna in the total population was 1 to 53.

Purpose

In recent years some information on the quantitative distribution of fauna and benthic production in different sectors or regions of Antarctic Seas is available (Broch 1961, Belyaev 1964, Holmes 1964, Tressler 1964, Vinogradova 1964, Gallardo and Castillo 1970, Lowry 1977, Richardson and Hedgepeth 1977, Oliver 1978 and Everitt, Poore and Pickard 1981). Most of the published reports, relate to regions beyond 40° E longitude and mostly covers the Atlantic and Pacific Ocean Sectors, whereas the benthic investigations during the First Indian Antarctic Expedition of 1981-82, are essentially for the region between 10 and 41°E longitude - rather an unexplored part of the Indian Ocean Sector in Antarctic, (Ushakov 1964) and hence the observations presented here are meant to fill the existing gaps in the available information on the Antarctic benthos.

Data Center