



IV ROSS SEA CONFERENCE 2023

Università degli Studi di Napoli "Parthenope"

Via Amm. F. Acton, 38 - 80133 Napoli, ITALY

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Topic: Marine biology and ecology

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ABSTRACT Subject :

Intra-annual analysis of mesozooplankton sampled in the Ross Sea (Antarctica)

Abstract 04/02/2023 10:56:58

Zooplankton is a fundamental group in aquatic ecosystems representing the basis of the food webs and playing an important role in the field of benefit for humans such as ecosystem services. Zooplankton communities are sensitive to changes in environmental conditions, which result in community fluctuations and variations in species composition, making them a good environmental indicator to identify and evaluate any alteration in the water column. This study presents the qualitative-quantitative analysis of the mesozooplankton community collected between Jan 2004 and Jan 2005 by a time-series sediment trap moored in the Joides Basin (Ross Sea, Antarctica), at 530 m depth. The aim of this study is to observe the intra-annual variation of the abundance and relative diversity of zooplankton species at mesopelagic bathymetries, little studied depths. Thirty-eight species, twenty-seven zooplankton families and twenty orders were classified in the analysed samples and the most frequent taxa resulted to be Copepoda (39.6%), Phyllodocida (8.4%), Pteropods (9.1%) and Ostracods (8.4%). Sediment traps have proved to be valid tools for collecting zooplankton also during the winter season under the sea ice cover, and have allowed to implement the state of the art on the composition, ecology, diversity and management of these organisms within the marine area of the Ross Sea (Antarctica).

