

# **Preliminary results from the meiofauna of a Mediterranean submarine cave (Alicante, Spain)**

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Meiofauna, the ensemble of animals living between sediment grains, has been the subject of very few papers but none of them approached the subject from a quantitative point of view. The aim of the present study is to describe quantitatively the distribution patterns among the different taxa found in a submarine cave near Cabo de La Nao (Cape Nao, Alicante, Eastern coast of Spain). Sediment from four stations, three inside the cave and one close to the entrance, has been obtained using Hand Corer techniques. Environmental factors, such as temperature, salinity, light intensity, granulometry and organic matter have been recorded for each station, using submersible dataloggers.

11,978 individuals from twelve different taxa have been identified: Amphipoda, Copepoda, Isopoda, Kinorhyncha, Nematoda, Oligochaeta, Ostracoda, Polychaeta, Priapulida, Sipuncula, Tanaidacea and Turbellaria.

Analysis of variance and multivariate analysis have been used to study vertical and horizontal distribution pattern relationships between the different taxa. Correlation between distribution and environmental data has also been studied in order to obtain habitat selection preferences.

The taxa have been classified by distribution pattern into three categories: 1) Kinorhyncha and Tanaidacea; 2) Ostracoda and Polychaeta; 3) Turbellaria, Priapulida and Isopoda; and taxa showing opposite distribution pattern were Copepoda and Nematoda.

Finer analysis has been focused on the phylum Kinorhyncha, one of the less known invertebrate taxa. 227 individuals, both adults and juveniles of two still unidentified kinorhynch species belonging at least to the genus *Echinoderes* and *Pycnophyes* have been collected, mainly at the inner stations.