

SPONGE COMMUNITY IN THREE SUBMARINE CAVES OF THE BALEAR ISLAND (WESTERN MEDITERRANEAN): ADAPTATIONS; FAUNISTIC COMPOSITION AND BIOGEOGRAPHICAL AFFINITIES.
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ABSTRACT

Sponge fauna of three neighbouring submarine caves of the Majorca Island is studied along a light gradient; 45 species have been inventoried and taxonomic data of those showing morphological, pigmentary or spicule particularities, are given. Adaptations to darkness and precarious trophic conditions are also constated.

Three clearly differentiated groups of species belonging to the classical Mediterranean biocoenosis are found (precoralligenous, semi-dark and dark caves, respectively) besides a tolerant species group present in the whole of environments of the three caves. However, a few species (some of them probably undescribed), are exclusive of a cave that seems to show a particular geomorphology.

Sponges bearing a great quantity of spongine (not only Keratosa) predominate at the outside of the caves, together with species of Hadromerida. These last ones also constitute an important part of the sponge biomass in the medial zone together with Anchinoe tenacior. Species of the orders Axinella and Halichondria become relatively dominant in the dark areas. At the entrance of the caves the species are massive or they form thick coverings which do not differ in any morphological way from those outside, and they change gradually as one goes further inwards into creeping forms with a fine ramification or encrusting. A weakening in the spicular size has also been found.

The species affinity between this sponge fauna and that from other Mediterranean caves (Medes Island, Marsella and Adriatic Sea) seems to be low, although the different sampling intensity in each case certainly affects the results.