

Surveying benthic communities in marine caves of the Aegean Sea

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Abstract. Over the last century, the exploration of marine caves has brought to light rich communities of great scientific interest. Cave geomorphological complexity generates abiotic gradients which are reflected on biological zonation. Relevant quantitative descriptions exist only for a small number of caves mainly from the northern Mediterranean coasts. In this study preliminary results from a broader research concerning the biodiversity of Aegean marine caves are presented. Two submerged caves were surveyed with SCUBA diving and non-destructive methods (photo-quadrats). Percentage cover of 12 taxonomic groups was calculated for the walls and ceiling of different cave zones. Algal and sponge coverage differed among the corresponding zones of the two caves in relation to topographic factors (e.g. depth, cave opening) which determine the level of illumination. Semi-dark zones were dominated by sponges, the dark interior was mainly covered by serpulids while ceilings were prevailed by scleractinian corals. The observed distribution patterns among and within the surveyed caves highlight the individuality of each cavernicolous ecosystem.

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