

Comparative assessment of coralligenous assemblages with distinct features in Korinthiakos Gulf (Ionian Sea, Greece)

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The Mediterranean coralligenous habitat is characterized by high structural complexity and spatial heterogeneity, supporting rich biodiversity and a variety of sessile assemblages. Different aspects of the habitat often develop within the same area under the influence of different environmental conditions. Although this type of habitat has been extensively studied in the NW Mediterranean Sea, there is a considerable lack of knowledge regarding its distribution and biodiversity in other Mediterranean regions. In an effort to investigate the spatial variability of coralligenous community structure in the Ionian Sea, we studied two distinct coralligenous assemblages within a single site in Korinthiakos Gulf (SW Greece): one on a vertical wall, at depths ranging from 14 to 20 m, and another on boulders scattered in an adjacent muddy slope, between 24 and 28 m. A rapid, non-destructive assessment method was applied by means of SCUBA diving and photoquadrat sampling. From each assemblage, 15 photoquadrats (50 x 50 cm) were randomly obtained and analyzed using the photoQuad software. A total of 40 taxa belonging to 8 taxonomic groups were identified. Sponges were the richest group in number of species (26), whereas macroalgae were the dominant group in terms of substrate coverage (42.3%). Differences regarding species richness and coverage were observed among and within the two assemblages. Four species contributed the most to the dissimilarity between the two assemblages: the bryozoan *Schizomavella mamillata* dominating the wall assemblage, the sponges *Axinella cannabina* and *Chondrosia reniformis* prevailing on the boulders, and the yellow gorgonian *Eunicella cavolini* that was only present on the latter. This study adds to the existing knowledge of coralligenous communities in the Ionian Sea and provides a baseline for further surveys and monitoring activities.