

DEMOGRAPHIC CHARACTERISTICS OF THE MEDITERRANEAN GORGONIAN *EUNICELLA* SPP. IN THE AEGEAN SEA

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Mediterranean coralligenous outcrops constitute important marine habitats of high ecological value, given their structural complexity and species diversity. *Eunicella* spp. is one of the most common gorgonian species dwelling the coralligenous communities of the Aegean Sea. As marine habitats suffer increasing anthropogenic pressures, scientific concern regarding the distribution and conservation status of coralligenous habitats necessitates the collection of baseline information that will enable monitoring of change over time. Demographic studies of characteristic species are paramount for the evaluation of ecological conditions, but are however scarce in the E. Mediterranean. In this context, six populations of *Eunicella* spp. were investigated at three geographic locations of the Aegean Sea, with the aim to quantify their demographic parameters, i.e. depth distribution, size structure, density, and extend of injuries. Gorgonian populations were found at depths ranging from 10 to +45m, density varied between 3-39 colonies/m², and maximum height was 54cm (± 11.15). There was a significant negative correlation between height and density, which persists when examined in relation to depth and substrate inclination ($p < 0.001$). Overall, injuries were observed on 27.1% of the colonies. From those, 2.2% of the colonies suffered severe injuries. Given the paucity of data concerning the present status of gorgonian populations of the Aegean Sea, it is suggested that a precautionary approach should be adopted at least regarding the shallow water populations. This work provides original information, in response to the need of enhancing our understanding regarding the ecological state of coralligenous communities at a regional scale.

This research has been co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program “Education and Lifelong Learning” of the National Strategic Reference Framework (NSRF) - Research Funding Program: Heracleitus II. Investing in knowledge society through the European Social Fund.