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Abstract

Ecological theory predicts that heterogeneous habitats allow more species to co-exist in a given area, but to date, the knowledge about the relationships between habitat heterogeneity and biodiversity of coral forests in the lower shelf and upper slope along continental margins is rather limited. We investigated biodiversity of coral forests from 8 sites spread over two different geomorphological settings (namely, pinnacles *vs*. canyons) in the lower shelf along the Sardinian continental margin. Using a combination of multivariate statistical analyses, we show here that differences in the composition of coral assemblages among different geomorphological settings were not statistically significant, whereas significant differences emerged among sites within the same geomorphological setting (i.e. among pinnacles and among canyons). Our results reveal that environmental and bathymetric factors such as sediment coverage, slope of the