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Diving for the Environment. 2002-2005: Mediterranean Underwater Biodiversity Project

Abstract

Biodiversity has a great ecological value as an indicator of environmental health and ecosystem functional capacity. Monitoring is the first step towards the balanced management of natural resources. The University of Bologna launched in 2002 "Diving for the Environment. 2002-2005: Mediterranean Underwater Biodiversity Project" with the aim to obtain data on the state of the marine biodiversity along the Italian coasts, with the collaboration of recreational scuba divers. Divers were asked to signal on report schedules the presence in the explored areas of 61 taxa (4 vegetals, including seaweeds and a seagrass, and 57 animals, both vertebrates and invertebrates). This research is patronaged by the Italian Ministry of the Environment and supported by ASTOI (Association of Italian Tour Operators), ADISUB (Association of Italian Scuba Diving Agency: IDEA, PADI, SNSI, SSI) and the magazine Quark. During the year of 2002, 1006 divers have registered 3721 report schedules, corresponding to 2705 diving hours. Data indicate that the insular stations present better conditions with respect to the continental ones; furthermore the continental coasts of Ligurian Sea show a more degraded situation than the northern Tyrrhenian Sea ones. These results are in agreement with those obtained by other monitoring methods (chemical and physical analysis). The most important limit in the collaboration with scuba divers is the difficulty to obtain a survey effort uniformly distributed on a geographical large scale. The main advantage is the considerable amount of data obtained in a short time, with a significant limitation of the costs for the Academy. We retain that the recreational diving can be useful for monitoring marine environments and that this project may be used as model for marine biodiversity monitoring and citizen environmental education, exportable in other countries and/or other biomes.