



THE USE OF SCIENTIFIC SCUBA DIVING ACTIVITIES TO COLLECT INFORMATION ON FISH AND BENTHIC COMMUNITY FOR THE ESTABLISHMENT OF AN MPA IN THE COASTAL WATER OF MONTENEGRO, ADRIATIC SEA

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Scientific scuba diving activities was employed to carried out a survey on marine component (fishes and benthic flora and fauna) for the establishment of the first MPA in Montenegro. The survey was performed in summer 2010 with fish visual census (VC), assessment of *Posidonia oceanica* meadows and marine protected species.

For the assessment of fish assemblage was applied two underwater VC techniques, RST - Random Swim Technique, for data on the presence of fish species, and SVC - Stationary Visual Counts for quantitative evaluation. *Posidonia* beds were surveyed by two divers performing 13 transects placing inside each transect three stations (lower, intermediate and upper limit). According to its density (measured by counting the leaf shoots inside the 40x40cm frame) beds in equilibrium, disturbed beds and very disturbed beds were recognized.

The fish assemblage observed (72 species) is characterised by typical species of Mediterranean Sea with very poor density data.

Considering the marine protected species, in addition to the elevated depleted stock of date mussel (*Lithophaga lithophaga*), the other species observed during diving activities were *Cystoseira amentacea*, *Tonna galea*, *Pinna nobilis*, *Scyllarus arctus*, *Scyllarides latus*, *Ophidiaster ophidianus*, *Epinephelus aeneus* and *Hippocampus ramulosus*.

Finally, the application of underwater research techniques by scientific divers allowed to collect data on the quality of the marine environment along the study area, underling an high habitat complexity and biodiversity in the coastal area from Dubovica cape to Pecin inlet and in the area surrounding Katic Islets. The collection of data by scientific divers give the opportunity to replicate the survey when the MPA will be established, in order to monitoring the potential recovery of marine environment in the future.