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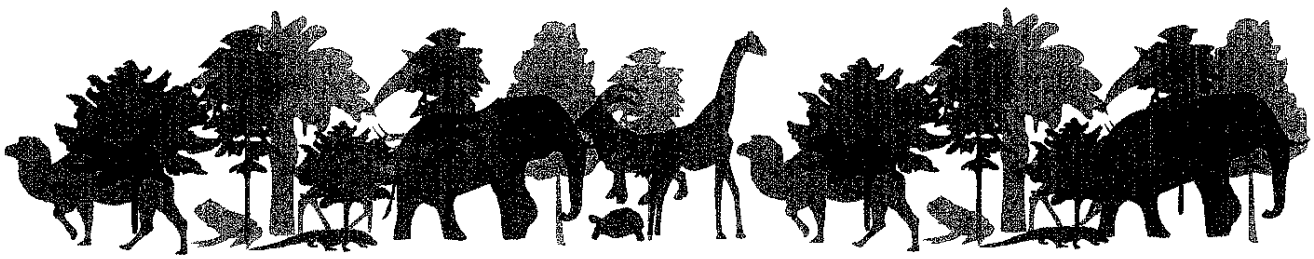

ORAL-BIOCON-OP259

Marine Protected Areas networks in the eastern Mediterranean for the conservation of biodiversity and for the restoration of fishery resources

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Aim of the study: This effort aims to present two research projects, MARISCA (Marine Spatial Planning in the Aegean Sea for the protection and conservation of biodiversity) and PROTOMEDEA (Towards the establishment of Marine Protected Area Networks in the Eastern Mediterranean), launched recently in the eastern Mediterranean They aim to investigate the role of MPAs for biodiversity conservation and the enhancement of fishery resources respectively, with the ultimate goal to contribute to the achievement of Good Environmental Status as dictated by the Marine Strategy Framework Directive, and to the implementation of the Marine Spatial Planning Directive.

Material and Methods: Major ecological features and essential fish habitats (EFH) will be mapped in MARISCA and PROTOMEDEA, respectively. Furthermore, mapping of human activities and existing management measures will be conducted in a truly complementary way between the two projects. Valuation of the goods and services of selected ecosystem components will be attempted, using the benefit transfer method. As stakeholder involvement is considered of high importance, stakeholder platforms will be created in both projects and operational objectives for the targeted features will be defined through close interaction. The design of the MPA network and the associated Spatial Plan will be based on the principles of systematic conservation planning, by applying the MARXAN with Zones planning software. In MARISCA, planning will be done in a single phase, where prioritization of areas will be based on the distribution of important and protected ecological features. In PROTOMEDEA, planning will go a step further, as there will be refinement of the proposed MPA networks through MARXAN, considering the outcomes from both the application of Maximum Sustainable Yield (MSY)/Bioeconomic modelling and of ecological modelling (i.e. ECOPATH with ECOSIM/ECOSPACE).

Results: The deliverables of both projects, can be summarized as follows: (a) maps of spatial distribution of important habitats, species and essential fish habitats; fishing effort, human activities and cumulative impacts; (b) valuation of the goods and services of selected ecosystems; (c) technical and scientific indicators to evaluate the effect of MPAs network towards MSY objectives; synthesis table and evaluation report of the different proposed MPAs scenario in terms of the currently established MSY reference points for selected fish stocks; (d) MSY/Bio-economic and Ecopath/Ecosim/Ecospace models. Finally, both programmes will provide maps of the proposed network of protected areas, and zones with restrictions on human activities, in order to conserve biodiversity (MARISCA) and restore fisheries (PROTOMEDEA) in the eastern Mediterranean.

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