



Benthic biocenosis as spatial unit to assess ecosystem services

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Coastal marine areas are characterized by the highest values of ecosystem services and by multiple uses often in conflict with each other. The Natural Capital Analysis is claiming to be a valid tool to support space management: in the EU Marine Strategy Framework Directive (MSFD) context, the EU JRC Scientific and Policy Report 2014 define monitoring specific descriptors and their possible use based on ecosystem services approach; in 2000 Kofi Annan launched the UN Millennium Ecosystem Assessment (MEA) to assess the "consequences of ecosystem change for human well-being".

The Mediterranean marine ecosystems are characterized by high biodiversity and by the presence of protected habitats and species included in the attachments 1 and 2 of the EU Directive 92/43/EEC.

In this work, marine ecosystem services of habitats and species located in the Site of Community Importance (SIC) along the Civitavecchia coastal area (Northern Latium, Italy) has been assessed considering the Mediterranean benthic biocenosis, as classified by Pérès and Picard, as our working tool.

Focusing on high-resolution local-scale analysis, our project allowed an accurate identification of the different biocenosis and of their services and benefits.

In this work we present a first evaluation of ecosystem services of coastal marine environments based on the analysis of the benthic biocenoses.

The analysis has been performed identifying all the species, and their ecosystem functions, characterizing the different biocenoses in the study area.

The ecosystem services has been evaluated for the benthic communities, measuring the different biocenoses areal extension through digital cartography (GIS).