Identifying Priority Representative Areas and Species in the Mediterranean Sea to Conserve: Med-RAS

Background

Due to its historical, paleogeographic, and ecological background, the Mediterranean Sea hosts relatively high diversity and endemism of marine species and habitats. However, these unique species and habitats are increasingly under threat from unregulated human activities, such as deleterious fishing practices, unsustainable tourism, coastal development, pollution, and the exacerbating effects of climate change.

To overcome these threats, international conventions and treaties such as the Convention on Biological Diversity, the Barcelona Convention, and the UN World Summit on Sustainable Development have recognized and stressed the importance of establishing a network of effectively managed and representative Marine Protected Areas (MPAs) by 2012. In addition, the IUCN World Commission on Protected Areas (WCPA) highlighted the need for increasing the number and enhancing the quality of Mediterranean MPAs, both in national waters and in the high seas, to reduce biodiversity loss.

Currently, 94 Marine Protected Areas (MPAs) have been created in the Mediterranean Sea on an opportunistic basis, the majority (73.4 %) of which are present along the northern coast of the basin. Therefore, important habitats and associated marine species in the high sea and in the south and east of the Mediterranean coast are under-represented and under protected. This project, Med-RAS, aims to identify priority habitats and species in these areas to manage and protect.

Project Concept

Project objectives

Project Med-RAS will define science-based criteria to identify and map important ecological and biodiversity areas to be protected and managed within a coherent and representative network of Mediterranean MPAs. This will be achieved through integrating species, habitat, marine landscapes, and marine protected areas information and the threats they face to provide regional and national managers with guidance on where and how to address priorities for marine conservation.

Overall, this project will compile existing data, generate new knowledge and develop new tools to interpret this information into a coherent, integrated format. A regional standardized methodology will be developed based on international and national consultations and latest scientific methods. Operating principles to identify representative areas and species will be identified for at least three ecoregions in the Mediterranean and sites within these regions will be used to test the use of these criteria. This project will act as a pilot for a future and more comprehensive regional gap analysis that would include all seven ecoregions of the Mediterranean.

Specific objectives

1. Develop a standard methodology of analysis that takes into account latest scientific developments in the disciplines of spatial planning, marine ecology, species modeling, and remote sensing. This will include developing standardized definitions; defining operating principles; and guiding criteria for data collection, storage and analysis on the scale of the Mediterranean Sea.

2. Gather, compile, assess and analyze data of selected pilot sites representative of different ecoregions in the Mediterranean Sea (west, north-west, east and south). Identify the spatial distribution and extent of major threats including human activities, in particular over-fishing, shipping, land and marine based pollution as well as invasive species.

3. Produce maps of sensitive areas and spatial distribution of sites in need of protection and are not included in the current system of MPAs. These maps will be provided to regional and national management and conservation planners.

Long-term impact

The standardized methodology developed through this project would be a first essential step towards a common and scientific approach to identify sites to be protected or managed in order to ensure a sustainable Mediterranean biodiversity. The methodology developed and the results of this project can be extended to different eco-regions of the Mediterranean Sea and to different biomes such as freshwater and terrestrial systems. These processes can also be communicated to and replicated in other regions of the world.

Executing agencies and partners

The IUCN Centre for Mediterranean Cooperation, based in Malaga, Spain, will manage this initiative towards a regional and common conservation approach in the Mediterranean Sea. Other regional actors, such as the WWF, UNEP RAC/SPA, MedPAN, FAO GFCM, ACCOBAMS and Blue Plan will be involved in and will contribute to the project. IUCN commissions (in particular WCPA and SSC) will form the technical core and expertise for this project and will bring their experience in similar projects from other parts of the world, including the Irish Sea, the Great Barrier Reef, and California.

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