

CIESM Congress Panel 8 – Mapping Habitat of Mediterranean Predators
Venice, 14 May 2010

summary by Giuseppe Notarbartolo di Sciarra

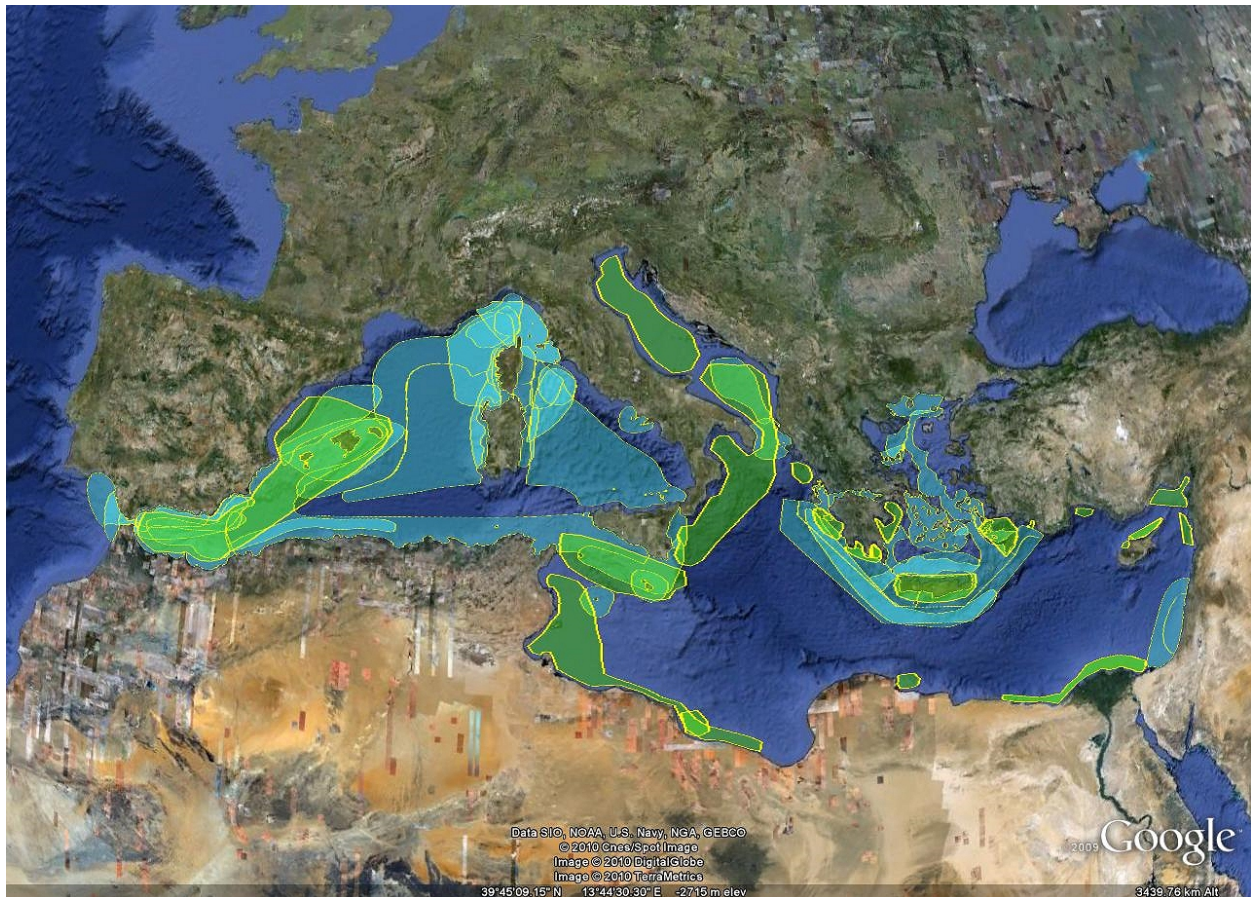
The Panel was coordinated by Giuseppe Notarbartolo di Sciarra (Tethys Research Institute, Milan, Italy) and Tundi Agardy (Sound Seas, Bethesda, USA). The rationale for the effort described in this Panel was centred on the need of providing sound scientific advice to the designation and establishment of marine protected areas (MPAs) to protect Mediterranean biodiversity. MPAs can be envisaged to protect specific threatened species. However, it is impossible to establish different MPAs to protect every single component of the biodiversity of a given region, and even protecting every threatened species of a given ecosystem will be a tough feat. By contrast, selecting apex marine species having umbrella and/or flagship properties can support the protection of a wider number of species, or marine biodiversity in general, ultimately enhancing the conservation status of the whole region. Panel 8 therefore consisted in a collaborative effort to map habitat of several groups of marine top predator and charismatic species, in a process in which expert-derived knowledge was made to overlap, and which involved interacting with the audience. This effort was intended to support the identification of Ecologically or Biologically Significant Areas (EBSAs) in the Mediterranean, an initial step in the planning of representative regional MPA networks. Furthermore, the Panel aimed at facilitating a process whereby experts from different taxonomic fields are induced to interacting together, towards the common goal of protecting an ecosystem containing different elements of its biodiversity.

After a brief introduction by Giuseppe Notarbartolo di Sciarra, in which the goals and procedures for the Panel were presented, presentations were given on the known distribution of habitats of six selected marine vertebrate taxa in the Mediterranean, as follows:

- Cetacean habitats, presented by Erich Hoyt, Whale & Dolphin Conservation Society, UK;
- Monk seal habitats, presented by Giuseppe Notarbartolo di Sciarra;
- Marine bird habitats, presented by Giuseppe Notarbartolo di Sciarra on behalf of Carles Carboneras, University of Barcelona (who had to cancel his attendance at the last minute);
- Marine turtle habitats, presented by Paolo Casale, WWF Italy & IUCN Marine Turtle Specialist Group, Rome;
- Shark and ray habitats, presented by Fabrizio Serena, ARPAT & IUCN Shark Specialist Group, Livorno, Italy;
- Bluefin tuna habitats, presented by Marco Costantini, WWF Italy.

Following the above presentations, ample time (about one hour) was dedicated to the discussion, during which the polygons representing the different habitat distributions were displayed in real time by projecting Google Earth on the screen. This presented

with opportunities for the public for suggesting and inserting new polygons, and for examining in a collective exercise where many of such polygons overlapped, thereby indicating distributional hotspots and insight for future conservation action.



Example of a Mediterranean overview of overlapping polygons circumscribing important habitats for cetaceans (blue) and turtles (green).

The Panel was concluded by Tundi Agardy, with a brief overview of practical applications of the presented knowledge for conservation and management. The Mediterranean Sea is subject to intense human use and this is projected to significantly grow in the coming decades. Fishing; maritime transportation; oil, gas and mineral extraction from the seabed; coastal construction, and other currently unforeseeable human activities will bring on the marine environment ever increasing pressure and degradation. These impacts continue to affect all aspects of Mediterranean ecology, including top predators and the food webs they influence. The continuing degradation is in stark contrast with the imperative of protecting Mediterranean marine biodiversity and

the environment in general, as prescribed by the Barcelona Convention and more recently, for EU Member States, by the EU Marine Strategy Framework Directive.

Although it was noted that by simply mapping the distribution of selected charismatic species it was impossible to identify all, or by that matter most biodiversity hotspots in the region, the meeting agreed that the CIESM mapping exercise can support, and is critical for, the creation of ecologically representative regional MPA networks and development of Marine Spatial Planning (MSP) strategies. Findings provide baseline information for an integrated process necessary to address large scale issues in the Mediterranean. Data on top predators will allow refinement of priority areas, using robust statistical analyses of existing information and databases, which can then be used to develop options for creating various sorts of MPA networks that span both coastal regions and Areas Beyond National Jurisdiction.

The meeting agreed that the subject of the Panel was a very useful and stimulating exercise, and recommended that the initiative be transformed into a permanent project, possibly hosted by CIESM, whereby data on the distribution of habitats of selected taxa be accrued with time with increasing detail and robustness, in order to provide sound scientific advice to marine conservation in the region.