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MEDITERRANEAN REGIONAL WORKSHOP TO FACILITATE THE DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS
Málaga, 7 to 11 April 2014

REPORT OF THE MEDITERRANEAN REGIONAL WORKSHOP TO FACILITATE THE DESCRIPTION OF ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS[1]

INTRODUCTION

1. At its tenth meeting, the Conference of the Parties to the Convention on Biological Diversity requested the Executive Secretary to work with Parties and other Governments as well as competent organizations and regional initiatives, such as the Food and Agriculture Organization of the United Nations (FAO), regional seas conventions and action plans, and, where appropriate, regional fisheries management organizations (RFMOs) to organize, including the setting of terms of reference, a series of regional workshops, with a primary objective to facilitate the description of ecologically or biologically significant marine areas through the application of scientific criteria in annex I of decision IX/20 as well as other relevant compatible and complementary nationally and intergovernmentally agreed scientific criteria, as well as the scientific guidance on the identification of marine areas beyond national jurisdiction, which meet the scientific criteria in annex I to decision IX/20 (paragraph 36 of decision X/29).

2. In the same decision, the Conference of the Parties requested that the Executive Secretary make available the scientific and technical data, and information and results collated through the workshops referred to above to participating Parties, other Governments, intergovernmental agencies and the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) for their use according to their competencies.

3. Subsequently, the Conference of the Parties, at its eleventh meeting, requested the Executive Secretary to further collaborate with Parties, other Governments, competent organizations, and global and regional initiatives, such as the United Nations General Assembly Ad Hoc Working Group of the Whole on the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socio-Economic Aspects, the International Maritime Organization, the Food and Agriculture Organization of the United Nations, regional seas conventions and action plans, and, where appropriate, regional fisheries management organizations, with regard to fisheries management, and also including the participation of indigenous and local communities, to facilitate the description of areas that meet the criteria for EBSAs through the organization of additional regional or subregional workshops for the remaining regions or subregions where Parties wish workshops to be held, and for the further description of the areas already described where new information becomes available (paragraph 12 of decision XI/17).

[1] The designations employed and the presentation of material in this note do not imply the expression of any opinion whatsoever on the part of the Secretariat concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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4. The Conference of the Parties at its eleventh meeting also took note of the particular need for a regional workshop to be organized in the Mediterranean region in order to finalize the description of areas that meet the criteria for ecologically or biologically significant marine areas in time for its report to be considered by a meeting of the Subsidiary Body on Scientific, Technical and Technological Advice prior to the twelfth meeting of the Conference of the Parties (paragraph 11 of decision XI/17).

5. At the 18th Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols, held in December 2013 in Istanbul, Turkey, the Contracting Parties adopted decision IG.21/5 (available at http://www.cbd.int/marine/doc/unep-depi-med-ig-21.5-en.pdf), "Identification and Conservation of sites of particular ecological interest in the Mediterranean", which requested the Secretariat of the Barcelona Convention/Mediterranean Action Plan (UNEP/MAP), with the assistance of the Regional Activity Centre for Specially Protected Areas (RAC/SPA), to cooperate with the Secretariat of the Convention on Biological Diversity in organizing during 2014 a Mediterranean regional workshop on EBSAs, in time for its report to be considered by the eighteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (June 2014) and the twelfth meeting of the Conference of the Parties to the Convention on Biological Diversity. Previously, the 17th Meeting of the Contracting Parties to the Barcelona Convention, held in February 2012 in Paris, had adopted decision IG.20/7 (available at http://195.97.36.231/acrobatfiles/12IG20_8_Eng.pdf), which requested the Secretariat of the Barcelona Convention/Mediterranean Action Plan (UNEP/MAP) to present the work carried out regarding the identification of EBSAs in the Mediterranean to the relevant processes under the Convention on Biological Diversity.

6. Pursuant to these requests and with financial support from the Government of Spain, the UNEP/MAP Mediterranean Trust Fund and the Government of Monaco through UNEP/MAP, the Secretariat of the Convention on Biological Diversity convened, in cooperation with the Secretariat of the Barcelona Convention/Mediterranean Action Plan (UNEP/MAP), with logistical and technical support provided by the International Union for Conservation of Nature (IUCN) Centre for Mediterranean Cooperation (IUCN-Med) and the Regional Activity Centre for Specially Protected Areas, the Mediterranean Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas (EBSAs). This workshop was hosted by the Government of Spain and held from 7 to 11 April 2014, in Málaga, Spain.

7. With the financial support of the European Commission, the CBD Secretariat commissioned a technical team to support their scientific and technical preparation for the workshop. The results of this technical preparation were made available in the meeting document entitled "Data to Inform the CBD Mediterranean Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas" (UNEP/CBD/EBSA/WS/2014/3/3).

8. The meeting was attended by experts from Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, European Union, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Tunisia, Turkey, the Secretariat to the Barcelona Convention/Mediterranean Action Plan (UNEP/MAP), the Secretariat of the Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS), Food and Agriculture Organization of the United Nations, Intergovernmental Oceanographic Commission-UNESCO, UNEP Mediterranean Action Plan Regional Activity Centre for Specially Protected Areas, IUCN Centre for Mediterranean Cooperation, Network of Managers of Marine Protected Areas in the Mediterranean (MedPAN), BirdLife International, Global Ocean Biodiversity Initiative, Oceana, World Wide Fund for Nature (WWF), Universitat Autonoma de Barcelona (Spain), University of Creta (Greece), University of Corsica (France), State Institute for Nature Protection (Croatia), and Duke University (Technical Support Team). The full list of participants is attached as annex I.

Annex I

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Area No. 3: South Adriatic Ionian Strait

Abstract

The area is located in the center of the southern part of the Southern Adriatic basin and the northern Ionian Sea. It is characterized by steep slopes, high salinity and a maximum depth ranging between 200 m to 1500 m. Water exchange with the Mediterranean Sea takes place through the Otranto Channel, which has a sill that is 800 m deep. This area contains important habitats for Cuvier's beaked whales (*Ziphius cavirostris*), an Annex II species of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol) in the framework of Barcelona Convention, and significant densities of other megafauna such as the giant devil ray (*Mobula mobular)*, striped dolphin (*Stenella coeruleoalba*), Mediterranean monk seal (*Monachus monachus*) and loggerhead turtle (*Caretta caretta*), all of which are listed in Annex II of SPA/BD Protocol. Benthos includes deep-sea cold water coral communities and deep-sea sponge aggregations, representing important biodiversity reservoirs and contributing to the trophic recycling of organic matter. Tuna, swordfish and sharks are also common in this area.

Introduction

The area described (figure 1) is where the Adriatic Sea meets the Ionian Sea. Water exchange with the Ionian Sea takes place through the Otranto Channel (Artegiani et al., 1996). This area contains important habitats for Mediterranean megafauna and for rare slow-growing deep water corals.

Location

The area is located in center of the southern part of the Southern Adriatic basin and in the northern part of the Ionian Sea. It includes the deepest part of the Adriatic Sea on the western side and it encompasses a coastal area in Albania (Sazani Island and Karaburuni peninsula). It also covers the slopes near Santa Maria di Leuca.

Feature description of the area

This area is characterized by steep slopes, higher salinity and a maximum depth ranging from 200 m to 1500 m. It can be considered a pelagic oceanic habitat (Fonda-Umani, 1996). It is an area where southern Adriatic deep water (SAdDW) is locally formed. Water exchange with the Mediterranean Sea takes place through the Otranto Channel, whose sill is 800 m deep (Artegiani et al., 1997a). One of the major components forcing the general circulation is the Otranto Channel forcing (Artegiani et al., 1997b). The South Adriatic basin is intruded upon by Levantine Intermediate Water (LIW), a high salinity water mass formed through evaporation in the eastern Mediterranean (Zore-Armanda, 1963). Furthermore, this area encompasses the Bari Canyon, which plays an important role in the dynamics of the Adriatic Sea as it is the main channel facilitating the transport of sediments between the western Adriatic shelf and the southern basin (Oceana, 2014). The South Adriatic Pit is also characterized by open sea zooplankton, particularly euphausiids, also known as krill. There are also mesopelagic and deep zooplankton in the area (Viličić, 2008).

This area contains important habitats for Cuvier's beaked whales (*Ziphius cavirostris*), an Annex II species of the SPA/BD Protocol and significant densities of other megafauna such as the giant devil ray (*Mobula mobular)*, striped dolphin (*Stenella coeruleoalba*), Mediterranean monk seal (*Monachus monachus*) and loggerhead turtle (*Caretta caretta*) all listed in Annex II of SPA/BD Protocol. Benthos includes species of deep sea cold water coral communities, deep-sea sponge aggregations representing important biodiversity reservoirs and contributing to the trophic recycling of organic matter (Fortuna et al., 2014; UNEP-MAP-RAC/SPA, 2014a). Tuna (*Thunnus thynnus*), swordfish (*Xiphias gladius*), and sharks can also be found in the area (UNEP-MAP-RAC/SPA, 2014b).

The area hosts cnidarian-rich deep-sea habitats in the depth range of ca. 400-700 m. Recent research reveals the existence of megabenthic communities dominated by a variety of cnidarians, including frame-builders scleractinians (*Madrepora oculata, Lophelia pertusa*) (which are a backbone of this

cold-water coral communities), stony corals as *Desmophyllum dianthus* and *Stenocyathus vermiformis* and the yellow coral *Dendrophyllia cornigera*), antipatharians (*Leiopathes glaberrima*) and gorgonians (*Callogorgia verticillata*) as major habitat forming taxa, often in association with sponges like *Pachastrella monilifera* and *Poecillastra compressa* and, subordinately, serpulids (Freiwald et al., 2009; Taviani et al., 2011; Angeletti et al., 2014; Oceana, 2014). Best known examples refer to the south-western margin of the basin where scleractinian–sponge communities (i.e. *Madrepora oculata, Lophelia pertusa, Dendrophyllia cornigera, Desmophyllum dianthus, Poecillastra compressa, Pachastrella monilifera*) have been documented in the Bari Canyon, Gondola Slide and Dauno Seamount (Angeletti et al., 2014 and references therein). According to recent research, this area encompasses an almost continuous belt of patchy cold water coral sites along the entire south-western margin (Apulian), connecting the Adriatic populations with those inhabiting the Ionian margin - Santa Maria di Leuca coral province (Angeletti et al., 2014). The communities of Santa Maria di Leuca have the most significant growth between 500-700 m depth, which is controlled by oceanographic factors, namely the influx of Adriatic Deep Water (Angeletti et al., 2014). This provides a regular supply of nutrients and particulate organic matter. In 2006, Santa Maria di Leuca was designated under the GFCM as a Fishery Restricted Area (FRA) banning the use of towed gears due to the relationship between the Lophelia reef and the occurrence of priority commercial species (e.g. *Aristaeomorpha foliacea, Aristeus antennatus, Merluccius merluccius, Nephrops norvegicus, Pagellus bogaraveo*). This area is a site of active coral growth since the latest Pleistocene (Taviani et al., 2011. and the references therein). Deep-sea sponge aggregations represent important biodiversity reservoirs and contribute to the trophic recycling of organic matter (Oceana, 2014).

Close to the coral biocoenosis, some typical bathyal species also occur (e.g. *Chimaera monstrosa, Dalathias licha, Galeus melastomus, Aulopus filamentosus, Chlorophthalmus agassizi, Helicolenus dactylopterus, Caelorinchus caelorhincus*) (Oceana, 2014).

Due to this area's strong oceanographic conditions it constitutes an important migratory corridor for megafauna like the short-beaked common dolphin (*Delphinus delphis*) and marine turtles (Oceana, 2014).

Feature condition and future outlook of the area

The area is one of the most important fishing grounds for pelagic species and deep water bottom trawling. Slow growing deep water corals are sensitive to bottom trawling, and pelagic species are affected by high fishing pressure and by-catch (Rogers, 2004).

The following are the research programs/projects taking place in the area:

- ADRIAMED: Scientific cooperation to support responsible fisheries in the Adriatic Sea (Albania, Croatia, Montenegro, Slovenia, Italy)- since 1999 this project and is going every year with a new funding from MIPAAF and EC- DGMARE (http://www.faoadriamed.org/).
- DEVOTES: Development of strategic indicators and innovative tools for understanding marine biodiversity and assessing Good Environmental Status (GES) in terms of contribution to the MSFD. DEVOTES may provide information for the biodiversity of the deep Adriatic Sea (http://www.devotes-project.eu/).
- PERSEUS: Interactions (pressures and components) possible effect of these pressures in the different components in Adriatic Sea (http://www.perseus-net.eu/site/content.php?locale=1andsel=419andartid=364).
- CIESM-Marine Peace Parks: The aim of this initiative was to identify new marine peace parks. At least one of these is in the Adriatic Sea.
- ADRIPLAN: Funded by the EU a couple of months ago, to refine and to provide recommendations and guidelines about the maritime spatial planning in North and South Adriatic Sea. The regions where selected on the scientific knowledge and the availability of authorities. www.adriplan.eu

- COCONET: The approach of this project is mostly science-based and focused on MPA network design. It aims to identify networks of potential or existing MPAs which could support wind-farms in NW Med and Black sea.
- WP2: The distribution of deep and coastal habitats. Science based project and trying to find more and more info to implement MPA networks(http://www.coconet-fp7.eu/index.php/about-coconet).
- VECTORS: Aims to improve understanding of how environmental and manmade factors are impacting marine ecosystems now and how they will do so in the future. The project is addressing invasions, outbreaks and changes in fisheries distribution and productivity - in a sea with changing pressures including marine renewables, climate change, ocean acidification, fisheries and shipping. http://vector.conismamibi.it/
- NETCET (Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic): The main objective of this project, which is financed by the IPA Adriatic CBC Program and more specifically within the Priority 2 "Natural and Cultural Resources and Risk Prevention," is to develop common strategies for the conservation of cetaceans and sea turtles in the Adriatic through regional cooperation. Due to the migratory nature of these species cross-border collaboration and shared management responsibility between Adriatic states is crucial in order to plan effective long-term conservation strategies. The NETCET project runs from October 2012 to September 2015 (http://www.netcet.eu/).

Assessment of the area against CBD EBSA criteria

CBD EBSA criteria (Annex I to decision IX/20)	**Description** (Annex I to decision IX/20)	**Ranking of criterion relevance** (please mark one column with an X)			
		No information	**Low**	**Medium**	**High**
Uniqueness or rarity	Area contains either (i) unique ("the only one of its kind"), rare (occurs only in few locations) or endemic species, populations or communities, and/or (ii) unique, rare or distinct, habitats or ecosystems; and/or (iii) unique or unusual geomorphological or oceanographic features.				X
Explanation for ranking The area hosts biodiversity hotspots of the bathyal bottoms of the Mediterranean Sea (Mastrototaro et al., 2010), and the only Adriatic population of Cuvier's beaked whales (*Ziphius cavirostris*) (UNEP-MAP-RAC/SPA, 2014).					
Special importance for life-history stages of species	Areas those are required for a population to survive and thrive.				X
Explanation for ranking There have been sightings of the Cuvier's beaked whales in the area, and the Southern Adriatic has been indicated as a nursery area for females with juvenile animals (UNEP-MAP-RAC/SPA, 2014a).					
Importance for threatened, endangered or declining	Area containing habitat for the survival and recovery of endangered, threatened, declining species or area with significant assemblages of such species.				X

species and/or habitats					

Explanation for ranking
The area contains important habitats for Cuvier's beaked whales (*Ziphius cavirostris)* an Annex II species of the SPA/BD Protocol and significant densities of other megafauna such as the giant devil ray (*Mobula mobular),* striped dolphin (*Stenella coeruleoalba*), Mediterranean monk seal (*Monachus monachus*) and loggerhead turtle (*Caretta caretta*) all listed in Annex II of SPA/BD Protocol (Kashta, L., 2010, Fortuna et al., 2014; UNEP-MAP-RAC/SPA, 2014a).

This area encompasses almost continuous belt of patchy cold water coral sites along the entire south-western margin (Apulian) connecting the Adriatic populations with those inhabiting the Ionian margin in Santa Maria di Leuca (Angeletti et al., 2014; Oceana 2014).

Around Sazani Island, loggerhead sea turtles are frequent. Monk seals have been visiting regularly (Kashta, 2010).

Vulnerability, fragility, sensitivity, or slow recovery	Areas that contain a relatively high proportion of sensitive habitats, biotopes or species that are functionally fragile (highly susceptible to degradation or depletion by human activity or by natural events) or with slow recovery.				X

Explanation for ranking
Deep-sea cold water coral communities and deep sea sponge aggregations are sensitive to bottom trawling (Oceana, 2014) because of their slow growth rates, fragility and slow or unlikely recovery after direct destruction (Rogers, 2004). Also, genetic and reproductive studies strongly suggest that in areas where deep-water corals are impacted by trawling, the colonies can be reduced to a small size and sexual reproduction is no longer viable (Rogers, 2004 and references therein).

Biological productivity	Area containing species, populations or communities with comparatively higher natural biological productivity.			X	

Explanation for ranking
Compared to the other parts of the Adriatic basin, it is the most oligotrophic area with lower biological productivity. The presence of corals in the Santa Maria di Leuca area seems to be linked to an energetic trophic system characterized by an important vertical flux particulate matter occurring from the southern Adriatic to the Northern Ionian. This transfer is a crucial factor for corals (Mastrototaro et al., 2010 and the references therein).

Biological diversity	Area contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity.				X

Explanation for ranking
This area contains important habitats for cetaceans, monk seal (*Monachus monachus*), marine turtles and other species belonging to megafauna (Fortuna et al., 2014; UNEP-MAP-RAC/SPA, 2014a, UNEP-MAP-RAC/SPA, 2014b). The area has important banks for deep sea cold-water coral communities, often in association with sponges and serpulids (Freiwald et al., 2009; Mastrototaro et al., 2010; Taviani et al., 2011; Angeletti et al., 2014; Oceana, 2014). This biogenic habitat act as a refuge as well as a spawning and a nursery area for many species (Tursi et al., 2004).

Naturalness	Area with a comparatively higher degree of naturalness as a result of the lack of or low level of human-induced disturbance or degradation.			X	

Explanation for ranking
Naturalness of the area is high because the negative impacts of bottom trawling is reduced by the its

geomorphological features of the area. Furthermore, it continues to play an important role in the water mass circulation and functioning of the Adriatic ecosystem.

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Maps and Figures

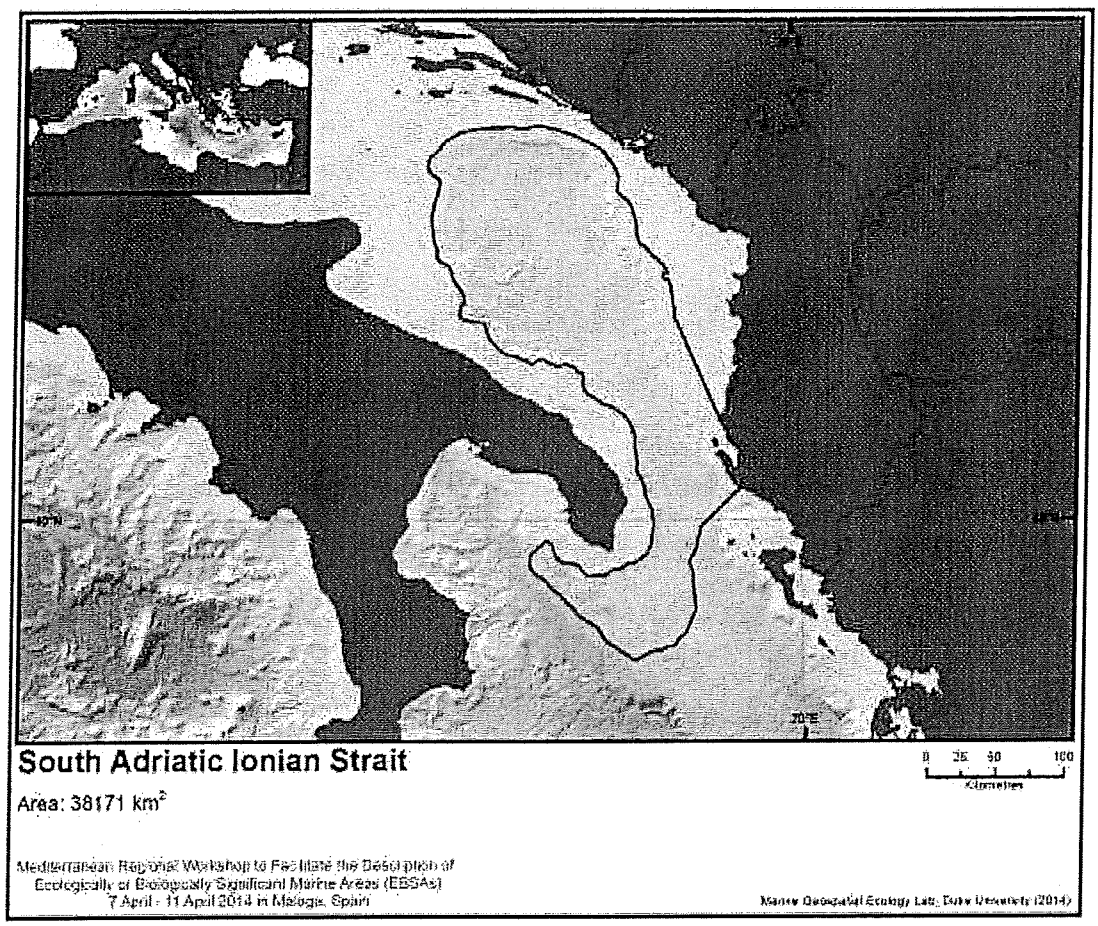

Figure 1. Area meeting the EBSA criteria.