



**GENERAL FISHERIES COMMISSION  
FOR THE MEDITERRANEAN  
COMMISSION GÉNÉRALE DES PÊCHES  
POUR LA MÉDITERRANÉE**



**GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN**

**SCIENTIFIC ADVISORY COMMITTEE (SAC)**

**Meeting of the Sub-Committees (SCSA, SCESS, SCMEE, SCSI)  
Malaga, Spain, 30 November – 3 December 2009**

**DEVELOPING A NETWORK OF SPECIALLY PROTECTED  
AREAS OF MEDITERRANEAN IMPORTANCE IN THE  
MEDITERRANEAN OPEN SEAS INCLUDING DEEP SEAS**

# **“DEVELOPING A NETWORK OF SPECIALLY PROTECTED AREAS OF MEDITERRANEAN IMPORTANCE IN THE MEDITERRANEAN OPEN SEAS INCLUDING DEEP SEAS”**

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*Key words: Specially Protected Areas of Mediterranean Importance; deep seas; sensitive habitats of conservation interest ; selection criteria; FRAs*

## **Background**

Creating an ecological network of representative MPAs under the aegis of the Barcelona Convention (BC) covering Specially Protected Areas of Mediterranean Importance (SPAMIs) embracing open seas, including deep seas, could do much to preserve the integrity of this globally important region including sustainability of living resources exploitation.

## **Action outlining**

A Joint Management Action of the European Community with the United Nations Environment Programme/Mediterranean Action Plan (UNEP MAP) aims to promote the establishment of a representative network of protected areas in the Mediterranean. The action, entitled 'Identification of possible SPAMIs in the Mediterranean areas beyond national jurisdiction' is implemented by the UNEP MAP Regional Activity Centre for Specially Protected Areas (RAC/SPA) and envisages a process developed in two phases.

### First phase (2008-09)

The first phase of the initiative will conclude on December 2009, and includes an assessment to identify a possible network of SPAMIs in the Mediterranean open seas, including deep seas, on the basis of available scientific knowledge (UNEP-MAP RAC/SPA. 2009a). The assessment has been aided among others by the elaboration of a tailored GIS (UNEP-MAP RAC/SPA. 2009b), and by a document on fisheries management/conservation and step-relief areas in the Mediterranean open seas, including deep seas, (UNEP-MAP RAC/SPA. 2009c). It includes a chapter on sensitive habitats existing in those marine areas.

A list of potential SPAMIs has been elaborated and revised at a recent meeting of the project Steering Committee (Genoa, 18-19 November 2009), which comprises International and Regional institutions, including FAO and GFCM. The list will be further revised by the BC Parties to the SPA/BD Protocol.

For the elaboration of the list, SPAMI selection criteria have been enriched and complemented with criteria from other site selection methodologies adapted to suit Mediterranean conditions. The resulting criteria (UNEP-MAP RAC/SPA. 2009d) are organised in four main categories following the SPA/BD Protocol: fundamental criteria set by Article 8 paragraph 2 of the SPA/BD Protocol; criteria concerning the regional ecological value of the area; criteria concerning science/education/aesthetic interest; and other

favouring characteristics and factors, which include both sustainable use criteria and feasibility criteria.

The Sustainable use criteria are intended to assess (i) the threats generated to the marine environment by human activities and the uses of the marine environment and its living resources in the area, and (ii) the importance of the area to the sustainable use of the marine living resources. Several of the potential SPAMIs were considered having regard of the concurrent known existence of valuable marine resources deserving protection from damages related to unsustainable fishing activities, and include within their areas all the presently existing FRAs.

### Second phase (2010-2011)

The first phase will lead to a second one along 2010-11, in which the list will enter the process at the Contracting Parties level to be proposed for declaration, based on ecological, socioeconomic and political criteria.

This second phase will include more tailored field information collecting on those domains for two to four of the most promising candidate areas in collaboration with Parties' oceanographic, fisheries and other scientific institutions, aimed to support the preparation of a first set of SPAMI proposal dossiers. The dossiers should include relevant information on deep seas benthic habitat from the reference list adopted for the Mediterranean region by the Parties to the SPA/BD Protocol to serve for the identification of sites of conservation interest (Annex 1; UNEP-MAP RAC/SPA. 2002) and consider also deep sea habitats described after the reference list was adopted. (UNEP-MAP RAC/SPA. 2009c)

The final goal of the project is to submit some of those proposals to the next meeting of the Contracting Parties to the Barcelona Convention. A timely and appropriate coordination between this action and related ones by the GFCM will ensure the desirable and necessary synergy between regional conservation bodies to preserve marine resources, supported by the ongoing Memorandum of Cooperation among both institutions.

### **References**

UNEP-MAP RAC/SPA. 2002. Handbook for interpreting types of marine habitat for the selection of sites to be included in the national inventories of natural sites of conservation interest. By Bellan-Santini, D. Bellan, G. Bitar, G. Harmelin, J.G. et G. Pergent. Ed. RAC/SPA Tunis. 217pp

UNEP-MAP RAC/SPA. 2009a. Final overview of scientific findings and criteria relevant to identifying SPAMIs in the Mediterranean areas beyond national jurisdiction. By Notarbartolo Di Sciarra & T. Agardi. UNEP (DEPI)/MED WG. 344/Inf. 3 . Ed. RAC/SPA Tunis. 71pp

UNEP-MAP RAC/SPA. 2009b. Geographical Information System developed for Mediterranean open seas. UNEP (DEPI)/MED WG. 344/Inf. 7. Ed. RAC/SPA Tunis. 10pp

UNEP-MAP RAC/SPA. 2009c. Fisheries management/conservation and step-relief areas in the Mediterranean open seas, including deep seas. By De Juan. S & J. Leonart. UNEP (DEPI)/MED WG. 344/Inf. 4. Ed. RAC/SPA Tunis. 121pp

UNEP-MAP RAC/SPA. 2009d. Draft Operational Criteria for the identification of potential Specially Protected Areas of Mediterranean Importance (SPAMIs) in areas beyond national jurisdiction. By Rais, Ch. and D. Cebrian. UNEP (DEPI)/MED WG. 344/3. Ed. RAC/SPA Tunis. 15pp

# **Annex 1: Reference List of Benthic Habitat <sup>1</sup>.**

The following list of benthic habitat types was adopted within the framework of the Barcelona Convention and its SPA and Biological Diversity Protocol to serve as reference list for the identification of sites of conservation interest.

The habitats types that are of relevance for the Mediterranean areas located in open seas, including deep seas, are written in bold in this List.

## **I. SUPRALITTORAL**

### **I. 1. MUDS**

I. 1. 1. Biocenosis of beaches with slowly-drying wracks under glassworts

### **I. 2. SANDS**

I. 2. 1. Biocenosis of supralittoral sands

### **I. 3. STONES AND PEBBLES**

I. 3. 1. Biocenosis of slowly drying wracks

### **I. 4. HARD BEDS AND ROCKS**

I. 4. 1. Biocenosis of supralittoral rock

## **II. MEDIOLITTORAL**

### **II. 1. MUDS, SANDY MUDS AND SANDS**

II. 1. 1. Biocenosis of muddy sands and muds

### **II. 2. SANDS**

II. 2. 1. Biocenosis of mediolittoral sands

### **II. 3. STONES AND PEBBLES**

II. 3. 1. Biocenosis of mediolittoral coarse detritic bottoms

### **II. 4. HARD BEDS AND ROCKS**

II. 4. 1. Biocenosis of the upper mediolittoral rock

II. 4. 2. Biocenosis of the lower mediolittoral rock

II. 4. 3. Mediollittoral caves

II. 4. 3. 1. Association with *Phymatolithon lenormandii* and *Hildenbrandia rubra*

## **III. INFRALITTORAL**

### **III. 1. SANDY MUDS, SANDS, GRAVELS AND ROCKS IN EURYHALINE AND EURYTHERMAL ENVIRONMENT**

III. 1. 1. Euryhaline and eurythermal biocenosis

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<sup>1</sup> This List, dating back to 2002 is not fully exhaustive with regard to the open seas and the deep seas domain. It is, however, the only one adopted so far for the Mediterranean region by the Parties to the SPA/BD Protocol.

### III. 2. FINE SANDS WITH MORE OR LESS MUD

III. 2. 1. Biocenosis of fine sands in very shallow waters

III. 2. 2. Biocenosis of well sorted fine sands

III. 2. 3. Biocenosis of superficial muddy sands in sheltered waters

### III. 3. COARSE SANDS WITH MORE OR LESS MUD

III. 3. 1. Biocenosis of coarse sands and fine gravels mixed by the waves

III. 3. 2. Biocenosis of coarse sands and fine gravels under the influence of bottom currents  
(also found in the Circalittoral)

### III. 4. STONES AND PEBBLES

III. 4. 1. Biocenosis of infralittoral pebbles

### III. 5. POSIDONIA OCEANICA MEADOWS

III. 5. 1. Posidonia oceanica meadows (= Association with Posidonia oceanica)

### III. 6. HARD BEDS AND ROCKS

III. 6. 1. Biocenosis of infralittoral algae :

## IV. CIRCALITTORAL

### IV. 1. MUDS

IV. 1. 1. Biocenosis of coastal terrigenous muds

### IV. 2. SANDS

IV. 2. 1. Biocenosis of the muddy detritic bottom

IV. 2. 2 Biocenosis the coastal detritic bottom

IV. 2. 3. Biocenosis of shelf-edge detritic bottom

IV. 2. 4. Biocenosis of coarse sands and fine gravels under the influence of bottom currents  
(biocenosis found in areas under specific hydrodynamic conditions – straits ; also  
found in the Infralittoral)

#### **IV. 3. HARD BEDS AND ROCKS**

##### **IV. 3. 1. Coralligenous biocenosis**

##### **IV.3. 2. Semi-dark caves (also in enclave in upper stages)**

##### **IV. 3. 2. 1. Facies with *Parazoanthus axinellae***

##### **IV. 3. 2. 2. Facies with *Corallium rubrum***

##### **IV. 3. 2. 3. Facies with *Leptosammia pruvoti***

##### **IV. 3. 3. Biocenosis of shelf-edge rock**

#### **V. BATHYAL**

##### **V. 1. MUDS**

##### **V. 1. 1. Biocenosis of bathyal muds**

##### **V. 1. 1. 1. Facies of sandy muds with *Thenaea muricata***

##### **V. 1. 1. 2. Facies of fluid muds with *Brissopsis lyrifera***

##### **V. 1. 1. 3. Facies soft muds with *Funiculina quadrangularis* and *Apporhais seressianus***

##### **V. 1. 1. 4. Facies of compact muds with *Isidella elongata***

##### **V. 1. 1. 5. Facies with *Pheronema grayi***

##### **V. 2. SANDS**

##### **V. 2. 1. Biocenosis of bathyal detritic sands with *Grypheus vitreus***

##### **V. 3. HARD BEDS AND ROCKS**

##### **V. 3. 1. Biocenosis of deep sea corals**

##### **V. 3. 2. Caves and ducts in total darkness (in enclave in the upper stages)**

#### **VI. ABYSSAL**

##### **VI. 1. MUDS**

##### **VI. 1. 1. Biocenosis of abyssal muds**