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GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

SCIENTIFIC ADVISORY COMMITTEE

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CRITERIA FOR THE IDENTIFICATION OF SENSITIVE HABITATS OF RELEVANCE FOR THE MANAGEMENT OF PRIORITY SPECIES*

* Document submitted to the 11th Session of SAC (2008).
Available only in English

1. This document was prepared as follow up of the suggestion made by the Sub-Committee on Marine Environment and Ecosystems (SCMEE) during its last meeting (Antalya, October 2008) to submit a proposal regarding the selection of criteria for the identification of sensitive habitats of relevance for the management of priority species by GSA, for consideration by the SAC. A draft document was prepared and circulated to the SCMEE experts for comments. Suggestions for which a consensus was not reached are highlighted in italic and put between brackets. It should be underlined that the CMSC (Antalya, October 2008) suggested that the initial appellation "sensitive habitats" be renamed as "essential habitat". The SAC is invited to take a decision on the terminology to be used.

2. Upon guidance from the SCMEE, this proposal took into account the classification of Mediterranean marine habitats of conservation interest adopted within the framework of the Barcelona Convention, the EU Technical and Economic Committee for Fisheries (STECF) about the sensitive and essential fish habitats.

Proposed definition for sensitive Habitat:

3. A sensitive Habitat of relevance for the management of a given priority species can be defined as the part of the species habitat that is:

- Essential to the ecological and biological requirements of at least one of the life stages of the species;
- Crucial for the recovery and/or the long term sustainability of the marine biological resources and the assemblages to which the priority species belongs;
- Any other habitat of high biodiversity importance potentially impacted by fisheries activities;
- [*Any other habitat of high biodiversity importance potentially impacted by climate change*]

Proposed criteria for selecting sensitive habitats

4. The main initiatives undertaken so far in the Mediterranean region to setup lists of key marine habitats were aimed at identifying habitats of conservation interest. These included habitats that are essential to rare, endangered or threatened species or habitats that are considered of importance because of their value as natural heritage. The criteria proposed hereinafter, while taking into account the ecological value of the habitats, are mainly based on the potential role of the habitats in sustaining the productivity of fishing grounds. They are based on the above proposed definition of essential Habitat.

5. Here are the proposed criteria for identifying essential Marine Habitats (EMH) of relevance for the management of priority species:

1. Reproduction and spawning areas

2. Nursery grounds

3. Migration routes

4. An area that includes one or more of the following habitats:

4.a [*Posidonia oceanica* beds] [*Seagrass meadows or Marine phanerogams*]

4.b Coralligenous beds

4.c Association with rhodoliths (including all of its facies)

4.d Sub marine canyons,

4.e *Leptometra phalangium* beds[i]

4.f *Funiculina quadrangularis* beds[ii]

4.g Seamounts

4.h Coastal lagoons that are permanently connected to the sea

4.i Deep sea corals (*Lophelia pertusa* and *Madrepora oculata* beds)

[*4.j Deep sea below 1000 m depth*]

4.k *Isidella elongata* beds[iii]

4.l Vermetids beds

4.m BOULDER FIELDS in the infralittoral[iv]

5. Areas with hydrological features that support high primary productivity (upwelling areas, gyres, etc.)

6. Coastal insular ecosystems

7. Cold hydrocarbon seeds

8. Areas of habitat significance for endangered, threatened or vulnerable species

[9. *Estuarine and riverine area for specific anadromus or cathadromus species.*

10. Littoral sub marine sources]

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[i] *Leptometra phalangium* is known to be an indicator of highly productive areas that can sustain large fish biomasses. Areas with *Leptometra phalangium* shelter fish and crustacean recruits and show significant abundance of spawners.

[ii] The facies formed by the cnidarian *Funiculina quadrangularis* is found in the Mediterranean on the shelf edge and the upper slope. It is an essential habitat for some commercial crustacean species, in particumar *Parapenaeus longirostris* and *Nephrops norvegicus*.

[iii] *Isidella elongata* beds (coded "*V.1.1.4 – Facies of compact muds with Isidella elongate*" in the classification of Mediterranean marine habitats of conservation interest adopted within the framework of the Barcelona Convention), are described as relevant habitats for the fisheries targeted on the reds shrimps *Aristeus antennatus* and *Aristaeomorpha foliacea*. This habitat, located in Mediterranean generally between 500 and 700 meters depth, became very rare in the last 3 decades due to extensive trawling activities. Due to their environmental relevance and to their rarity, the last remaining areas hosting this deep habitat should be considered to be "Sensitive".

[iv] These are accumulations of small to massive boulders arranged in one or multiple layers that create a mosaic of microhabitats that range from forests of photophilic algae on the well-lit upper surfaces, to sciaphilic assemblages on the shady sides of boulders, to crevice assemblages in the smaller interstices of the boulders and cave-like assemblages in the larger spaces between them. Many commercially important species, some of which are declining in some areas, use boulder fields as refuges and foraging grounds. These include some groupers (*Epinephelus*), most seabreams (*Diplodus*) and some others (such as *Sciaena*). Apart from this, such boulder fields have a rich species diversity because of the heterogeneous habitat they present.