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

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<b>GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN</b>
<b>Thirty-third session</b>
<b>Tunis, Tunisia, 23-27 March 2009</b>
<b>MANAGEMENT OF MEDITERRANEAN FISHERIES AND AQUACULTURE</b>

**INTRODUCTION**

1. The management of fisheries by the General Fisheries Commission for the Mediterranean (GFCM) is essentially based on the scientific and technical advice that the GFCM receives on an annual basis from its Scientific Advisory Committee (SAC). The management of the Mediterranean aquaculture is based on the intersessional outputs from the Committee on Aquaculture (CAQ) and its subsidiary bodies.

2. This document summarizes the main advice and conclusions that the SAC and CAQ formulated in 2008, based on input from its subsidiary bodies, as set out in the respective reports of the 11th session of SAC (GFCM:XXXIII/2009/Inf.5) and the 6<sup>th</sup> session of CAQ (GFCM: XXXIII/2009/Inf.6). It also refers to the draft Recommendation on Minimum Standards for the Establishment of a Satellite Vessel Monitoring System (VMS) in the GFCM Area as revised by the Working Group on VMS held in Rome, Italy, on 23 September 2008. The Recommendations of relevance for GFCM that the International Commission for the Conservation of Atlantic Tunas (ICCAT) adopted in 2008 as well the draft proposal amending the Recommendation GFCM/2006/4 on IUU fishing in the GFCM area that the Commission decided to re-examine during its thirty-third session are also introduced in this document.

**SUGGESTIONS AND ADVICE OF THE SCIENTIFIC ADVISORY COMMITTEE****Monitoring fish stocks and fisheries management measures**

3. The SAC endorsed the outcome related to the review of 34 stock assessments corresponding to 21 demersal stocks (3 shared) and 13 small pelagic stocks (5 shared), covering 12 species and 10 GSAs. It emphasised the importance to consolidate the effort aimed to undertake joint stock assessments, taking into consideration the new proposal regarding the functioning of the Working groups on demersal and small pelagic species. It noted that the stocks assessed were mostly fully exploited or overexploited, and that management measures are needed to be taken urgently.

4. Consequently, the SAC invited the Commission to consider the management advice on selected demersal and small pelagic species as given in Appendix I and to envisage the following specific management measures:

**For sardine in GSA 17:**

- i) reducing fishing effort without increase of capacity, and
- ii) establishing a closed season of at least 45 days.

**For demersal species:**

- i) unless proven unnecessary by sound scientific evidence, a reduction of at least 10 % of fishing effort on demersal species shall be applied for all GFCM GSAs as a precautionary measure.

5. The Committee also noted with concern the special situation of the stock of *Parapenaeus longirostris* in GSA 6, which is now considered, depleted, and there were a need for implementing urgently a recovery plan.

**Data collection and statistics**

6. As a follow up to the decision of the Commission (February 2008) to establish a Regional Fleet Register (RFR), the SAC identified and agreed on the related data fields, definitions and reference tables (Appendix II) and suggested that this RFR should be made operational by 1 January 2010.

7. The Committee also invited the Commission to:

- amend the Recommendation GFCM/2005/2 concerning the establishment of GFCM record of vessels over 15 meters authorized to operate in the GFCM area, to introduce the GFCM unique identifier as a data field in the GFCM Record of Fishing Vessels (Authorized Vessels List);
- amend the Resolution GFCM/2007/1 on Task 1, to set the components Task 1.1, 1.2, 1.3 and 1.4 as mandatory as from 2009, and to introduce the refined fleet segmentation as given in Appendix III;
- amend the Resolution GFCM/2007/2 to take into consideration the introduction of a statistical grid of 30'x30' as well as the revised map of GSAs as given in Appendix IV.

**Aspects relating to the environment and marine ecosystems**

8. The SAC suggested that the work in this filed should focus more on issues directly related to the interaction between fisheries and the marine environment and its ecosystems, such as sensitive habitats and the deep sea areas and their protection through fisheries restricted areas (FRAs) and marine protected areas (MPAs). Close collaboration with partner organizations should be maintained on issues such as discards and bycatch of species of conservation concern.

9. On the basis of the available scientific information, the SAC invited the Commission to consider the following management advice:

- establish a Fisheries Restricted Area (FRA) in the Gulf of Lions (area bounded by lines joining the following coordinates: 42°40'N, 4°20'E; 42°40'N, 5°00'E; 43°00'N, 4°20'E; 43°00'N, 5°00'E). An executive summary is provided in Appendix V;
- envisage the immediate implementation of the 40 mm square mesh in trawl fishing as follows:
  - the implementation of the use of the 40-mm square mesh should only be mandatory for vessels operating outside territorial waters as from 2009;

- in the mean time, Members should undertake or complete impact studies within their territorial waters by 2010.

### **Socio-economic aspects of fisheries**

10. The SAC noted the progress on studies related to the socio-economic impact of implementing the 40 mm square mesh in trawl fisheries, on developing studies to promote the use socio-economic indicators in fisheries management and on issues related to the role of incentive mechanisms and recreational fisheries. It approved the main following suggestions:

- develop applied analysis on gear selectivity using GFCM Task 1 data;
- improve the information about recreational fishery;
- promote studies on socio-economic impacts of implementing the 40mm square mesh size in trawl fisheries;
- promote analysis on the economic incentives structures and mechanisms in national fisheries according to the methodology developed by OECD/UNEP;
- publish the study on socio-economic indicators made by the COPEMED I project;

### **DRAFT RECOMMENDATION ON MINIMUM STANDARDS FOR THE ESTABLISHMENT OF A SATELLITE VESSEL MONITORING SYSTEM (VMS) IN THE GFCM AREA**

11. As requested by GFCM at its 32nd Session (paragraph 87 of the meeting report), an *Ad Hoc* Working Group was convened during the intersessional period (Italy, September 2008) to address technical aspects related to a Vessel Monitoring System (VMS) in GFCM area. On the basis of its discussions and conclusions, the Working Group reviewed the draft Recommendation on VMS which had been tabled at the 32nd Session and agreed on a revised draft Recommendation which is reproduced in document GFCM:COC/3/2009/5 and GFCM:XXXIII/2009/Inf.10.

### **PROPOSAL TO AMEND THE RECOMMENDATION GFCM/2006/4 ON THE ESTABLISHMENT OF A LIST OF VESSELS PRESUMED TO HAVE CARRIED OUT ILLEGAL, UNREPORTED AND UNREGULATED FISHING IN THE GFCM AREA**

12. According the decision taken during its thirty-second session (paragraph 95 of the meeting report), the Commission is invited to re-examine the proposal as presented in the document GFCM:COC/3/2009/6 and GFCM:XXXIII/2009/Inf.11 for its possible adoption.

### **ICCAT RECOMMENDATIONS OF RELEVANCE FOR THE MEDITERRANEAN**

13. The International Commission for the Conservation of Atlantic Tunas (ICCAT) adopted a number of Recommendations at its sixteenth Special meeting (Marrakech, Morocco, November 2008), including those below of relevance for the Mediterranean (reproduced in full in GFCM:XXXIII/2009/Inf. 8):

- RECOMMENDATION 08-03                      On the Mediterranean swordfish
- RECOMMENDATION 08-05                      Amending the Recommendation to establish a multi-annual recovery plan for bluefin tuna in the Eastern Atlantic and Mediterranean

## SUGGESTIONS AND ADVICE OF THE COMMITTEE ON AQUACULTURE

### Aquaculture Data Collection

14. During the fifth session of CAQ (Spain, 2006) there was general agreement that currently available aquaculture statistics underestimate the actual production of the Mediterranean. The Tenth session of SIPAM (Albania, December 2008) also confirmed this conclusion and stressed the importance to improve the information on the status of the aquaculture sector in Mediterranean and Black Sea.

15. The CAQ, at its sixth session (Albania, December 2009), endorsed the technical advice on Aquaculture Data Collection as suggested by the SIPAM meeting and agreed that a regional data collection scheme for aquaculture should be set up.

16. On this basis, the Committee invited the Commission to consider adopting a measure aimed to set up annual reporting by the members of data, through the SIPAM information system, of the following preliminary set of data:

- environment (brackish, marine and freshwater);
- cultured species (scientific and common name);
- system of culture (extensive, semi-intensive, intensive);
- type of culture (cages, ponds, raceways, hatchery, etc.);
- type of product (on-growing, eggs, fingerlings, etc.);
- quantity (tonnes / units);
- value

### Aquaculture Site Selection and Carrying Capacity

17. The CAQ, at its sixth session (Albania, December 2008), endorsed the outcome of its Working Group on Siting and Carrying Capacity (WGSC) related to the interactions of intensive finfish marine aquaculture with the surrounding environment and agreed that monitoring the ecological effects of aquaculture on the sediment and on water column is necessary to obtain a time series to describe changes in environmental quality which in turn affects aquaculture itself. The Committee agreed on the proposals made by the WGSC, giving initial priority to the definition of minimum values in relation to Environmental Quality Standards.

18. In particular, the CAQ endorsed the following conclusions:

- a monitoring programme for the environment of marine finfish aquaculture should be established to monitor both water-column and sediments around fish farms;
- procedures for Environmental Impact Assessment and Environmental Monitoring Programs (EMP) for site selection and site management of Mediterranean aquaculture, should be harmonized and implemented;
- the establishment of new aquaculture installations should be prevented over *Posidonia* beds and severely limited in the vicinity of them. A mechanism for monitoring the environmental impact of fish farms on the *Posidonia* beds, in all the Mediterranean area, should be introduced (minimum depth, secure distance, current, transplantation plan, moving/rotation plans).

19. Furthermore, the CAQ invited the Commission to also consider the two following issues:

- frequency of the CAQ sessions (biannual or annual), on this issue, the sixth session of CAQ (Albania, December 2008) emphasized that a yearly sessions should ensure a

more reactive and proactive role of the Committee towards the work of its subsidiary bodies. The Committee also discussed about the related budgetary implications;

- Mandate of the CAQ bureau, considering the current length of the intersessional period (two years), the Commission is invited to decide on a specific rule for the renewal of the bureau. Two possible options are given below. The GFCM Rules of procedures should be updated accordingly.
  - Renewal after every two years term (as the case of SAC) or
  - renewal after two intersessional periods (four years term)

### **SUGGESTED ACTION BY THE COMMISSION**

20. The Commission is invited to examine and endorse, or otherwise, the conclusions, recommendations and advice received from its Scientific Advisory Committee and its Committee on Aquaculture.

21. The Commission is also invited to re-examine, for possible adoption, the revised draft recommendation on the VMS and the recommendations that ICCAT adopted in 2008 concerning the Mediterranean as well as the proposal to amend the Recommendation GFCM/2006/4 on the establishment of a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the GFCM area.

## APPENDIX I

## Formulation of resource management advice

## Demersal species

GSA	Stock	Stock status	SAC management advice	SAC comments
01 Northern Alboran Sea	<b>Red mullet</b> ( <i>Mullus barbatus</i> )	<ul style="list-style-type: none"> <li>▪ Moderately exploited</li> <li>▪ Y/R very close to the maximum</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> </ul>
05 Balearic Islands	<b>Hake</b> ( <i>Merluccius merluccius</i> )	<ul style="list-style-type: none"> <li>▪ Fully exploited</li> <li>▪ Moderate fishing mortality</li> <li>▪ Intermediate abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> <li>▪ Enforce the 40–mm square mesh</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> </ul>
	<b>Striped red mullet</b> ( <i>Mullus surmuletus</i> )	<ul style="list-style-type: none"> <li>▪ Moderate fishing mortality</li> <li>▪ Intermediate abundance</li> <li>▪ Fully exploited (Y/R very close to the maximum and Bnow is about 37 percent Bvirgin)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort, especially in the trawl fishery</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> </ul>
	<b>Red mullet</b> ( <i>Mullus barbatus</i> )	<ul style="list-style-type: none"> <li>▪ Moderately exploited to fully exploited</li> <li>▪ Moderate fishing mortality</li> <li>▪ Intermediate abundance</li> <li>▪ Current Y/R very close to the maximum and Bnow being 21 percent to 25 percent of Bvirgin</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> </ul>
	<b>Norway Lobster</b> ( <i>Nephrops norvegicus</i> )	<ul style="list-style-type: none"> <li>▪ Fully exploited</li> <li>▪ Moderate fishing mortality</li> <li>▪ Intermediate abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> <li>▪ Enforce at least 40–mm square mesh</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> </ul>
	<b>Red shrimp</b> ( <i>Aristeus antennatus</i> )	<ul style="list-style-type: none"> <li>▪ Fully exploited;</li> <li>▪ Moderate fishing mortality</li> <li>▪ Intermediate abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> </ul>
06 Northern Spain	<b>Hake</b> ( <i>Merluccius merluccius</i> )	<ul style="list-style-type: none"> <li>▪ Overexploited</li> <li>▪ High fishing mortality</li> <li>▪ Low abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduction of fishing effort of trawl</li> <li>▪ Enforce at least the 40–mm square mesh size in the cod end in bottom trawl</li> <li>▪ Establish temporal closures for long line</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> <li>▪ Provide the period for the temporal closure</li> <li>▪ Provide the location of the protection area</li> </ul>

			and gillnet during the period of maximum spawning <ul style="list-style-type: none"> <li>Protect the spawning grounds through the implementation of MPA</li> </ul>	
	<b>Red mullet</b> ( <i>Mullus barbatus</i> )	<ul style="list-style-type: none"> <li>Overexploited.; the fishery is being exploited at above a level which is believed to be sustainable in the long term, with no potential room for further expansion and a higher risk of stock depletion/collapse</li> <li>High fishing mortality</li> <li>Low abundance</li> </ul>	<ul style="list-style-type: none"> <li>Reduce effective fishing effort of 20 percent by reducing time at sea from 5 to 4 days per week</li> <li>Enforce at least the 40–mm square mesh in the cod-end</li> </ul>	<ul style="list-style-type: none"> <li>Provide fishing effort level</li> </ul>
	<b>Deep-water rose shrimp</b> ( <i>Parapenaeus longirostris</i> )	<ul style="list-style-type: none"> <li>Depleted Catches are well below historical levels, irrespective of the amount of fishing effort exerted</li> <li>High fishing mortality</li> <li>Depleted</li> </ul>	<ul style="list-style-type: none"> <li>Need for recovery plan</li> </ul>	
<b>07</b> <b>Gulf of Lions</b>	<b>Hake</b> ( <i>Merluccius merluccius</i> )	<ul style="list-style-type: none"> <li>Overexploited</li> <li>High fishing mortality</li> <li>Low abundance</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of 20 percent of the fishing mortality by reducing time at sea, number of fishing boats, engine power, Bollard pull and/or trawl size, etc.)</li> <li>Enforce at least the 40–mm square mesh size in the cod-end</li> <li>Closing nursery areas, at least temporarily (possibly identified by trawl surveys)</li> <li>Protecting spawners during the period of maximum spawning (winter and spring) by closing on the continental slope the areas where the spawners live</li> </ul>	<ul style="list-style-type: none"> <li>Provide fishing effort level</li> <li>See general comment for fishing mortality</li> <li>Provide the location of both the nursery and the spawning grounds</li> </ul>
<b>09</b>	<b>Hake</b> ( <i>Merluccius</i> )	<ul style="list-style-type: none"> <li>Overexploited</li> <li>High fishing</li> </ul>	<ul style="list-style-type: none"> <li>Drastic reduction of the fishing</li> </ul>	<ul style="list-style-type: none"> <li>A reduction by 40 percent of the</li> </ul>

<b>Ligurian</b>	<i>merluccius</i> )	mortality <ul style="list-style-type: none"> <li>▪ Low abundance</li> </ul>	mortality (40–80 percent)	fishing capacity was applied during the 2 last years
<b>15 and 16 Malta and South of Sicily</b>	<b>Hake</b> ( <i>Merluccius merluccius</i> )	<ul style="list-style-type: none"> <li>▪ Overexploited</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduction of the fishing effort at least 40 percent</li> </ul>	
<b>16 South of Sicily</b>	<b>Deep-water rose shrimp</b> ( <i>Parapenaeus longirostris</i> )	<ul style="list-style-type: none"> <li>▪ Overexploited</li> <li>▪ High fishing mortality</li> <li>▪ Low abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduction of the fishing mortality by 30 percent (decreasing of fishing capacity and activity) <ul style="list-style-type: none"> <li>▪ Enforce at least the 40–mm square mesh</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ See general comment for fishing mortality</li> <li>▪ The nursery grounds in order to be protected should be first identified</li> </ul>
<b>17 Northern Adriatic Sea</b>	<b>Common Sole</b> ( <i>Solea vulgaris</i> )	<ul style="list-style-type: none"> <li>▪ Overexploited</li> <li>▪ High fishing mortality</li> <li>▪ Low abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduction of 10 percent of the fishing pressure applied by rapido trawlers (in terms of number of vessels and/or fishing time) (to reach Fmax) or of 50 percent about (to reach F0.1) <ul style="list-style-type: none"> <li>▪ A two-months closure for rapido trawling inside 6 nm offshore along the Italian coast, after the biological fishing stop (August)</li> <li>▪ The safeguard of spawning areas (both in spatial and temporal terms) to prevent a possible future exploitation might be crucial for the sustainability of the Adriatic sole stock</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide fishing effort level</li> <li>▪ Provide the period of the temporal closure and the location of the area which should be protected</li> </ul>



### Small pelagic species

GSA	Stock	Stock status	SAC management advice	SAC comments
GSA 01 Northern Alboran Sea	<b>Sardine</b> ( <i>Sardina pilchardus</i> )	<ul style="list-style-type: none"> <li>▪ Fully exploited</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide the effort level</li> </ul>
	<b>Anchovy</b> ( <i>Engraulis encrasicolus</i> )	<ul style="list-style-type: none"> <li>▪ Low biomass</li> </ul>	<ul style="list-style-type: none"> <li>▪ Based on the 2006 assessment, unless there is an increase in recruitment evident from the 2008 autumn survey, fishing effort should be reduced</li> </ul>	<ul style="list-style-type: none"> <li>▪ Small pelagic fishery in GSA 01 is multispecies and effort on anchovy and sardine should be considered together</li> <li>▪ For scientific advice, it is very important that the 2008 acoustic survey takes place</li> </ul>
GSA 06 Northern Spain	<b>Sardine</b> ( <i>Sardina pilchardus</i> )	<ul style="list-style-type: none"> <li>▪ Fully exploited</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide the effort level</li> <li>▪ Small pelagic fishery in GSA 06 is multispecies and effort on anchovy and sardine should be considered together</li> </ul>
	<b>Anchovy</b> ( <i>Engraulis encrasicolus</i> )	<ul style="list-style-type: none"> <li>▪ Very low biomass</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce the level of fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide the effort level</li> <li>▪ The biomass is the lowest when compared with the past 8 years</li> </ul>
GSA 07 Gulf of Lions	<b>Sardine</b> ( <i>Sardina pilchardus</i> )	<ul style="list-style-type: none"> <li>▪ Intermediate abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the current level of fishing effort</li> </ul>	<ul style="list-style-type: none"> <li>▪ The current Biomass is lower than the average values of historical series 1993–2006</li> <li>▪ Small pelagic fishery in GSA 07 is multispecies and effort on anchovy and sardine should be considered together</li> </ul>
	<b>Anchovy</b> ( <i>Engraulis encrasicolus</i> )	<ul style="list-style-type: none"> <li>▪ Low abundance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the current level of fishing effort</li> <li>▪ Although preliminary results show strong recruitment for the next year, the exploitation of the stock should be done with caution</li> </ul>	<ul style="list-style-type: none"> <li>▪ The current biomass is equal to the lowest value of the historical series of 2001–2006</li> <li>▪ Preliminary results of the July 2008 acoustic survey indicate a possibly high recruitment for 2007</li> <li>▪ Small pelagic fishery in GSA 07 is multispecies and effort on anchovy and sardine should be considered together</li> </ul>
GSA 16 Southern of Sicily	<b>Sardine</b> ( <i>Sardina pilchardus</i> )	<ul style="list-style-type: none"> <li>▪ Low biomass for 2006 and 2007</li> <li>▪ Moderate exploitation rate</li> </ul>	<ul style="list-style-type: none"> <li>▪ Given that biomass was low for two consecutive years (2006–2007) and that the exploitation rate of sardine is moderate, fishing effort should not be increased beyond the current level. However, due to the low level of the anchovy stock, measures</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide the effort level</li> <li>▪ Small pelagic fishery in GSA 16 is multispecies and effort on anchovy and sardine should be considered together</li> </ul>

			should be taken to prevent a shift of effort from anchovy to sardine	
	<b>Anchovy (Engraulis encrasicolus)</b>	<ul style="list-style-type: none"> <li>▪ Very low biomass for 2006 and 2007</li> <li>▪ High exploitation rate</li> </ul>	<ul style="list-style-type: none"> <li>▪ Given that biomass was very low for two consecutive years (2006–2007) fishing effort should be reduced until there is evidence for a strong incoming year class</li> </ul>	<ul style="list-style-type: none"> <li>▪ Small pelagic fishery in GSA 16 is multispecies and effort on anchovy and sardine should be considered together</li> <li>▪ Fishery directed to the larval stages should be monitored</li> </ul>
GSA 17 Northern Adriatic Sea	<b>Sardine (Sardina pilchardus)</b>	<ul style="list-style-type: none"> <li>▪ Over-exploited</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce the fishing effort by the way of closing season (at least 45 days/year) for sardine and anchovy, to protect the spawning of sardine, without increasing fleet capacity. The effect of this measure to be monitored by yearly evaluation</li> </ul>	<ul style="list-style-type: none"> <li>▪ The exact date for the fishing season should be defined before next session of the Commission</li> </ul>
	<b>Anchovy (Engraulis encrasicolus)</b>	<ul style="list-style-type: none"> <li>▪ Fully exploited</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not to increase the fishing effort</li> <li>▪ Fishing effort reduction on sardine should not be transferred to anchovy, when applicable</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide the effort level</li> </ul>

## APPENDIX II

## GFCM Regional Fleet Register data fields

	Fields	Description	Optional / Mandatory	Public / Restricted	AVL Fields
1	Country	Flag under which the vessel is operating	M	P	X
2	Registration authority	Authority having issued the registration	M	P	
3	Vessel name (if any)	Name of vessel	M	P	X
4	Vessel register number	Registration number assigned to the fishing vessel by the Authorities.	M	P	X
5	GFCM registration number	Code assigned by Members	M	P	
6	IMO registration number	Code IMO given by Lloyds company	O	P	
7	Previous vessel name (if any)	Previous name of vessel (if any)	O	P	X
8	Previous flag (if any)	Previous flag of vessel (if any)	O	P	X
9	Previous details of deletion from other registries (if any)	Details of deletion from other registries (if any)	O	P	X
10	International radio call sign (if any)	International radio call sign (if any)	O	P	X
11	Vessel type	Type of vessel according to the International Standard Classification of Fishery Vessels by Vessel Types. (The 'International Standard Statistical Classification of Fishery Vessels by Vessel Types' (ISSCFV), based on the type of gear used by the vessels, approved by the CWP in 1984).	M	P	X
12	Operational status	Active / Inactive. Permanent status until receiving allowance to return into activity	M	P	
13	Port of registration	Full name of the port	M	P	
14	Year of entry into fishing activity	Year of entry into fishing activity	M	P	
15	Events	Code identifying the type of event reported	M	P	
16	Event date	Event date	M	P	
16.1	Day	Event date: day	M	P	
16.2	Month	Event date: month	M	P	
16.3	Year	Event date: year	M	P	
17	Authorisation to fish	Any authorisation to fish, e.g. licence, permit or any other official denomination	M	P	
18	Period authorized for fishing and/or transshipping	Time period authorized for fishing and/or trans-shipping.	O	P	X
18.1	Starting date	Starting date	O	P	X
18.1.1	Day	Starting date: day	O	P	X
18.1.2	Month	Starting date: month	O	P	X
18.1.3	Year	Starting date: year	O	P	X
18.2	Ending date	Ending date	O	P	X
18.2.1	Day	Ending date: day	O	P	X
18.2.2	Month	Ending date: month	O	P	X
18.2.3	Year	Ending date: year	O	P	X

	Fields	Description	Optional / Mandatory	Public / Restricted	AVL Fields
19	Main fishing statistical area	GSA where the vessel is authorised to fish and operates the majority of the year.	O	P	
20	Secondary fishing statistical area	GSA where the vessel is authorised to fish and operates occasionally	O	P	
21	Tertiary fishing statistical area	GSA where the vessel is authorised to fish and operates occasionally	O	P	
22	Fishing Gear used	Main gear according to the fishing license of the vessel or the owner/operator, using the International Standard Statistical Classification of Fishing Gear (The International Standard Statistical Classification of Fishing Gear (ISSCFG) was adopted during the 10th Session of the CWP (Madrid, 22-29 July 1980).	M	P	X
23	Secondary Fishing Gear	Secondary gear according to the fishing license of the vessel or the owner/operator, using the same International Standard Statistical Classification of Fishing Gear as "Fishing gear used"	M	P	
24	Length Overall (LOA)	Length Over All (LOA, in metres). The principle longitudinal dimension of the hull of the vessel.	M	P	X
25	Gross Registered Tonnage (GRT)	Gross Registered Tonnage according to the Oslo Convention (1947) (in use until 1995). (GRT represented the total measured cubic content of the permanently enclosed spaces of a vessel, with some allowances or deductions for exempt spaces such as living quarters [1 gross register ton = 100 cubic feet = 2.83 cubic metres]).	O	P	X
26	Gross Tonnage (GT)	Gross Tonnage according to the International Convention on Tonnage Measurement of Ships, London, 1969 (in use since 1996) for vessels $\geq 15$ m.	M	P	X
27	Construction year		M	P	
28	Hull material	Code	M	P	
29	Powered	Power of the main engine $> 0$	M	P	
30	Power of the main engine(s)	Total maximum continuous rated output power in Kw of all the vessel's main propulsion machinery which appears on the vessel's certificate or registry or other official document (STCW-F convention)	M	P	
31	Power of auxiliary engine(s) (if any)	Includes all installed engine power not included under the heading "Power of the main engine(s)"	M	P	
32	Owner	Owner		R	
32.1	Name	Name of owner(s).	M	R	X
32.2	Address	Address of owner(s).	M	R	X
33	Operator (if different from owner)	Operator		R	
33.1	Name	Name of operator(s).	M	R	X

	Fields	Description	Optional / Mandatory	Public / Restricted	AVL Fields
33.2	Address	Address of operator (s).	M	R	X
34	Min number of the crew	Minimum number for conducting fishing operation	O	R	
35	Max number of the crew	Number of the crew for conducting specific fishing operation if superior to "Min number of the crew"	O	R	
36	VMS		M	P	
37	Navigation equipment	Codification table	O	P	
38	Communication equipment	Codification table	O	P	
39	Fish finder	Codification table	O	P	
40	Deck machinery to operate fishing gear	Codification table	O	P	
41	Fish hold capacity		O	P	
42	Refrigeration equipment		O	P	
43	Fish processing equipment		O	P	
44	Lights for fishing	In case of use of a fishing operation requiring light	O	P	
45	Safety equipment		O	P	

**Table 1 – Classification of Fishery Vessels by Vessel Types**

“International Standard Statistical Classification of Fishery Vessels by Vessel Types” (ISSCFV), based on the type of gear used by the vessels, approved by the CWP in 1984  
[\(<ftp://ftp.fao.org/FI/DOCUMENT/cwp/handbook/annex/annexLII.pdf>\)](ftp://ftp.fao.org/FI/DOCUMENT/cwp/handbook/annex/annexLII.pdf)

ISSCFV	Vessel type	Standard
0100	Trawlers	TO
0200	Purse Seiners	SP
0300	Dredgers	DO
0400	Lift Netters	NO
0500	Gill Netters	GO
0600	Trap Setters	WO
0700	Long Liners	LL
0710	Other Liners	LOX
0900	Multipurpose vessels	MO
4900	Fishing Vessels not specified	RO
1100	Motherships	HO
1200	Fish Carriers	FO
1400	Protection and Survey Vessels	BO
1500	Fishery Research Vessels	ZO
1600	Fishery training Vessels	CO
9900	Non-Fishing Vessels	VOX

**Table 2 – Code for type of events**

<b>Type of event</b>		<b>Standard abbreviation</b>
Entry to fleet	Census	CEN
	New construction	CST
	Change of activity	CHA
	Intra-Mediterranean import, transfer	IMP
Within fleet	Modification	MOD
Exit from fleet	Break-up, shipwreck	DES
	Change of activity	RET
	Intra-Mediterranean export, transfer	EXP

**Table 3 – Code for hull material**

<b>Hull material</b>	<b>Code</b>
Wood	1
Metal	2
Fibreglass/plastic	3
Other	4
Unknown	5

**Table 4 – Code for navigation equipment**

<b>Navigation Equipment</b>	<b>Code</b>
No navigation equipment	1
Loran C	2
Loran A	3
Omega	4
Decca	5
GPS (Satellite navigation)	6
Radar	7
Direction finder	8
Automatic pilot	9
Meteorological map receiver	10
Gyrocompass	11
Other	98
Unknown	99

**Table 5 – Code for communication equipment**

<b>Communication Equipment</b>	<b>Code</b>
Radio VHF	1
Radio telephone	2
Cellular phone	3
Fax	4
Satellite radio	5
Telegraph	6
Other	8
Unknown	9

**Table 6 – Code for fish finder equipment**

<b>Fish Finder Equipment</b>	<b>Code</b>
Echo sounder	1
Sonar	2
Net sond	3
Other	8
Unknown	9

**Table 7 – Code for Deck machinery to operate fishing gear**

<b>Deck Machinery</b>	<b>Code</b>
Line winch	1
Net winch	2
Trammel winch	3
Power block	4
Other	8
Unknown	9

## APPENDIX III

## Revised fleet segmentation (SAC, 2008)

Groups	<6 metres	6-12 metres	12-24 metres	More than 24 metres
1. Polyvalent Small-scale vessels without engine	A			
2. Polyvalent small-scale vessels with engine	B	C		
3. Trawlers		D	E	F
4. Purse Seiners		G	H	
5. Long liners		I		
6. Pelagic Trawlers		J		
7. Tuna Seiners			K	
8. Dredgers		L		
9. Polyvalent vessels			M	

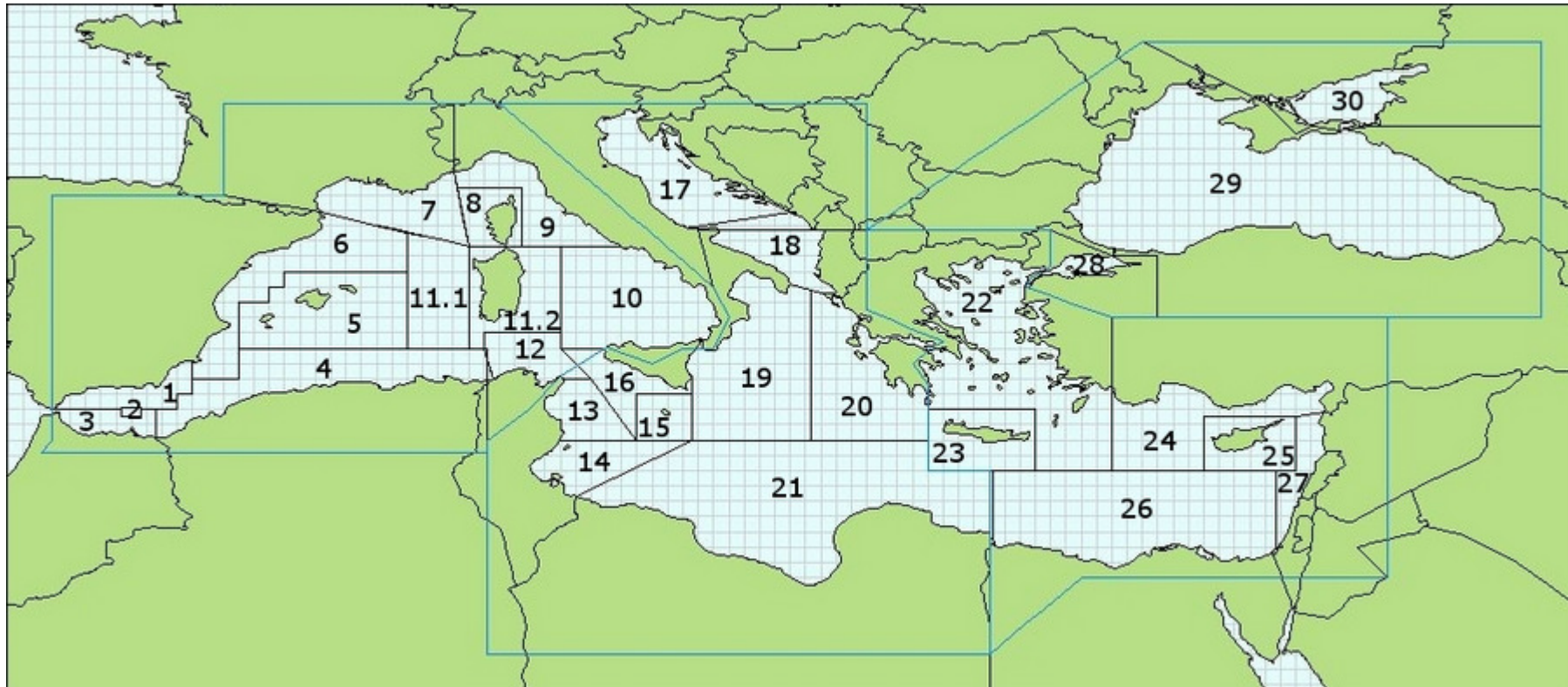
Segments' Description

- A- Polyvalent small-scale vessels without engine. All vessels less than 12 metres in length (LOA) without an engine (wind or propulsion).
- B- Polyvalent small-scale vessels with engine less than 6 m. All vessels under 6 metres in length (LOA) with engine.
- C- Polyvalent small-scale vessels with engine between 6 and 12 metres. All vessels between 6 and 12 metres in length (LOA) with engine, that use different gears during the year without clear predominance of one of them or that use a gear not considered in this classification.
- D- Trawlers less than 12 m. All vessels less than 12 metres in length (LOA) allocating more than 50 percent of their effort operating with a demersal trawl.
- E- Trawlers between 12 and 24 m. All vessels, between 12 and 24 metres in length (LOA) allocating more than 50 percent of their effort operating with a demersal trawl.
- F- Trawlers longer than 24 m. All vessels over 24 metres in length (LOA), allocating more than 50 percent of their effort operating with a demersal trawl.
- G- Purse Seiners between 6 and 12 m. All vessels between 6 and 12 m in length (LOA), allocating more than 50 percent of their effort operating with a purse seine.
- H- Purse Seiners longer than 12 m. All vessels over 12 m in length (LOA), allocating more than 50 percent of their effort operating with a purse seine, excluding those using a tuna seine during any time of the year.
- I- Long liners longer than 6 m. All vessels over 6 m in length (LOA), allocating more than 50 percent of their effort operating with a long line.
- J- Pelagic Trawlers longer than 6 m. All vessels over 6 m in length (LOA), allocating more than 50 percent of their effort operating with a pelagic trawl.
- K- Tuna Seiners. All vessels operating with a Tuna Seine for any length of time during the year.
- L- Dredgers longer than 6 m. All vessels over 6 m in length (LOA), allocating more than 50 percent of their effort operating with a dredge.
- M- Polyvalent vessels longer than 12 m. All vessels over 12 metres in length (LOA), that use different gears during the year without clear predominance of one of them or that use a gear not considered in this classification.

Note: All the cells are open for collecting information. The cells left blank in the above table are considered as unlikely to have a significant population. However, if necessary, it is advisable to merge the information of a “blank cell” with the most appropriate neighbouring “blue cell”.



Revised map of GFCM Geographical Sub-Areas (GSAs) (SAC, 2008)



**Revised geographical coordinates for GFCM Geographical Sub-Areas (GSAs) (SAC, 2008)**

<b>GSAs</b>	<b>LIMITS</b>	<b>GSAs</b>	<b>LIMITS</b>	<b>GSAs</b>	<b>LIMITS</b>	<b>GSAs</b>	<b>LIMITS</b>
<b>1</b>	Coast Line 36° N 5° 36' W 36° N 3° 20' W 36° 05' N 3° 20' W 36° 05' N 2° 40' W 36° N 2° 40' W 36° N 1° 30' W 36° 30' N 1° 30' W 36° 30' N 1° W 37° 36' N 1° W	<b>4</b>	Coast Line 36° N 2° 13' W 36° N 1° 30' W 36° 30' N 1° 30' W 36° 30' N 1° W 37° N 1° W 37° N 0° 30' E 38° N 0° 30' E 38° N 8° 35' E Algeria-Tunisia border Morocco-Algeria border	<b>7</b>	Coast line 42° 26' N 3° 09' E 41° 20' N 8° E France-Italy border	<b>10</b>	Coast line (including North Sicily) 41° 18' N 13° E 41° 18' N 11° E 38° N 11° E 38° N 12° 30' E
<b>2</b>	36° 05' N 3° 20' W 36° 05' N 2° 40' W 35° 45' N 3° 20' W 35° 45' N 2° 40' W	<b>5</b>	38° N 0° 30' E 39° 30' N 0° 30' E 39° 30' N 1° 30' W 40° N 1° 30' E 40° N 2° E 40° 30' N 2° E 40° 30' N 6° E 38° N 6° E	<b>8</b>	43° 15' N 7° 38' E 43° 15' N 9° 45' E 41° 18' N 9° 45' E 41° 20' N 8° E 41° 18' N 8° E	<b>11</b>	41° 47' N 6° E 41° 18' N 6° E 41° 18' N 11° E 38° 30' N 11° E 38° 30' N 8° 30' E 38° N 8° 30' E 38° N 6° E
<b>3</b>	Coast Line 36° N 5° 36' W 35° 49' N 5° 36' W 36° N 3° 20' W 35° 45' N 3° 20' W 35° 45' N 2° 40' W 36° N 2° 40' W 36° N 1° 13' W Morocco-Algeria border	<b>6</b>	Coast line 37° 36' N 1° W 37° N 1° W 37° N 0° 30' E 39° 30' N 0° 30' E 39° 30' N 1° 30' W 40° N 1° 30' E 40° N 2° E 40° 30' N 2° E 40° 30' N 6° E 41° 47' N 6° E 42° 26' N 3° 09' E	<b>9</b>	Coast line France-Italy border 43° 15' N 7° 38' E 43° 15' N 9° 45' E 41° 18' N 9° 45' E 41° 18' N 13° E	<b>12</b>	Coast line Algeria-Tunisia border 38° N 8° 30' E 38° 30' N 8° 30' E 38° 30' N 11° E 38° N 11° E 37° N 12° E 37° N 11° 04' E

<b>GSA</b> s	<b>LIMITS</b>	<b>GSA</b> s	<b>LIMITS</b>	<b>GSA</b> s	<b>LIMITS</b>
<b>13</b>	Coast line 37° N 11° 04' E 37° N 12° E 35° N 13° 30' E 35° N 11° E	<b>19</b>	Coast line (including East Sicily) 40° 04' N 18° 29' E 37° N 15° 18' E 35° N 15° 18' E 35° N 19° 10' E 39° 58' N 19° 10' E	<b>25</b>	35° 47' N 32° E 34° N 32° E 34° N 35° E 35° 47' N 35° E
<b>14</b>	Coast line 35° N 11° E 35° N 15° 18' E Tunisia-Libya border	<b>20</b>	Coast line Albania-Greece border 39° 58' N 19° 10' E 35° N 19° 10' E 35° N 23° E 36° 30' N 23° E	<b>26</b>	Coast line Libya-Egypt border 34° N 25° 09' E 34° N 34° 13' E Egypt-Gaza Strip border
<b>15</b>	36° 30' N 13° 30' E 35° N 13° 30' E 35° N 15° 18' E 36° 30' N 15° 18' E	<b>21</b>	Coast line Tunisia-Libya border 35° N 15° 18' E 35° N 23° E 34° N 23° E 34° N 25° 09' E Libya-Egypt border	<b>27</b>	Coast line Egypt-Gaza Strip border 34° N 34° 13' E 34° N 35° E 35° 47' N 35° E Turkey-Syria border
<b>16</b>	Coast line 38° N 12° 30' E 38° N 11° E 37° N 12° E 35° N 13° 30' E 36° 30' N 13° 30' E 36° 30' N 15° 18' E 37° N 15° 18' E	<b>22</b>	Coast line 36° 30' N 23° E 36° N 23° E 36° N 26° 30' E 34° N 26° 30' E 34° N 29° E 36° 43' N 29° E	<b>28</b>	
<b>17</b>	Coast line 41° 55' N 15° 08' E Croatia-Montenegro border	<b>23</b>	36° N 23° E 36° N 26° 30' E 34° N 26° 30' E 34° N 23° E	<b>29</b>	
<b>18</b>	Coast lines (both sides) 41° 55' N 15° 08' E 40° 04' N 18° 29' E Croatia-Montenegro border Albania-Greece border	<b>24</b>	Coast line 36° 43' N 29° E 34° N 29° E 34° N 32° E 35° 47' N 32° E 35° 47' N 35° E Turkey-Syria border	<b>30</b>	

**NEW PROPOSAL OF GFCM FISHERIES RESTRICTED AREAS (FRA):  
THE CONTINENTAL SLOPE OF THE EASTERN GULF OF LIONS (COSEGOL)**

**EXECUTIVE SUMMARY**

Part of the fishing fleets of northern Catalonia (Spain, NW Mediterranean) and Sète (France) exploit the fishing resources of the Gulf of Lions. This is a relatively well known fishery, with its main target species being hake (*Merluccius merluccius*), which is exploited using trawlnets (both countries), longlines (Spain) and gillnets (France). Assessments of this species are regularly presented to SCSA and point to heavy growth overexploitation and likely recruitment overexploitation. The remaining spawning fraction of the hake stock appears to be limited to the most inaccessible areas on the continental slope of the Gulf of Lions, where it is only lightly exploited. Its preservation from full commercial exploitation is considered vital for avoiding the intensification of recruitment overexploitation and the associated collapse of the fishery.

The current proposal reveals key findings of a study carried out in the Gulf of Lions, in which results indicate that the continental slope of the Eastern Gulf of Lions acts as a refuge for large spawners of several commercially important species, including hake. Based on this finding, and with fishing activities expected to shift to areas further out on the continental shelf in future years due to the dismal state of stocks closer the shore, the current proposal suggests that a fisheries restricted area be established on the continental slope of the Eastern Gulf of Lions<sup>1</sup> in order to protect one of the last refuges for large spawning adults of hake and other important fish species. The suggested management measure would be to prohibit any kind of demersal fishing, towed or not, including trawl gears, bottom and mid-water longlines, bottom nets (gillnets, trammel nets) and traps in the proposed zone. This measure is expected to result in major socio-economic benefits, since preserving the area would preserve the source of recruits supporting the current demersal fishery in the Gulf of Lions and even further south, in Northern Catalonia.

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<sup>1</sup>

Area bounded by lines joining the following coordinates: (42° 40' N, 4° 20'E) (42° 40' N, 5° 00'E), (43° 00' N, 4° 20'E) (43° 00' N, 5° 00'E)