November 2008

E

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

SCIENTIFIC ADVISORY COMMITTEE

Eleventh Session

Marrakech, Morocco, 1-5 December 2008

CONCLUSIONS AND RECOMMENDATIONS OF THE FOUR SAC SUB-COMMITTEES
Antalya, Turkey, 13–16 October 2008

INTRODUCTION

1. This document summarizes the main conclusions and recommendations of the four Sub-Committees of the Scientific Advisory Committee (SAC) as reflected in their reports, respectively quoted: GFCM:SAC11/2008/Inf.5, 6, 7 and 8. It also takes in consideration selected issues raised by the Coordinating Meeting of Sub-Committees (CMSC), as provided in documents GFCM:SAC/2008/Inf.9 and Inf.10. The Sub-Committees met simultaneously in Antalya (Turkey) from 13 to 16 October 2008.

SUB-COMMITTEE ON STOCK ASSESSMENT (SCSA)

2. The Working groups on demersal and on small-pelagic species, met back to back in Izmir (Turkey), from 15-19 and from 22-26 September 2008. On the basis of the reports of the Working groups, the SCSA reviewed:

- 21 documents on assessment of demersals, covering 10 species and 21 stocks (including 3 shared stocks) in 9 GSAs as well as 4 “assessment related” documents.
- 13 documents on assessment of small-pelagics, covering 13 stocks (including 5 shared stocks) of sardine and anchovy in 7 GSAs.

3. The detailed description of the fishery, status and abundance of concerned stock, information source, exploitation rate and related analysis for each assessment document are

available in the SCSA report. Management advice for those assessments which were endorsed by the Sub-Committee are summarized by GSA concerned[1] in tables 1 and 2 below.

Management advice for demersal species (table 1)

GSA	Stock	Stock status	Working Group management advice	SCSA management advice	SCSA Comments
01 Northern Alboran Sea	**Red mullet** (*Mullus barbatus*)	▪ Moderately exploited ▪ Y/R very close to the maximun	▪ Not to increase the fishing effort	▪ Not to increase the fishing effort	▪ provide fishing effort level (see general comment)
05 Balearic Islands	**Hake** (*Merluccius merluccius*)	▪ Fully exploited ▪ Moderate fishing mortality ▪ Intermediate abundance	▪ Not to increase the fishing effort; ▪ Enforce the 40 mm square mesh	▪ Not to increase the fishing effort; ▪ Enforce the 40 mm square mesh	▪ provide fishing effort level (see general comment)
	Striped red mullet (*Mullus surmuletus*)	▪ Moderate fishing mortality ▪ Intermediate abundance ▪ Fully exploited (Y/R very close to the maximum and Bnow is about 37 % Bvirgin)	▪ Not to increase the fishing effort, especially in the trawl fishery	▪ not to increase the fishing effort, especially in the trawl fishery	▪ Provide fishing effort level (see general comment)
	Red mullet *(Mullus barbatus)*	▪ Moderately exploited to fully exploited ▪ Moderate fishing mortality ▪ Intermediate abundance ▪ Current Y/R very close to the maximum and Bnow being 21% to 25% of Bvirgin	▪ Not to increase the fishing effort	▪ Not to increase the fishing effort	▪ Provide fishing effort level (see general comment)
	Norway Lobster *(Nephrops norvegicus)*	▪ Fully exploited ▪ Moderate fishing ▪ mortality ▪ Intermediate abundance	▪ Not to increase the fishing effort. Enforce at least 40 mm square mesh	▪ Not to increase the fishing effort. ▪ Enforce at least 40 mm square mesh	▪ Provide fishing effort level (see general comment)
	Red shrimp *(Aristeus antennatus)*	▪ Fully exploited; ▪ Moderate fishing mortality; Intermediate abundance	▪ Not to increase the fishing effort	▪ Not to increase the fishing effort	▪ Provide fishing effort level (see general comment)
06 Northern Spain	**Hake** (*Merluccius merluccius*)	▪ Overexploited. ▪ High fishing mortality ▪ Low abundance	▪ Reduction of fishing effort of trawl ▪ Enforce at least the 40 mm square mesh size	▪ Reduction of fishing effort of trawl ▪ Enforce at least the 40 mm square mesh size	▪ provide fishing effort level (see general comment) ▪ provide the period for the

[1] Summaries cover only assessments for which a relevant scientific evidence was available and comment or advice has been formulated.

GSA	Stock	Stock status	Working Group management advice	SCSA management advice	SCSA Comments
			in the cod end in bottom trawl. ▪ Establish temporal closures for long line and gillnet during the period of maximum spawning ▪ Protect the spawning grounds through the implementation of MPA	in the cod end in bottom trawl ▪ Establish temporal closures for long line and gillnet during the period of maximum spawning; ▪ Protect the spawning grounds through the implementation of MPA	temporal closure ▪ provide the location of the protection area
	Red mullet *(Mullus barbatus)*	▪ 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 ▪ High fishing mortality ▪ Low abundance	▪ Reduce effective fishing effort of 20% by reducing time at sea from 5 to 4 days per week ▪ Enforce at least the 40 mm square mesh in the cod-end.	▪ Reduce effective fishing effort of 20% by reducing time at sea from 5 to 4 days per week ▪ Enforce at least the 40 mm square mesh in the cod-end	▪ Provide fishing effort level (see general comment)
	Deep-water rose shrimp (*Parapenaeus longirostris)*	▪ Depleted. Catches are well below historical levels, irrespective of the amount of fishing effort exerted ▪ High fishing mortality ▪ Depleted	▪ No specific advice	▪ Need for recovery plan	
07 Gulf of Lions	**Hake** (*Merluccius merluccius*)	▪ Overexploited ▪ High fishing mortality ▪ Low	▪ reduction of 20 % of the fishing mortality by reducing time	▪ reduction of 20 % of the fishing mortality by reducing time	▪ provide fishing effort level (see general

GSA	Stock	Stock status	Working Group management advice	SCSA management advice	SCSA Comments
		abundance.	at sea, number of fishing boats, engine power, Bollard pull and/or trawl size…) ▪ Enforce at least the 40 mm square mesh cod-end ▪ Closing nursery areas, at least temporally (possibly identified by trawl surveys) ▪ protecting spawning by closing areas at least temporally during the period of maximum spawning (winter and spring).	at sea, number of fishing boats, engine power, Bollard pull and/or trawl size…) ▪ Enforce at least the 40 mm square mesh size in the cod-end ▪ Closing nursery areas, at least temporally (possibly identified by trawl surveys) ▪ protecting spawners during the period of maximum spawning (winter and spring) by closing on the continental slope the areas where the spawners live	comment) ▪ See general comment for fishing mortality ▪ Provide the location of both the nursery and the spawning grounds
09 Ligurian	**Hake** (*Merluccius merluccius*)	▪ Overexploited ▪ High fishing mortality Low abundance.	▪ drastic reduction of the fishing mortality (40-80%)	▪ drastic reduction of the fishing mortality (40-80%)	▪ See general comment for fishing mortality
15 & 16 Malta and South of Sicily	**Hake** (*Merluccius merluccius*)	▪ Overexploited	▪ Reduction of the fishing mortality at least 40%	▪ Reduction of the fishing effort at least 40%	
16 South of Sicily	**Deep-water rose shrimp** (*Parapenaeus longirostris)*	▪ Overexploited ▪ High fishing ▪ mortality ▪ Low abundance.	▪ Reduction of the fishing mortality by 30% (decreasing of fishing capacity and activity) ▪ Enforce at least the 40 mm square mesh Protection of the nurseries	▪ Reduction of the fishing mortality by 30% (decreasing of fishing capacity and activity) ▪ Enforce at least the 40 mm square mesh	▪ See general comment for fishing mortality ▪ The nursery grounds in order to be protected should be first identified
17 Northern Adriatic Sea	**Common Sole** *(Solea vulgaris)*	▪ Overexploited ▪ High fishing mortality ▪ Low abundance	▪ Reduction of 10% of the fishing pressure applied by rapido trawlers (in terms of number of vessels and/or fishing time) (to reach Fmax) or of around 50%	▪ Reduction of 10% of the fishing pressure applied by rapido trawlers (in terms of number of vessels and/or fishing time) (to reach Fmax) or	▪ Provide fishing effort level (see general comment) ▪ Provide the period of the temporal closure and the location of the area which

GSA	Stock	Stock status	Working Group management advice	SCSA management advice	SCSA Comments
			(to reach F0.1) ▪ A two–months closure for rapido trawling inside 6 nm offshore along the Italian coast, after the biological fishing stop (August) ▪ 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.	of 50% about (to reach F0.1) ▪ A two–months closure for rapido trawling inside 6 nm offshore along the Italian coast, after the biological fishing stop (August) ▪ 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.	should be protected

Management advice for demersal species in all GSAs

4. According to the management advice formulated and acknowledging that some of the stocks may be approaching a critical state, which confirmed the conclusions of previous meetings concerning various GSAs, the SCSA invited SAC to urgently formulate proposals of management measures to be submitted to the Commission for final decision, during its 33rd Session. In this respect, the Sub-Committee agreed that:

i) Until proven unnecessary by sound scientific evidence, a reduction of at least 10% of fishing effort shall be applied for all GFCM GSAs as precautionary measure;

ii) Additional measures should be taken for those GSAs where relevant scientific evidence is available (Table 1 and previous assessments).

Management advice for small pelagic species (table 2)

GSA	Stock	Stock status	WG management advice	SCSA management advice	SCSA Comments
GSA 01 Northern Alboran Sea	**Sardine (*)** (*Sardina pilchardus*)	▪ Fully exploited	▪ Not to increase the fishing effort	▪ Not to increase the fishing effort	▪ Provide the effort level (see general comment)
	Anchovy (*Engraulis encrasicolus*)	▪ Low biomass	Based on the 2006 assessment, unless there is an increase in recruitment evident from the 2008 autumn survey, fishing effort should be reduced.	▪ Based on the 2006 assessment, unless there is an increase in recruitment evident from the 2008 autumn survey, fishing effort should be reduced.	▪ Small pelagic fishery in GSA 01 is multispecies and effort on anchovy and sardine should be considered together. For scientific advice, it is very

GSA	Stock	Stock status	WG management advice	SCSA management advice	SCSA Comments
			survey, fishing effort should be reduced.		important that the 2008 acoustic survey takes place
GSA 06 Northern Spain	**Sardine** (*) (*Sardina pilchardus*)	▪ Fully exploited	▪ Not to increase the fishing effort	▪ Not to increase the fishing effort	▪ Provide the effort level (see general comment) ▪ Small pelagic fishery in GSA 06 is multispecies and effort on anchovy and sardine should be considered together
	Anchovy (*Engraulis encrasicolus*)	▪ Very low biomass	▪ Reduce the level of fishing effort	▪ Reduce the level of fishing effort	▪ Provide the effort level (see general comment) ▪ The biomass is the lowest when compared with the past 8 years
GSA 07 Gulf of Lions	**Sardine** (*Sardine pilchardus*)	▪ Interm ediate abundance	▪ Not to increase the current level of fishing effort	▪ Not to increase the current level of fishing effort	▪ The current Biomass is lower than the average values of historical series 1993-2006 Small pelagic fishery in GSA 07 is multispecies and effort on anchovy and sardine should be considered together
	Anchovy (*Engraulis encrasicolus*)	▪ Low abundance	▪ Not to increase the current levelof fishing effort	▪ Not to increase the current level of fishing effort ▪ Although preliminary results show strong recruitment for the next year, the exploitation of the stock should be done with caution	▪ The current biomass is equal to the lowest value of the historical series of 2001-2006. ▪ Preliminary results of the July 2008 acoustic survey indicate a possibly high Recruitment for 2007. Small pelagic fishery in GSA 07 is multispecies and effort on anchovy and sardine should be considered together
GSA 16 Southern of Sicily	**Sardine** (*Sardina pilchardus*)	▪ Low biomass for 2006	Given that biomass was low for two	Given that biomass was low for two consecutive years	▪ Provide the effort level (see general comment)

GSA	Stock	Stock status	WG management advice	SCSA management advice	SCSA Comments
		and 2007. ▪ Moderate exploitation rate	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 should be taken to prevent a shift of effort from anchovy to sardine	(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 should be taken to prevent a shift of effort from anchovy to sardine	▪ Small pelagic fishery in GSA 16 is multispecies and effort on anchovy and sardine should be considered together
	Anchovy (*Engraulis encrasicolus*)	▪ Very low biomass for 2006 and 2007. ▪ High exploitation rate	▪ 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	▪ 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	▪ Small pelagic fishery in GSA 16 is multispecies and effort on anchovy and sardine should be considered together ▪ Fishery directed to the larval stages should be monitored
GSA 17 Northern Adriatic Sea	**Sardine** (*Sardina pilchardus*)	▪ Over-exploited	▪ Not to increase the fishing effort	▪ The sardine catches should be reduced close to zero	▪ The SC considers that the low values of both recruits and biomass could possibly indicate that the stock has been collapsed.
	Anchovy (*) (*Engraulis encrasicolus*)	▪ Fully exploited	▪ Not to increase the fishing effort	▪ Not to increase the fishing effort ▪ Fishing effort reduction on sardine should not be transferred to anchovy	▪ Provide the effort level (see general comments)

(*): Those assessments have been performed jointly

General statements on demersal and small pelagic species

5. The Sub-Committee further expressed the following general statements on demersal and small pelagic species, for consideration by SAC:

- The need to ensure availability of data on fishing effort level for by providing data on fishing effort and through amending Resolution GFCM/2007/1 to make the Task 1.4 compulsory;
- The need to adopt an agreed sets of biological parameters of growth and natural mortality, considering these may condition the results of the assessments derived from the more frequently used approaches that use those parameters as input;
- The need for the scientists to have access to the information from the vessel monitoring system (VMS) as appropriate, to improve notably the knowledge dynamics of fishing fleets, distribution of fishing grounds, effective fishing effort and protection of nursery areas and spawning grounds;
- The need to development and use reference points, according to the options and indications provided by the SCSA.

6. The Sub-Committee also acknowledged the progress made in the assessment forms, which were already updated in the time period between the meeting of the Working group and the present one as recommended above and put on the GFCM website.

7. Regarding the functioning of the Working Groups on demersal and small pelagic species, the SCSA suggested the establishment of thematic sub-groups which should undertake joint assessment and report their outcome to the Sub-Committee meeting. The national experts will be invited to communicate in due time (2 months before the meetings) the required data, according to the agreed format. The position of the facilitator will be replaced by a moderator invited by GFCM, possibly from outside the Mediterranean, subject that related budget be allocated by the Commission.

Outcomes of the second meeting of the Working Group of Stock Assessment Methodology on basic methods and protocols to undertake assessments with direct methods

8. The SCSA reviewed and endorsed the report of the Working Group (document GFCM:SAC11/2008/Inf. 13) including its conclusions and recommendations. Emphasis was put on the following main suggestions, for consideration by SAC:

- The Sub-Committee agreed that two methods using exclusively trawl survey data be considered for future assessment works: the non equilibrium biomass dynamic model and the composite model. Methods using survey and commercial data should also be used;
- The SCSA acknowledged the importance of the work done to develop a protocol for a common use in the GFCM area, and invited the national scientists in charge of surveys at sea, the FAO sub-regional projects as well as other projects such as Medits and Medias to communicate to the GFCM Secretariat their detailed protocols to be considered as reference to finalize the standard GFCM protocol to undertake surveys at sea;

Priority species and shared stocks lists

9. The SCSA acknowledged the importance of the work done by the AdriaMed project concerning the update of the list of priority species and shared stocks. It further suggested that *Octopus vulgaris* should be included in the priority list. The Sub-Committee also endorsed the recommendation of the Joint GFCM/ICCAT Working Group on small tuna fisheries (Spain, 2008) to include in the GFCM priority species list the following four main small tuna species (*Auxis rochei, Sarda sarda, Euthynnus alletteratus, Orcynopsis unicolor*) as well as skipjack (*Katsuwonus pelamis*), as these species already exist on the ICCAT list, in order to improve the current status of data collection, including socio-economic aspects.

SUB-COMMITTEE ON STATISTICS AND INFORMATION (SCSI)

10. SCSI convened a workshop on the GFCM regional fleet register (Rome, 12-14 May 2008) (document GFCM:SAC11/2008/Inf.12) and another on the refinement of the fleet segmentation (back to back with the SCSI meeting) (document GFCM:SAC11/2008/Inf.6).

Workshop on the GFCM Regional Fleet Register

11. The Workshop agreed upon a list of fields, definitions, formats, codifications, data submission frequency and standards, and confidentiality issues in relation to the GFCM Regional fleet register (RFR) which would contain information of "Any vessel, boat, ship, or other craft that is equipped and used for commercial fishing activity". The introduction of a vessel unique identifier in both this register and the already established Authorised Vessels List was strongly recommended. The list of fields for the RFR together with their definition, status and confidentiality grade are presented as Appendix 1.

12. SCSI endorsed the proposals of the workshop and discussed the incorporation of fleet capacity monitoring tools into the RFR which would initially comprise graphs on fleet capacity in terms of GT and KW, a search engine to generate tailor-made statistical reports as well as other simple graphs such as number of vessels per age, length classes etc.

13. SCSI further agreed on the following points:

- Restricted access should be applied to information on the name address of the owner and the operator and the information on the crew number.
- A trial period using an excel-based system should be launched to address compatibility issues with national fleet registers. The outcome of this trial period will be considered prior to proceeding with the development of the Regional Fleet Register.

Transversal Workshop to refine the fleet segmentation

14. The Workshop agreed that the names of the segments should clearly relate to the vessel and not to the gear, in order to avoid confusion, i.e. "Trawlers" instead of "Trawl", "Purse Seiners" instead of "Purse Seine", etc.

15. Furthermore, acknowledging the fact that one must avoid classifying most of the vessels in one of the polyvalent segments, the Workshop agreed to adopt the rule which allocates a vessel to a segment on the basis of a dominance criteria, i.e. allocating more than 50% of its fishing time with a specific gear.

16. SCSI endorsed the above suggestions from the Workshop and further agreed on the following:

- The proposed segmentation would not apply to tuna seiners for which any length of time in the year was sufficient to classify a vessel in the tuna seiners segment;
- The list of vessels contained in tuna seiners segment should be consistent with the ICCAT list of authorised tuna seiners;
- Certain segments should be composed of a wider length class of vessels in order to provide information related to the Segment in a more clear way and to avoid the apparent "shifting" of information from one length class to another (as reflected in the old segmentation table).

17. In view of the above, a revised segmentation table (Appendix 2), allocation criteria and segment definitions were produced, for consideration by SAC.

18. During its ninth session the SCSI formulated the following main recommendations, for consideration by SAC:

- Amend GFCM Resolution 31/2007/1 in order to consider the proposed revision of the fleet segmentation table, together with the allocation criteria and segment definitions, as provided in Appendix 2, with the view that Tasks 1.3 and 1.4 should become mandatory in 2009;
- Amend GFCM Resolution 31/2007/2 on the Geographical Sub-Areas to take into consideration the need to adjust some GSA boundaries to coincide with those of the FAO statistical divisions and conforming as much as possible with a statistical rectangular grid, as indicated in Appendix 3;
- Establish a GFCM Regional Fleet Register (RFR) which should include tools to monitor fleet capacity in terms of tonnage (GT) and power (KW);
- Convene a workshop on the GFCM logbook, according to the Terms of Reference;
- Amend Recommendation GFCM 2005/2 to include the data field "GFCM unique identifier" into GFCM record of vessels over 15 metres authorized to operate in the GFCM area.

19. SCSI also drew the following conclusions for consideration by SAC:

- For the sake of reporting data through the Task 1 framework, update the definitions (agreed by SCSI - Antalya, 13-16 October 2008) of by-catch species and main associated species in the Task 1 data entry too;
- Countries should report the total rates (i.e. total volume of discards and bycatch over total volume of catches) by gear and period for each Operational Unit. Countries willing to report discards per species are encouraged to do so, as the Task 1 data entry tool would have provisions for this;
- Update the definitions (agreed by SCSI - Antalya, 13-16 October 2008) of Days at sea, Number of fishing sets, Number of fishing trips, Length of net, Surface area of nets in the Task 1 data entry tool;
- Restrict the unit of time for reporting effort in Task 1 to "Days" only. The reference should be the *Days-at-sea* for active gears and *Fishing days* for passive gears. In all cases, countries should comment on the unit they have used when filling their data in the Task 1 data entry tool.

20. Furthermore, the SCSI also called upon the Sub-Committee on Environment and Ecosystems to define the aggregation level of by-catch species to be adopted for reporting in Task 1.4 (species, genus, families, classes, etc.).

SUB-COMMITTEE ON ECONOMICS AND SOCIAL SCIENCES (SCESS)

21. SCESS focused mainly on 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. It also followed up on the issue of recreational fisheries.

Transversal Working Group on Recreational fisheries

22. The Working group reviewed the existing legal, management and environmental frameworks, and intended to define an integrated framework for the collection and analysis of biological, ecological, environmental, and socio-economic data for use in recreational fisheries management. The meeting addressed the issue of definitions related to this sub-sector and suggested to classify it in: i) pêche à pied; ii) shore based; iii) boat based and iv) underwater fishing.

23. Concerning data collection, SCESS defined variables to be collected (Catch, Licenses, Vessels and Expenditures made by the recreational fishers) and identified some priorities as initial steps for the collection of data on recreational fishery.

- Institutions:
  - Mobilize national administration and research centres to pay higher attention to recreational fisheries;

  - Suggest to the FAO regional projects to support pilot studies on data collection for recreational fisheries;
  - Strengthen collaboration with recreational fisheries associations.
- Activities:
  - Improve a standard methodology to estimate indicators of recreational fisheries;
  - Estimate the effectiveness of control tools;
  - Compare and analyze regulations;
  - Provide data on licences, vessels, etc.

24. The Sub-Committee further reviewed a draft document presented by the GFCM Secretariat concerning a programme dealing with the Assessment, Management and Monitoring of Fishing Capacity in the GFCM area. It acknowledged the importance of the topic in the present context of the Mediterranean fisheries. SCESS therefore recommended the organization of a transversal workshop on Assessment, Management and Monitoring of Fishing Capacity in the GFCM Area, with the objective of providing scientific and practical guidelines to the GFCM to appraise the impacts, requirements and effects of the different options to address the freezing of fishing capacity in the Mediterranean.

25. The Sub-Committee also made the following main recommendations:

- 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;
- Organize a SCESS/SCSA/SCSI Transversal Workshop on Assessment, Management and Monitoring of Fishing Capacity in the GFCM Area.

SUB-COMMITTEE ON MARINE ENVIRONMENT AND ECOSYSTEMS (SCMEE)

26. SCMEE endorsed the conclusions of the transversal Workshops and Working groups in which it was involved and formulated its main recommendations as follows.

Transversal Working Group on Selectivity (document SAC11/2008/Inf. 16)

- Finalize a common framework for selectivity studies to support the implementation of the selectivity measures;
- Urgently implement and enforce the use of a square mesh of at least 40 mm in the bottom trawl codend in accordance with GFCM regulation;
- Pursue the effort of the TechnoMed network, to develop notably a GFCM database on gear selectivity.

Transversal Workshop on Bycatch/Incidental Catches (document SAC11/2008/Inf. 17)

- Collaborate and promote, together with other relevant IGOs/NGOs, coordinated studies on population dynamics of protected species of conservation concern, such as sharks, marine turtles, mammals, birds;
- Launch pilot projects on by-catch in specific “metiers” or fishery, taking into account not only technological measures for mitigation, but also the social aspects connected with that metier (especially in artisanal fisheries) or fishery;
- Implement more testing studies on promising technical and operational changes in fishing practices (e.g. circle hooks, TEDs, deep setting, etc.)
- Draft a protocol for data collection on by-catch of species of conservation concern, merging the draft protocols prepared for ACCOBAMS and MEDLEM;
- Evaluate the existing data on by-catch, and identifying critical areas that could be eligible for local fishery management measures.

27. SCMEE formulated the following main recommendations for consideration by SAC:

- Formally consider the proposal of establishing a new FRA for the Continental slope of the Eastern Gulf of Lions (CoSEGoL) FRA, as validated by the Sub-Committee and to envisage its submission for adoption by the Commission at its 33rd Session. The full proposal is provided as Appendix 3 of the SCMEE report (document GFCM:SAC11/2008/Inf.8) and summarized in Appendix 4 of this document;
- Invite GFCM to identify the best way to ensure effective implementation and monitoring of approved FRA;
- Urgently implement and enforce the use of a square mesh of at least 40mm in the bottom trawl codend in accordance with GFCM regulation;
- Prepare a draft set of criteria to identify essential habitats for priority species, organised by GSA, to be submitted for consideration by the Eleventh session of SAC (document GFCM:SAC11/2008/Inf.20);
- Pursue promoting the implementation of EAF through the development of pilot studies and encourage the involvement of stakeholders from the beginning of the process;
- Implement and promote coordinated studies on population dynamics of cartilaginous species in parallel to mitigation measure in those cases where protected species are involved and to collaborate and promote, together with other relevant IGOs/NGOs, coordinated studies on population dynamics of protected species of conservation concern, such as sharks, marine turtles, mammals, birds;
- Organize a workshop on transversal workshop on selectivity improvement and by-catch reduction.

SELECTED TRANSVERSAL ISSUES

SAC glossary

28. This issue was discussed by the 4 Sub-Committees and by the Coordinating Meeting of the Sub-Committees. It was stated that all definitions should be widely concerted in the context of SAC and its subsidiary bodies and that the terms which should be used by the Sub-Committees as well as those to be introduced in GFCM decisions should be consistent with the updated SAC glossary.

29. It was suggested that an expert or group of experts among the country members will take in charge, in close collaboration with the Sub-committee coordinators and the Secretariat, the finalisation of this draft updated glossary.

Joint GFCM/ICCAT Working Group on Large Pelagic in the Mediterranean

30. The 8th Joint GFCM/ICCAT Working Group on Large Pelagic in the Mediterranean focused its work on small Tuna fisheries in the Mediterranean (Spain, May 2008). The outcome of this meeting was reviewed during the transversal session attended by the four Sub-Committees. The following recommendations were endorsed as follows:

- Improve statistics on small tuna as well as the current knowledge on the biology, stock structure and other relevant aspects of these species;
- Scientific experts from both ICCAT and GFCM Contracting Parties should review their catches and try to classify them by species;
- add the following four main small tuna species (*Auxis rochei, Sarda sarda, Euthynnus alletteratus, Orcynopsis unicolor*) as well as skipjack (*Katsuwonus pelamis*) in the list of GFCM priority species;
- Countries catching tuna and tuna- like species in the Mediterranean should be involved in future meetings of the joint GFCM- ICCAT Working Group depending on the topics to be discussed;
- Further analysis and discussion to provide the respective Commissions with the best scientific advice on the status, trends and indicators on small tunas;

- Organize another meeting of the joint GFCM/ICCAT Working Group be held in 2010/2011 to assess the progress made in relation to the objectives of the work plan.
- Invite, in addition to COPEMED II, the other sub-regional projects to support, as appropriate, research activities on tuna and tuna-like species;

SUGGESTED ACTION BY THE COMMITTEE

31. The Committee is invited to review the findings and recommendations of its Sub-Committees, ad hoc Working groups and Workshops.

32. The Committee is also invited to translate the advice provided by the Sub-Committees into multidisciplinary management measures, particularly for multispecies shared fisheries, as well as to draw up consolidated future workplan as appropriate in conjunction with agenda item 8 (document GFCM:SAC11/2008/4).

Appendix 1

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 transhipping	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
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 >= 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
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	

Appendix 2

Revised Fleet Segmentation Table

Groups	<6 metres	6-12 metres	12-24 metres	More than 24 meters
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% 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% of their effort operating with a demersal trawl.

F- Trawlers of more than 24 m. All vessels over 24 metres in length (LOA), allocating more than 50% 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% of their effort operating with a purse seine.

H- Purse Seiners of more than 12 m. All vessels over 12 m in length (LOA), allocating more than 50% of their effort operating with a purse seine, excluding those using a tuna seine during any time of the year.

I- Long liners of more than 6 m. All vessel over 6 m in length (LOA), allocating more than 50% of their effort operating with a long line.

J- Pelagic Trawlers of more than 6 m. All vessel over 6 m in length (LOA), allocating more than 50% of their effort operating with a pelagic trawl.

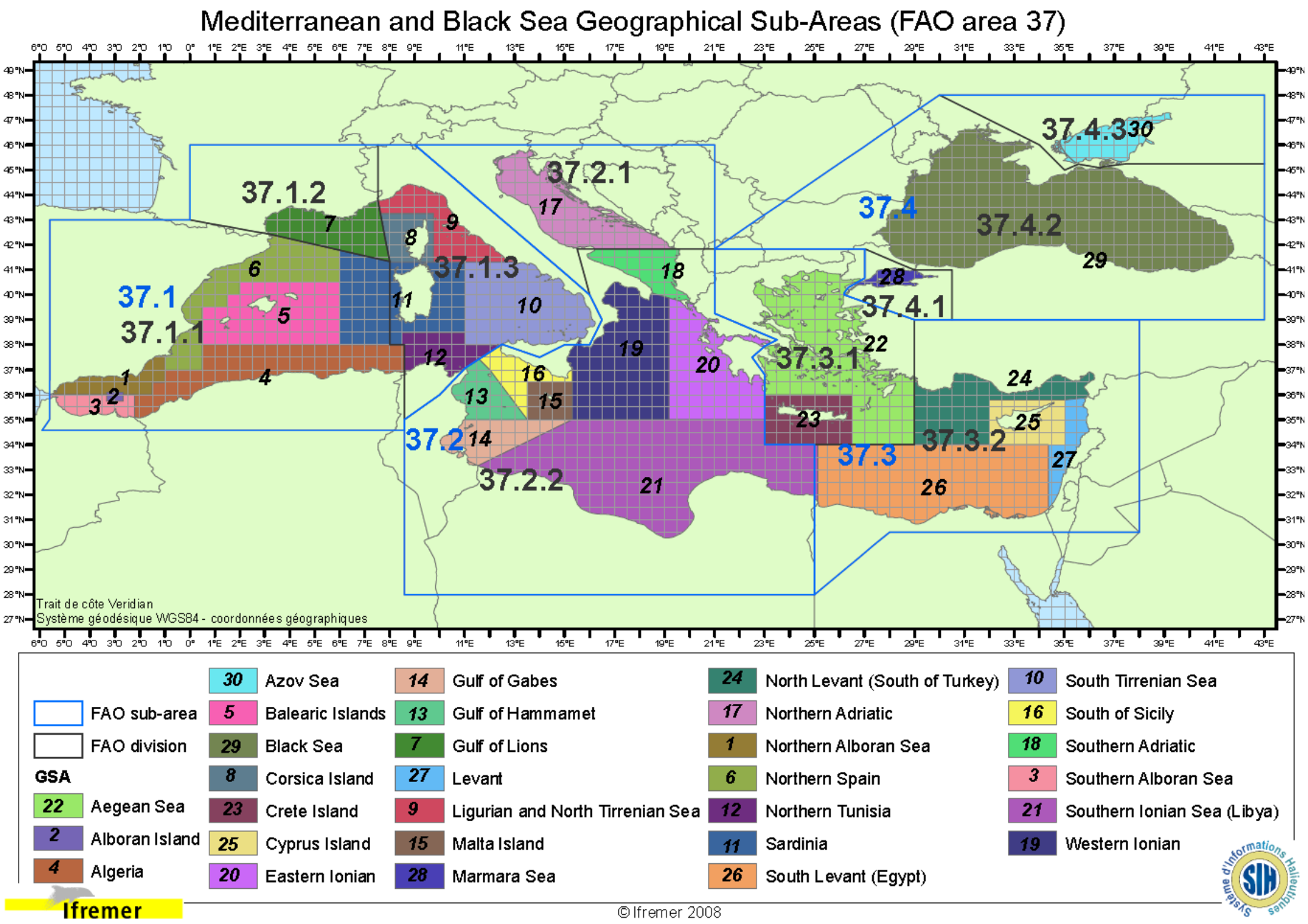
K- Tuna Seiners. All vessels operating with a Tuna Seine for any length of time during the year.

L- Dredgers of more than 6 m. All vessels over 6 m in length (LOA), allocating more than 50% 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".

Proposed new GSA map and corresponding coordinates **Appendix 3**



GSAs	LIMITS	GSAs	LIMITS	GSAs	LIMITS	GSAs	LIMITS
1	Coast Line 36º N 5º 36' W 36º N 3º 20' W 36º 05' N 3º 20' W 36º 05' N 2º 40' W 36º N 2º 40' W 36º N 1º 30' W 36º 30' N 1º 30' W 36º 30' N 1º W 37º 36' N 1º W	**4**	Coast Line 36º N 2º 13' W (error) 36º N 1º 30' W 36º 30' N 1º 30' W 36º 30' N 1º W 37º N 1º W 37º N 0º 30' E 38º N 0º 30' E 38º N 8º 35' E Algeria-Tunisia border Morocco-Algeria border	**7**	Coast line 42º 26 N 3º 09' E ~~42º 30' N 6º E~~ 41º 20' N 8º' E France-Italy border	**10**	Coast line (including North Sicily) 41º 18' N 13º E 41º 18' N 11º E 38º N 11º E 38º N 12º 30' E
2	36º 05' N 3º 20' W 36º 05' N 2º 40' W 35º 45' N 3º 20' W 35º 45' N 2º 40' W	**5**	38º N 0º 30' E 39º 30' N 0º 30' E 39º 30' N 1º 30' W 40º N 1º 30' E 40º N 2º E 40º 30' N 2º E 40º 30' N 6º E 38º N 6º E	**8**	~~42º 30' N 6º E~~ ~~42º 30' N 7º 30' E~~ 43º 15' N 7º 38' E 43º 15' N 9º 45' E 41º 18' N 9º 45' E 41º 20' N 8º E 41° 18' N 8° E	**11**	41º 47' N 6º E 41° 18' N 6° E 41º 18' N 11º E 38º 30' N 11º E 38º 30' N 8º 30' E 38º N 8º 30' E 38º N 6º E
3	Coast Line 36º N 5º 36' W 35º 49' N 5º 36' W 36º N 3º 20' W 35º 45' N 3º 20' W 35º 45' N 2º 40' W 36º N 2º 40' W 36º N 1º 13' W Morocco-Algeria border	**6**	Coast line 37º 36' N 1º W 37º N 1º W 37º N 0º 30' E 39º 30' N 0º 30' E 39º 30' N 1º 30' W 40º N 1º 30' E 40º N 2º E 40º 30' N 2º E 40º 30' N 6º E 41º 47' N 6º E 42º 26' N 3º 09' E	**9**	Coast line France-Italy border 43º 15' N 7º 38' E 43º 15' N 9º 45' E 41º 18' N 9º 45' E 41º 18' N 13º E	**12**	Coast line Algeria-Tunisia border 38º N 8º 30' E 38º 30' N 8º 30' E 38º 30' N 11º E 38º N 11º E 38º N 12º 28 E 37º N 11º 04'E

GSAs	LIMITS	GSAs	LIMITS	GSAs	LIMITS
13	Coast line 37º N 11º 04'E 36º 40' N 10º 40' E 35º N 13º 30' E 35º N 11º E	**19**	Coast line (including East Sicily) 40º 04' N 18º 29' E 37º N 15º 18' E 35º N 15º 18' E 35º N 19º 10' E 39º 58' N 19º 10' E	**25**	35º 47' N 32º E 34º N 32º E 34º N 35º E 35º 47' N 35º E
14	Coast line 35º N 11º E 35º N 15º 18' E Tunisia-Libya border	**20**	Coast line Albania-Greece border 39º 58' N 19º 10' E 35º N 19º 10' E 35º N 23º E 36º 30' N 23º E	**26**	Coast line Libya-Egypt border 34º N 25º 09' E 34º N 34º 13' E Egypt-Gaza Strip border
15	36º 30' N 13º 30' E 35º N 13º 30'E 35º N 15º 18' E 36º 30' N 15º 18' E	**21**	Coast line Tunisia-Libya border 35º N 15º 18' E 35º N 23º E 34º N 23º E 34º N 25º 09' E Libya-Egypt border	**27**	Coast line Egypt-Gaza Strip border 34º N 34º 13' E 34º N 35º E 35º 47' N 35º E Turkey-Syria border
16	Coast line 38º N 12º 30' E 37º 25' N 11º 35' E 37º N 12º E 35º N 13º 30' E 36º 30' N 13º 30' E 36º 30' N 15º 18' E 37º N 15º 18' E	**22**	Coast line 36º 30' N 23º E 36º N 23º E 36º N 26º 30' E 34º N 26º 30' E 34º N 29º E 36º 43' N 29º E	**28**	
17	Coast line 41º 50' N 15º 30' E ~~Croatia-Montenegro border~~ 41° 50' N 19° 30' E	**23**	36º N 23º E 36º N 26º 30' E 34º N 26º 30' E 34º N 23º E	**29**	
18	Coast lines (both sides) 41º 50' N 15º 30' E 40º 04' N 18º 29' E ~~Croatia-Montenegro border~~ 41° 50' N 19° 30' E Albania-Greece border	**24**	Coast line 36º 43' N 29º E 34º N 29º E 34º N 32º E 35º 47' N 32º E 35º 47' N 35º E Turkey-Syria border	**30**	

Appendix 4

NEW PROPOSAL OF GFCM FISHERIES RESTRICTED AREAS (FRA): THE CONTINENTAL SLOPE OF THE EASTERN GULF OF LIONS (COSEGOL)[2]

EXECUTIVE SUMMARY[3]

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 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.

[2] The whole proposal of FRA, as validated by the SCMEE on 16 October 2008, could be found as Annex 3 to the report of the Sub-Committee (document GFCM: SAC11/2008/Inf. 6)

[3] As presented by the authors in the FRA proposal validated by the SCMEE