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

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

Thirty-fifth Session

Rome, Italy, 9-14 May 2011

REPORT OF THE 13th SESSION OF THE SCIENTIFIC ADVISORY COMMITTEE (SAC)
Marseille, France, 7-11 February 2011

COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

Trente-cinquième session

Rome, Italie, 9-14 mai 2011

RAPPORT DE LA 13ème SESSION DU COMITÉ SCIENTIFIQUE CONSULTATIF (CSC)
Marseille, France, 7-11 février 2011

FAO Fisheries and Aquaculture Report No. 974
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GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN
COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

Report of the thirteenth session of the

SCIENTIFIC ADVISORY COMMITTEE

Marseille, France, 7–11 February 2011

Rapport de la treizième session du

COMITÉ SCIENTIFIQUE CONSULTATIF

Marseille, France, 7–11 février 2011

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PREPARATION OF THIS DOCUMENT

This is the final report approved by the participants at the thirteenth session of the Scientific Advisory Committee of the General Fisheries Commission for the Mediterranean held in Marseille, France, from 7 to 11 February 2011.

PRÉPARATION DE CE DOCUMENT

Le présent document est le rapport final adopté par les participants de la treizième session du Comité Scientifique Consultatif de la Commission générale des pêches pour la Méditerranée tenue à Marseille, France, du 7 au 11 février 2011.

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ABSTRACT

The Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) held its Thirteenth Session in Marseille, France, from 7 to 11 February 2011. The session was attended by delegates from 21 Members of the Commission as well as observers from intergovernmental organizations and non-governmental organizations together with the Russian Federation. The session appraised the achievements of its subsidiary bodies along with the outcome of the Coordinating Meeting of the Sub-Committees (CMSC). The Committee reviewed the topics addressed by the 17 technical meetings held by its subsidiary bodies. These included proposals for fishery management measures, research programmes, data collection schemes and development of Management Plans. It discussed several other technical issues connected to the exploitation of red coral and European eel, the status of elasmobranchs, the protection of seabirds, turtles and monk seals as well as the monitoring of the by-catch in the Mediterranean fisheries. The SAC further commented on the outputs of the workshop on algal and jellyfish blooms which provided options to tackle the problems posed by this phenomenon on fisheries and also gave due importance to the results of the workshops on recreational fisheries and on fishing gear selectivity. Definitions of some socio-economic parameters within the Task 1 data collection framework were reviewed and options for the improvement of the collection and submission of biological data under this framework were considered. The Committee acknowledged the progress made in undertaking joint stock assessments of several demersal and small pelagic species and identified a way of progression of the use of Biological Reference Points. The SAC also reviewed the progress made on the development and management of GFCM databases, including the new Biological Parameters Database and the newly released e-Glossary, as well as that made on the issue of catch weight thresholds in logbook reporting. Finally, the Committee proposed the establishment of a new Working Group to specifically address the Black Sea issues and agreed upon its workplan for 2011.

RÉSUMÉ

Le Comité Scientifique Consultatif (CSC) de la Commission Générale des Pêches pour la Méditerranée (CGPM) a tenu sa treizième session à Marseille, France, du 7 au 11 février 2011. Ont participé à cette session, les délégués de 21 membres de la Commission, des observateurs d'organisations intergouvernementales et d'organisations non-gouvernementales ainsi que la Fédération de Russie. Le Comité a examiné les activités et résultats de ses organes subsidiaires ainsi que de la Réunion de coordination des Sous-Comités (CMSC). Le Comité a analysé les questions abordées par les 17 réunions techniques organisées par ses organes subsidiaires, qui comprennent des avis en matière de gestion des pêches, des programmes de recherche, des systèmes de collecte de données ainsi que le développement de plans de gestion. Le CSC a discuté plusieurs autres questions techniques en relation avec l'exploitation du corail rouge et de l'anguille européenne, la situation des espèces d'élasmobranches, la protection des oiseaux de mer, des tortues et des phoques moines ainsi que le suivi des prises accessoires dans les pêcheries Méditerranéennes. Il a examiné les résultats de l'atelier sur la prolifération d'algues et de méduses qui a proposé des options pour résoudre les problèmes d'interaction de ce phénomène avec la pêche et a également reconnu l'importance des résultats des ateliers sur la pêche récréative et la sélectivité des engins de pêche. Les définitions de certains paramètres socio-économiques dans le cadre de la collecte de données de la Tâche 1 ont été examinées et des options pour l'amélioration de la collecte et la transmission des données biologiques ont été considérées. Le Comité a reconnu les progrès accomplis dans la réalisation d'évaluations conjointes des stocks de plusieurs espèces démersales et petits pélagiques et a identifié un moyen pour avancer sur l'utilisation des points de référence biologiques. Le CSC a examiné les progrès accomplis dans l'élaboration et la gestion des bases de données de la CGPM, y compris la nouvelle base de données des paramètres biologiques, le glossaire électronique (e-Glossary), ainsi que sur la question des seuils de poids des captures dans les carnets de bord. Finalement, le Comité a proposé l'établissement d'un groupe de travail dont la mission est d'aborder de manière spécifique les questions concernant la Mer Noire et a approuvé son plan de travail pour 2011.

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OPENING AND ARRANGEMENTS FOR THE SESSION

1. The thirteenth session of the Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) was held in Marseille, France, from 7 to 11 February 2011.

2. The session was attended by delegates from 21 Members of the Commission as well as observers from non GFCM Member Nations, from intergovernmental organizations and non-governmental organizations: the Russian Federation, ACCOBAMS, Plan Bleu, OCEANA, MedPAN, the "Confédération internationale de la pêche sportive" (CIPS), Regional Activity Centre for Specially Protected Areas of the United Nations Environment Programme Mediterranean Action Plan (UNEP-MAP-RAC/SPA), International Union for Conservation of Nature (IUCN) and World Wide Fund For Nature (WWF), as well as staff from the FAO Regional Projects.

3. Mr. Henri Farrugio, Chairperson of the SAC, opened the meeting and welcomed the participants. He introduced Mr. Gérard Riou and Mr Pierre-Yves Andrieu, Director of Ifremer Mediterranean and inter-regional Director of the Mediterranean Sea, respectively.

4. Mr. Riou and Mr. Andrieu welcomed the participants on behalf of the French authorities and thanked Mr. Farrugio and the GFCM Secretariat for the organization of the meeting. They highlighted the importance of the SAC within the GFCM mandate and stressed its major role in the common efforts to reach sustainable development in the Mediterranean and Black Sea. They underlined that the diversity of work carried out by the Sub-Committees of SAC was remarkable and allowed for a holistic approach to fisheries science and management.

5. Mr. Abdellah Srour, GFCM acting Executive Secretary, welcomed the participants on behalf the GFCM Chairperson Mohamed Hadj Ali Salem and thanked the French authorities for the hospitality and excellent organization. He stated that, over the last ten years, major contributions to fisheries management processes have been delivered by SAC in this regard. He also underlined the important role of regional projects which are funded by a number of Members of the Commission in fostering scientific cooperation.

ADOPTION OF THE AGENDA

6. After having invited all delegates and observers to introduce themselves, the Chairperson gave the floor to the acting Executive Secretary who informed the Committee about logistics and reporting arrangements during the session.

7. The Agenda was introduced and adopted, as shown in Appendix A of this report. The list of participants is attached as Appendix B.

8. The documents, which were before the Committee, are listed in Appendix C.

INTERSESSIONAL ACTIVITIES

Review of the main decisions adopted at the Thirty-fourth Session of the GFCM concerning fisheries management

9. The acting Executive Secretary outlined the main decisions adopted by the Commission at its Thirty-fourth Session held in Athens (April 2010) and recalled their scope. He pointed out the importance given by the Commission to some topics such as the scientific collaboration in the Black Sea, the use of Biological Reference Points and the monitoring of fishing capacity. He also recalled the pending decision to organize before 2013 a technical workshop on VMS and invited the SAC to consider this issue when discussing its 2011 workplan.

10. The acting Executive Secretary informed that three binding recommendations were adopted: (i) the Recommendation GFCM/34/2010/2 which includes a data call related to information on vessels longer than 15m and lays the foundation for the development of a Regional Plan of Action on the management of fishing capacity and which has been addressed during the intersessional period (ii) the Recommendation GFCM/34/2010/1 on the establishment of GFCM logbook standards (iii) the Recommendation GFCM/34/2010/3 concerning the identification for non-compliance. He added that the Commission has also endorsed management measures adopted by ICCAT in relation to swordfish and tuna fisheries together with the conservation of thresher sharks.

Report by the Chairperson: overview of SAC activities

11. On the basis of document GFCM:SAC13/2011/2, the Chairperson presented the activities undertaken by the four Sub-Committees during the intersession. He informed the delegates that

seventeen scheduled meetings had been convened and that the proceedings and outcomes of technical workshops were available in documents GFCM:SAC13/2011/Inf.12 to GFCM:SAC13/2011/Inf.21.

12. Referring to the technical workshops, the Chairperson informed the Committee that several topics had been addressed and substantial results had been obtained. These included proposals for fishery management measures, research programmes, data collection schemes, development of plans of action as well as technical issues, in connection with the exploitation of red coral, the catch of elasmobranchs and the European Eel fishery. In addition he referred to the work carried out by the workshop on data collection methods which contributed significantly to the implementation of the Task 1 data submission processes. Furthermore, the Chairperson gave an overview of the outputs of the workshop on algal and jelly fish blooms which provided options to tackle the problems posed by this phenomenon on fisheries, the marine environment and society in general. He also gave due importance to the results of the workshop on recreational fisheries which identified various sub-sectors and provided definitions for each, as well as the workshop on fishing gear selectivity which addressed, inter alia, impacts of the implementation of the 40 mm mesh size, reduction of by-catch and the impact of trawl fisheries on seabeds.

13. On the work carried out by the Sub-Committee on Statistics and Information (SCSI) the Chairperson highlighted, in particular, the progress made on the development and management of GFCM databases and information systems, data confidentiality and data access policy, the implementation of the GSA compatible STATLANT 37A reporting scheme, the review of Task 1 data parameters and definitions, as well as on the issue of catch weight thresholds in logbook reporting.

14. The Chairperson informed the SAC that the Sub-Committee on Economic and Social Sciences (SCESS) reviewed the outcomes of the workshop on the monitoring of recreational fisheries in the GFCM area as well as the results of case studies related to the economic impacts of the implementation of the 40 mm square mesh codend. He added that the SCESS also reviewed and edited the definitions for the economic variables related to Task 1.3.

15. With regards to the Sub-Committee on Stock Assessment (SCSA) the Chairperson reported that the Sub-Committee has reviewed 32 technical papers on demersal species and 11 technical papers on small pelagics elaborated by the two Working Groups on stock assessment. He added that the SCSA reviewed the outcomes of the workshops on European eel, elasmobranchs and fishing gear selectivity and by-catch reduction. The SAC was also informed that the SCSA drew up a number of additional sheets within the Stock Assessment Forms and addressed the use of Biological Reference Points.

16. The Chairperson also informed the SAC that the work of the Sub-Committee on Marine Environment and Ecosystems (SCMEE) focused on the impact of alien species on the fisheries, the Ecosystem Approach to Fisheries (EAF) and fry fisheries in relation to the conservation of sensitive habitats. He noted that the SCMEE endorsed the proposal to set up a new FRA around seamounts in the Balearic archipelago area.

17. Referring to document GFCM:SAC13/2011/Inf.10, the SAC Chairperson presented the conclusions of the Coordination Meeting of the Working Groups (CMSC) including the issues related to the strategy for implementing the SAC workplan as well as the functioning of the SAC Sub-Committees and Working Groups.

18. The SAC commended the work carried out by its subsidiary bodies during the intersessional period, despite the limited time available, and expressed its satisfaction on the quality of the results obtained which could allow the Committee to formulate management advice to safeguard the sustainability of fisheries as well as the wellbeing of the marine ecosystem. The Committee also congratulated the GFCM Secretariat for the excellent work performed during the intersessional period and for the organization of this session.

19. The delegate from the European Union (EU), renewed the invitation made by the EU to sponsor the workshop on Vessel Monitoring Systems (VMS) which had been postponed by the Commission at its Thirty-fourth Session.

20. The representative of ACCOBAMS expressed her satisfaction for the excellent collaboration with the GFCM and renewed her interest to continue this collaboration, in particular on issues related to data collection on by-catch of cetaceans, ecolabelling and marine protected areas.

Major activities of Regional Projects and initiatives

21. The Coordinators of the ongoing FAO Regional Projects AdriaMed, CopeMed II, ArtFiMed, EastMed and MedSudMed presented their major activities carried out during the intersessional period. The information provided dealt with research activities, training programmes, workshops and working groups as well as technical assistance provided to the countries and the contributions to SAC activities. The information on the current situation of the MedFisis, MED-LME and the Black Sea projects was also presented. The delegates were informed that detailed information regarding the activities and outputs of the projects is available in the annual report of the Coordination Committees of the different projects and in document GFCM:SAC13/2011/Inf.22.

22. The SAC acknowledged the extensive work undertaken by the projects and the valuable scientific contributions provided, especially in developing and implementing common methodologies through organizing joint field training activities, surveys at sea, as well as strengthening the expertise at national level. It was highlighted that the work of SAC implemented during the intersessional period benefited substantially from the support of the regional projects and their coordination.

23. The Committee expressed its satisfaction on the amount of activities implemented and results achieved, of interest to the countries and the GFCM, particularly in relation to shared stocks.

24. Delegates of countries participating in the AdriaMed Project (Albania, Croatia and Montenegro) reiterated the strategic role of the Project in the area, being the only project which groups all the Adriatic countries. This facilitated and strengthened the regional coordination and the implementation of joint activities, which resulted, inter alia, in joint data collection and finally joint appraisal of shared resources. Particular mention was also made to the effective establishment of regional cooperation among the research institutions and the fisheries administrations in the Adriatic which allowed for the improvement of fisheries management in the Project area.

25. The delegate from Egypt informed the Committee that cooperation had been established between EastMed and his country which, in a short time, had led to several achievements.

26. The delegate from Tunisia highlighted the important role of the regional projects in continuing to support joint work on shared stocks, such as stock boundary identification and assessment. He further stated that this constitutes the necessary baseline for the final goal of formulating harmonized fisheries management strategies. He further emphasized, together with the delegate from Morocco, the positive impacts of CopeMed and ArtFiMed activities in their countries and the need to maintain these activities in order to fulfil the SAC recommendations.

27. The delegate from the Libyan Arab Jamahiriya outlined the benefits his country has gained from its participation in the activities of MedSudMed and CopeMed projects, especially in the framework of capacity building and training in sampling methods collection, analysis and reporting of scientific data. Such output will hopefully enable the Libyan scientists to continue these important scientific programmes when said projects end. The Libyan delegate also thanked the supporting European countries for sponsoring these regional projects.

28. With regards to MedFisis and CopeMed, some delegations stated that it would be important to start planning the follow up of these projects as soon as possible since they are due to end in June 2011 and July 2011 respectively.

29. In the light of the above, the European Union delegation proposed that countries should include in their national report reference to their involvement in activities of Regional Projects, results obtained and any assistance received.

SALIENT RESEARCH ACTIVITIES BY MEMBER COUNTRIES

30. Mr Matthew Camilleri from the GFCM Secretariat presented the document GFCM:SAC13/2011/Inf.11, providing a synthesis of the information contained in 16 national reports received by the Secretariat prior to the meeting (Appendixes F(a) and F(b)).

31. The Bulgarian and Romanian delegates informed the Committee that their countries submit a similar national report to the Black Sea Commission (BSC) and this could serve as the basis for the national report to be submitted to SAC.

32. Upon the suggestion of the delegates from Tunisia and the Libyan Arab Jamahiriya, the SAC agreed on adding a new element to the national report concerning the management measures taken in direct response to GFCM recommendations, including the assessment of their effects.

33. Some delegations reported on other activities not included in the national reports. In this respect the Secretariat invited delegates to submit, as soon as possible, a revised national report, if necessary, to reflect these additional activities so that these can be included in the report of the current SAC session.

FORMULATION OF ADVICE IN THE FIELD OF FISHERY MANAGEMENT AND RESEARCH

Conclusions and recommendations of the Sub-Committee on Marine Environment and Ecosystems (SCMEE)

34. The Coordinator of the Sub-Committee, Mr Federico Alvarez, presented the conclusions and recommendations of the SCMEE on the basis of document GFCM:SAC13/2011/3 and document GFCM:SAC13/2011/Inf.5. The Coordinator described the outputs focusing on management and research issues.

35. Some delegates felt that the proposal to adopt a minimum size for the exploitation of coral branches was premature and that it may require further research and discussion to decide on a

minimum size. On the other hand, it was generally agreed that other measures such as the prohibition of the use of ROVs, the protection in the colonies of shallow waters and the establishment of quota system based on number of licenses could be put forward for the consideration of GFCM. SAC also stressed that there is enough scientific evidence on the low/very low connectivity among different colonies, even within short distance, and hence locally adaptive management is advisable as a general rule for the red coral in the region.

36. The Sub-Committee hence noted that further research is needed before adopting a minimum size for the exploitation of red coral. In the light of the above, delegations expressed agreement on progressing on the elaboration of a common regional management plan. In this context, it was agreed that a second workshop on the subject should be convened in 2011.

37. The Algerian delegate informed the Committee that the exploitation of red coral is forbidden in Algeria in the absence of scientific information. Nevertheless, she stressed that this fishery could be reopened when said data will be available.

38. The Tunisian delegate informed the Committee that Tunisia is planning to launch a programme for the assessment of red coral and he suggested that proposed measures concerning the prohibition of red coral exploitation in shallow waters (< 50 m) be taken once the outcome of this assessment is available.

39. The SAC encouraged further efforts in acquiring scientific knowledge on red coral and invited research institutes of member countries to set up cooperative research projects on the subject. It also endorsed the proposal by the SCMEE to undertake a regional medium-term research programme on red coral and called for the identification of funding sources for this purpose, amongst which the possible support of FAO Regional Projects could be considered.

40. In this regard, the FAO Regional Projects expressed that activities on red coral could be implemented by the projects when specific funds being available to undertake these initiatives.

41. On the proposal for the establishment of a new FRA in the Balearic Islands, the Spanish Delegate stated that the FRA proposed (Appendix D) is only based on qualitative studies (presence/absence) and it has a lack of benthic biomass and socio-economical studies. She also stressed that some of the habitats included in the FRA, such as coralligenous and maërl seabeds, are already protected under the EU regulation. The proposal as it has been submitted cannot be supported by Spain at this stage, nevertheless the Administration is open to continue studying the data provided together with IEO scientific advice, in order to achieve a more complete study of the area, focusing

mainly on the mapping of the different habitats, fleet description and effort distribution, together with the potential socio-economic impact of the proposed protection measures.

42. The observer from OCEANA stated that the information available was, in fact, qualitative, but it clearly describes those habitats that are not only coralligenous and maërl as well as other sensitive habitats such as *Isidella elongata* and deep-sea sponge beds. She stated also that communication with the relevant authorities was made respecting the appropriate timing, immediately after the proposal was endorsed by SCMEE scientists. She also added that the declaration of the FRA could help the Spanish Government to enforce the protection of coralligenous and maërl beds. OCEANA stressed the urgent need of preserving the seamounts of the Mallorca Channel through the declaration of a FRA.

43. The EU delegate welcomed the study carried out by OCEANA which, although qualitative, allowed identification of sensitive habitats within waters under Spanish jurisdiction, and where therefore the prohibition to fish with trawl nets already applies according to EU legislation. He suggested that the standard format for new proposals of FRA should be amended in order to reflect a minimum of quantitative information supporting such proposals. He favoured that proposals be submitted by more than one author.

44. The importance of the seamounts as hotspots for biodiversity was underlined during the discussion. The SAC was called upon for actions to improve the knowledge on the topographic description and bio-economic aspects of these areas so that further steps may be subsequently taken, either oriented towards bioeconomic studies or to recommend fisheries management measures. It was also stressed that it would be advisable to ban the use of trawl nets and dredges over coralligenous and maërl habitats to all the Mediterranean in order to preserve these important ecosystems.

45. Taking into consideration the above mentioned remarks, the SAC called upon the SCMEE to further investigate the issue, before the submission to the Commission, in line with the general SAC mandate to improve knowledge in structure and functioning of canyons and deep-sea habitats.

46. The observer from IUCN made reference to the already established FRAs and stated that the monitoring of these areas should be properly addressed by the GFCM.

47. Concerning the required data on vessels operating in the FRA of the Gulf of Lions in compliance with the Recommendation GFCM/33/2009/1, the SAC took note of the fact that the information received by the Secretariat is still provisional. The Committee stressed that the spatial distribution of fishing effort, derived, inter alia, from VMS data, is a key element in stock assessments.

48. The EU delegate informed that, with reference to the SAC responsibility to assess the effects of current regulation on the FRAs, it is evident that scientists accessibility to VMS data should be facilitated by the GFCM Parties taking also into account Recommendation GFCM/33/2009/7 and in particular article 16 therein. Moreover, considering that the majority of fishing vessels in the GFCM area is smaller than 15 metres overall length and that most of them may legally operate offshore and quite far from coastline and port of registration, further reflection would be advisable to possibly extend the compulsory use of VMS and/or logbook to vessels smaller than 15 metres overall length. Since knowledge on the spatial deployment of the fishing effort is becoming increasingly important, it is necessary that fishing operations are recorded, at least, by coded rectangles of 30'x30' of the GFCM statistical grid. This statistical grid should be superimposed onto a map of the GFCM area to be included, as a reference, in the cover page of the logbook, as indicated in Recommendation GFCM/34/2010/1.

49. The SAC discussed and endorsed the measures proposed by SCMEE on the reduction of the by-catch of monk seals, sea turtles and seabirds. These include in particular:

- For the monk seal: Restrict setting static nets (gill nets, trammels, etc.) at a minimum distance of 5 nm radius around the location of monk seal caves during autumn and winter. The radius will be extended to 10 nm around breeding caves.
- For sea turtles: use of unhooking devices to release animals which are incidentally caught by long-lines.
- For seabirds:
    - In longline fishing: only night-setting of gears should be authorised, use of bird-scaring devices, fast sinking extra weighted lines and conditioning of bait (thawed, blue dyed).
    - In trawl fishing: use of scaring devices to be fixed on the trawl warps.

  For both type of fishing practices, it is advised to decrease the offal/discards availability to birds by freezing it into blocks or fluidizing it for later disposal when seabirds are not present.

50. With regards to the monk seals, the effective application of the measures is conditioned by the knowledge of the location of the monk seal sites. The Secretariat was invited to gather and analyse the maximum of information on location sites of monk seals, possibly before the next GFCM Session.

51. The observer from RAC/SPA stressed that the protection should be implemented without much delay in the known monk seal areas.

52. Regarding seabirds, the SAC agreed that the relevant FAO International Plan of Action should be the reference for the future measures to be taken in order to reduce the by-catch of this species.

53. The observer from ACCOBAMS expressed interest to collaborate in the fulfillment of by-catch data submission under the Task 1 scheme of GFCM. She informed the Committee of current projects in the Black Sea and Mediterranean on the monitoring of by-catch of cetaceans.

54. On the proposal to promote medium-term, multidisciplinary integrated research on jellyfish and algal blooms, the Tunisian delegate informed that his country would collaborate in such a project. He suggested working with institutions such as CIESM, which has already offered its disposition to start joint activities with the GFCM. The Turkish delegate also expressed his interest and informed that his country is willing to provide financial support to follow-up studies to be undertaken by the GFCM on jellyfish and algal blooms. Further interest was expressed by the observer from ACCOBAMS on any collaboration with the GFCM on the issues of algal and jellyfish blooms.

55. The EU delegate informed the Committee that some projects funded by the EU on this phenomenon have been carried out or are still currently in place and invited the scientists involved in the SAC to regularly consult CORDIS (http://cordis.europa.eu/home_en.html) for possible further calls for proposals.

56. The SCMEE Coordinator also informed the Committee about an initiative of a consortium to apply for funds through the INTERREG call of the EU in which several research institutes of Mediterranean countries are intending to participate.

57. The proposal by the SCMEE to continue conducting pilot studies on the effects of implementing the new codend meshes was approved by the SAC.

58. Referring to the proposal to conduct pilot studies on measures to reduce the by-catch of elasmobranchs, the EU delegate expressed concern on the generalisation of such type of measures since not all the species of sharks are threatened or endangered. He suggested that the first issue to be addressed is to ensure that the by-catch[1] data is properly collected and analysed in order to allow for more specific measures to be taken and the species to be better protected. The SAC suggested to postpone such pilot studies and start taking some action in relation to the species for which data is available. The Committee also stressed the importance of performing stock assessment on these species.

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[1] According to SAC Glossary, By-catch is defined as: *The total catch of unwanted animals including vulnerable and endangered species. By-catch of commercial species should be reported as associated species*

59. The SAC stressed on the follow up of updating the protocol on selectivity pilot studies, and research on submarine canyons and reporting of by-catch of elasmobranchs within the framework of Task 1.

60. On the proposal to protect nursery areas, SAC agreed on considering them as sensitive areas. The Egyptian delegate highlighted that the fisheries of larvae and juveniles for fish farms is also a fishery to account for and to be monitored.

61. Regarding the proposal on ecolabelling, the Turkish delegate suggested the promotion of the marketing of fish and fishery products through ecolabelling as a potential instrument for increasing the incomes from fisheries. ACCOBAMS also invited the GFCM to participate in an upcoming meeting on ecolabelling.

Conclusions and recommendations of the Sub-Committee on Stock Assessment (SCSA)

62. The Sub-Committee Coordinator, Mr Fabio Fiorentino, presented the conclusions and advice emanating from the meetings organised during the intersessional period. He introduced the stock assessments carried out by the SCSA which cover 14 GSAs and 12 species for demersal species and 7 GSAs and 2 species for small pelagic species. He noted that 23 stock assessments of demersal species were validated (22 in overfishing/overfished status and 1 fully exploited). For small pelagic species 11 stock assessments were accepted (2 stocks were considered in overfishing/overfished status and 7 fully or moderately exploited).

63. The Committee thoroughly reviewed the advice related to demersal and small pelagic species as provided in Table 1 and Table 2 respectively. The SAC agreed to endorse the advice formulated by the SCSA after having accepted to introduce slight amendments and considering some remarks.

64. The SAC noted that some assessments, although based on few years of data, were considered as validated using a pseudo cohort approach, when the assumption of steady state in catch was checked. It added that the advice emanating from some of those assessments, qualified as preliminary, may serve in any case as a basis for management measures assuming that these assessments will be performed again once the time series data become longer and related analysis will be refined.

Table 1

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 01 & 03 (Northern and Southern Alboran Sea)	*Pagellus bogaraveo*	Lfreq & catch	2005-2007 (artisanal fisheries from Morocco and Spain)	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.40) higher than F0.1 (0.18) and Fmax (0.37)	Decrease the fishing effort. Adopt the same management measure in GSA 03 and GSA 01. Improve the sampling standardisation. Maintain the joint assessment.	Improve the biological sampling and estimate the importance of the catches of juveniles that occur in more shallow areas by trawlers in order to improve the assessment in the case such removal be assessed as not negligible. The WG endorsed the assessment and recommendations.	No further comments. Endorsed	The SAC appreciated the effort done by the scientists of Morocco and Spain to asses jointly the stock status. The relevant contribution of the regional project Copemed II in pursuing the activity was highlighted. Endorsed
GSA 03 (Southern Alboran Sea)	*Parapenaeus longirostris*	Catch & effort	2000-2009	Schaeffer Surplus production	Over-exploited; Fcurr/ $F_{0.1}$ = 392% F curr/ F_{MSY} =353%	It was recommended to decrease the fishing mortality by 60-80%. The abundance indices observed during surveys indicate a decrease of this resource.	The WG recommend extending the assessment of the *Parapenaeus* stock including the data from other adjacent areas (Spanish and Algerian areas). The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Boops boops	Lfreq & catch	2000-2009	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.90) higher than F0.1(0.61) and Fmax (0.75)	Reduce the fishing mortality and control the trawling ban in coastal water.	No sign of depletion is evident. The fishing mortality can be reduced limiting the moving of trawlers from the Atlantic to the Mediterranean. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	No further comments. Endorsed
	Mullus barbatus	Lfreq & catch	2004-09	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.68) higher than F0.1(0.55) and Fmax (0.56)	Reduce the fishing mortality and control the trawling ban in coastal water.	No sign of depletion is evident. The fishing mortality can be reduced limiting the moving of trawlers from the Atlantic to the Mediterranean. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 05 (Balearic islands)	*Merluccius merluccius*	Catch, effort, Lfreq catch, Trawl surveys	1980-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.85) higher than F0.1(0.20) and Fmax (0.31)	Reduce fishing mortalities by 30 to 50% trough reducing the effort activity and improving the selection pattern of the fishery.	Explore the parameterisation of XSA (the contribution of each tuning fleet in the model) and run sensitivity analysis on its effects. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Mullus surmuletus	Catch, effort, Lfreq catch, Trawl surveys	2000-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.60) higher than F0.1 (0.38) and lower than Fmax (0.74)	Reduce fishing mortalities by 30% to 50% trough reducing the effort activity and improving the selection pattern of the fishery.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch, effort, Lfreq catch, Trawl surveys	2000-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.82) higher than F0.1(0.33) and Fmax (0.53)	Reduce fishing mortalities by 40% to 60% trough reducing the effort activity and improving the selection pattern of the fishery.	Explore the parameterisation of XSA (the contribution of each tuning fleet in the model). The WG group noticed that while SSB appears increasing, recruitment time series suggest an increasing trend. The WG suggest performing sensitivity tests for defining the influence of input biological parameters in the results. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Nephrops norvegicus	Catch, effort, Lfreq catch, Trawl surveys	2002-2008	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.45) higher than F0.1 (0.30) and lower than Fmax (0.63)	Decrease fishing mortality by 20-30% by: - Reducing effort, both in capacity and/or activity - Improving the selection pattern of the fishery - Implementing area closures for fishing	Perform a sensitivity analysis. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Aristeus antennatus	Catch, effort, Lfreq catch, Trawl surveys	1992-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.62) higher than F0.1 (0.33) and lower than Fmax (0.76)	Decrease fishing mortalities by 30% to 50% trough reducing the effort activity and improving the selection pattern of the fishery. Implementing area closures for fishing in the nursery areas during the recruitment period.	Evaluate the effect of the biological parameters running XSA with sex combined data. Explore the parameterisation of XSA (the contribution of each tuning fleet in the model). The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Parapenaeus longirostris	Catch, effort, Lfreq catch, Trawl surveys	2000-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited	The problems found with the residuals and the retrospective analysis makes not possible to provide a full management advice.	The WG agrees that the stock is overfished but some uncertain do not allow to suggest an available value to reduce the actual fishing mortality. The WG endorses the assessment as a source of general information of the stock.	The assessment must be considered as a rough estimation of the stock status. To be verified.	The SAC consider this assessment as provisional

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 06 (Northern Spain)	*Merluccius merluccius*	Catch, effort, Lfreq catch, trawl survey	1995-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (1.70) higher than F0.1(0.60)	To reduce the growth overfishing: - Decrease the effort of trawl. - Improve the fishing pattern of the trawl fleets. To avoid recruitment overfishing: - Reduce effort in trawl 70% - Special surveillance in the use of 40 mm square mesh size in the cod end in trawl gears. - Encourage studies to allocate area closures to fishing (FRA).	The stock show dangerous signals of recruitment overexploitation due to the decreasing trend in recruitment and very low levels of the spawning stock. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	The SAC noted that the absolute value of F, both in terms of current and target F, are higher than those of the other areas of the Mediterranean. Due to the robusteness of Y/R analyses, the percentage of reduction of current F to reach the target values should not be biased. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch, effort, Lfreq catch, trawl surveys	1998-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.76) higher than F0.1 (0.39)	Decrease the fishing mortality by 70%. More effective control in shelf areas above 50 m depth to reduce the catch of small individuals under the minimum legal size. The use of the 40 mm square mesh in the cod-end should improve trawl exploitation pattern and Y/R by 24%, but a close supervision of the observance of this measure is needed.	Co-occurrence of SSB increasing and recruitment decreasing. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Parapenaeus longirostris	Catch, effort, Lfreq catch, trawl surveys	2001-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (1.37) higher than F0.1(0.30) and lower than Fmax (2.73)	Reduce growth overfishing: - Reduce the effort of trawl by 70%. - Improve the fishing pattern of the trawl.	Since there are some evidences of synchronous oscillation of abundance of the species in the western Mediterranean, environmental factors (e.g. water temperature) are thought can notably affect the stock dynamics. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 07 (Gulf of Lions)	*Merluccius merluccius*	Catch, effort, Lfreq catch, trawl surveys	1998-2009 (French and Spanish data from trawlers, gillnetters and longliners)	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.87) higher than F0.1(0.20) and Fmax (0.29)	Reduce fishing mortality by 60% to 70% to reach the Fmsy proxy F0.1. To reduce growth overfishing: - Improve the fishing pattern of the trawl - close nursery areas at least temporally - Reduce the effort of trawl, from reducing time at sea, number of fishing boats, engine power, Bollard pull and/or trawl size To avoid recruitment overfishing: - Reduce the effort of longline and gillnets in order to increase (or at least maintain) the SSB. - Establish temporal closures for longline and gillnet during the period of maximum spawning	The trend of the SSB does not show any risk of stock depletion or collapse. The parameterization of the XSA model may have an impact on the results obtained. To identify the extension of such decisions, further work must be done to explore different parameterizations of the model and run sensitivity analysis on its effects. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch & Lfreq of catch	2004-2009	Pseudocohort (LCA, VIT), Y/R	Slightly over exploited	Current F has to be reduced by 30-40% to reach F0.1.	The WG endorsed the assessment and recommendations	Since the current F (0.7) is higher than F0.1 (0.4) and Fmax (0.5), the Sub-Committee recommends to not use the attribute "slightly" in identifying the stock status. Endorsed	No further comments. Endorsed
GSA 09 (Ligurian and North Tirrenian)	*Merluccius merluccius*	Lfreq Catch Surveys data	1994-2009	LCA – Pseudocohort analysis (VIT) Y/R ; SURBA	Over-exploited; current F (1.40) higher than F0.1 (0.22) and Fmax (0.35)	The stock appears to be highly overexploited with a need of F reduction of about 40-80%.The current SSB is estimated as 5% and 10% of the virgin SSB, nevertheless, the stock productivity does not appear to be impaired and able to still produce relatively large year classes.	The group noticed a decreasing trend of the SSB for both assessments performed with SURBA on 2 different surveys (MEDITS and GRUND). The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch , effort & trawl surveys	1995-2009	Non-equilibrium production model	Over-exploited; current F (0.73) higher than FMSY (0.64)	A reduction of fishing mortality by about 10% is considered necessary in order to reach the Fmsy level.	The WG endorsed the assessment and recommendations	No further comments. Endorsed	No further comments. Endorsed
	Parapenaeus longirostris	Catch, effort, Lfreq Catch & trawl survys	1990-2008	LCA – Pseudocohort analysis (VIT) Y/R ; SURBA	Fully -exploited	Not increase the fishing mortality	This stock could be strongly driven by environmental and ecological factors (e.g. water temperature, predatory release effect) that can make difficult to evaluate the effect of fishing on the stock. The WG endorses the assessment and the related recommendations but notes that only the reference points computed by VIT should be considered for management.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSAs 12,13,14, 15&16 (Strait of Sicily)	*Parapenaeus longirostris*	LFD of catch	2007-2009	LCA – Pseudocohort analysis (VIT & ANALEN) Y/R ;	Over-exploited; current F (1.13) higher than F0.1 (0.90) and lower than Fmax (1.23)	A reduction of Fishing mortality by about 20% is considered necessary in order to reach the F0.1 level. In addition the exploitation pattern of the fishery should be improved. A protection of the stable nurseries on the Adventure and Malta Banks in the Strait of Sicily is advised	A change in M and k has pronounced effect on Y/R when the variation was applied in opposite directions. On the other hand B/R and SSB/R are not strongly affected when the change is in the same direction. Alternative methods such as global production methods and trawl survey based approach should be used in the future to make the assessment more robust. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	The SAC appreciated the effort done by the scientists of Italy, Malta and Tunisia to asses jointly the stock status. The relevant contribute of the regional project Copemed II and Medsudmed in pursuing the activity was highlighted. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 17 (Northern Adriatic)	*Solea solea*	Catch, effort, LFD, rapido surveys	2005-2009	Extended Survivor Analysis (XSA), LCA – Pseudocohort analysis (VIT) & Y/R ; SURBA	Over-exploited; current F (0.61) higher than F0.1 (0.29) and Fmax (0.42)	A reduction of F of 50-80%, especially by rapido trawling, would be recommended. A two–months closure for rapido trawling inside 11 km off-shore along the Italian coast, after the biological fishing ban (August), would be advisable to reduce the portion of juvenile in the catches. The safeguard of spawning area is also advised	Include in the future assessments biological samples data from the eastern fishery as well as to extend the rapido trawl survey inside the 12 nm from the Croatian coast, as was performed in 2005 and 2006. Such requirements could be attained in the framework of ADRIAMED regional project.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 18 (Southern Adriatic)	*Merluccius merluccius*	Trawl surveys and commercial catch	Medits (from 1996 to 2009 for Italian and Albanian coasts and 2008 only for Montenegro). LFD of catch only for the west side in 2009	SURBA, ALADYM and VIT	Over-exploited Fcurrent(year) = 0.57-0.58 F0.1=0.2 Fmax=0.3	- the current yield in long term is maintained if F0.1 is reached - the value in yield in long term increases if the exploitation pattern is improved	The WG discuss the use of the slow or fast growth parameters to assess the hake stock and of the sensitity analyses. Results from VIT (only one year data) are consider as indicative.	No further comment. Endorsed.	The SAC appreciated the effort done by the scientists of Albania ,Italy and Montenegro to asses jointly the stock status. The relevant contribute of the regional project Adriamed in pursuing the activity was highlighted. Endorsed
GSA 26 (South Levant)	*Solea solea*	LFD of catch	2006-2007	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.66) higher than F0.1(0.41) and lower than Fmax (0.81)	Reduce fishing mortality by about 40-60% to achieve F0.1. Improve the trawl selectivity. Identify and protect the nursery grounds. Improve the fishery data collection system.	As the assessment was done at first using three years 2006-2008 and it was found that the length composition of year 2008 is greatly different from the two others, the assessment was redone using the mean number of years 2006-2007. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	Since the stock is exploited not only by trawlers, the SAC recommended to include catches of artisanal fisheries in next assessment. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Boops boops	LFD of catch	2007-2008	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (1.09) higher than F0.1 (0.59) and Fmax (0.94)	Reduce the fishing mortality by 40-60%	The WG endorses the assessment and the related recommendations	No further comments. Endorsed	Since the stock is exploited not only by trawlers, the SAC recommended to include catches of artisanal fisheries in next assessment. Endorsed
	Pagellus erytrinus	LFD of catch	2007-2008	LCA – Pseudocohort analysis (VIT) & Y/R	Over-exploited; current F (0.65) higher than F0.1 (0.34) and Fmax (0.57)	Reduce the fishing mortality by 40-60%. Identify and protect nurseries	The WG endorsed the assessment and recommendations.	No further comments. Endorsed	Since the stock is exploited not only by trawlers, the SAC recommended to include catches of artisanal fisheries in next assessment. Endorsed

Table 2

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 01 (Alboran Sea)	*Engraulis encrasicolus*	Lfreq & catch	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	Moderately exploited Sustainable fisheries	Not increase the fishing effort. The management of anchovy fisheries needs to account the multi-species effects, mainly the interaction with sardine.	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations.	No further comments. Endorsed	Endorsed
	Sardina pilchardus	Lfreq & catch	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	Fully exploited Sustainable fisheries	Not increase the fishing effort. The management of sardine fisheries needs to account the multi-species effects, mainly the interaction with anchovy.	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations.	No further comments. Endorsed	Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 03 (Southern Alboran Sea)	*Sardina pilchardus*	Catch, effort, Lfreq catch,	2000-2009	Pseudocohort (LCA, VIT), Y/R	full exploitation; current F (0.6) higher than F0.1/Fc=0.62 and lower than Fmax/Fc=1.86 Uncertain biomass	- Maintain the current fishing effort; - Reduce the mortality of fishing on the spawning fish - Introduce seasonal closure during January which coincides with the peak of the spawning; - Prohibit fishing during May near Short-nap close Kebdana to preserve the young fish.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	Endorsed
GSA 06 (Northern Spain)	*Engraulis encrasicolus*	Catch, effort, Lfreq catch,	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	The stock abundance is considered as low, while the exploitation rate is uncertain.	Avoid further reduction in SSB	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations	No further comments. Endorsed	Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Catch, effort, Lfreq catch,	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	Overexploited The stock has declined over many years, partly due to reduced recruitment and partly to poor survival of the recruits. Most likely, the stock has been increasingly overexploited in recent years	A substantial reduction in exploitation is advised.	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations the related recommendations.	No further comments. Endorsed	Endorsed
GSA 07 (Gulf of Lions)	*Engraulis encrasicolus*	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch/Biomass)	Fully exploited - moderate harvest ratio. Low biomass	- Reduce fishing effort on anchovy in the Gulf of Lion - Respect the European regulation on minimum length size of catch (> 9 cm, UE 1976/2006) - Consider interactions with sardine fisheries.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	Due to the likely effect on small pelagics of environmental factor, in case of low biomass at sea the SAC recommend to avoid to report judgement of exploitation status of the stock (fully exploited). Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch/Biomass)	Moderately exploited Severely reduced production capacity	- Strongly reduce fishing effort on sardine in the Gulf of Lion; - Formalize and establish a protocol of "sentinel" activity for fishermen, and produce monthly spatial and temporal observations to describe the evolution of the system, - Respect the European regulation on minimum length size of catch (11cm, UE 1976/2006. - Consider interactions with anchovy fisheries.	The WG endorsed the assessment and recommendations	No further comments. Endorsed	Due to the likely effect on small pelagics of environmental factor, in case of low biomass at sea the SAC recommended to avoid to report judgement of exploitation status of the stock (moderately exploited). It also recommended to maintain the recent level of fishing effort induced by the very low abundance of adults in the stock until indication of a better status of the stock and endorsed the assessment.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 16 (Strait of Sicily)	*Engraulis encrasicoluss*	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch/Biomass)	Exploitation rate (ratio between total landings and biomass estimates): high fishing mortality. Stock abundance (acoustic biomass estimate): very low abundance.	- Not increase the fishing effort; -Assess the impact of fry fishery may have. - Not extend fry sardine fishery after March to avoid additional mortality on juvenile anchovy.	Negative effects on these populations could result from pressure of other fishing gears on pre-juvenile stages (locally known as "bianchetto" or "neonata"). The WG endorses the assessment and the related recommendations	Since the stock is characterised by both high exploitation rate and low biomass the SC recommends to change “not increase the fishing effort” into “decrease the fishing effort”. Endorsed with this modification.	

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch / Biomass)	Exploitation rate (ratio between total landings and biomass estimates): moderate fishing mortality. Stock abundance (acoustic biomass estimate): low/intermediate abundance.	- Not increase the fishing effort; -Assess the impact of fry fishery. As the impact of fry fishery on this population is not known, a proper quantification of the catches in the fry fishery is mandatory.	Over the last four years the population appears to be stable though at a relatively low level. However, taking into account the moderate exploitation rates experienced, results would suggest the stock being able to tolerate the current level of exploitation.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 17 (Northern Adriatic)	*Engraulis encrasicolus*	Catch, effort, LFD, rapido surveys	1975-2009	VPA with Laurec-Shepperd tuning	The stock at the present level of biomass can be considered as moderately exploited	- Not increase the fishing effort. - Consider the interactions with sardine fisheries.	In the present assessment, important improvements were made regarding the echo-survey data used as tuning index for VPA: in particular, for the first time, biological data from the western Adriatic were used to split into age classes only the abundance estimated by the western echo-survey, while biological data from the eastern Adriatic were applied to the eastern echo-survey abundance.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Catch, effort, LFD, rapido surveys	1975-2009	VPA with Laurec-Shepperd tuning	The stock at the present level of biomass can be considered as moderately exploited	- Not increase the fishing effort. - Consider the interactions with anchovy fisheries.	In the present assessment, important improvements were made regarding the echo-survey data used as tuning index for VPA: in particular, for the first time, biological data from the western Adriatic were used to split into age classes only the abundance estimated by the western echo-survey, while biological data from the eastern Adriatic were applied to the eastern echo-survey abundance.	No further comments. Endorsed	No further comments. Endorsed

65. On the validation of assessments by the SCSA, it was suggested to establish some objective criterion to validate the assessments, such as verifying the steady state assumption, retrospective and sensitivity analyses, before the Working Groups meetings. The SCSA was invited to establish a strategy to address this issue.

66. In relation to the assessment of the Blackspot Seabream (*Pagellus bogaravaeo*) carried out in GSA01 and 03, the Spanish and Moroccan delegations noted that this fishery extended into the Atlantic from GSA01 and that, for the first time this year, it had been evaluated jointly by the two countries as a shared stock, extending the analyses to the Atlantic to cover the whole stock.

Use of the Biological Reference Points (BRPs)

67. The Coordinator presented the progress done in the use of BRPs in stock assessment related work. He noted that the Sub-Committee adopted FMSY or its proxy $F_{0.1}$, the fishing mortality corresponding to the 10% of the slope at Y/R curve when F=0, as a provisional Target Reference Point and F_{max} , the fishing mortality corresponding to the maximum in a Y/R curve, as provisional treshold Limit Reference Point to compare with the current fishing mortality and to evaluate the exploitation status of the stock.

68. In cases where BRP cannot be obtained either due to technical reasons or for specific cases such as some small pelagics, an empirical Traffic Light approach combining stock status, biomass indices from surveys and pressure indicators (harvest ratio and/or an adequate proxy of environmental stress), was suggested (see table 3).

Table 3 - Traffic Light approach for small pelagic species

	Standing stock biomass from scientific surveys		
Indicators of environment and ecosystem	**Biomass above the precautionary reference point**	**Biomass below the precautionary reference point**	**Biomass below the limit reference point**
Satisfactory conditions	May increase capacity or effort	**Maintain constant capacity or effort**	**Close fishery in this area**
Deteriorating conditions	**Maintain constant capacity or effort**	Reduce the capacity or effort	**Close fishery in this area**
Unsatisfactory conditions	Reduce capacity and effort	**Close fishery in this area**	**Close fishery in this area**

69. Concerning the necessity to clarify the diagnosis in stock assessment in a BRP framework, the SAC recommended to distinguish the term overfished/overexploited from overfishing/overexploitation and proposed the following definition to be included in the SAC Glossary:

Overfished or overexploited – A stock in which biomass at sea is below an agreed biomass based Reference Point. This classification is independent of the current level of fishing mortality.
Overfishing or overexploitation – A status in which a stock is exploited at a fishing mortality or effort above a agreed fishing mortality or effort based Reference Point. This classification is independent of the current level of standing stock biomass (see figure 1).

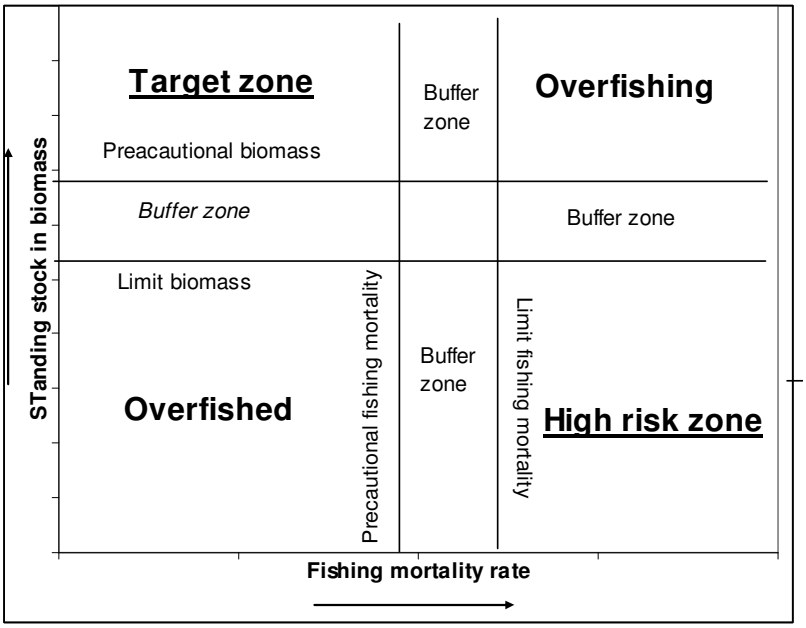

Figure 1 - Precautionary framework to stock assessment for management

70. The discussion indicated it would be advisable that the GFCM specifies a framework for precautionary approach by identifying clear management objectives and selecting target, threshold and limit reference points so to allow joint management strategies while providing courses of action to be taken depending on the fishing mortality levels and where appropriate, biomass levels or other type of indicator either model based or empirical. This approach would substantially facilitate and further improve the work of scientists in terms of determining the level of exploitation, the status of exploited stocks to calculate limit reference points (or proxies) and to forecast current and projected stock status with respect to the reference points.

Proposal of new Stock Assessment Forms (SAF) for direct methods

71. The Coordinator briefly presented the new sheets of the Stock Assessment Forms (SAFs) for data from surveys at sea reported in detail in Appendix III of GFCM:SAC13/2011/Inf.8 and then summarized the main recommendations of SCSA on assessment for next future.

Advice on European Eel

72. After presenting the results of the Workshop on European Eel, the Committee endorsed the related advice as follows:

(i) Gather and synthesize information on the biological parameters by habitat and on the regulations (Fisheries and Habitat conservation) by countries, the latter in coordination with the LaMed project.

(ii) Collate and analyze main information useful for the Eel Management Plans as described in the GFCM draft publication on European Eel as presented to the Sub-Committee meeting. The raw data shall be transmitted to the GFCM Secretariat.

(iii) Initiate the setting up of a network of Mediterranean experts on Eel fisheries in collaboration with the working group on Eel management of EIFAC/ICES.

The SAC pointed out the importance to be given to this species, notably by setting up a better monitoring of this resource through Regional Management Plan.

73. The Tunisian delegate, supported by other delegations, suggested that a consultant be engaged to assist in the finalization of a regional management plan as required by the European Union regulation.

Advice on Elasmobranchs

74. The SAC expressed satisfaction on the work being undertaken on elasmobranchs with a view to provide a greater insight on their exploitation and status. Under the suggestion of the EU delegate, the Committee agreed that catch and effort monitoring programmes should be proposed at national level so to ensure a close monitoring of catches, both target and associated species, and by-catches and to report through the GFCM data submission scheme of Task 1.

75. With regards to the future actions to be undertaken by the SAC on the protection of elasmobranchs, the EU delegate stated that GFCM should endeavour to devote greater attention to the sustainable exploitation and conservation of elasmobranch species in line with its remit and in close coordination with the Barcelona Convention. He added that several elasmobranch species have been listed either in Annex II (list of endangered or threatened species) or in Annex III (list of species whose exploitation is regulated) of the Barcelona Convention. He informed the Committee that, pending further scientific information, some species currently listed in Annex III, such as the porbeagle (*Lamna nasus*), shortfin mako (*Isurus oxyrinchus*) and Maltese skate (*Leucoraja melitensis*) might be uplisted into Annex II.

76. The representative of RAC/SPA fully supported the arguments of the EU regarding the need to properly record data on elasmobranchs, together with the need for that to have fish reaching the ports in an identifiable condition. He informed the Committee that the updated Annexes II and III to the SPA/BD Protocol of the Barcelona Convention (November 2009) include many elasmobranchs species. In order to properly preserve those species listed, the institutions concerned with fisheries should respect the conservation (Annex II) or proper exploitation regulation of these species. Furthermore, RAC/SPA informed the SAC on the elaboration of guidelines on catch and release for recreational fishing of elasmobranchs that would be available to GFCM.

77. Within this overall context, and without prejudice to future evaluations, SAC agreed that the scientific information, that had been the base for the listing of some elasmobranchs in the Annex II of the Barcelona Convention, was mostly shared out and draw the attention of GFCM to grant the maximum protection by the fishing activities to the species listed in Annex II. In particular, to prevent landing from fishing activities and marketing and, to the extent possible, be released alive and unharmed.

78. To this regard SAC also endorsed a proposal by the SCMEE regarding the possible measures to permit that carcass of animals landed be identifiable, such as: avoid beheading, finning, skinning or to land fins and carcass of animals in different ports.

79. SAC considered that only catch and release of elasmobranches shall be authorized for recreational and sport fishing and that adequate reporting to GFCM would be advisable.

80. The EU delegate informed that specific EU measures for porbeagle fishing were taken and in particular 0 TAC was established both for EU and international waters in the North-East Atlantic and furthermore EU vessels were prohibited to fish for, to retain on board, to transship or to land porbeagle in all international waters. He stated that GFCM may consider to act in the same direction.

81. In line with SCMEE advice, SAC considered of relevant importance both the identification and mapping of critical areas for elasmobranchs (e.g. nurseries) and the protection of nursery grounds, often in coastal areas, from the action of trawling activities.

82. The Committee endorsed the proposal of the SCSA to carry out in 2011 assessments on selected Mediterranean and Black Sea elasmobranchs species such as *Raja clavata*, *Raja miraletus*, *Raja asterias* and *Scyliorhinus canicula.* The Committee recommended to carry out a tentative assessment of *Leucoraja melitensis*.

83. The EU delegate informed about the availability to provide support for the organization of this meeting on elasmobranchs and possibly to host the meeting in Brussels.

Advice on gear selectivity

84. The Sub-Committee Coordinator reported that the SCSA proposed to perform the experiments with a wider range of square mesh sizes, not only to compare square and diamond mesh selectivity but also to estimate parameters relating square mesh size to the probability of retention at size. He also informed the SAC that the SCSA suggested to consider in these experiments not only to evaluate the effect of separator panels in reducing by-catch and discards but also the occurrence of debris and litters in the trawl net.

85. The SAC further reviewed and agreed to endorse the conclusions and proposals of the transversal workshops on the improvement of gear selectivity and reduction of by-catch.

86. Finally the Committee welcomed the initiative of organizing the SCSA/SCMEE transversal workshop on Spatial Approach to Fishery Management and to work jointly with the SCSI on the improvement of Task 1.5 and eventual creation of the Task 2 on biological data of catches.

87. Furthermore, the SAC congratulated the SCSA for the work done and expressed its satisfaction for the extended coverage of GSAs by assessments as well as for the continuous increase of work in terms of quantity and quality although further improvements are still needed. The SAC pointed out that some assessments need revision, as stated in the synthesis table, and deserve a deeper investigation in the future. It also acknowledged the work done on various important issues and thanked the Coordinator for the efforts made to make these achievements possible.

88. The Egyptian delegate expressed his support for public awareness campaigns on alien species but proposed that one should refrain from referring to alien species as being implicitly harmful.

Conclusions and recommendations of the Sub-Committee on Statistics and Information (SCSI)

89. The Coordinator of the Sub-Committee, Mr Joël Vigneau, presented the conclusions and recommendations of the SCSI on the basis of the document GFCM:SAC13/2011/3 and GFCM:SAC13/2011/Inf.6, together with the results of the workshop on the monitoring and the management on fishing capacity as contained in document GFCM:SAC13/2011/Inf.15.

90. On the need to simplify the process of the submission of various vessel datasets the SAC proposed that the first step to an agreed solution would be that the SCSI works on a template, with the support of the GFCM Secretariat, considering the information requested by the GFCM Recommendations related to vessels lists.

91. The SAC noted the SCSI concern to strengthen the GFCM Secretariat in order to handle the increasing tasks in data processing and its capacity to assist member countries in fulfilling the GFCM requirements in terms of data submission. The SAC agreed that the role of the Secretariat is of utmost importance in a system which is becoming more and more complex and that it would require reinforcement, but indicated that the assistance to member countries should not overlap with the mandate of FAO Regional Projects. It was agreed that a proposal to address this matter should be prepared by the Secretariat for consideration by the Commission.

92. Referring to the proposal to set up a frame for the submission of biological data, expanding on the current Task 1.5, the SAC agreed to adopt a stepwise approach as suggested by the CMSC. This approach requires SCSA to precisely define their data needs for assessment purposes and in a second stage SCSI would design a data compilation format compatible with the Task 1 framework. The SAC underlined that both biological data describing the catches by operational units and population dynamic parameters pertaining to stocks are essential in carrying out stock assessments.

93. The SAC considered the options put forward by the SCSI on data access and confidentiality issues linked to the Task 1 datasets. The Committee agreed that the statistical bulletin and basic statistics should be available to the public without restrictions; however the access rights for the Task 1 datasets raised more concerns. Some delegations proposed that all data should be fully accessible without restrictions, whilst others proposed that the datasets should be accessible on demand and/or for specific expert groups. It was agreed that this issue along with the proposals of the SCSI, should be forwarded to CoC for further consideration.

94. The SAC noted that the SCSI could not reach a decision on the logbook catch reporting threshold as requested by GFCM. Some delegations suggested to adopt a logbook system without any threshold, while others reiterated that the threshold value should be in the range of 10 to 15 kg on the basis of the studies presented at the SCSI meeting. Considering that adding another year of study and further discussion by the SCSI would not add much to the current knowledge, the SAC proposed to set up a maximum threshold of 15 kg for the GFCM logbook, giving the possibility to member countries to define a lower threshold between 0 and 15 kg.

95. The following SCSI proposals were also approved by SAC:

- The submission of data based on STATLANT 37A form should continue as long as Task 1 is not fully operational and able to replace it.
- A contact person for Task 1 data submission should be formally nominated by GFCM Members, who may be the SCSI focal point or another person.
- The reference list of the group of target species currently used for defining Operational Units in Task 1 should be modified, taking into account the ISCAAP divisions and groups of species, in the data exchange protocol (Task 1 operating tool, CSV and XML schemas).

96. The proposals put forward by the workshop on fleet capacity for a Regional Plan of Action (RPOA) for the Management of Fishing Capacity were endorsed by the SAC. Based on the outline of the RPOA drafted during the workshop, the options to be considered by GFCM are the following:

- Invite the Commission to consider introducing elements of the Draft Outline GFCM RPOA-Capacity into the Recommendation GFCM/34/2010/2 whilst continuing the elaboration of the GFCM RPOA-Capacity.
- Engage a consultant to draft a GFCM RPOA-Capacity on the basis of the outline produced and other suggestions made by GFCM subsidiary bodies.
- Convene a workshop to finalize the drafting of the GFCM RPOA-Capacity on the basis of the outline produced and other suggestions made by the GFCM subsidiary bodies.

Or

- Any combination of the above

97. The SCSI Coordinator proposed that the statistical grid reference scheme drawn up by the SCSI at its 9th Session should accompany the statistical grid already adopted by the GFCM. The SAC agreed with this proposal and endorsed the grid reference scheme as produced in Appendix E.

Conclusions and recommendations of the Sub-Committee on Economic and Social Sciences (SCESS)

98. The Coordinator of the Sub-Committee, Mr Vahdet Ünal, presented the conclusions and recommendations of the SCESS on the basis of the document GFCM:SAC13/2011/3 and GFCM:SAC13/2011/Inf.7, together with the results of the workshop on monitoring recreational fisheries in the GFCM area as contained in document GFCM:SAC13/2011/Inf.18

99. The SAC noted that participation in the activities of the SCESS was very limited, a situation that hindered the effectiveness of the work of the Sub-Committee. The Coordinator of SCESS stressed the urgency to enhance the expertise in the Region through formal training and specialised degree

programmes in fisheries economics. It was also suggested to explore the possibility of involving experts from various research institutions (Faculties, Universities, etc.)

100. The Observer from UNEP / MAP – Plan Bleu stressed the importance of considering socio-economic issues in the fisheries management process and informed the Committee that Plan Bleu is carrying out a study on excess capacity which integrates environmental and economic aspects and will be pleased to collaborate on this subject with the GFCM.

101. On this issue, the EU delegate also underlined the importance of formulating integrated advice incorporating exploitation control measures and economic aspects in order to contribute to the improvement of the sustainable exploitation of fishing fleets. He stressed that, in order for the SCESS to work in a more effective manner, the GFCM should agree on reference points, both model based and empirical, allowing the implementation of a precautionary approach management framework and a more defined fisheries management strategy, which would allow economists and biologists to carry out bio-economic analysis within the framework of the defined management objectives.

102. With regards to the conclusions of the SCESS on recreational fisheries, the observer from CIPS noted that sport and recreational fisheries only contribute to 1-2% of the exploitation of fisheries resources and thus have limited impact. He also noted that some changes were introduced to the results obtained during the Workshop on Recreational Fisheries held in Palma de Mallorca. He expressed a reserve on the conclusions related to the licensing schemes.

103. Some delegations suggested that the definitions should only provide a general description of the activities and that the regulation of leisure and sport fishing activities should be detailed in national legislation. Caution was also expressed with the adoption of the term “Pesca Turismo” which opens the door to several other types of national leisure and sport fishing practices to be included in the SAC glossary of terms.

104. The Syrian delegate informed the SAC that strict recreational fishing regulations were in place in his country in order to safeguard the livelihood of fishermen, who depend on the limited fisheries resources in Syrian waters.

105. The Egyptian delegate drew the attention of the Committee to the fact that the ICCAT definition of charter fishing is quite different from the one proposed by the SCESS, the former being related to a commercial fishing activity. In this context, the delegate from the Libyan Arab Jamahiriya proposed that any definitions adopted by SAC and included in the SAC glossary should be used strictly within the GFCM context.

106. Concluding on this issue, the SAC agreed that the definitions, as proposed by the SCESS, be adopted yet allowing any amendments that may arise during the forthcoming intersessional period, on the basis of relevant suggestions which the Sub-Committees may wish to put forward.

107. The SAC also agreed on the SCESS proposals to develop a harmonised monitoring framework protocol for recreational fisheries, to design a data collection scheme for recreational fisheries indicators and to conduct a regional study on the possible implementation of licensing schemes for this sector. Furthermore, SAC agreed on the development of a code of practice for responsible recreational fisheries but stressed that the FAO Code of Conduct for Responsible Fisheries should be used as a basis together with other specific codes developed by other organizations such as EIFAC. In addition, further progress on studies related to the socio-economic impact of the implementation of the 40mm square mesh / 50mm diamond mesh in trawl codends was encouraged by the SAC.

108. The Committee was informed that the document on the study undertaken by CopeMed I on socio-economic indicators was being reviewed by CopeMed II and will be published in due course.

109. The SAC agreed that the SCESS should proceed with analysis of socio-economic data collected through the Task 1 framework and to explore ecolabelling impacts.

110. Finally, the Committee endorsed the amendments to the definitions of parameters in Task 1.3 and concurred with the SCESS proposal to draw up definitions for other socio-economic parameters as necessary.

GFCM Performance Review

111. Mr Philippe Ferlin, representative of the expert panel in charge of the Performance Review, presented the document GFCM:SAC13/2011/Inf.24 prepared in connection with the GFCM Performance Review undertaken over the past year. He focused in particular on the conservation and management framework and the functioning of the SAC. He stated that whilst the GFCM has been producing significant results over recent years, the conclusions and recommendations contained in the Performance Review document should assist GFCM Contracting Parties to strengthen this Commission to function as a more effective Regional Fisheries Management Organization.

112. The EU delegate stated that the Review has presented many elements and messages to be considered by the SAC to improve its working strategy. He agreed in particular with the recommendation to focus on shared stocks to fulfill obligations laid down in the UN Fish Stocks

Agreement. He remarked, however, that although it was true that GSA boundaries may not coincide with the distribution of fish stock units, GSAs are not necessarily to be considered as management zones and that the statistical grid adopted by the GFCM should be useful in defining the boundaries of stock units. He also agreed with the conclusion that compliance and enforcement need to be strengthened with the introduction of a penalty mechanism.

113. The French delegation stressed that the objectives and scope of the Sub-Committees on Economic and Social Sciences (SCESS) and on Marine Environment and Ecosystems (SCMEE) need to be more developed in the Performance Review report.

114. The SAC acknowledged the strong messages of the Performance review with regards to the amendments of the GFCM agreement, aimed to consider the Precautionary Approach Principle in the work of GFCM.

115. The Observers from ACCOBAMS and RAC/SPA noted that cooperation with non-fisheries organizations was not addressed in the Performance Review. Mr Philippe Ferlin explained that the consultants chose not to tackle this aspect due to the limited time available to conduct a proper assessment.

116. The Observer from IUCN highlighted the importance of strengthening cooperation with non-governmental and inter-governmental organizations.

117. The SAC noted the recommendation included in the report on the GFCM Performance Review to reconsider the current practice to automatically adopt ICCAT recommendations without prior review of the scientific basis supporting these recommendations by the SAC. It also suggested that the relevance of the contribution of the FAO Regional Projects to the SAC activities be properly highlighted in the Review.

118. The FAO Projects Coordinators recognized the importance of the GFCM Performance Review but noticed that there was a misconception on the purpose and role of the FAO Regional Projects relatively to the GFCM activities.

119. The acting Executive Secretary invited delegations to submit any further remarks on the Performance Review to the Secretariat, relevant to the SAC, within two weeks.

Fisheries regulations in the Mediterranean and Black Sea (LaMed project)

120. Ms Camille Samier, consultant within the GFCM Secretariat, presented the LaMed Project on "fisheries laws and regulations in the Mediterranean and the Black Sea" together with a draft questionnaire aimed at updating and completing the comparative study undertaken by Philippe Cacaud in 2005. She explained that the questionnaire focuses on six main issues: i) the legal framework, ii) the access regimes to fisheries resources, iii) the conservation and management measures, iv) the monitoring, control and surveillance, v) the post-landing, post-harvest practices and trade, and vi) the enforcement and compliance. She added that a final section on the identification of priority issues for GFCM Members, at the international, national and/or regional levels will be developed at a later stage. She informed the Committee that national experts will be contacted to complete the questionnaire and that the responses will serve as a basis for discussion during an expert workshop to be held in 2011 on the identification of a harmonized approach to fisheries laws, which could provide a stronger foundation for further cooperation in the GFCM Region.

121. Some delegations felt that more time was needed to properly review the questionnaire. In this respect, the Secretariat invited delegations to submit their comments within three weeks after the termination of the session.

122. The Committee welcomed the presentation and thanked the Secretariat for the work carried out. The Committee also thanked the donor (Italy) for supporting the LaMed project.

The SAC e-Glossary

123. Mr Federico De Rossi, consultant within the GFCM Secretariat, presented the SAC e-Glossary web application on the basis of document GFCM:SAC13/2011/Dma.6. After a brief historical overview of the Glossary, he illustrated the building steps of the database design and development. The attention of participants was drawn to features of the e-Glossary, namely the search features (index-based and full-text search engine), the export facility in different formats together with the real time updates of the latest definitions. The importance of promoting the use of this web application during the Commission's meetings was also underlined and it was stressed that it would be advisable to review its content annually.

124. The Committee acknowledged the effort pursued by the Secretariat in releasing the e-Glossary as a useful tool for the GFCM and its partners. Moreover, some participants took the opportunity to

express thanks for the management of the GFCM website which has become a fundamental source of information for the activities of the Commission.

125. Suggestions for further developments of the e-Glossary were made by some delegations, e.g. the citation of the source of information, the cross reference, the track of modifications and the multilingual facility. In this regard, the Secretariat informed the Committee that all suggestions are welcome and a number of improvements of the e-Glossary are already underway. In response to the question raised on the procedure for updating the content of the Glossary, the Secretariat reminded that any proposal of amendments should be submitted, through the Sub-Committees, to the SAC for its consideration and possible endorsement.

GFCM database on biological parameters

126. Ms Pilar Hernández from the GFCM Secretariat presented the progress done on the elaboration of a database on biological parameters and population features for the purpose of stock assessments. She outlined the origin of the database, giving some background of the request made by the SAC in 2010. She recalled that a questionnaire had been circulated in November 2010 to be filled in with non published information and to update the existing one.

127. Suggestions for further improvements of the database were made by some delegations, e.g. the inclusion of graphs with maturity ogive, the minimum size/length at maturity, the size/length at sex change for hermaphrodite species, age-length vectors. It also was suggested to link the bibliographic references to the published document when electronically available. The Secretariat thanked the delegations for their ideas and informed that the number of improvements suggested by the SCSA at its 12th session is already being taken into account.

128. The delegations were invited to kindly collaborate notably in distributing among the Mediterranean and Black Sea scientific community the modified questionnaire being circulated by the Secretariat.

GFCM actions on the Black Sea

129. Ms Hernández presented the GFCM actions undertaken in the Black Sea during recent years. She gave a brief overview of the characteristics and the situation of the fisheries in this region. She outlined the evolution of the attempts to start a FAO Regional Project in the Black Sea and stressed on

the need for urgent action in the development of cooperative research in close collaboration with the existing relevant organizations. The attention of the SAC was drawn on the urgency to take specific actions and activities which could be included in the short term workplan of the Committee with the aim to improve the knowledge of the fisheries in this area and to strengthen their management.

130. In the course of the discussion that followed this presentation, Mr. S. Nicolaev, delegate from Romania, welcomed the report and noted that there are three Conventions in the region which concern directly or indirectly fisheries issues. From the institutional point of view, the situation is that all countries are Contracting Parties (CPs) of Bucharest Convention, four countries are CPs of ACCOBAMS and three are CPs of GFCM. Furthermore, Romania and Bulgaria are EU members.

131. He also stated that this was a particular situation which calls for the need to harmonize existing regulations and strategies. Mr Nicolaev explained that the Commission on the Protection of the Black Sea Against Pollution and its Advisory Group (AG) have recorded a number of achievements in this regard and he underlined the following ones:

- In 2008 the Black Sea Status of the Environment report was elaborated with a special chapter on Marine Living Resources (MLRs)
- In 2009 the Strategic Plan of Action for the Black Sea (BS SAP) was adopted having special objectives for fishery and conservation of MLRs;
- Annex IV of the protocol on Biodiversity Conservation (CBD) adopted in 2002 contains a list of species, the exploitation of which needs to be regulated;
- Through special projects a process started for the elaboration and implementation of regional agreed methodologies for stock assessment of pelagic and demersal species;
- In 2010 the check-list of Black Sea fish species was elaborated describing the state of each species in accordance with IUCN criteria;
- In 2007 the Black Sea sub-group of STECF–EU was created.

132. The Romanian delegate also informed the Committee that the Advisory Group on the Environmental Aspects of the Management of Fisheries and other Marine Living Resources (AG FOMLR) of the BSC developed a database for Black Sea fisheries.

133. He added that the main problem faced is that some countries, namely Bulgaria and Romania, presently report to three institutions: BSC, STECF and GFCM. This situation needs to be taken into consideration in order to avoid overlapping or duplication of activities.

134. He further explained that another particularity of the Black Sea area is that the majority of stocks are shared or migratory. This imposes needs to involve all riparian countries in the assessment

of stocks and the implementing of conservation activities, even if only three of the countries are GFCM Contracting Parties.

135. The Romanian delegate also welcomed the initiative of the FAO BlackSeaFish project and recommended that in the process of elaboration of the project objectives, the priorities listed in the BS SAP should be taken into consideration.

136. The Bulgarian delegation fully supported the intervention by the Romanian delegate. He highlighted the existing activities in his country carried out under the fisheries EU Data Collection Framework, the conduction of scientific surveys and analyses, activities carried out by the Black Sea working group under STECF-EU, setting and applying the TACs and quotas in EU waters for two species, sprat and turbot, since 2007. In addition, he informed the SAC that the Black Sea working group under STECF has been asked by STECF-EU to prepare and assess five more species in 2011 including one shellfish invasive species *Rapana venosa*. He proposed to provide the Secretariat with the whole text of the documents regarding fisheries in the Black Sea region for more comprehensive information about the situation in the Black Sea area.

137. The Turkish delegate stated that there is an emerging need to harmonize the regulatory management structure in the Black Sea Region. Despite the existing structures and initiatives of several international and regional organizations, the management and conservation of living marine resources requires more concrete actions. In this context, Turkey explained its willingness to participate in any sort of joint activities/initiatives that would strengthen technical and scientific cooperation and collaboration in the region. Turkey also underlined that over the last years a promising collaboration in the area of fisheries has been established between a Turkish research institution for fisheries (i.e: Trabzon Central Research Institute for Fisheries) and the corresponding research institutions of the neighboring Black Sea countries.

138. The Turkish delegate explained that despite several national programs on stock assessments, particularly for small pelagics, Turkey lacks systematic stock assessment studies covering Turkey as a whole. However, a prioritized focus is being given to enhancement of institutional and technical capacity building for nation-wide stock assessments in support of management and conservation of living marine resources. He acknowledged the work done by the EU regarding the management and the conservation of sprat and turbot fishery in the region and expressed Turkey's readiness to contribute in this field. The Turkish delegate stated that his delegation was satisfied with the growing focus on the Black Sea by the GFCM and briefed the Committee on the progress regarding the preparatory phase of the Black Sea project (BlackSeaFish).

139. The EU delegate welcomed the renewed attention given by GFCM to the Black Sea. He stressed that in order to ensure sustainable fisheries, it is important that fishery management is science-based and is carried out jointly with all concerned parties exploiting shared stocks; the EU is therefore interested in sustaining and participating in initiatives which could further promote scientific cooperation and ensure the establishment of the best fishery governance in the interest of the coastal countries of the Black Sea, in accordance with the legal requirements of the EU exclusive competence on fisheries policy.

140. Without prejudice to possible future evolution of the fishery governance in the Black Sea, the EU delegation considered that, in the short term, the setting up of an ad hoc working group for the Black Sea could facilitate the work of the SAC in delivering scientific advice and to facilitate the participation of scientists from countries which are currently non-members of the GFCM.

141. The EU delegate also informed the Committee that EU establishes on an annual basis TACs and some technical measures for some stocks in EU waters of the region and that, so far, the catch limitations have been set taking into account the scientific advice of an international working group, including non-EU scientists, convened under the Scientific, Technical and Economic Committee for Fisheries (STECF). He added that expertise developed in the STECF framework may be helpful for the proposed GFCM-Black Sea working group. He stated that it is clear that the formulation of the scientific advice for the TAC setting in the Black Sea waters should be carried out with a schedule adequate to take decision on the TAC, and allow national implementation, before the end of each year. He announced that this year the STECF working group for the Black Sea will meet between 10th to 14th October and scientists of all Black Sea countries will be invited as in the previous years.

142. The observer of the Russian Federation thanked the GFCM Secretariat for its kind invitation to the Russian Federal Research Institute of Fisheries and Oceanography ("VNIRO") scientists to attend the meeting as observers. He highlighted the high level of organization of this meeting and professionalism of the GFCM. He acknowledged the comprehensive and overall approach given to the questions related to the Mediterranean Sea. He proposed to the GFCM to continue the effort on improvement of consideration of the Black Sea related issues to make it as integrated as for the Mediterranean Sea. He strongly supported the EU proposal to create a special working group on the Black Sea and stated that participation in this working group is of the great interest to VNIRO scientists in particular. In order to help on the positive official decision of the Russian Federation government towards the adhesion to the GFCM, he suggested that these discussions be initiated at the FAO with the Russian Permanent Representation.

143. The ACCOBAMS Executive Secretary congratulated the GFCM Secretariat for its initiative to promote activities in the Black Sea and invited all the organizations working in the area to coordinate their efforts. She expressed her willingness to participate in the meetings of the proposed ad hoc Working Group on the Black Sea. She informed the Committee that the four Black Sea member countries of ACCOBAMS have adopted a Conservation Plan for cetaceans that includes actions linked to fisheries. She also informed the delegations of several projects in force, the information of which is available together with the national reports of the parties. Finally, she also announced the 4th Conference on the Black Sea to be held in Odessa, Ukraine and invited GFCM to organize a round table to discuss collaborative affairs.

144. The FAO representatives thanked the GFCM Secretariat for promoting this discussion on the current situation regarding the Black Sea. Furthermore they recalled that the Black Sea Project is being finalized under the Technical Lead of FAO Regional Office for Europe in Budapest according to the FAO strategy of decentralization of competences. According to the current information, all countries bordering the Black Sea expressed their interest and willingness to participate in such a project, and some of them already communicated this formally to FAO. Only some minor bureaucratic issues are still preventing the start of the project, but it is expected that they will be overcome very soon. The FAO Mediterranean projects took this opportunity to reiterate their availability to support this initiative by putting their experience in launching similar initiatives at the disposal of the Black Sea countries and the GFCM. Finally the FAO staff committed to inform the FAO Fisheries Department of the interest of the Russian Federation to become a member of the GFCM.

145. The SAC thanked the Secretariat for the overview presented and congratulated, along with the delegations, the prospective of an enhanced collaboration with the Black Sea countries. It agreed to establish an ad-hoc Working Group on the Black Sea open to all scientists of the region and to the partner Organizations. It also decided to hold the first meeting of this Working Group in Romania in early 2012 and invited the Secretariat to prepare draft Terms of Reference of this Working Group to be submitted for the consideration of the Commission at its Thirty-fifth Session to be held in Rome in May 2011.

REVIEW OF THE SAC PRELIMINARY WORKPLAN FOR 2011

146. This agenda item was introduced on the basis of the suggestions made by the Sub-Committees as reflected in documents GFCM:SAC13/2011/4, supplemented by the reports of the Sub-Committees (documents GFCM:SAC13/2011/Inf.5, Inf.6, Inf.7 and Inf.8) and the Coordination Meeting of the Sub-Committees (document GFCM:SAC13/2011/Inf. 9).

147. Referring to the workshop on VMS which had been postponed by the Commission at its Thirty-fourth Session, the EU delegate recalled that the original reason for holding this workshop had been to respond to the request by some countries to receive technical assistance in the monitoring of vessels through VMS. He added that this workshop could also focus on the use of VMS data for scientific purposes.

148. The Tunisian delegation, supported by several other delegations, favoured the organization in 2011 of this workshop since it would help develop VMS standards in the region in line with the GFCM Recommendation on this matter.

149. In this context, the Committee agreed with holding this workshop during the forthcoming intersessional period considering the original Terms of Reference already submitted to the Commission, with the possibility to introduce any relevant amendment.

150. The Committee also agreed to convene the first meeting in early 2012 of the proposed multidisciplinary ad-hoc Working Group on Black Sea fisheries.

151. The SAC took note of the offer of ACCOBAMS to collaborate in the organization of the meeting of the Working Group on by-catch.

152. The observer from IUCN announced that a meeting on sub-marine canyons, in collaboration with RAC/SPA, will be held in Monaco in 2011. He invited the Secretariat to envisage the possibility to be represented by an expert in this matter.

153. The observer from MedPAN informed the Committee that his organization is working closely with RAC/SPA and is involved in updating a database on MPAs in the Mediterranean. He welcomed the collaboration of GFCM in this initiative.

154. In light of the above, the SAC further agreed on its working programme for 2011 as follows:

Sub-Committee on Stock Assessment (SCSA)

- Carry out assessments on selected Mediterranean and Black Sea elasmobranchs stocks;
- Organize a joint Workshop with the SCMEE and SCESS on Spatial Based Fishery Management. The draft Terms of Reference are presented in Annex I;
- Prepare a proposal aimed to transform the Task 1.5 related to biological data possibly in connection with the Stock assessment forms and the Biological Parameters Database. A

specific workshop together with the SCSI could be envisaged as a further step, if deemed necessary;

- Organize the meetings of the Working Groups on stock assessment of demersal and small pelagic resources simultaneously;
- Continue the elaboration of the GFCM Regional Database on biological parameters to facilitate agreement on values to be used for each stock assessment in the eastern, central and western Mediterranean;
- Improve the Stock Assessment Forms to facilitate the inclusion of raw data and the connection with the possible new Task 2 compilation and submission framework;
- Develop reference points with the view to evaluate the status of the stocks and fisheries including also the effects on exploited stocks of FRAs;
- Collate and analyze main information useful for the European Eel Management Plans and set up of a network of Mediterranean experts in collaboration with the working group on Eel management of EIFAC/ICES;

Sub-Committee on Statistics and Information (SCSI)

- Update the Task 1 data entry/software and data submission exchange protocols (XML and CSV);
- Update and publish the statistical bulletin (reference years 2008 and 2009);
- Continue the development of the Task 1 Regional Information System. Members are expected to submit the full Task 1 datasets for 2008 by January 2011, and the full Task 1 datasets for 2009 by May 2011;
- Finalize the development of the Regional Fleet Register information system and manage the data submitted accordingly;
- Work on a template considering the information requested by the GFCM Recommendations related to vessels lists, with a view to create a single data submission framework for vessels.

Sub-Committee on Marine Environment and Ecosystems (SCMEE)

- Continue on the implementation of the medium term programme on elasmobranchs taking into consideration the suggestions from the first expert meeting;
- Prepare and disseminate educational material (posters, leaflets, brochures, etc.) for informing the public in the Mediterranean and Black Sea countries about harmful species and jellyfish.
- Prepare a new version of the TECHNOMED selectivity protocol as a standard document which could be made available for any Mediterranean case study as standard, including the collection of socio-economic data. The methodology of the statistical analysis should be improved and completed;

- Carry out, jointly with the SCSA, assessments on selected Mediterranean and Black Sea elasmobranchs stocks;
- Organize an age reading training course on selected Mediterranean and Black Sea elasmobranchs under the framework of the Permanent Working Group on Assessment Methodology (PWGAM);
- Organize a second workshop on Red coral according to the terms of references in Appendix D;
- Organize a transversal workshop on Artificial Reefs in the Mediterranean and Black Sea, possibly back to back with the SCMEE meeting, according to the terms of references provided in Appendix D;
- Organize a by-catch Working Group meeting;
- Undertake a regional medium-term research programme on Red coral with the possible support of FAO Regional Projects;
- Improve the knowledge on the topographic description of seamount areas.

Sub-Committee on Economic and Social Sciences (SCESS)

- Undertake a review of the fisheries laws and regulations in force at national level in the Mediterranean and the Black Sea and organize an expert meeting in the framework of the LaMed Project;
- Elaborate a Code of Practice / Technical Guidelines on recreational fisheries in the GFCM area;
- Perform regional studies to provide an overview of recreational fishing activities (gears, techniques, target species, etc..);
- Develop studies regarding the socio-economic impact resulting from the implementation of the 40 mm diamond mesh in trawl fisheries
- Populate the GFCM webpage dedicated to TECHNOMED with any information dealing with the economic impacts of selectivity studies;
- Organize a specific workshop, back-to-back with the forthcoming SCESS meeting on the processing and analysis of Task 1.3 data;
- Proceed with analysis of socio-economic data collected through the Task 1 framework;
- Explore ecolabelling socio-economic impacts.

Meetings

SAC agreed on the list of meetings as set out below.

Meeting	**Place/Date**
14th Session of the **SAC** (5 days)	Varna, Bulgaria / February 2012
Session of the **SCSA** (4 days)	Rome, FAO HQs / Nov.- Dec. 2011
Working Group on stock assessment of Demersal Species (6 days)	Greece/TBD
Working Group on stock assessment of Small Pelagic Species (6 days)	Greece/TBD
Transversal Workshop (SCSA/SCMEE/SCESS) on Spatial Based Fishery Management (3 days)	TBD/TBD
Stock assessment of selected species of elasmobranchs (5 days)	Brussels, Belgium/TBD
Session of the **SCESS** (4 days)	Rome, FAO HQs / Nov.- Dec. 2011
Workshop on the processing and analysis of Task 1.3 data (back-to-back with the SCESS Session)	Rome, FAO HQs / Nov.- Dec. 2011
Expert meeting on Fisheries legislation within the framework of the LaMed Project	Beirut, Lebanon/ Sept. 2011
Session of the **SCSI** (4 days)	Rome, FAO HQs / Nov.- Dec. 2011
Session of the **SCMEE** (4 days)	Rome, FAO HQs / Nov.- Dec. 2011
Meeting of the Working Group on by-catch (3 days)	Turkey/TBD
Training course on age reading and growth parameters of the main elasmobranchs species (5 days)	Turkey/TBD
Workshop (SCMEE) on Artificial Reefs, possibly back to back with the SCMEE session	Rome, FAO HQs / Nov.- Dec. 2011
Second Transversal Workshop on Red Coral (3 days)	TBD/TBD
12th Session of the **CMSC** (1 day)	Rome, FAO HQs / Nov.- Dec. 2011
Workshop on VMS (3 days)	TBD/TBD
First meeting of the ad-hoc Working Group on the Black Sea (3 days)	Romania/early 2012

The SAC took note of the offers made by some delegations for hosting some meetings, subject to the confirmation by their relevant competent authorities.

OTHER ISSUES

155. The SAC expressed its great pleasure on the attendance and active participation of several of its partners. In particular, it highly appreciated the active participation of observers from the Russian Federation and expressed the wish that close collaboration with this country will be maintained in the future. The SAC looked forward to the possibility of the Russian Federation to join the GFCM.

156. The Committee extended its appreciation to the French Government for hosting this session and for the hospitality. In particular, it warmly thanked the Ifremer for the dedication and the excellent collaboration that made possible the organization and the success of the meeting. The exceptional conditions of work kindly offered by France were highly appreciated by all the delegates.

DATE AND VENUE OF NEXT SESSION

157. The Committee took note of the invitation made by the Bulgarian delegate to host the fourteenth session of the SAC, subject to confirmation by the competent authorities of his country. The exact date and venue will be communicated at a later stage.

ADOPTION OF THE REPORT

158. The report, including its appendices, was adopted on Friday 11th February 2011.

OUVERTURE ET ORGANISATION DE LA RÉUNION

1. Le Comité scientifique consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) s'est réuni à Marseille (France) du 7 au 11 février 2011 pour sa treizième session.

2. Y ont assisté les délégués de 21 membres de la Commission, ainsi que des observateurs d'États non-membres de la CGPM, d'organisations intergouvernementales et d'organisations non gouvernementales: Fédération de Russie, Accord sur la Conservation des Cétacés de la Mer Noire, de la Méditerranée et de la zone Atlantique adjacente (ACCOBAMS), Plan Bleu pour la Méditerranée, OCEANA, réseau MedPAN, Confédération internationale de la pêche sportive (CIPS), Centre d'activités régionales pour les aires spécialement protégées du Plan d'action pour la Méditerranée du Programme des Nations Unies pour l'environnement (PNUE-PAM–CAR/ASP), Union internationale pour la conservation de la nature (UICN) et Fonds mondial pour la nature (WWF).

3. M. Henri Farrugio, Président du CSC, a ouvert la réunion et accueilli les participants. Il a présenté MM. Gérard Riou et Pierre-Yves Andrieu, respectivement Directeur du centre IFREMER Méditerranée et Directeur interrégional de la mer Méditerranée.

4. M. Riou et M. Andrieu ont souhaité la bienvenue aux participants au nom des autorités françaises et ont remercié M. Farrugio et le Secrétariat de la CGPM pour la préparation de la réunion. Ils ont fait valoir l'importance du CSC, au regard du mandat de la CGPM et déclaré que le Comité avait un rôle de premier plan à jouer dans les activités communes conduites pour parvenir à un développement durable dans les régions de la mer Méditerranée et de la mer Noire. Ils ont ajouté que la diversité des activités menées par les sous-comités du CSC était remarquable et qu'elle permettait une approche holistique des sciences et de la gestion des pêches.

5. M. Abdellah Srour, Secrétaire exécutif en exercice de la CGPM, a souhaité la bienvenue aux participants au nom du Président de la CGPM, M. Mohamed Hadj Ali Salem, et a remercié les autorités françaises d'avoir accueilli la réunion et assuré une excellente organisation. Il a ajouté que, au cours des dix dernières années, le CSC avait apporté des contributions notables aux processus de gestion des pêches. Il a par ailleurs souligné le rôle important joué par les projets régionaux financés par un certain nombre de membres de la Commission s'agissant de stimuler la coopération scientifique.

ADOPTION DE L'ORDRE DU JOUR

6. Après avoir invité tous les délégués et les observateurs à se présenter, le Président a donné la parole au Secrétaire exécutif en exercice. Celui-ci a informé le Comité au sujet de la logistique et de la procédure d'établissement de rapport au cours de la réunion.

7. L'ordre du jour a été présenté et adopté, comme indiqué à l'annexe A du présent rapport. La liste des participants figure à l'annexe B.

8. La liste des documents dont est saisi le Comité figure à l'annexe C.

ACTIVITÉS ENTRE LES SESSIONS

Examen des décisions adoptées par la CGPM, à sa trente-quatrième session, au sujet de la gestion des pêches

9. Le Secrétaire exécutif en exercice a fait le point des principales décisions adoptées par la Commission à sa trente-quatrième session, à Athènes en avril 2010, et dont il a rappelé la portée. Il a souligné l'importance que la Commission avait accordée à certains sujets, notamment la collaboration scientifique dans la mer Noire, l'utilisation de points de référence biologiques et le suivi de la capacité de pêche. Il a également évoqué la décision qui devait encore être prise concernant l'organisation, d'ici à 2013, d'un atelier technique sur les systèmes de surveillance des navires par satellite, et a invité le CSC à étudier la question lors de l'examen de son plan de travail pour 2011.

10. Le Secrétaire exécutif en exercice a informé que trois recommandations contraignantes avaient été adoptées: (i) la Recommandation CGPM/34/2010/2, qui invite à fournir des informations sur les navires de plus de 15 mètres et jette les bases de l'élaboration d'un Plan d'action régional pour gérer la capacité de pêche, dont il a été question pendant la période intersessions (ii) la Recommandation CGPM/34/2010/1 concernant l'établissement d'un journal de bord de la CGPM et les normes connexes (iii) la Recommandation CGPM/34/2010/3 concernant l'identification de la non-conformité. Il a ajouté que la Commission avait également approuvé les mesures de gestion adoptées par la Commission internationale pour la conservation des thonidés de l'Atlantique (CICTA) pour les pêcheries d'espadons et de thonidés et pour la conservation des renards de mer.

Rapport du Président: aperçu des activités menées par le CSC

11. S'appuyant sur le document GFCM:SAC13/2011/2, le Président a présenté les activités menées par les quatre sous-comités depuis la dernière session. Il a informé les délégués que les dix-sept réunions prévues avaient été organisées et que le compte rendu des ateliers techniques et leurs conclusions étaient disponibles dans les documents portant les cotes GFCM:SAC13/2011/Inf.12 à GFCM:SAC13/2011/Inf.21.

12. S'agissant des ateliers techniques, le Président a informé le Comité que divers sujets avaient été abordés et que des résultats importants avaient été obtenus, notamment dans les domaines suivants : propositions en vue de nouvelles mesures de gestion des pêches, programmes de recherche, systèmes de collecte de données, élaboration de plans d'action et questions techniques ayant trait à l'exploitation du corail rouge, aux captures d'élasmobranches et à la pêche de l'anguille européenne. Il a également évoqué les travaux conduits dans le cadre de l'atelier sur les méthodes de collecte des données, qui ont apporté une importante contribution à la mise en œuvre significative des processus de soumission des données au titre de la Tâche 1. De plus, le Président a donné par ailleurs une vue d'ensemble des conclusions de l'atelier sur les proliférations d'algues et de méduses, et notamment des solutions proposées face aux problèmes que pose ce phénomène pour les pêches, l'environnement marin et la société en général. Il a aussi accordé une grande importance aux résultats de l'atelier sur les pêches récréatives qui avait permis de recenser et définir divers sous-secteurs, et aux conclusions de l'atelier sur la sélectivité des engins de pêche qui s'était penché en particulier sur les effets de l'application du maillage de 40 mm, la réduction des prises accessoires et l'impact de la pêche au chalut sur les fonds marins.

13. Évoquant les travaux menés par le Sous-Comité des statistiques et de l'information (SCSI), le Président a notamment souligné les progrès accomplis dans divers domaines, en particulier l'élaboration et la gestion des bases de données et des systèmes d'information de la CGPM, la politique de confidentialité et d'accès aux données, l'application du système de notification STATLANT 37A compatible avec les sous-régions, l'examen des paramètres et définitions des données requises au titre de la Tâche 1 et la question des limites de poids des captures en vue de leur déclaration dans les journaux de bord.

14. Le Président a informé le CSC que le Sous-Comité des sciences économiques et sociales (SCESS) s'était penché sur les résultats de l'atelier sur le suivi des pêches récréatives dans la zone de compétence de la CGPM et sur les conclusions des études de cas relatives aux incidences

économiques de l'application de la maille carrée de 40 mm pour le cul de chalut. Il a ajouté que le SCESS avait également examiné et modifié les définitions des variables économiques relatives à la Tâche 1.3.

15. S'agissant du Sous-Comité sur l'évaluation des stocks (SCES), le Président a signalé que le Sous-Comité avait examiné 32 documents techniques sur les espèces démersales et 11 documents techniques sur les petits pélagiques, établis par les deux groupes de travail sur l'évaluation des stocks. Il a ajouté que le SCES avait procédé à l'examen des conclusions des ateliers sur l'anguille européenne, sur les élasmobranches et sur la sélectivité des engins de pêche et la réduction des prises accessoires. Le Comité a également été informé que le SCES avait élaboré de nouvelles fiches à ajouter au formulaire d'évaluation des stocks et s'était penché sur l'utilisation de points de référence biologiques.

16. Le Président a informé le CSC que les travaux du Sous-Comité de l'environnement et des écosystèmes marins (SCMEE) avaient été centrés sur l'incidence des espèces allochtones sur les pêches, l'approche écosystémique des pêches (AEP) et la pêche des alevins du point de vue de la conservation des habitats sensibles. Il a noté que le SCMEE avait approuvé la proposition de créer une nouvelle zone de pêche réglementée autour des monts sous-marins de l'archipel des Baléares.

17. En s'appuyant sur le document GFCM:SAC13/2011/Inf.10, le Président du CSC a présenté les conclusions de la réunion de coordination des groupes de travail (CMSC), y compris les questions relatives à la stratégie de mise en œuvre du plan de travail du CSC ainsi que le fonctionnement des Sous-Comités du CSC et des groupes de travail.

18. Le CSC s'est félicité des travaux menés par ses organes subsidiaires pendant la période intersessions, malgré le peu de temps à disposition, et s'est dit satisfait de la qualité des résultats obtenus, qui pouvaient lui permettre de formuler des avis en matière de gestion pour assurer la pérennité des pêches et le bien-être de l'écosystème marin. Le Comité a également félicité le Secrétariat de la CGPM pour l'excellent travail accompli entre les sessions et pour l'organisation de cette session.

19. Le délégué de l'Union européenne (UE) a renouvelé l'invitation de l'UE de parrainer l'atelier sur les systèmes de surveillance des navires par satellite, qui avait été reporté par la Commission à sa trente-quatrième session.

20. La représentante d'ACCOBAMS s'est déclarée satisfaite de l'excellente collaboration établie avec la CGPM et a réitéré son intérêt de poursuivre dans cette direction, en collaborant notamment sur

les questions ayant trait à la collecte de données sur les prises accessoires de cétacés, aux écolabels et aux aires marines protégées.

Principales activités et initiatives des projets régionaux

21. Les coordinateurs des projets régionaux de la FAO en cours AdriaMed, CopeMed II, ArtFiMed, EastMed et MedSudMed ont présenté les principales activités menées à bien entre les sessions. Les informations fournies concernent des activités de recherche, des programmes de formation, des ateliers et des groupes de travail, ainsi que l'aide technique apportée aux pays et les contributions aux activités du CSC. Il a également été fait le point sur les projets MedFisis, MED-LME et Mer Noire. Les délégués ont été informés que des renseignements détaillés concernant les activités et les résultats des projets figuraient dans le rapport annuel des comités de coordination des différents projets et dans le document GFCM:SAC13/2011/Inf.22.

22. Le CSC a pris note des importantes activités menées au titre des projets et des précieux apports scientifiques, notamment en ce qui concerne l'élaboration et la mise en œuvre de méthodologies communes grâce à la mise en place d'activités conjointes de formation sur le terrain et de prospections en mer ainsi qu'au renforcement des compétences au niveau national. L'accent a été mis sur le fait que les travaux du CSC menés pendant la période intersessions ont grandement bénéficié de l'appui des projets régionaux et de leur coordination.

23. Le Comité s'est dit satisfait du nombre d'activités mises en œuvre et des importants résultats obtenus revêtant un intérêt pour les pays et la CGPM, notamment en ce qui concerne les stocks partagés par plusieurs pays.

24. Les délégués des pays participant au projet AdriaMed (l'Albanie, la Croatie et le Monténégro) ont réaffirmé le rôle stratégique joué par le projet dans cette zone géographique, étant donné qu'il s'agit du seul projet regroupant tous les pays de l'Adriatique. Celui-ci a favorisé et renforcé la coordination régionale et la mise en œuvre d'activités conjointes, ce qui a notamment permis de recueillir conjointement des données, mais aussi de procéder à une évaluation conjointe des ressources partagées. Il a également été fait mention particulière de la mise en place effective d'une coopération régionale entre les instituts de recherche et les administrations des pêches de l'Adriatique, coopération qui a permis le renforcement de la gestion des pêches dans la zone du projet.

25. Le délégué de l'Égypte a informé le Comité qu'une coopération avait été mise en place entre EastMed et son pays et que celle-ci avait rapidement abouti à plusieurs résultats positifs.

26. Le délégué de la Tunisie a souligné l'importance du rôle des projets sous-régionaux s'agissant de continuer d'appuyer les travaux conjoints sur les stocks partagés, comme la définition et l'évaluation des limitations de stocks. D'autre part, il a affirmé que ces travaux constituaient la base nécessaire à la réalisation de l'objectif final, à savoir la formulation de stratégies de gestion des pêches harmonisées. Il a d'autre part, rejoint par le délégué du Maroc, fait valoir les retombées bénéfiques des activités de CopeMed et d'ArtFiMed dans leurs pays et insisté sur la nécessité de poursuivre ces activités conformément aux recommandations du CSC.

27. Le délégué de la Lybie a souligné les bénéfices acquis par son pays lors de sa participation aux activités des projets MedSudMed et CopeMed, notamment dans le cadre du renforcement des capacités et la formation dans l'échantillonnage les méthodes de collecte, d'analyse et de « reporting » des données scientifiques. Espérant qu'un tel résultat permettra aux scientifiques libyens de poursuivre ces importants programmes scientifiques lorsque ces projets se termineront. Le délégué libyen a également remercié les pays européens pour la sponsorisation de ces projets régionaux.

28. En ce concerne MedFisis et CopeMed, certaines délégations ont déclaré qu'il était important de songer, dès que possible, à la suite à donner à ces projets, puisqu'ils prendraient fin en juin 2011 et juillet 2011 respectivement.

29. Compte tenu de ce qui précède, la délégation de l'Union européenne a proposé que les pays fassent figurer dans leur rapport national une référence à leur engagement dans des activités de projets régionaux et à l'éventuelle assistance reçue en la matière.

PRINCIPALES ACTIVITÉS DE RECHERCHE DES ÉTATS MEMBRES

30. M. Matthew Camilleri, du Secrétariat de la CGPM, a présenté le document GFCM:SAC13/2010/Inf.11, qui fait la synthèse des informations contenues dans 16 rapports nationaux reçus par le Secrétariat avant la réunion (Annexes F(a) et F(b)).

31. Les délégués de la Bulgarie et de la Roumanie ont informé le Comité que leurs pays soumettaient un rapport national analogue à la Commission de la mer Noire et que celui-ci pourrait servir de base au rapport national devant être présenté au CSC.

32. Suivant la suggestion des délégués de la Tunisie et de la Libye, le CSC est convenu d'ajouter un nouvel élément au rapport national ayant trait notamment aux mesures de gestion prises en réponse directe aux recommandations de la CGPM, y compris concernant l'évaluation de leurs effets.

33. Certaines délégations ont fait état d'autres activités ne figurant pas dans les rapports nationaux. A cet égard, le Secrétariat a invité les délégués à soumettre, dès que possible et si nécessaire, un rapport national révisé reflétant ces activités supplémentaires afin que celles-ci soient inclues dans le rapport de la présente session du CSC.

FORMULATION D'AVIS DANS LE DOMAINE DE LA GESTION DES PÊCHES ET DE LA RECHERCHE HALIEUTIQUE

Conclusions et recommandations du Sous-Comité de l'environnement et des écosystèmes marins (SCMEE)

34. Le Coordinateur du Sous-Comité, M. Federico Alvarez, a présenté les conclusions et recommandations du SCMEE en s'appuyant sur les documents GFCM:SAC13/2011/3 et GFCM:SAC13/2011/Inf.5. Il a décrit les résultats en s'attachant principalement aux questions relatives à la gestion et à la recherche.

35. Certains délégués ont estimé que la proposition d'adopter une taille minimale pour l'exploitation des branches de corail était prématurée et qu'elle peut exiger de plus amples recherches et discussions pour décider d'une taille minimale. D'autre part, il a été convenu que d'autres mesures comme l'interdiction du recours aux nouvelles technologies, et notamment l'utilisation d'engins télécommandés, la protection des colonies situées en eaux peu profondes et la mise en place d'un régime de quotas fondé sur le nombre de licences délivrées pourraient être soumises à l'examen de la CGPM. Il a également souligné qu'il existait suffisamment d'éléments scientifiques attestant une faible ou très faible connectivité entre les différentes colonies, même à courte distance, et qu'une gestion adaptative à caractère local était donc conseillée d'une manière générale pour le corail rouge dans la région.

36. Le Sous-Comité a toutefois noté que des travaux de recherche supplémentaires étaient nécessaires avant de pouvoir fixer une taille minimum pour l'exploitation du corail rouge. Compte tenu de ce qui précède, les délégations ont donné leur accord pour aller de l'avant vers l'élaboration d'un plan de gestion régional commun. Il a donc été convenu d'organiser un second atelier sur ce thème en 2011.

37. La déléguée de l'Algérie a informé le Comité que l'exploitation du corail rouge était interdite dans son pays, faute d'informations scientifiques. Elle a néanmoins souligné que ces pêches pourraient être rouvertes lorsque des données seront disponibles.

38. Le délégué de la Tunisie a informé le Comité que la Tunisie a projeté de lancer un programme pour l'évaluation du corail rouge et il a suggéré que les mesures proposées concernant l'interdiction de l'exploitation du corail rouge dans les eaux peu profondes (<50 m) soient prises, une fois le résultat de cette évaluation disponible.

39. Le CSC a encouragé à redoubler d'efforts pour recueillir des connaissances scientifiques sur le corail rouge et a invité les instituts de recherche des pays membres à mettre en place des projets de recherche en coopération dans ce domaine. Il a également fait sienne la proposition du SCMEE de mettre en route un programme régional de recherche à moyen terme sur le corail rouge et a invité les participants à chercher des sources de financement à cet effet, parmi lesquelles l'éventuel soutien des projets régionaux de la FAO.

40. À cet égard, les projets régionaux de la FAO ont formulé le fait que les activités sur le corail rouge pouvaient être mises en place par les projets lorsque des financements spécifiques seraient disponibles pour la mise en œuvre de ces initiatives.

41. Au sujet de l'établissement d'une nouvelle zone de pêche réglementée dans les îles Baléares, la déléguée de l'Espagne a déclaré que cette proposition reposait uniquement sur des analyses qualitatives (présence/absence) et que des études de la biomasse benthique faisaient défaut (Annexe D). Elle a également souligné que certains des habitats inclus dans la zone de pêche réglementée, comme les fonds marins coralligènes et de maërl, étaient déjà protégés et placés sous la juridiction de l'Union européenne. Il a été dit que la proposition telle qu'elle avait été présentée ne pouvait pas avoir le soutien de l'Espagne à ce stade. Les autorités compétentes sont néanmoins disposées à poursuivre l'analyse des données recueillies, étayées par des avis scientifiques de l'Institut espagnol d'océanographie (IEO), de façon à avoir une étude plus complète de la zone visée, en se concentrant principalement sur la cartographie des différents habitats, la description des flottilles et la répartition de l'effort de pêche, ainsi que sur l'incidence socioéconomique potentielle des mesures de protection proposées.

42. L'observatrice d'OCEANA a déclaré que les informations disponibles étaient bien de type qualitatif, mais qu'elles décrivaient clairement ces habitats qui ne se rapportaient pas seulement aux fonds coralligènes et de maërl et concernaient aussi d'autres habitats sensibles comme celui de l'*Isidella elongata* et les bancs d'éponges situés en eaux profondes. Elle a également déclaré que la communication aux autorités compétentes était faite conformément au calendrier établi, immédiatement après l'approbation de la proposition par les scientifiques du SCMEE. Elle a ajouté par ailleurs que la déclaration de zone de pêche réglementée pourrait aider le Gouvernement espagnol à

assurer la protection des fonds coralligènes et de maërl. OCEANA a souligné la nécessité urgente de préserver les monts sous-marins du Canal de Majorque en établissant une zone de pêche réglementée.

43. Le délégué de l'Union européenne s'est félicité de l'étude menée à bien par OCEANA qui, bien qu'étant qualitative, avait permis de recenser les habitats sensibles dans les eaux relevant de la juridiction espagnole et où la pêche au chalut est donc déjà interdite en vertu de la législation européenne. Il a noté que le mode de présentation normalisé des propositions de nouvelles zones de pêche réglementée devait être modifié afin qu'un minimum d'information quantitative puisse être fourni à l'appui de ces propositions. Il s'est dit favorable à la soumission des propositions par plus qu'un seul auteur.

44. L'importance des monts sous-marins comme foyers de biodiversité a été soulignée au cours des débats. Le CSC a été invité à prendre des mesures pour améliorer les connaissances sur la topographie et des aspects bioéconomiques de ces zones et pouvoir ensuite procéder à des études bioéconomiques ou recommander des mesures de gestion des pêches. Il a également été souligné qu'il est conseillé d'interdire l'utilisation des chaluts et des dragues dans les habitats coralligènes et de maërl à toute la Méditerranée afin de préserver ces écosystèmes importants.

45. Tenant compte des observations ci-dessus, le CSC a invité le SCMEE à étudier plus en amont la question et avant la soumission à la Commission, en conformité avec le mandat du CSC pour améliorer la connaissance générale de la structure et le fonctionnement des canyons et des habitats en eau profonde.

46. L'observateur de l'UICN a fait référence aux zones de pêche réglementée déjà établies et a déclaré que la CGPM devrait approfondir la question de leur surveillance.

47. S'agissant des données relatives aux navires opérant dans la zone de pêche réglementée du Golfe du Lion, requises en application de la Recommandation CGPM/33/2009/1, le CSC a pris note du fait que les informations reçues par le Secrétariat étaient encore provisoires. Le Comité a souligné que la répartition géographique de l'effort de pêche, établie notamment à l'aide de données fournies par le système de surveillance des navires, était un élément clé pour l'évaluation des stocks.

48. Le délégué de l'UE a informé que, en référence à la responsabilité du CSC en matière d'évaluation des effets de la réglementation en vigueur sur les zones de pêche réglementée, il est évident que l'accès scientifique aux données des systèmes de surveillance des navires par satellite doit être facilité par les parties de la CGPM, tenant également compte de la Recommandation GFCM/33/2009/7 et en particulier dans son article 16. De plus, tenant compte que la majorité des

navires de pêche présents dans la zone de la CGPM sont plus petits que 15 mètres de longueur en tout, et que la plupart d'entre eux peuvent légalement opérer au large des côtes et assez loin du littoral et du port d'immatriculation, il serait souhaitable que la CGPM réfléchisse sur l'extension possible de l'utilisation obligatoire des systèmes de surveillance des navires par satellite et/ou journal de bord aux navires de moins de 15 mètres de longueur en tout. Puisque la connaissance du déploiement géographique de l'effort de pêche prend toujours plus d'importance, il est pertinent d'enregistrer des opérations de pêche qui pourraient être faites au moins par des rectangles statistiques numérotés de 30'x30' de la grille statistique de la CGPM. Cette grille statistique devrait être superposée à une carte des zones de la CGPM pour être inclue comme référence sur la page de couverture du journal de bord, comem indiqué dans la Recommendation CGPM/34/2010/1.

49. Le CSC a examiné et approuvé les mesures proposées par le SCMEE sur la réduction des prises accessoires du phoque moine, des tortues et des oiseaux marins. Il s'agit notamment de:

- Pour le phoque moine: l'installation de filets statiques ne pourra se faire qu'en dehors d'un rayon de 5 milles nautiques au minimum autour de l'emplacement des grottes abritant le phoque moine en automne et en hiver. Ce rayon devra être étendu à 10 milles nautiques autour des grottes de reproduction de cette espèce.
- Pour les tortues marines: Prévoir l'utilisation de dispositifs de décrochage et de libération des animaux qui sont capturées accidentellement par les palangres.
- Pour les oiseaux de mer:
    - Dans la pêche à la palangre: la calée des engins ne pourra se faire que durant la nuit; prévoir l'utilisation de dispositifs répulsifs pour les oiseaux, de lignes lestées et la préparation de l'appât (décongelé et teint en bleu).
    - Dans la pêche au chalut: utilisation de dispositifs répulsifs fixés sur les funes de chahut.

  Pour les deux types de pratiques de pêche, il est conseillé de diminuer le rejet des viscères et autres déchets qui peuvent attirer les oiseaux en les congelant ou en les fluidifiant pour pouvoir les rejeter plus tard, lorsque les oiseaux de mer ne sont pas présents.

50. Concernant les phoques moines, ces mesures ne peuvent être appliquées efficacement qu'à condition d'avoir des connaissances sur les lieux de refuge des phoques moines. Le Secrétariat a été invité à recueillir et analyser le plus grand nombre d'informations possible sur ces sites, si possible avant la prochaine session de la CGPM.

51. L'observateur du Centre d'activités régionales pour les aires spécialement protégées (CAR/ASP) a souligné que des mesures de protection devaient être mises en œuvre sans trop tarder dans les lieux de refuge connus des phoques moines.

52. S'agissant des oiseaux de mer, le CSC a décidé que le plan d'action internationale pertinent de la FAO devait servir de référence pour l'adoption future de mesures visant à réduire les prises accessoires de cette espèce.

53. L'observatrice d'ACCOBAMS s'est dite intéressée par une collaboration aux fins de l'accomplissement du processus de communication de données sur les prises accessoires au titre de la Tâche 1 de la CGPM. Elle a informé le Comité de projets en cours portant sur le suivi des prises accessoires de cétacés en mer Noire.

54. Au sujet de la proposition visant à promouvoir des travaux de recherche multidisciplinaires et intégrés à moyen terme sur les proliférations d'algues et de méduses, le délégué de la Tunisie a informé que son pays collaborerait à un tel projet. Il a suggéré de travailler en collaboration avec des institutions comme la Commission internationale pour l'exploration scientifique de la mer Méditerranée (CIESM), qui s'était déjà proposée pour mettre en route des activités conjointes avec la CGPM. Le délégué de la Turquie s'est dit intéressé lui aussi et a informé que son pays était prêt à contribuer au financement d'études sur ce sujet. L'observatrice d'ACCOBAMS a également fait part que ACCOBAMS était prêt à collaborer avec la CGPM sur les questions liées à la prolifération d'algues et de méduses.

55. Le délégué de l'UE a informé le Comité que certains projets financés par l'UE sur ce phénomène ont été menés ou sont encore actuellement en place et a invité les scientifiques impliqués dans le CSC à consulter régulièrement CORDIS (http://cordis.europa.eu/home_en.html) pour d'éventuels autres appels à propositions.

56. Le Coordinateur du SCMEE a également informé le Comité d'une initiative émanant d'un consortium et visant à solliciter des fonds au titre de l'appel INTERREG de l'Union européenne auquel les instituts de recherche de divers pays méditerranéens avaient l'intention de participer.

57. La proposition faite par le SCMEE de réaliser une étude pilote sur les effets de l'application du nouveau maillage des culs de chalut a été approuvée par le Comité.

58. Se référant à la proposition concernant la réalisation d'études pilote sur les mesures visant à réduire les prises accessoires d'élasmobranches, le délégué de l'Union européenne s'est interrogé sur la généralisation de ce type de mesures, sachant que les espèces de requins ne sont pas toutes menacées ou en voie d'extinction. Il a suggéré qu'il fallait avant tout s'assurer que les données relatives aux prises

accessoires[1] soient recueillies et analysées de façon appropriée afin que des mesures plus concrètes puissent être prises et que les espèces soient mieux protégées. Le CSC a proposé de renvoyer ces études pilotes à plus tard et de commencer à prendre des mesures concernant les espèces pour lesquelles des données sont disponibles. Le Comité a également souligné qu'il était important de procéder à une évaluation des stocks de ces espèces.

59. Le CSC a mis l'accent sur la suite à donner à la mise à jour du protocole pour la réalisation d'études pilotes sur la sélectivité, aux travaux de recherche sur les canyons sous-marins et à la déclaration des prises accessoires d'élasmobranches au titre de la Tâche 1.

60. Au sujet de la proposition concernant la protection des zones de reproduction, le CSC est convenu de les considérer comme des aires sensibles. Le délégué de l'Égypte a souligné que la pêche de larves et de juvéniles destinés aux exploitations piscicoles était aussi une activité dont il fallait rendre compte et assurer le suivi.

61. S'agissant de la proposition relative aux écolabels, le délégué de la Turquie a proposé de promouvoir la commercialisation des poissons et des produits de la pêche en misant sur la labellisation écologique, qui pourrait être un instrument susceptible d'accroître les revenus tirés de la pêche. ACCOBAMS a également invité la CGPM à participer à une prochaine réunion sur les écolabels.

Conclusions et recommandations du Sous-Comité sur l'évaluation des stocks (SCES)

62. Le Coordinateur du Sous-Comité, M. Fabio Fiorentino, a rapporté sur les conclusions et avis émanant des réunions organisées entre les sessions. Il a présenté les évaluations réalisées par le SCES, couvrant 14 zones sous-géographiques et 12 espèces, pour les espèces démersales, et 7 zones sous-géographiques et 2 espèces, pour les petits pélagiques. Il a noté que 23 évaluations d'espèces démersales avaient été validées (22 stocks en situation de surpêche/surexploitation et 1 stock pleinement exploité). S'agissant des petits pélagiques, 11 évaluations avaient été acceptées (2 stocks ont été considérés comme étant en situation de surpêche/surexploitation et 7 autres comme étant pleinement ou modérément exploités).

63. Le Comité a procédé à un examen approfondi des avis relatifs aux espèces démersales et aux petits pélagiques, tels qu'ils figurent aux tableaux 1 et 2, respectivement. Le CSC est convenu

[1] Dans le glossaire du CSC (disponible uniquement en anglais) les prises accessories sont définies comme suit: *By-catch: The total catch of unwanted animals including vulnerable and endangered species. By-catch of commercial species should be reported as associated species*

d'approuver les avis donnés par le SCES après avoir accepté d'apporter de légères modifications et tenu compte de certaines remarques.

64. Le CSC a noté que certaines évaluations, bien que fondées sur des données recueillies sur un intervalle de quelques années seulement, étaient néanmoins considérées comme validées à l'aide d'une analyse de pseudo-cohorte, lorsque l'hypothèse de condition d'équilibre des prises était vérifiée. Il a ajouté que les avis émanant de certaines de ces évaluations, considérées comme préliminaires, pouvaient en tout cas servir de base pour des mesures de gestion, en partant du principe que ces évaluations seraient répétées une fois que les séries chronologiques seraient plus longues et que les analyses connexes seraient affinées.

Table 1

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 01 & 03 (Northern and Southern Alboran Sea)	*Pagellus bogaraveo*	Lfreq & catch	2005-2007 (artisanal fisheries from Morocco and Spain)	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.40) higher than F0.1 (0.18) and Fmax (0.37)	Decrease the fishing effort. Adopt the same management measure in GSA 03 and GSA 01. Improve the sampling standardisation. Maintain the joint assessment.	Improve the biological sampling and estimate the importance of the catches of juveniles that occur in more shallow areas by trawlers in order to improve the assessment in the case such removal be assessed as not negligible. The WG endorsed the assessment and recommendations.	No further comments. Endorsed	The SAC appreciated the effort done by the scientists of Morocco and Spain to asses jointly the stock status. The relevant contribution of the regional project Copemed II in pursuing the activity was highlighted. Endorsed
GSA 03 (Southern Alboran Sea)	*Parapenaeus longirostris*	Catch & effort	2000-2009	Schaeffer Surplus production	Over-exploited; Fcurr/ $F_{0.1}$ = 392% F curr/ F_{MSY} =353%	It was recommended to decrease the fishing mortality by 60-80%. The abundance indices observed during surveys indicate a decrease of this resource.	The WG recommend extending the assessment of the *Parapenaeus* stock including the data from other adjacent areas (Spanish and Algerian areas). The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Boops boops	Lfreq & catch	2000-2009	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.90) higher than F0.1(0.61) and Fmax (0.75)	Reduce the fishing mortality and control the trawling ban in coastal water.	No sign of depletion is evident. The fishing mortality can be reduced limiting the moving of trawlers from the Atlantic to the Mediterranean. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	No further comments. Endorsed
	Mullus barbatus	Lfreq & catch	2004-09	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.68) higher than F0.1(0.55) and Fmax (0.56)	Reduce the fishing mortality and control the trawling ban in coastal water.	No sign of depletion is evident. The fishing mortality can be reduced limiting the moving of trawlers from the Atlantic to the Mediterranean. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 05 (Balearic islands)	*Merluccius merluccius*	Catch, effort, Lfreq catch, Trawl surveys	1980-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.85) higher than F0.1(0.20) and Fmax (0.31)	Reduce fishing mortalities by 30 to 50% trough reducing the effort activity and improving the selection pattern of the fishery.	Explore the parameterisation of XSA (the contribution of each tuning fleet in the model) and run sensitivity analysis on its effects. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Mullus surmuletus	Catch, effort, Lfreq catch, Trawl surveys	2000-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.60) higher than F0.1 (0.38) and lower than Fmax (0.74)	Reduce fishing mortalities by 30% to 50% trough reducing the effort activity and improving the selection pattern of the fishery.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch, effort, Lfreq catch, Trawl surveys	2000-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.82) higher than F0.1(0.33) and Fmax (0.53)	Reduce fishing mortalities by 40% to 60% trough reducing the effort activity and improving the selection pattern of the fishery.	Explore the parameterisation of XSA (the contribution of each tuning fleet in the model). The WG group noticed that while SSB appears increasing, recruitment time series suggest an increasing trend. The WG suggest performing sensitivity tests for defining the influence of input biological parameters in the results. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Nephrops norvegicus	Catch, effort, Lfreq catch, Trawl surveys	2002-2008	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.45) higher than F0.1 (0.30) and lower than Fmax (0.63)	Decrease fishing mortality by 20-30% by: - Reducing effort, both in capacity and/or activity - Improving the selection pattern of the fishery - Implementing area closures for fishing	Perform a sensitivity analysis. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Aristeus antennatus	Catch, effort, Lfreq catch, Trawl surveys	1992-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.62) higher than F0.1 (0.33) and lower than Fmax (0.76)	Decrease fishing mortalities by 30% to 50% trough reducing the effort activity and improving the selection pattern of the fishery. Implementing area closures for fishing in the nursery areas during the recruitment period.	Evaluate the effect of the biological parameters running XSA with sex combined data. Explore the parameterisation of XSA (the contribution of each tuning fleet in the model). The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Parapenaeus longirostris	Catch, effort, Lfreq catch, Trawl surveys	2000-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited	The problems found with the residuals and the retrospective analysis makes not possible to provide a full management advice.	The WG agrees that the stock is overfished but some uncertain do not allow to suggest an available value to reduce the actual fishing mortality. The WG endorses the assessment as a source of general information of the stock.	The assessment must be considered as a rough estimation of the stock status. To be verified.	The SAC consider this assessment as provisional

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 06 (Northern Spain)	*Merluccius merluccius*	Catch, effort, Lfreq catch, trawl survey	1995-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (1.70) higher than F0.1(0.60)	To reduce the growth overfishing: - Decrease the effort of trawl. - Improve the fishing pattern of the trawl fleets. To avoid recruitment overfishing: - Reduce effort in trawl 70% - Special surveillance in the use of 40 mm square mesh size in the cod end in trawl gears. - Encourage studies to allocate area closures to fishing (FRA).	The stock show dangerous signals of recruitment overexploitation due to the decreasing trend in recruitment and very low levels of the spawning stock. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	The SAC noted that the absolute value of F, both in terms of current and target F, are higher than those of the other areas of the Mediterranean. Due to the robusteness of Y/R analyses, the percentage of reduction of current F to reach the target values should not be biased. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch, effort, Lfreq catch, trawl surveys	1998-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.76) higher than F0.1 (0.39)	Decrease the fishing mortality by 70%. More effective control in shelf areas above 50 m depth to reduce the catch of small individuals under the minimum legal size. The use of the 40 mm square mesh in the cod-end should improve trawl exploitation pattern and Y/R by 24%, but a close supervision of the observance of this measure is needed.	Co-occurrence of SSB increasing and recruitment decreasing. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed
	Parapenaeus longirostris	Catch, effort, Lfreq catch, trawl surveys	2001-2009	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (1.37) higher than F0.1(0.30) and lower than Fmax (2.73)	Reduce growth overfishing: - Reduce the effort of trawl by 70%. - Improve the fishing pattern of the trawl.	Since there are some evidences of synchronous oscillation of abundance of the species in the western Mediterranean, environmental factors (e.g. water temperature) are thought can notably affect the stock dynamics. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 07 (Gulf of Lions)	*Merluccius merluccius*	Catch, effort, Lfreq catch, trawl surveys	1998-2009 (French and Spanish data from trawlers, gillnetters and longliners)	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (0.87) higher than F0.1(0.20) and Fmax (0.29)	Reduce fishing mortality by 60% to 70% to reach the Fmsy proxy F0.1. To reduce growth overfishing: - Improve the fishing pattern of the trawl - close nursery areas at least temporally - Reduce the effort of trawl, from reducing time at sea, number of fishing boats, engine power, Bollard pull and/or trawl size To avoid recruitment overfishing: - Reduce the effort of longline and gillnets in order to increase (or at least maintain) the SSB. - Establish temporal closures for longline and gillnet during the period of maximum spawning	The trend of the SSB does not show any risk of stock depletion or collapse. The parameterization of the XSA model may have an impact on the results obtained. To identify the extension of such decisions, further work must be done to explore different parameterizations of the model and run sensitivity analysis on its effects. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch & Lfreq of catch	2004-2009	Pseudocohort (LCA, VIT), Y/R	Slightly over exploited	Current F has to be reduced by 30-40% to reach F0.1.	The WG endorsed the assessment and recommendations	Since the current F (0.7) is higher than F0.1 (0.4) and Fmax (0.5), the Sub-Committee recommends to not use the attribute "slightly" in identifying the stock status. Endorsed	No further comments. Endorsed
GSA 09 (Ligurian and North Tirrenian)	*Merluccius merluccius*	Lfreq Catch Surveys data	1994-2009	LCA – Pseudocohort analysis (VIT) Y/R ; SURBA	Over-exploited; current F (1.40) higher than F0.1 (0.22) and Fmax (0.35)	The stock appears to be highly overexploited with a need of F reduction of about 40-80%.The current SSB is estimated as 5% and 10% of the virgin SSB, nevertheless, the stock productivity does not appear to be impaired and able to still produce relatively large year classes.	The group noticed a decreasing trend of the SSB for both assessments performed with SURBA on 2 different surveys (MEDITS and GRUND). The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Mullus barbatus	Catch , effort & trawl surveys	1995-2009	Non-equilibrium production model	Over-exploited; current F (0.73) higher than FMSY (0.64)	A reduction of fishing mortality by about 10% is considered necessary in order to reach the Fmsy level.	The WG endorsed the assessment and recommendations	No further comments. Endorsed	No further comments. Endorsed
	Parapenaeus longirostris	Catch, effort, Lfreq Catch & trawl survys	1990-2008	LCA – Pseudocohort analysis (VIT) Y/R ; SURBA	Fully -exploited	Not increase the fishing mortality	This stock could be strongly driven by environmental and ecological factors (e.g. water temperature, predatory release effect) that can make difficult to evaluate the effect of fishing on the stock. The WG endorses the assessment and the related recommendations but notes that only the reference points computed by VIT should be considered for management.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSAs 12,13,14, 15&16 (Strait of Sicily)	*Parapenaeus longirostris*	LFD of catch	2007-2009	LCA – Pseudocohort analysis (VIT & ANALEN) Y/R ;	Over-exploited; current F (1.13) higher than F0.1 (0.90) and lower than Fmax (1.23)	A reduction of Fishing mortality by about 20% is considered necessary in order to reach the F0.1 level. In addition the exploitation pattern of the fishery should be improved. A protection of the stable nurseries on the Adventure and Malta Banks in the Strait of Sicily is advised	A change in M and k has pronounced effect on Y/R when the variation was applied in opposite directions. On the other hand B/R and SSB/R are not strongly affected when the change is in the same direction. Alternative methods such as global production methods and trawl survey based approach should be used in the future to make the assessment more robust. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	The SAC appreciated the effort done by the scientists of Italy, Malta and Tunisia to asses jointly the stock status. The relevant contribute of the regional project Copemed II and Medsudmed in pursuing the activity was highlighted. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 17 (Northern Adriatic)	*Solea solea*	Catch, effort, LFD, rapido surveys	2005-2009	Extended Survivor Analysis (XSA), LCA – Pseudocohort analysis (VIT) & Y/R ; SURBA	Over-exploited; current F (0.61) higher than F0.1 (0.29) and Fmax (0.42)	A reduction of F of 50-80%, especially by rapido trawling, would be recommended. A two–months closure for rapido trawling inside 11 km off-shore along the Italian coast, after the biological fishing ban (August), would be advisable to reduce the portion of juvenile in the catches. The safeguard of spawning area is also advised	Include in the future assessments biological samples data from the eastern fishery as well as to extend the rapido trawl survey inside the 12 nm from the Croatian coast, as was performed in 2005 and 2006. Such requirements could be attained in the framework of ADRIAMED regional project.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 18 (Southern Adriatic)	*Merluccius merluccius*	Trawl surveys and commercial catch	Medits (from 1996 to 2009 for Italian and Albanian coasts and 2008 only for Montenegro). LFD of catch only for the west side in 2009	SURBA, ALADYM and VIT	Over-exploited Fcurrent(year) = 0.57-0.58 F0.1=0.2 Fmax=0.3	- the current yield in long term is maintained if F0.1 is reached - the value in yield in long term increases if the exploitation pattern is improved	The WG discuss the use of the slow or fast growth parameters to assess the hake stock and of the sensitity analyses. Results from VIT (only one year data) are consider as indicative.	No further comment. Endorsed.	The SAC appreciated the effort done by the scientists of Albania ,Italy and Montenegro to asses jointly the stock status. The relevant contribute of the regional project Adriamed in pursuing the activity was highlighted. Endorsed
GSA 26 (South Levant)	*Solea solea*	LFD of catch	2006-2007	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (0.66) higher than F0.1(0.41) and lower than Fmax (0.81)	Reduce fishing mortality by about 40-60% to achieve F0.1. Improve the trawl selectivity. Identify and protect the nursery grounds. Improve the fishery data collection system.	As the assessment was done at first using three years 2006-2008 and it was found that the length composition of year 2008 is greatly different from the two others, the assessment was redone using the mean number of years 2006-2007. The WG endorses the assessment and the related recommendations	No further comments. Endorsed	Since the stock is exploited not only by trawlers, the SAC recommended to include catches of artisanal fisheries in next assessment. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Boops boops	LFD of catch	2007-2008	LCA – Pseudocohort analysis (VIT) Y/R	Over-exploited; current F (1.09) higher than F0.1 (0.59) and Fmax (0.94)	Reduce the fishing mortality by 40-60%	The WG endorses the assessment and the related recommendations	No further comments. Endorsed	Since the stock is exploited not only by trawlers, the SAC recommended to include catches of artisanal fisheries in next assessment. Endorsed
	Pagellus erytrinus	LFD of catch	2007-2008	LCA – Pseudocohort analysis (VIT) & Y/R	Over-exploited; current F (0.65) higher than F0.1 (0.34) and Fmax (0.57)	Reduce the fishing mortality by 40-60%. Identify and protect nurseries	The WG endorsed the assessment and recommendations.	No further comments. Endorsed	Since the stock is exploited not only by trawlers, the SAC recommended to include catches of artisanal fisheries in next assessment. Endorsed

Table 2

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 01 (Alboran Sea)	*Engraulis encrasicolus*	Lfreq & catch	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	Moderately exploited Sustainable fisheries	Not increase the fishing effort. The management of anchovy fisheries needs to account the multi-species effects, mainly the interaction with sardine.	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations.	No further comments. Endorsed	Endorsed
	Sardina pilchardus	Lfreq & catch	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	Fully exploited Sustainable fisheries	Not increase the fishing effort. The management of sardine fisheries needs to account the multi-species effects, mainly the interaction with anchovy.	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations.	No further comments. Endorsed	Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 03 (Southern Alboran Sea)	*Sardina pilchardus*	Catch, effort, Lfreq catch,	2000-2009	Pseudocohort (LCA, VIT), Y/R	full exploitation; current F (0.6) higher than F0.1/Fc=0.62 and lower than Fmax/Fc=1.86 Uncertain biomass	- Maintain the current fishing effort; - Reduce the mortality of fishing on the spawning fish - Introduce seasonal closure during January which coincides with the peak of the spawning; - Prohibit fishing during May near Short-nap close Kebdana to preserve the young fish.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	Endorsed
GSA 06 (Northern Spain)	*Engraulis encrasicolus*	Catch, effort, Lfreq catch,	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	The stock abundance is considered as low, while the exploitation rate is uncertain.	Avoid further reduction in SSB	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations	No further comments. Endorsed	Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Catch, effort, Lfreq catch,	2002-2009	Extended Survivor Analysis (XSA),Y/R analysis & Annual exploitation rate	Overexploited The stock has declined over many years, partly due to reduced recruitment and partly to poor survival of the recruits. Most likely, the stock has been increasingly overexploited in recent years	A substantial reduction in exploitation is advised.	The WG considers the analytical assessment as provisional. The WG endorsed the assessment and recommendations the related recommendations.	No further comments. Endorsed	Endorsed
GSA 07 (Gulf of Lions)	*Engraulis encrasicolus*	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch /Biomass)	Fully exploited - moderate harvest ratio. Low biomass	- Reduce fishing effort on anchovy in the Gulf of Lion - Respect the European regulation on minimum length size of catch (> 9 cm, UE 1976/2006) - Consider interactions with sardine fisheries.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	Due to the likely effect on small pelagics of environmental factor, in case of low biomass at sea the SAC recommend to avoid to report judgement of exploitation status of the stock (fully exploited). Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch/Biomass)	Moderately exploited Severely reduced production capacity	- Strongly reduce fishing effort on sardine in the Gulf of Lion; - Formalize and establish a protocol of "sentinel" activity for fishermen, and produce monthly spatial and temporal observations to describe the evolution of the system, - Respect the European regulation on minimum length size of catch (11cm, UE 1976/2006. - Consider interactions with anchovy fisheries.	The WG endorsed the assessment and recommendations	No further comments. Endorsed	Due to the likely effect on small pelagics of environmental factor, in case of low biomass at sea the SAC recommended to avoid to report judgement of exploitation status of the stock (moderately exploited). It also recommended to maintain the recent level of fishing effort induced by the very low abundance of adults in the stock until indication of a better status of the stock and endorsed the assessment.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 16 (Strait of Sicily)	*Engraulis encrasicoluss*	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch/Biomass)	Exploitation rate (ratio between total landings and biomass estimates): high fishing mortality. Stock abundance (acoustic biomass estimate): very low abundance.	- Not increase the fishing effort; -Assess the impact of fry fishery may have. - Not extend fry sardine fishery after March to avoid additional mortality on juvenile anchovy.	Negative effects on these populations could result from pressure of other fishing gears on pre-juvenile stages (locally known as "bianchetto" or "neonata"). The WG endorses the assessment and the related recommendations	Since the stock is characterised by both high exploitation rate and low biomass the SC recommends to change “not increase the fishing effort” into “decrease the fishing effort”. Endorsed with this modification.	

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Echosurveys and catch	1998-2009	Biomass at sea and harvest ratio (Catch / Biomass)	Exploitation rate (ratio between total landings and biomass estimates): moderate fishing mortality. Stock abundance (acoustic biomass estimate): low/intermediate abundance.	- Not increase the fishing effort; -Assess the impact of fry fishery. As the impact of fry fishery on this population is not known, a proper quantification of the catches in the fry fishery is mandatory.	Over the last four years the population appears to be stable though at a relatively low level. However, taking into account the moderate exploitation rates experienced, results would suggest the stock being able to tolerate the current level of exploitation.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
GSA 17 (Northern Adriatic)	*Engraulis encrasicolus*	Catch, effort, LFD, rapido surveys	1975-2009	VPA with Laurec-Shepperd tuning	The stock at the present level of biomass can be considered as moderately exploited	- Not increase the fishing effort. - Consider the interactions with sardine fisheries.	In the present assessment, important improvements were made regarding the echo-survey data used as tuning index for VPA: in particular, for the first time, biological data from the western Adriatic were used to split into age classes only the abundance estimated by the western echo-survey, while biological data from the eastern Adriatic were applied to the eastern echo-survey abundance.	No further comments. Endorsed	No further comments. Endorsed

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG comments	SC comments	SAC comments
	Sardina pilchardus	Catch, effort, LFD, rapido surveys	1975-2009	VPA with Laurec-Shepperd tuning	The stock at the present level of biomass can be considered as moderately exploited	- Not increase the fishing effort. - Consider the interactions with anchovy fisheries.	In the present assessment, important improvements were made regarding the echo-survey data used as tuning index for VPA: in particular, for the first time, biological data from the western Adriatic were used to split into age classes only the abundance estimated by the western echo-survey, while biological data from the eastern Adriatic were applied to the eastern echo-survey abundance.	No further comments. Endorsed	No further comments. Endorsed

65. Au sujet de la validation des évaluations par le SCES, il a été suggéré de définir des critères objectifs pour la validation des évaluations, tel que la vérification de l'hypothèse de l'état stable, des analyses de rétrospective et de sensibilité, avant les réunions des groupes de travail. Le SCES a été invité à établir une stratégie pour résoudre ce problème.

66. S'agissant de l'évaluation des stocks de dorade rose (*Pagellus bogaravaeo*) réalisée dans les zones sous-géographiques 01 et 03, les délégations de l'Espagne et du Maroc ont noté que ces pêcheries s'étendaient à la zone sous-géographique 01 et que, pour la première fois cette année, elles avaient fait l'objet d'une évaluation conjointe par ces deux pays, en tant que stock partagé, étendant les analyses jusqu'à l'Atlantique pour couvrir l'ensemble du stock.

Utilisation des points de référence biologiques (BRP)

67. Le coordinateur a présenté les progrès effectués dans l'utilisation de BRP dans le travail d'évaluation des stocks connexes. Il a noté que le Sous-Comité a adopté un FMSY ou son estimation $F_{0.1}$, la mortalité par pêche correspondant à 10% de la pente dans la courbe Y/R quand F=0, comme provisoire Point de référence cible et F_{max}, la mortalité par pêche correspondant au maximum dans la courbe Y/R, comme seuil provisoire de Point de référence limite à comparer avec la mortalité par pêche actuelle et pour évaluer l'état d'exploitation du stock.

68. Dans les cas où le BRP ne peut être obtenu soit pour des raisons techniques soit pour des cas spécifiques tels que certains petits pélagiques, une approche empirique des «Feux de Circulation» combinant l'état des stocks, les indices de biomasse à partir d'enquêtes et les indicateurs de pression (rapport de récolte et/ou un indicateur adéquat de stress environnemental), a été suggéré (voir tableau 3).

Tableau 3 – Approche des « Feux de Circulation »pour les espèces des petits pélagiques

	Biomasse du stock permanent à partir d'enquêtes scientifiques		
Indicateurs d'environnement et d'écosystème	**Biomasse au-dessus du point de référence de précaution**	**Biomasse en dessous du point de référence de précaution**	**Biomasse en dessous du point de référence limite**
Conditions satisfaisantes	Pourrait augmenter la capacité ou l'effort	**Maintenir constant la capacité ou l'effort**	**Fermer la pêche dans cette zone**
Détérioration des conditions	**Maintenir capacité ou effort constants**	Réduire la capacité ou l'effort	**Fermer la pêche dans cette zone**
Conditions insatisfaisantes	Réduire la capacité ou l'effort	**Fermer la pêche dans cette zone**	**Fermer la pêche dans cette zone**

69. En ce qui concerne la nécessité de clarifier le diagnostic dans l'évaluation des stocks dans un cadre BRP, le CSC a recommandé de distinguer les termes surpêchés/surexploités de la surpêche/surexploitation et a proposé les définitions suivantes pour être inclues dans le glossaire du CSC :

Surpêchés ou surexploités - Un stock dans lesquels la biomasse en mer est inférieure à la biomasse convenue sur la base du point de référence. Cette classification est indépendante du niveau actuel de mortalité par pêche.

La surpêche ou la surexploitation - Un état dans lequel le stock est exploité à une mortalité par pêche ou effort au-dessus d'une mortalité par pêche fixée ou à l'effort en fonction du point de référence. Cette classification est indépendante du niveau actuel de la biomasse du stock permanent (voir figure 1).

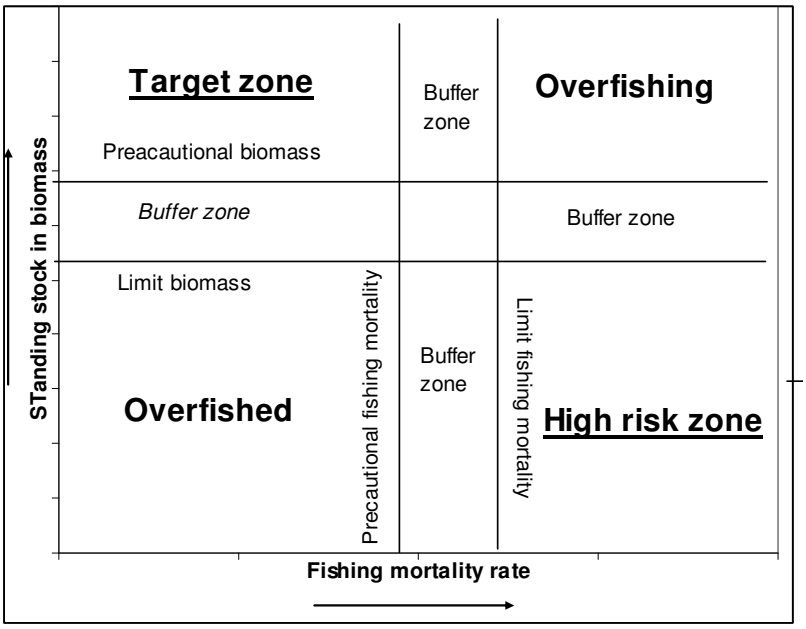

Figure 1 Cadre de l'évaluation des stocks de précaution pour la gestion

70. La discussion a indiqué qu'il serait souhaitable que la CGPM définisse un cadre pour une approche de précaution en identifiant des objectifs de gestion clairs et en sélectionnant des cibles, des seuils et des points de référence limites et ainsi permettre des stratégies de gestion conjointes tout en fournissant des voies d'actions à prendre, dépendants des niveaux de mortalité par pêche et, lorsque approprié, des niveaux de biomasse et autre type d'indicateurs comme le modèle fondé ou empirique. Cette approche faciliterait substantiellement et améliorerait, encore plus, le travail des scientifiques en termes de détermination du niveau d'exploitation, de l'état des stocks exploités à calculer les points de référence limites (ou estimation) et de prévoir l'état des stocks actuels et prévus en ce qui concerne les points de référence

Proposition de nouveaux Formulaires d'Évaluation des Stocks (SAF) pour des méthodes directes

71. Le Coordinateur a brièvement présenté les nouvelles fiches des Formulaire d'Évaluation des Stock (SAFs) pour les données issues de l'enquête marine reportée en détail en Annexe III du document GFCM :SAC13/2011/Inf.8 puis il a résumé les principales recommandations du SCES sur l'évaluation dans un prochain avenir.

Avis relatifs à l'anguille européenne

72. Après avoir présenté les résultats de l'Atelier sur l'anguille européenne, le Comité a approuvé les avis suivants:

(i) Recueillir des informations, et en faire la synthèse, sur les paramètres biologiques par habitat et sur les règlements (pêches et conservation de l'habitat) par pays, en coordination avec le projet LaMed, dans ce dernier cas.

(ii) Rassembler et analyser les informations essentielles utiles pour les plans de gestion de l'anguille comme indiqué dans le projet de publication de la CGPM sur l'anguille européenne, présenté lors de la réunion du Sous-Comité. Les données brutes devront être transmises au Secrétariat de la CGPM.

(iii) Établir un réseau d'experts méditerranéens des pêcheries d'anguilles, en collaboration avec le groupe de travail CECPI/CIEM sur les anguilles.

Le CSC a mis en évidence l'importance devant être donnée à cette espèce, notamment par la mise en place d'un meilleur suivi de cette ressource par le biais de à un Plan de Gestion Régional.

73. Le délégué de la Tunisie, soutenu par d'autres délégations, a proposé qu'un consultant soit engagé pour la mise au point finale d'un plan de gestion régional, conformément au règlement de l'Union européenne.

Avis relatifs aux élasmobranches

74. Le CSC s'est dit satisfait des travaux mis en route pour avoir une meilleure appréciation de l'état des stocks d'élasmobranches et de leur exploitation. Suite à la proposition du délégué de l'UE, le Comité est convenu que les programmes de contrôle des captures et d'effort doivent être proposés au niveau national afin d'assurer une surveillance étroite des captures, à la fois pour les espèces cibles et associées, et des captures accessoires et d'aviser la CGPM par la présentation des données au terme de la Tâche 1.

75. Concernant les mesures que le CSC devra prendre pour assurer la protection des élasmobranches, le délégué de l'Union européenne a déclaré que la CGPM devait s'efforcer de consacrer une plus grande attention à l'exploitation et à la conservation durables de ces espèces,

conformément à son mandat et en étroite coordination avec la Convention de Barcelone. Il a ajouté que plusieurs espèces d'élasmobranches avaient été inscrites à l'Annexe II (liste des espèces en danger ou menacées) ou à l'Annexe III (liste des espèces dont l'exploitation est réglementée) de la Convention de Barcelone. Il a informé le Comité que, dans l'attente de nouvelles informations scientifiques, certaines espèces actuellement inscrites à l'Annexe III, comme le requin-taupe commun (*Lamna nasus*), la taupe bleue (*Isurus oxyrinchus*) et la raie de Malte (*Leucoraja melitensis*), pourraient être transférées à l'Annexe II.

76. La représentation du CAR/ASP a appuyé sans réserve les arguments avancés par l'UE quant à la nécessité d'enregistrer correctement les données relatives aux élasmobranches et de veiller à ce que le poisson parvienne au port sous une forme identifiable. Le Comité a été informé que les Annexes II et III du Protocole ASP/BD de la Convention de Barcelone (mises à jour en novembre 2009) comprenaient de nombreuses espèces d'élasmobranches. Pour une bonne protection des espèces inscrites, les institutions s'occupant de pêche devraient respecter les règlements en vigueur pour leur conservation (Annexe II) ou leur exploitation appropriée. Par ailleurs, le CAR/ASP a informé le CSC de l'élaboration de directives sur la pêche récréative visant les élasmobranches qui seraient disponibles à la CGPM.

77. Dans ce contexte général, et sans préjudice pour les évaluations futures, le CSC est convenu que les informations scientifiques, qui avaient été la base pour le listage de certains élasmobranches dans l'annexe II de la Convention de Barcelone, ont été la plupart du temps partageables et ont attiré l'attention de la CGPM pour accorder le maximum de protection par les activités de pêche aux espèces énumérées à l'annexe II. Ceci en particulier pour empêcher l'accostage des activités de pêche et de la commercialisation et, dans la mesure du possible, être libérée saine et sauve.

78. A cet égard le CSC a également approuvé une proposition du SCMEE sur les mesures envisageables pour permettre que les carcasses des animaux débarquées soient identifiables, tel que : éviter la décapitation, ailerons, le dépouillement ou de débarquer les nageoires et les carcasses d'animaux dans les différents ports.

79. Le CSC a considéré que seul les prises et la libération des élasmobranches sont autorisées pour la pêche sportive et récréative et que des rapports adéquats à la CGPM seraient souhaitables.

80. Le délégué de l'UE a informé que des mesures spécifiques de l'UE pour la pêche du requin-taupe ont été prises et en particulier 0 TAC a été créé à la fois pour l'UE et pour les eaux internationales de l'Atlantique Nord-Est et de plus, des navires de l'UE ont eu l'interdiction de les

pêcher, de les conserver à bord, de débarquer le requin-taupe dans toutes les eaux internationales. Il a déclaré que la CGPM pourrait envisager d'agir dans le même sens.

81. Au regard de l'avis de la SCMEE, le CSC a considéré, d'une importance considérable, à la fois l'identification et la cartographie des zones critiques pour les élasmobranches (alevinière par exemple) et la protection des frayères, souvent dans des zones côtières, de l'action des activités de chalutage.

82. Le Comité a approuvé la proposition du SCES d'effectuer en 2011 des évaluations sur les espèces sélectionnées d'élasmobranches de Méditerranée et mer Noire telles que le *Raja clavata*, *Raja miraletus*, *Raja asterias* et *Scyliorhinus canicula*. Le Comité a recommandé de procéder à une tentative d'évaluation de *Leucoraja melitensis*.

83. Le délégué de l'UE a informé de la disponibilité à fournir un soutien pour l'organisation de cette réunion sur les élasmobranches et la possibilité d'accueillir la réunion à Bruxelles.

Avis relatifs à la sélectivité des engins

84. Le Coordinateur du Sous-Comité a indiqué que le SCES avait proposé de réaliser des études à titre expérimental non seulement en comparant la sélectivité des mailles carrées et des mailles rhombiques, mais aussi en utilisant différentes tailles de mailles carrées. Il a également informé le Comité que le SCES avait suggéré de tenir également compte, dans le cadre de ces tests, de l'efficacité des panneaux séparateurs pour réduire la présence de débris et déchets dans le chalut.

85. Le CSC a en outre examiné et est convenu d'approuver les conclusions et les propositions des ateliers transversaux sur l'amélioration de la sélectivité des engins et de la réduction des captures accessoires.

86. Enfin, le Comité s'est félicité de l'initiative d'organiser le SCES/SCMEE atelier transversal sur l'approche géographique de gestion des pêches et de travailler conjointement avec le SCSI sur l'amélioration de la Tâche 1.5 et la création éventuelle de la Tâche 2 sur les données biologiques des captures.

87. Par ailleurs, le CSC a félicité le SCES pour le travail accompli et s'est dit satisfait de l'augmentation des zones sous-géographiques couvertes par les évaluations et du renforcement constant des travaux en termes quantitatifs et qualitatifs, même si des améliorations sont encore nécessaires. Il a souligné que certaines évaluations devaient être révisées, comme indiqué dans le tableau de synthèse, et faire l'objet d'enquêtes plus poussées à l'avenir. Le Comité a également pris acte des travaux accomplis sur diverses questions importantes et a remercié le Coordinateur pour les efforts qui ont rendu ces réalisations possibles.

88. Le délégué égyptien a exprimé son soutien pour les campagnes publiques de sensibilisation sur les espèces allochtones mais il a suggéré que l'on devrait s'abstenir de faire référence aux espèces allochtones comme étant implicitement nuisibles.

Conclusions et recommandations du Sous-Comité des statistiques et de l'information (SCSI)

89. Le Coordinateur du Sous-Comité, M. Joël Vigneau, a présenté les conclusions et les recommandations du SCSI en s'appuyant sur les documents GFCM:SAC13/2011/3 et GFCM:SAC13/2011/Inf.6, ainsi que sur les résultats de l'atelier sur le suivi et la gestion de la capacité de pêche figurant dans le document GFCM:SAC13/2011/Inf.15

90. Sur la nécessité de simplifier le processus de notification des différents jeux de données sur les navires, le CSC a proposé, en guise de premier pas vers l'adoption d'une solution, que le SCSI élabore, avec le soutien du Secrétariat de la CGPM, un modèle tenant compte des informations demandées dans les recommandations de la CGPM concernant les listes de navires.

91. Le CSC a pris note que le SCSI était soucieux de renforcer le Secrétariat de la CGPM, de sorte de permettre à celui-ci de gérer le surcroît de tâches liées au traitement des données ainsi que ses capacités d'aider les États Membres à respecter les prescriptions de la CGPM en matière de communication de données. Le CSC est convenu que le rôle du Secrétariat revêt une importance capitale dans un système dont la complexité va croissant et qu'il est nécessaire de le renforcer, indiquant toutefois que l'aide aux États Membres ne devait pas empiéter sur le mandat des projets régionaux de la FAO. Il a été convenu qu'une proposition visant cette question serait rédigée par le Secrétariat et communiquée pour examen à la CGPM.

92. Concernant la proposition de fixer un cadre pour la communication de données biologiques, en complément à la Tâche 1.5 en cours, le CSC est convenu de suivre une démarche par étapes, comme l'avaient suggéré les participants à la Réunion de coordination des Sous-Comité s. Il s'agirait pour le SCES de définir avec précision ses besoins en matière de données à des fins d'évaluation et, dans un second temps, de mettre au point un format pour les données collectées qui soit compatible avec le cadre de la Tâche 1. Le CSC a mis l'accent sur le fait que tant les données biologiques décrivant les prises par unités opérationnelles que les paramètres sur les dynamiques des populations étaient essentiels pour procéder à l'évaluation des stocks.

93. Le CSC a examiné les options proposées par le SCSI en matière d'accès aux données et de confidentialité pour les jeux de données de la Tâche 1. Le Comité est convenu que le bulletin statistique et les statistiques de base devraient être mis à la disposition du public sans restrictions; toutefois, les avis étaient plus réservés sur la question du droit d'accès aux jeux de données de la Tâche 1. Certaines délégations ont proposé que toutes les données soient accessibles sans restriction aucune. D'autres ont proposé que les jeux de données soient accessibles à la demande et/ou uniquement à des groupes d'experts bien précis. Il a été convenu que cette question devait être communiquée au Comité d'application (CoC), en même temps que les propositions du SCSI, pour être réexaminée.

94. Le CSC a noté que le SCSI n'était pas parvenu à une décision concernant le seuil des registres de déclarations des captures, comme l'avait demandé la CGPM. Certaines délégations ont proposé l'adoption d'un système de registres sans aucun seuil, tandis que d'autres ont réitéré que, compte tenu des études présentées à la réunion du SCSI, le seuil devait être compris dans une fourchette de 10 à 15 kg. Étant donné qu'une année d'études complémentaires et de nouveaux débats du SCSI n'ajouteraient pas grand-chose aux connaissances actuelles, le CSC a proposé d'établir un seuil maximum de 15 kg pour le registre de la CGPM, tout en donnant aux États Membres la possibilité de définir un seuil inférieur compris entre 0 et 15 kg.

95. Le CSC a également approuvé les propositions du SCSI suivantes:

- Les données doivent continuer à être communiquées au moyen du formulaire STATLANT 37A tant que la Tâche 1 ne sera pas pleinement opérationnelle et ne sera pas en mesure de le remplacer.
- Un agent de liaison national chargé de la communication de données de la Tâche 1 doit être officiellement nommé par les membres de la CGPM.
- La liste de référence pour le groupe d'espèces ciblées utilisée actuellement pour définir les unités opérationnelles de la Tâche 1 doit être modifiée, en tenant compte des divisions et des groupes d'espèces CSITAPA dans le protocole d'échange de données (outil opérationnel de la Tâche 1, schémas CSV et XML).

96. Les propositions présentées lors de l'atelier sur la capacité de pêche en faveur d'un plan d'action régional pour la gestion des capacités de pêche ont été approuvées par le CSC. D'après l'avant-projet de plan d'action régional rédigé lors de cet atelier, la CGPM pourrait envisager les options suivantes:

- Inviter la Commission à examiner la possibilité d'introduire des éléments du projet de plan d'action régional de gestion de la capacité de la CGPM dans la Recommandation CGPM/34/2010/2 tout en poursuivant l'élaboration du Plan d'action régional.

- Engager un consultant pour rédiger un plan d'action régional de gestion de la capacité de la CGPM à partir du projet de plan et d'autres suggestions émises par les organes subsidiaires de la CGPM.
- Organiser un atelier pour parachever la rédaction du Plan d'action régional de gestion de la capacité de la CGPM à partir du projet de plan établi et d'autres suggestions émises par les organes subsidiaires de la CGPM.

ou

- Plusieurs des options susmentionnées.

97. Le coordinateur SCSI a proposé que le système de grille de référence statistique établi par le SCSI lors de sa 9e session devrait accompagner la grille statistique déjà adoptée par la CGPM. Le CSC est convenu de cette proposition et a approuvé le schéma de référence du réseau tel qu'il est produit à l'annexe E.

Conclusions et recommandations du Sous-Comité des sciences économiques et sociales (SCSES)

98. Le Coordinateur du Sous-Comité, M. Vahdet Ünal, a présenté les conclusions et les recommandations du SCSI en s'appuyant sur les documents GFCM:SAC13/2011/3 et GFCM:SAC13/2011/Inf.7, ainsi que les résultats de l'atelier sur le suivi des pêches de loisir dans la zone de la CGPM figurant dans le document GFCM:SAC13/2011/Inf.18.

99. Le CSC a noté la très faible participation aux activités du SCSES, ce qui a entravé l'efficacité des travaux du Sous-Comité. Le Coordinateur du SCSES a souligné qu'il était urgent de renforcer les compétences dans la région par des formations structurées et des programmes d'étude sanctionnés par des diplômes de spécialisation en économie des pêches. Il a également été suggéré d'envisager de faire intervenir des experts de diverses institutions de recherche (facultés, universités, etc.).

100. L'observateur du PNUE/PAM–Plan Bleu a souligné combien il était important d'examiner les questions socioéconomiques dans le cadre du processus de gestion des pêches et a informé le Comité que Plan Bleu était en train de mener une étude sur la surcapacité prenant en compte les aspects environnementaux et économiques et que les acteurs de Plan Bleu seraient heureux de collaborer avec la CGPM en la matière.

101. À ce sujet, le délégué de l'UE a par ailleurs mis en avant qu'il était important de formuler des avis intégrés incluant des mesures de contrôle de l'exploitation et des aspects économiques afin de contribuer à une meilleure exploitation durable des flottilles de pêche. Le délégué a insisté sur le fait

que, pour une meilleure efficacité des travaux du SCSES, la CGPM devait adopter des points de référence et une stratégie de gestion des pêches plus clairement définie, ce qui permettrait aux économistes de diriger les analyses bioéconomiques en fonction des objectifs de gestion définis.

102. Concernant les conclusions du SCSES au sujet des pêches de loisir, l'observateur de la Confédération internationale de pêche sportive (CIPS) a noté que la pêche sportive et de loisir ne représentait que 1 à 2 pour cent des ressources halieutiques exploitées et que son impact était donc limité. Il a également noté que certaines modifications avaient été apportées aux résultats obtenus au cours de l'atelier sur la pêche de loisir organisé à Palma de Majorque et il a émis des réserves quant aux conclusions relatives aux régimes de licences.

103. Certaines délégations ont suggéré que les définitions ne donnent qu'une description générale des activités et que la réglementation des activités de pêche sportives et récréatives fasse l'objet de dispositions légales précises dans les législations nationales. Certains participants ont par ailleurs prôné la prudence quant à l'adoption de l'expression « Pesca Turismo » (« pêche-tourisme »), qui ouvrait la porte à plusieurs autres types de pêches sportives et de loisir pratiquées dans différents pays, qui devraient faire l'objet d'une entrée dans le glossaire du CSC.

104. Le délégué de la Syrie a fait savoir au CSC que la pêche de loisir était strictement réglementée dans son pays de façon à préserver les moyens de subsistance des pêcheurs, qui sont tributaires de ressources halieutiques modestes dans les eaux syriennes.

105. Le délégué de l'Égypte a appelé l'attention du Comité sur le fait que la définition de la pêche sportive donnée par la Commission internationale pour la conservation des thonidés de l'Atlantique (CICTA) était très différente de celle proposée par le SCSES, la première étant liée à des activités de pêche commerciale, en vertu de quoi la Libye a proposé que toutes les définitions adoptées par le CSC et ajoutées à son glossaire soient employées strictement dans le contexte de la CGPM.

106. En conclusion, le CSC est convenu que les définitions proposées par le SCSES devaient être adoptées et qu'elles pourraient toutefois être éventuellement modifiées, s'il y avait lieu, au cours de l'intervalle courant jusqu'à la session suivante, suivant les suggestions que les Sous-Comité s pourraient souhaiter formuler.

107. Le CSC a également approuvé les propositions du SCSES concernant l'établissement d'un protocole de cadre de surveillance uniforme pour la pêche de loisir, la création d'un dispositif de collecte de données pour les indicateurs des pêches de loisir et la conduite d'une étude régionale sur l'éventuelle mise en place de systèmes de licences pour ce secteur. En outre, le CSC est convenu que

soit mis au point un code de conduite pour une pêche de loisir responsable, mais il a insisté sur le fait que celui-ci devait s'appuyer sur le Code de conduite de la FAO pour une pêche responsable ainsi que sur d'autres codes spécifiques élaborés par d'autres organismes, comme la Commission européenne consultative pour les pêches dans les eaux intérieures (CECPI). Le CSC a par ailleurs encouragé la poursuite des études liées à l'impact socioéconomique de l'application du maillage carré de 40 mm et du maillage losange de 50 mm aux culs de chaluts.

108. Le Comité a été informé que le document sur l'étude menée par CopeMed I sur les indicateurs socioéconomiques était en cours d'examen par CopeMed II et serait publié en temps voulu.

109. Le CSC est convenu que le SCSES devait procéder à l'analyse des données socioéconomiques recueillies dans le cadre de la Tâche 1 et examiner attentivement la question des impacts des écolabels.

110. Enfin, le Comité a approuvé les modifications apportées aux définitions des paramètres de la Tâche 1.3 et souscrit à la proposition du SCSES visant à établir les définitions d'autres paramètres socioéconomiques si nécessaire.

Évaluation des performances de la CGPM

111. M. Philippe Ferlin, représentant du panel d'experts en charge de l'évaluation des performances, a présenté le document GFCM:SAC13/2011/Inf.24 en relation avec l'évaluation des performances de la CGPM, réalisée au cours de l'année écoulée. Il a insisté, en particulier, sur le cadre de conservation et de gestion et sur le fonctionnement du SAC. Il a déclaré que, si la CGPM a produit des résultats significatifs ces dernières années, les conclusions et recommandations contenues dans le document d'examen du rendement devraient aider les Parties contractantes de la CGPM à renforcer cette Commission dans son fonctionnement, en tant qu'organisation régionale de la gestion des pêches, et la rendre plus efficace.

112. Le délégué de l'Union européenne a déclaré que l'évaluation avait permis de mettre en évidence de nombreux éléments et messages qu'il convenait que le CSC examine pour améliorer sa stratégie de travail. Il s'est rangé, en particulier, à la recommandation suggérant de se concentrer sur les stocks partagés pour remplir les obligations inscrites dans l'Accord des Nations Unies sur les stocks de poissons chevauchants. Il a cependant fait remarquer que, bien que les frontières des zones sous-géographiques et la répartition des stocks unitaires de poissons ne coïncident pas, les zones sous-géographiques ne devaient pas être considérées comme des zones de gestion et que la grille statistique adoptée par la CGPM s'avérerait utile pour délimiter les stocks. En outre, il a fait sienne la conclusion

selon laquelle un mécanisme de sanction devait être mis en place pour améliorer l'adhésion et l'application.

113. La délégation française a souligné que les objectifs et la portée des Sous-Comité s sur les sciences économiques et sociales (SCSES) et sur l'environnement marin et les écosystèmes (SCMEE) doivent être plus développés dans le rapport d'évaluation des performances.

114. La CSC a reconnu les messages forts de l'évaluation des performances en ce qui concerne les modifications de l'accord de la CGPM, visant à examiner l'approche du principe de précaution dans le travail de la CGPM.

115. Les observateurs de l'Accord sur la conservation des cétacés de la mer Noire, de la Méditerranée et de la zone Atlantique adjacente (ACCOBAMS) et du Centre d'activité régional pour les aires spécialement protégées (CAR/ASP) ont pris note du fait que la coopération avec des organisations d'autres secteurs que la pêche n'avait pas été traitée dans le cadre de l'évaluation des performances. M. Ferlin a expliqué que les consultants avaient choisi de ne pas aborder cet aspect compte tenu du temps limité dont ils disposaient pour réaliser une évaluation correcte.

116. L'observateur de l'UICN a souligné l'importance d'un renforcement de la coopération avec des organisations non gouvernementales et intergouvernementales.

117. Le CSC a pris note de la recommandation présente dans l'évaluation des performances de la CGPM selon laquelle il convient de reconsidérer la pratique actuelle qui consiste à adopter automatiquement les recommandations de la CICTA sans que le CSC ait préalablement examiné les éléments scientifiques qui les étayent. Par ailleurs, il a demandé qu'une évaluation de l'appui des projets régionaux de la FAO aux activités du SAC vienne compléter le rapport.

118. Les coordinateurs des projets de la FAO ont reconnu l'importance de l'évaluation des performances de la CGPM, mais ils ont remarqué qu'il y avait un malentendu sur l'objet et le rôle des projets régionaux de la FAO relativement aux activités de la CGPM.

119. Le Secrétaire exécutif en exercice a invité les délégations à faire part au Secrétariat, dans les deux semaines, de toute autre observation sur l'évaluation des performances intéressant le CSC.

Lois et réglementations relatives à la pêche en Méditerranée et dans la mer Noire (projet LaMed):

120. Mme Camille Samier, consultante auprès du Secrétariat de la CGPM, a présenté le projet « LaMed » sur les « lois et réglementations relatives à la pêche en Méditerranée et dans la mer Noire » ainsi qu'un projet de questionnaire conçu pour actualiser et compléter l'étude comparative menée par Philippe Cacaud en 2005. Elle a expliqué que ce questionnaire était axé sur six grandes questions: i) le cadre juridique, ii) les régimes d'accès aux ressources halieutiques, iii) les mesures de préservation et de gestion, iv) le suivi, le contrôle et la surveillance, v) les pratiques post-débarquement et post-capture et les échanges commerciaux et vi) le respect des mesures et la conformité. Mme Samier a ajouté qu'une dernière section sur la définition des questions prioritaires pour les membres de la CGPM aux niveaux international, national et/ou régional sera élaborée ultérieurement. Elle a indiqué au Comité que des consultants seraient engagés pour achever le questionnaire et que les réponses obtenues serviraient de point de départ à des échanges dans le cadre d'un atelier d'experts - organisé en juin 2011- sur la définition d'une approche harmonisée des dispositions légales sur les pêches susceptibles de servir de base solide à une coopération renforcée dans la région intéressant la CGPM.

121. Certaines délégations étant d'avis qu'un examen approprié du questionnaire demandait plus de temps, le Secrétariat a invité les délégations à faire part de leurs observations dans les trois semaines suivant la fin de la session.

122. Le Comité s'est félicité de la présentation faite et il a remercié le Secrétariat pour le travail accompli. Le Comité a également remercié le pays donateur, l'Italie, d'avoir appuyé ce projet.

Le e-Glossary du CSC

123. M. Federico De Rossi, consultant auprès du Secrétariat de la CGPM, a présenté l'application web de l'e-Glossary du CSC, sur la base du document GFCM:SAC13/2011/Dma.6. Après une courte introduction, M. De Rossi a montré le processus de construction et de développement de la base de données. L'attention des participants a été attirée sur certaines caractéristiques de l'e-Glossary telles que les outils de recherche (par thème ou champ thématique), la possibilité d'exporter les données en plusieurs formats, ainsi que la mise à jour en temps réel des définitions les plus récentes. L'importance de promouvoir l'utilisation de cette application web pendant les réunions de la Commission a été mise en valeur, tout en soulignant la nécessité d'une mise à jour annuelle des contenus.

124. Le Comité a reconnu les efforts du Secrétariat dans la préparation de l'e-Glossary en tant qu'outil essentiel pour la CGPM et ses partenaires. De plus, plusieurs participants ont, à cette

occasion, exprimé leur appréciation du rôle et de la gestion du site de la CGPM, en tant que source d'information indispensable sur les activités de la Commission.

125. Certaines délégations ont formulé des commentaires visant à l'amélioration de l'e-Glossary, par exemple la citation des sources d'information, les références croisées, la fonction plurilingue ainsi que la possibilité de garder la trace des modifications apportées. A ce propos, le Secrétariat a informé les délégués que tout commentaire est le bienvenu et qu'un certain nombre d'améliorations sont déjà en train d'être mises en œuvre. Suite à une question posée à propos de la mise à jour des contenus de l'e-Glossary, le Secrétariat a rappelé que toute proposition de modification devrait être soumise, à travers les Sous-Comités, à l'attention du CSC pour considération et pour éventuelle approbation.

Base de données CGPM sur les paramètres biologiques

126. Mme Pilar Hernández, du Secrétariat de la CGPM, a fait le point sur l'avancée de l'élaboration d'une base de données sur les paramètres biologiques et les caractéristiques des populations en vue des évaluations des stocks. Elle a précisé que la base de données avait pour origine une demande formulée par le CSC, en 2010, dont elle a esquissé le contexte. Elle a rappelé qu'un questionnaire avait été diffusé en novembre 2010 afin de recueillir des informations non publiées, et d'actualiser les données disponibles.

127. Diverses délégations ont formulé des suggestions visant à améliorer la base de données, par exemple en y incluant des graphiques illustrant les ogives de maturité, les tailles/longueurs minimales à maturité, les tailles/longueurs des espèces hermaphrodites au changement de sexe, et les vecteurs âge-longueur. Il a également été suggéré d'indiquer les références bibliographiques et les liens permettant d'accéder à tout document publié disponible en ligne. Le Secrétariat a remercié les délégations de leurs idées, et les a informées que les améliorations suggérées par le SCES à sa douzième session avaient déjà été prises en compte.

128. Les délégations ont été invitées à apporter leur collaboration, notamment en diffusant aux membres de la communauté scientifique de la Méditerranée et de la mer Noire le questionnaire modifié que leur avait adressé le Secrétariat.

Activités de la CGPM concernant la mer Noire

129. Mme Hernández a présenté les mesures engagées par la CGPM dans la mer Noire au cours des dernières années. Elle a brièvement rappelé les caractéristiques des pêcheries de cette région, et a fait le point sur leur situation. Relatant l'évolution des efforts des projets régionaux de la FAO en vue du lancement d'un projet pour la mer Noire, elle a souligné que les organisations compétentes devaient établir une coopération sans tarder afin d'entreprendre des recherches en collaboration. L'attention du CSC a été attirée sur le fait que des activités et mesures spécifiques devaient être prises d'urgence, et qu'elles pourraient être inclues dans son plan de travail à court terme en vue d'améliorer les connaissances sur les pêcheries de cette région, et d'en consolider la gestion.

130. Durant le débat qui s'est engagé suite à cet exposé, le délégué roumain, M. S. Nicolaev, s'est félicité du rapport, et a noté que trois conventions ayant une incidence directe ou indirecte sur la pêche s'appliquent à cette région. D'un point de vue institutionnel, la situation se présente comme suit: tous les pays sont des parties contractantes de la Convention sur la protection de la mer Noire contre la pollution (Convention de Bucarest), quatre d'entre eux sont parties à ACCOBAMS, et trois sont des parties contractantes de la CGPM. La Roumanie et la Bulgarie sont en outre membres de l'UE.

131. Il a fait valoir que cette situation particulière imposait d'harmoniser les réglementations et stratégies existantes. M. Nicolaev a indiqué que la Commission pour la protection de la mer Noire contre la pollution (BSC) et son Groupe consultatif avaient plusieurs résultats à leur actif dans ce domaine, et a notamment évoqué les suivants:

- un chapitre du rapport 2008 sur l'État de l'environnement de la mer Noire a été spécialement consacré aux ressources marines vivantes;
- le Plan d'action stratégique pour la mer Noire, adopté en 2009, formule des objectifs spécifiques pour la pêche et la conservation des ressources marines vivantes;
- l'Annexe IV du Protocole sur la conservation de la diversité biologique, adopté en 2002, comporte une liste des espèces dont l'exploitation doit être réglementée;
- un processus a été engagé, dans le cadre de projets spéciaux, en vue de l'élaboration et de l'application des méthodologies régionales convenues pour l'évaluation des stocks d'espèces pélagiques et démersales;
- le compendium des espèces de poissons de la mer Noire, dressé en 2010, précise la situation de chaque espèce au regard des critères de l'UICN;
- le Comité scientifique, technique et économique de la pêche de l'UE (CSTEP-UE) a constitué, en 2007, un sous-groupe pour la mer Noire.

132. Le délégué de la Roumanie a également informé le Comité que le groupe consultatif sur les aspects environnementaux de la gestion des pêches et des autres ressources marines vivantes de la BSC a constitué une base de données sur les pêcheries de la mer Noire.

133. Il a ajouté que la difficulté principale tenait au fait que certains pays, à savoir la Bulgarie et la Roumanie, étaient actuellement tenus de faire rapport à trois institutions: la BSC, le CSTEP-UE et la CGPM. Il était important d'en tenir compte afin d'éviter les chevauchements et les dédoublements d'activités.

134. De plus, il a expliqué qu'une des autres particularités de la zone géographique de la mer Noire est que la majorité des stocks est partagée ou migratoire. Cela nécessite d'inclure tous les pays limitrophes dans l'évaluation des stocks et dans la mise en place des activités de conservation, même si seuls trois des pays sont des parties contractantes de la GFCM.

135. Le délégué roumain s'est dit satisfait de l'initiative de la FAO concernant le projet sur les pêcheries de la mer Noire, et a recommandé que les priorités définies au Plan d'action stratégique pour la mer Noire soient prises en considération en vue de la formulation des objectifs du projet.

136. L'intervention du délégué roumain a été pleinement appuyée par son homologue bulgare. Ce dernier a évoqué les activités engagées dans son pays au titre du Cadre européen de collecte de données sur la pêche, les enquêtes et analyses scientifiques en cours, les activités du groupe de travail sur la mer Noire du CSTEP-UE, ainsi que la définition et l'application des volumes admissibles des captures et des quotas de pêche dans les eaux européennes pour deux espèces, le sprat et le turbot, depuis 2007. Il a en outre informé le CSC que le CSTEP-UE a demandé au groupe de travail précité d'engager les préparatifs pour l'évaluation de cinq autres espèces en 2011, y compris *Rapana venosa*, une espèce envahissante de crustacés. Il a proposé de fournir au Secrétariat le texte intégral des documents relatifs aux pêcheries de la mer Noire afin qu'il dispose d'informations complètes sur la situation de cette région.

137. Selon le délégué turc, on voit se dessiner un besoin d'harmonisation de la structure réglementaire de gestion dans la région de la mer Noire. En dépit des régimes et initiatives mis en place par plusieurs organisations internationales et régionales, la gestion et la conservation des espèces marines vivantes exigent des mesures plus concrètes. À cet égard, le délégué turc s'est déclaré prêt à participer aux activités et initiatives conjointes de toutes natures qui viseraient à renforcer la coopération et la collaboration techniques et scientifiques dans la région. Il a en outre signalé qu'une collaboration prometteuse s'était engagée dans le domaine de la pêche, au cours des dernières années,

entre un institut de recherche halieutique turc (l'Institut central de recherche sur la pêche de Trabzon) et des établissements de recherche analogues des pays voisins de la mer Noire.

138. Le délégué turc a souligné qu'en dépit de plusieurs programmes nationaux sur l'évaluation des stocks, notamment de petits pélagiques, la Turquie ne disposait toujours pas d'études systématiques de l'état des stocks sur l'ensemble de son territoire. Il s'est déclaré satisfait des travaux sur la gestion et la conservation des pêcheries de sprat et de turbot menés par l'UE dans la région, en soulignant que la Turquie était prête à y contribuer. Il a précisé que sa délégation était satisfaite de l'intérêt croissant que la CGPM portait à la mer Noire, et a présenté au Comité les avancées de la phase préparatoire du projet sur la mer Noire (BlackSeaFish).

139. Le délégué de l'UE s'est dit satisfait de l'attention accrue que la CGPM portait à la mer Noire. Il a souligné que la pérennité des pêcheries imposait de fonder leur gestion sur des bases scientifiques, et que cette gestion devait être conjointement assumée par toutes les parties concernées par l'exploitation des stocks partagés. À ce titre, l'UE était prête à apporter son appui et sa participation aux initiatives susceptibles de promouvoir la coopération scientifique, et d'établir une gouvernance optimale des pêcheries, dans l'intérêt des pays côtiers de la mer Noire, conformément aux prescriptions juridiques de la compétence européenne exclusive en matière de politique halieutique.

140. Sans préjuger de l'évolution future de la gouvernance des pêcheries de la mer Noire, le délégué européen a exprimé l'avis qu'à court terme, l'établissement d'un groupe de travail *ad hoc* sur la mer Noire pourrait faciliter l'action du CSC en lui fournissant des avis scientifiques, et favoriser de surcroît la participation de chercheurs de pays actuellement non membres de la CGPM.

141. Le délégué de l'UE a encore informé le Comité que l'UE définit chaque année le volume admissible des captures, ainsi que diverses mesures techniques applicables à certains stocks présents dans les eaux européennes de la région, et que ces volumes avaient été fixés jusqu'ici d'après des avis scientifiques formulés par un groupe de travail international composé de chercheurs de pays non européens, qui se réunit dans le cadre du Comité scientifique, technique et économique de la pêche (CSTEP-UE). Il a indiqué que l'expertise acquise par le CSTEP-UE pourrait s'avérer utile pour le groupe de travail sur la mer Noire dont la création est proposée dans le cadre de la CGPM. Il était évident, selon lui, que les avis scientifiques destinés à la définition des volumes admissibles des captures en mer Noire devraient être formulés suffisamment tôt pour conduire à une décision en la matière, et en assurer l'application au niveau national avant la fin de chaque année. Il a fait savoir que le groupe de travail pour la mer Noire du CSTEP-UE se réunira cette année du 10 au 14 octobre, et que tous les chercheurs des pays de la mer Noire y seront invités, comme les années passées.

142. Le délégué russe a remercié le Secrétariat de la CGPM d'avoir invité les spécialistes de l'Institut fédéral russe de recherche halieutique et d'océanographie (VNIRO) à assister à la réunion en qualité d'observateurs. Il a souligné l'excellente organisation de cette réunion ainsi que le professionnalisme de la CGPM. Il s'est aussi déclaré très satisfait de l'examen exhaustif et global des questions intéressant la Méditerranée. Il a encouragé la CGPM à poursuivre les efforts engagés pour améliorer l'étude des problématiques rencontrées en mer Noire, et parvenir au même degré d'intégration que celui obtenu dans le cas de la Méditerranée. Il a fermement appuyé la proposition du délégué européen en vue de la constitution d'un groupe de travail spécial sur la mer Noire, et a indiqué que les chercheurs du VNIRO seraient très intéressés d'y prendre part. Pour favoriser le bon aboutissement de la décision officielle du gouvernement de la Fédération de Russie concernant l'adhésion de ce pays à la CGPM, il a suggéré que les discussions sur cette question soient engagées dans le cadre de la FAO, avec le représentant permanent de la Fédération de Russie.

143. La secrétaire exécutive d'ACCOBAMS a félicité le Secrétariat de la CGPM de son initiative visant à promouvoir les activités en mer Noire, et a invité toutes les organisations intervenant dans cette région à coordonner leurs efforts. Elle s'est dite prête à participer aux réunions du groupe de travail *ad hoc* sur la mer Noire, dont la création a été proposée. Elle a indiqué au Comité que les quatre pays de la mer Noire membres d'ACCOBAMS ont adopté un plan de conservation des cétacés comprenant des mesures liées à la pêche. Elle a également informé les délégations de plusieurs projets en cours, dont la situation est exposée dans les rapports nationaux des pays parties à l'Accord. Enfin, elle a annoncé la tenue prochaine de la quatrième Conférence sur la mer Noire, à Odessa (Ukraine), et a invité la CGPM à organiser une table ronde pour discuter des questions d'intérêt commun.

144. Les représentants de la FAO ont remercié le Secrétariat de la CGPM d'avoir organisé ce débat sur la situation actuelle en mer Noire. Ils ont précisé que le projet sur la mer Noire est en cours de finalisation, sous la direction technique du Bureau régional de la FAO pour l'Europe, situé à Budapest, conformément à la stratégie de décentralisation des compétences, adoptée par la FAO. D'après les informations disponibles, tous les pays riverains de la mer Noire ont exprimé un intérêt pour ce projet et le désir d'y participer, et certains d'entre eux en ont déjà informé la FAO de manière officielle. Seuls quelques problèmes administratifs mineurs s'opposaient encore au démarrage du projet, mais ils devraient être réglés très prochainement. Les représentants des projets conduits par la FAO en Méditerranée ont saisi cette occasion pour indiquer qu'ils étaient prêts à appuyer cette initiative, en mettant leur expérience à la disposition des pays de la mer Noire et de la CGPM en vue du lancement d'initiatives analogues. Enfin, le personnel de la FAO s'est engagé à informer le Département des pêches de l'Organisation de l'intérêt exprimé par la Fédération de Russie pour son adhésion à la CGPM.

145. Le CSC a remercié le Secrétariat de cet exposé général, et s'est joint aux délégations pour le féliciter d'envisager un élargissement de sa collaboration avec les pays de la mer Noire. Il a décidé de constituer un groupe de travail *ad hoc* sur la mer Noire, auquel tous les chercheurs de la région et organisations partenaires sont invités à participer. Il a également décidé que la première réunion de ce groupe de travail se tiendrait en Roumanie, au début de 2012, et a invité le Secrétariat à dresser un projet de mandat pour ce groupe de travail, et à le présenter à la Commission pour examen à sa trente-cinquième session, qui se tiendra à Rome, en mai 2011.

EXAMEN DU PLAN DE TRAVAIL PRÉLIMINAIRE DU CSC POUR 2011

146. Ce point de l'ordre du jour fait suite aux suggestions formulées par les Sous-Comités dans le document CGPM:SAC13/2011/4, ainsi qu'aux rapports des Sous-Comités (documents CGPM:SAC13/2011/Inf.5, Inf.6, Inf.7 et Inf.8) et de la réunion de coordination des Sous-Comités (document CGPM:SAC13/2011/Inf. 9).

147. Évoquant l'atelier sur le système de surveillance des navires (SSN) dont la Commission a décidé de retarder la tenue à sa trente-quatrième session, le délégué de l'UE a rappelé que cet atelier avait initialement pour objet de donner suite à la demande formulée par certains pays désireux d'obtenir une assistance technique, afin d'assurer la surveillance des navires par SSN. Il a ajouté que cet atelier permettrait également d'envisager l'exploitation des données des SSN à des fins scientifiques.

148. Le délégué tunisien s'est déclaré en faveur de l'organisation de cet atelier en 2011, dans la mesure où il permettrait d'élaborer des normes régionales en matière de SSN, conformément à la recommandation de la CGPM sur cette question.

149. Le Comité a donc décidé d'organiser cet atelier durant la prochaine période intersessions, sur la base du mandat déjà présenté à la Commission, auquel toute modification pertinente pourra être apportée.

150. Le Comité a également décidé d'organiser la première réunion du groupe de travail pluridisciplinaire *ad hoc* sur la pêche en mer Noire au début de 2012.

151. Le CSC a pris bonne note de l'offre d'ACCOBAMS en vue de l'organisation conjointe de la réunion du groupe de travail sur les prises accessoires.

152. L'observateur de l'UICN a annoncé une réunion sur les canyons sous-marins qui se tiendra à Monaco, en 2011, en collaboration avec le Centre d'activités régionales pour les aires spécialement protégées (CAR/ASP). Il a invité le Secrétariat à envisager de s'y faire représenter par un spécialiste de ces questions.

153. L'observateur du MedPAN (Réseau des gestionnaires d'aires marines protégées en Méditerranée) a informé le Comité de l'étroite collaboration que ce réseau a établie avec le CAR/ASP, et de sa participation à la mise à jour d'une base de données sur les aires marines protégées de Méditerranée. Il s'est déclaré très satisfait de la collaboration engagée avec la CGPM dans le cadre de cette initiative.

154. Au vu de ce qui précède, le CSC a arrêté son programme de travail pour 2011, comme suit:

Sous-Comité sur l'évaluation des stocks (SCES)

- Évaluer certains stocks d'élasmobranches en Méditerranée et en mer Noire;
- Organiser un atelier conjoint avec le Sous-Comité sur le milieu et les écosystèmes marins (SCMEE) et le Sous-Comité sur les sciences économiques et sociales (SCESS), sur le thème de la gestion spatiale de la pêche. Un mandat provisoire figure à l'Annexe I ;
- Préparer une proposition visant à transformer la Tâche 1.5, relative aux données sur les caractéristiques biologiques des captures, en la rattachant éventuellement aux formulaires d'évaluation des stocks et à la base de données sur les paramètres biologiques. Dans un second temps, un atelier conjoint avec le Sous-Comité des statistiques et de l'information (SCSI) pourra être envisagé, si nécessaire ;
- Organiser la même semaine les réunions des groupes de travail sur l'évaluation des stocks d'espèces démersales et de petits pélagiques ;
- Poursuivre l'élaboration de la base de données régionale de la CGPM sur les paramètres biologiques afin de faciliter les accords sur les valeurs à utiliser pour chaque évaluation de stocks dans l'est, le centre et l'ouest de la Méditerranée ;
- Améliorer les formulaires d'évaluation des stocks pour encourager l'inclusion de données brutes et les liens avec l'éventuel cadre de compilation et de transmission des données de la nouvelle Tâche 2 envisagée ;
- Déterminer des points de référence afin d'évaluer la situation des stocks et des pêches, notamment les effets des zones de pêche réglementée sur les stocks exploités;
- Rassembler et analyser les principales informations utiles pour les plans de gestion de l'anguille européenne, et constituer un réseau d'experts des pêcheries d'anguilles dans les pays européens, en collaboration avec le groupe de travail sur la gestion des anguilles de la CECPI/CIEM ;

- Évaluer certaines espèces d'élasmobranches en Méditerranée et en mer Noire.

Sous-Comité des statistiques et de l'information (SCSI)

- Mettre à jour les logiciels de saisie des données ainsi que les protocoles d'échange et de transmission des données de la Tâche 1 (XML et CSV) ;
- Actualiser et publier le bulletin statistique (années de référence 2008 et 2009) ;
- Poursuivre l'élaboration du système régional d'information de la Tâche 1. Les membres doivent soumettre les séries de données complètes de la Tâche 1 pour 2008, d'ici à janvier 2011, et pour 2009, d'ici à mai 2011 ;
- Finaliser l'élaboration du système d'information du fichier régional des navires de pêche, et gérer les données transmises en conséquence ;
- Élaborer un modèle tenant compte des informations demandées dans les recommandations de la CGPM concernant les listes de navires, afin de mettre au point un cadre unique de transmission des données sur les navires.

Sous-Comité de l'environnement et des écosystèmes marins (SCMEE)

- Poursuivre la mise en œuvre du programme à moyen terme sur les élasmobranches, en tenant compte des suggestions de la première réunion d'experts ;
- Mettre au point et diffuser des documents éducatifs (affiches, dépliants, brochures, etc.) pour informer la population des pays de la Méditerranée et de la mer Noire sur les espèces nuisibles et les méduses ;
- Élaborer une nouvelle version du protocole de sélectivité de TECHNOMED, pour en faire un document standard qui pourra être mis à disposition en vue de toute étude de cas sur la Méditerranée, notamment la collecte d'informations socioéconomiques. La méthodologie d'analyse statistique doit être améliorée et complétée ;
- Évaluer conjointement avec le SCES certains stocks d'élasmobranches en Méditerranée et en mer Noire ;
- Organiser une session de formation sur la détermination de l'âge chez certains élasmobranches de la Méditerranée et de la mer Noire, dans le cadre du groupe de travail permanent sur les méthodologies d'évaluation des stocks ;
- Organiser un second atelier sur le corail rouge, conformément au mandat figurant à l'Annexe E ;
- Organiser un atelier transversal sur les récifs artificiels en Méditerranée et dans la mer Noire en 2011, éventuellement en parallèle de la prochaine réunion du SCMEE, conformément au mandat figurant à l'Annexe E ;
- Organiser une réunion du groupe de travail sur les captures accessoires, pour la période 2011-2012 ;

- Organiser conjointement avec l'UICN et l'Agence française des aires marines protégées, un atelier ou une conférence sur les canyons sous-marins de la Méditerranée, qui se tiendra à Monaco, au printemps 2011. ;
- Engager un programme régional de recherche à moyen terme sur le corail rouge, avec l'éventuel soutien d'un projet régional de la FAO ;
- Améliorer les connaissances topographiques sur les zones de monts sous-marins.

Sous-Comité des sciences économiques et sociales (SCSES)

- Examiner les lois et règlements relatifs à la pêche en vigueur dans les différents pays de la Méditerranée et de la mer Noire, et organiser une réunion d'experts dans le cadre du projet « LaMed » ;
- Élaborer un code de pratique ou des directives techniques sur la pêche de loisir dans la zone d'action de la CGPM ;
- Promouvoir des études régionales destinées à fournir une vue d'ensemble des activités de pêche de loisir (matériel, techniques, espèces cibles, etc.) ;
- Entreprendre des études sur l'impact socioéconomique de l'introduction du maillage carré de 40 millimètres ou du maillage en losange de 50 millimètres dans la pêche chalutière ;
- Intégrer à la page Internet de la CGPM consacrée à TECHNOMED toutes les informations ayant trait aux impacts économiques des études de sélectivité ;
- Organiser un atelier spécifique, parallèlement à la prochaine réunion du SCSES, sur le traitement et l'analyse des données de la Tâche 1.3 ;
- Mettre au point un protocole-cadre de surveillance pour les pêches de loisir ;
- Analyser les données socioéconomiques recueillies au moyen du cadre de la Tâche 1 ;
- Étudier les impacts socioéconomiques des écolabels.

Réunions

Le CSC a fixé comme suit la liste des réunions à venir.

Réunion	**Lieu/Date**
Quatorzième session du **CSC** (5 jours)	Varna (Bulgarie), février 2012
Session du **SCES** (4 jours)	Rome (siège FAO), nov.- déc. 2011
Groupe de travail sur l'évaluation des stocks d'espèces démersales (6 jours)	Grèce, date à déterminer
Groupe de travail sur l'évaluation des stocks de petits pélagiques (6 jours)	Grèce, date à déterminer
Atelier transversal (SCES/SCMEE/SCSES) sur la gestion spatiale de la pêche (3 jours)	Date et lieu à déterminer
Évaluation des stocks de certaines espèces d'élasmobranches (5 jours)	Bruxelles (Belgique), date à déterminer
Session du **SCSES** (4 jours)	Rome (siège FAO), nov.- déc. 2011
Atelier sur le traitement et l'analyse des données de la Tâche 1.3 (en parallèle avec la session du SCSES)	Rome (siège FAO), nov.- déc. 2011
Réunion d'experts sur la législation des pêches, dans le cadre du projet « LaMed »	Beyrouth (Liban), septembre 2011
Session du **SCSI** (4 jours)	Rome (siège FAO), nov.- déc. 2011
Session du **SCMEE** (4 jours)	Rome (siège FAO), nov.- déc. 2011
Réunion du groupe de travail sur les captures accessoires (3 jours)	Turquie, date à déterminer
Cours de formation sur la détermination de l'âge et les paramètres de croissance des principales espèces d'élasmobranches (5 jours)	Turquie, date à déterminer
Atelier du SCMEE sur les récifs artificiels, éventuellement en parallèle de la session du SCMEE	Rome (siège FAO), nov.- déc. 2011
Douzième session de la réunion de coordination des Sous-Comités (1 jour)	Rome (siège FAO), nov.- déc. 2011
Atelier sur les systèmes de surveillance des navires (3 jours)	Date et lieu à déterminer
Première réunion du groupe de travail *ad hoc* sur la mer Noire (3 jours)	Roumanie, début 2012

Le CSC a pris note des offres formulées par diverses délégations désireuses d'accueillir certaines réunions, sous réserve de confirmation par leurs autorités compétentes respectives.

QUESTIONS DIVERSES

155. Le CSC s'est dit très satisfait de la présence et de la participation de plusieurs de ses partenaires. Il a notamment apprécié la participation active des observateurs de la Fédération de Russie, et a exprimé le souhait que cette étroite collaboration soit maintenue avec ce pays à l'avenir.

156. Le Comité a remercié de son hospitalité le Gouvernement français qui a accueilli la présente session. Il a particulièrement adressé des remerciements chaleureux à l'Ifremer pour son engagement et pour l'excellente collaboration qui a permis l'organisation et la réussite de la réunion. Les conditions de travail exceptionnelles, gracieusement fournies par la France, ont été hautement appréciées par l'ensemble des délégués.

DATE ET LIEU DE LA PROCHAINE SESSION

157. Le Comité a pris note de l'invitation du délégué bulgare, qui a proposé d'accueillir la quatorzième session du CSC, sous réserve de confirmation par les autorités compétentes de son pays. Le lieu exact de la réunion sera communiqué à une date ultérieure.

ADOPTION DU RAPPORT

158. Le rapport, y compris ses annexes, a été adopté le vendredi 11 février 2011.

APPENDIX A

Agenda

Opening and arrangements for the Session
Adoption of the agenda
Intersessional activities

- Review of the recommendations of the Thirty-fourth Session of GFCM concerning the management of fisheries

- Report by the Chairperson: overview of SAC achievements, including:
  - Transversal Workshop on Red Coral
  - Transversal Expert meeting on the status of elasmobranches in the Mediterranean and black sea
  - Transversal Workshop on European Eel
  - Transversal Workshop on Fishing Capacity in the GFCM area
  - Workshop on data collection and GFCM Task1
  - Workshop on algal and jelly fish blooms
  - Transversal Workshop on the monitoring of Recreational Fisheries in the GFCM Area
  - Transversal Workshop on Selectivity improvement, by-catch reduction and alternative gears
  - Sub-Committees meetings
- Meetings of the Coordinating Meeting of the Sub-Committees (CMSC)
- Major activities of the Regional Projects and initiatives

Salient research activities by Member Countries
Formulation of advice in the field of fishery management and research

- Conclusions and recommendations of the Sub-Committee on Marine Environment and Ecosystems (SCMEE)
- Conclusions and recommendations of the Sub-Committee on Stock Assessment (SCSA)
- Conclusions and recommendations of the Sub-Committee on Economic and Social Sciences (SCESS)
- Conclusions and recommendations of the Sub-Committee on Statistics and Information (SCSI)
- Conclusions of the meetings of the CMSC

Follow up on:

- Fisheries regulations in the Mediterranean and Black Sea (LaMed project).
- the SAC e-Glossary
- GFCM database on biological parameters
- GFCM Performance Review
- GFCM actions on the Black Sea

Review of SAC preliminary Workplan for 2011
Any other matters
Date and place of the next session
Adoption of the report

ANNEXE A

Ordre du jour

Ouverture et organisation de la session
Adoption de l'ordre du jour
Activités entre les sessions

- Examen des recommandations de la 34ème session de la Commission générale des pêches pour la Méditerranée (CGPM) concernant la gestion des pêches

- Rapport du président: présentation des résultats du Comité scientifique consultatif (CSC), notamment:
  - Atelier transversal sur le corail rouge
  - Réunion d'experts sur la situation concernant les élasmobranches en Méditerranée et dans la mer Noire
  - Atelier transversal sur l'anguille européenne
  - Atelier transversal sur la capacité de pêche dans la zone de compétence de la CGPM
  - Atelier sur la collecte de données et sur la Tâche 1 de la CGPM
  - Atelier sur les efflorescences algales et la prolifération de méduses
  - Atelier transversal sur le suivi des pêches récréatives dans la zone de compétence de la CGPM
  - Atelier transversal sur l'amélioration de la sélectivité, la réduction des prises accessoires et les engins de pêche alternatifs
  - Réunions des Sous-Comités

- Réunions de coordination des Sous-Comités (CMSC)

- Principales activités dans le cadre des projets et initiatives régionaux

Principales activités de recherche entreprises par les États membres
Formulation d'avis dans le domaine de la gestion et de la recherche halieutiques

- Conclusions et recommandations du Sous-Comité de l'environnement et des écosystèmes marins (SCMEE)
- Conclusions et recommandations du Sous-Comité de l'évaluation des stocks (SCSA)
- Conclusions et recommandations du Sous-Comité des sciences économiques et sociales (SCESS)
- Conclusions et recommandations du Sous-Comité des statistiques et de l'information (SCSI)
- Conclusions des réunions de coordination des Sous-Comité s (CMSC)

Suite à donner aux questions suivantes:

- régulations des pêches en Méditerranée et mer Noire (projet LaMed)
- e-Glossary du CSC
- base de données de la CGPM sur les paramètres biologiques
- évaluation des performances de la CGPM
- actions de la CGPM en Mer Noire

Examen du plan de travail préliminaire du CSC pour 2011
Questions diverses
Date et lieu de la prochaine session
Adoption du rapport

APPENDIX B / ANNEXE B

List of participants / Liste des participants

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APPENDIX C

List of documents

GFCM:SAC13/2011/1	Provisional Agenda and Timetable
GFCM:SAC13/2011/2	Review of the activities carried out by the Scientific Advisory Committee (SAC) during the intersessional period
GFCM:SAC13/2011/3	Conclusions and Recommendations of the four SAC Sub-Committees (Malta, 29 November-2 December 2010)
GFCM:SAC13/2011/4	SAC Preliminary Workplan for 2011
GFCM:SAC13/2011/Inf.1	List of documents
GFCM:SAC13/2011/Inf.2	List of participants
GFCM:SAC13/2011/Inf.3	Report of the Thirty-Fourth Session of the General Fisheries Commission for the Mediterranean (GFCM) (Greece, 12-17 April 2010)
GFCM:SAC13/2011/Inf.4	Report of the Twelfth Session of the Scientific Advisory Committee (SAC) (Montenegro, 25-29 January 2010) (bilingual)
GFCM:SAC13/2011/Inf.5	Report of the Eleventh Session of the Sub-Committee on Marine Environment and Ecosystems (SCMEE) (Malta, 29 November-2 December 2010) (Available only in English)
GFCM:SAC13/2011/Inf.6	Report of the Eleventh Session of the Sub-Committee on Statistics and Information (SCSI) (Malta, 29 November-2 December 2010) (Available only in English)
GFCM:SAC13/2011/Inf.7	Report of the Eleventh Session of the Sub-Committee on Economic and Social Sciences (SCESS) (Malta, 29 November-2 December 2010) (Available only in English)
GFCM:SAC13/2011/Inf.8	Report of the Twelfth Session of the Sub-Committee on Stock Assessment (SCSA) (Malta, 29 November-2 December 2010) (Available only in English)
GFCM:SAC13/2011/Inf.9	Report of the Ninth Coordinating Meeting of the Sub-Committees (CMSC) (FAO-HQs 9-10 June 2010) (Available only in English)
GFCM:SAC13/2011/Inf.10	Report of the Tenth Coordinating Meeting of the Sub-Committees (CMSC) (Malta, 3 December 2010) (Available only in English)
GFCM:SAC13/2011/Inf.11	Salient research activities in Member Countries
GFCM:SAC13/2011/Inf.12	Report of the SAC Transversal Workshop on Red Coral (Italy, 16-17 September 2010) (Available only in English)
GFCM:SAC13/2011/Inf.13	Report of the First Transversal Expert Meeting on the status of Elasmobranches in the Mediterranean and Black sea (Tunisia, 20-22 September 2010) (Available only in English)
GFCM:SAC13/2011/Inf.14	Report of the Transversal Workshop on European Eel (Tunisia, 23-24 September 2010) (Available only in French)
GFCM:SAC13/2011/Inf.15	Report of the Transversal Workshop on Fishing Capacity (FAO-HQs, 27-28 September 2010) (Available only in English)
GFCM:SAC13/2011/Inf.16	Report of the Workshop on data collection methods (applied to all segments of the Fleet and their coherence with the requirement of the GFCM Task1) (FAO-HQs 29 September-1 October 2010) (Available only in English)

GFCM:SAC13/2011/Inf.17	Report of the Workshop on Algal and Jelly fish bloom (Turkey, 6-8 October 2010) (Available only in English)
GFCM:SAC13/2011/Inf.18	Report of the Workshop on monitoring recreational fisheries in the GFCM Area (Spain, 20-22 October 2010) (Available only in English)
GFCM:SAC13/2011/Inf.19	Report of the SCSA Working Group on Stock Assessment of Demersal Species (Turkey, 18-23 October 2010) (Available only in English)
GFCM:SAC13/2011/Inf.20	Report of the Working Group on Selectivity Improvement and By-catch Reduction (Egypt, 25-27 October 2010) (Available only in English)
GFCM:SAC13/2011/Inf.21	Report of the SCSA Working Group on Stock Assessment of Small Pelagic Species (Italy, 1-6 November 2010) (Available only in English)
GFCM:SAC13/2011/Inf.22	Major activities of the FAO regional projects
GFCM:SAC13/2011/Inf.23	Draft Report of the GFCM Performance Review
GFCM:SAC13/2011/Inf.24	Status of GFCM actions on the Black Sea
GFCM:SAC13/2011/Inf.25	Draft Questionnaire on the current legislative status of marine capture fisheries management in the Mediterranean and Black Sea (LaMed Project)
GFCM:SAC13/2011/Inf.26	Document on updating the SAC reference frame and establishing a medium-term strategic plan for the future (by J.J. Maguire) (Available only in English)
GFCM:SAC13/2011/Dma.1	Draft GFCM publication on: Status on exploitation and management of European Eel in GFCM area - French only - (by H. Farrugio and P. Elie)
GFCM:SAC13/2011/Dma.2	Draft GFCM publication on: Status of Elasmobranches in the Mediterranean and the Black Sea (by Bradai and *al*)
GFCM:SAC13/2011/Dma.3	Draft GFCM publication on: Review of selectivity studies on square mesh codend and grids applied to Mediterranean bottom trawls (by J. Sacchi)
GFCM:SAC13/2011/Dma.4	Task 1 Statistical Bulletin (reference year 2008) (by the GFCM Secretariat)
GFCM:SAC13/2011/Dma.5	Introduction of the regional database on biological parameters
GFCM:SAC13/2011/Dma.6	Introduction of the electronic SAC glossary (e-glossary)

ANNEXE C

Liste des documents

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CGPM:CSC13/2011/3	Conclusions et recommandations des réunions des quatre Sous-Comités (Malte, 29 novembre-2 décembre 2010)
CGPM:CSC13/2011/4	Programme de travail préliminaire du CSC pour 2011
CGPM:CSC13/2011/Inf.1	Liste des documents
CGPM:CSC13/2011/Inf.2	Liste des participants
CGPM:CSC13/2011/Inf.3	Rapport de la trente-quatrième session de la Commission générale des pêches pour la Méditerranée (CGPM) (Grèce, 12-17 avril 2010)
CGPM:CSC13/2011/Inf.4	Rapport de la douzième session du Comité scientifique consultatif (CSC) (Montenegro, 25-29 janvier 2010) (bilingue)
CGPM:CSC13/2011/Inf.5	Rapport de la onzième session du Sous-Comité de l'environnement et des écosystèmes marins (SCMEE) (Malte, 29 novembre-2 décembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.6	Rapport de la onzième session du Sous-Comité des statistiques et de l'information (SCSI) (Malte, 29 novembre-2 décembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.7	Rapport de la onzième session du Sous-Comité des sciences économiques et sociales (SCESS) (Malte, 29 novembre-2 décembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.8	Rapport de la douzième session du Sous-Comité de l'évaluation des stocks (SCSA) (Malte, 29 novembre-2 décembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.9	Rapport de la neuvième réunion de coordination des Sous-Comités (CMSC) (siège FAO, 9-10 juin 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.10	Rapport de la dixième réunion de coordination des Sous-Comités (CMSC) (Malte, 3 décembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.11	Principales activités de recherche des États Membres
CGPM:CSC13/2011/Inf.12	Rapport de l'atelier transversal du CSC sur le corail rouge (Italie, 16-17 septembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.13	Rapport de la première réunion d'experts sur l'état des élasmobranches en Méditerranée et dans la mer noire (Tunisie, 20-22 septembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.14	Rapport de l'atelier transversal sur l'anguille européenne (Tunisie, 23-24 septembre 2010) (en français uniquement)
CGPM:CSC13/2011/Inf.15	Rapport de l'atelier transversal sur la capacité de pêche (siège FAO, 27-28 septembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.16	Rapport de l'atelier sur les méthodes de collecte des données appliquées à tous les segments de la flottille et à leur conformité aux prescriptions de la Tâche 1 de la CGPM (siège FAO, 29 septembre-1er octobre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.17	Rapport de l'atelier sur les proliférations d'algues et des méduses (Turquie, 6-8 octobre 2010) (en anglais uniquement)

CGPM:CSC13/2011/Inf.18	Rapport de l'atelier sur le suivi des pêches récréatives dans la zone de compétence de la CGPM (Espagne, 20-22 Octobre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.19	Rapport du Groupe de travail du SCSA sur l'évaluation des stocks des espèces démersales (Turquie, 18-23 octobre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.20	Rapport du Groupe de travail sur l'amélioration de la sélectivité et la réduction des prises accessoires (Egypte, 25-27 octobre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.21	Rapport du Groupe de travail du SCSA sur l'évaluation des petits pélagiques (Italie, 1er-6 novembre 2010) (en anglais uniquement)
CGPM:CSC13/2011/Inf.22	Principales activités des Projets régionaux de la FAO
CGPM:CSC13/2011/Inf.23	Évaluation des performances de la CGPM(version préliminaire)
CGPM:CSC13/2011/Inf.24	Situation des actions de la CGPM en Mer Noire
CGPM:CSC13/2011/Inf.25	Questionnaire (version préliminaire) sur l'état actuel des lois et réglementations relatives aux pêches de capture en Méditerranée et Mer Noire (Projet LaMed)
CGPM:CSC13/2011/Inf.26	Document sur la mise à jour du cadre de référence du CSC et sur la mise en place d'un plan stratégique de moyen terme pour le futur (par J.J. Maguire) (en anglais uniquement)
CGPM:CSC13/2011/Dma.1	Publication de la CGPM (version préliminaire) sur: Le statut de l'exploitation et de la gestion de l'anguille européenne dans la zone de la CGPM (en français uniquement) (H. Farrugio et P. Elie)
CGPM:CSC13/2011/Dma.2	Publication de la CGPM (version préliminaire) sur: Le statut des élasmobranches dans la Méditerranée et la mer Noire (Bradai *et al*)
CGPM:CSC13/2011/Dma.3	Publication de la CGPM (version préliminaire) sur: L'examen des études de sélectivité relatives à la maille carrée et aux grilles appliquées aux chaluts de fond Méditerranée (J. Sacchi)
CGPM:CSC13/2011/Dma.4	Bulletin statistique de la Tâche 1 (année de référence 2008) (par le Secrétariat de la CGPM)
GFCM:SAC13/2011/Dma.5	Présentation de la base de données régionale sur les paramètres biologiques
GFCM:SAC13/2011/Dma.6	Présentation du glossaire électronique du CSC (e-glossary)

APPENDIX D / ANNEXE D

Draft terms of reference for selected meetings
(in English only/en anglais seulement)

A – Transversal Workshop (SCSA / SCMEE / SCESS) on Spatial Based Approach to Fishery Management.

1) Review main experiences of Spatial based Approach to Fishery Management (SAFM) in the world.

2) Examine SAFM in the more wide context of the Integrated Management of the Coastal Zone

3) Explore methods and propose case studies to assess the impact of Fishery Restricted Area (FRA) on commercial stocks, marine ecosystems and fisheries

4) Evaluate the role of FRA, Territorial Use Right of Fisheries (TURF) and other SAFM tools in design fisheries management plans.

5) Analyse the current and future approach to monitoring, surveillance and control in SAFM.

B – Meeting on the fisheries laws and regulations in the Mediterranean and the Black Sea (*LaMed Project*)

In 2001, a study on the fisheries regulatory framework of the Western Mediterranean coastal states was undertaken under the aegis of the CopeMed Project and, as a follow-up on this work, the General Fisheries Commission for the Mediterranean (GFCM), with support from FAO's FishCode and Development Law Service, commissioned a comparative study covering the entire Mediterranean Basin that focused on three issues, namely: the "access regimes to fisheries resources", the "management of fishing effort and fishing capacity" and the "monitoring, control and surveillance[3]". Its purpose was to provide fisheries managers with information on the principal measures adopted in the region and to identify areas where harmonization should be sought, particularly in relation to shared stocks.

During the 29th session of the GFCM, the Commission adopted the "General Guidelines for a GFCM Control and Enforcement Scheme" whose aim was to bring a high degree of compliance with relevant conservation measures, legal certainty and security for the vessel concerned. In 2007; the GFCM created the Compliance Committee in order to ensure the follow-up of the implementation by its Members of the binding decisions as adopted by the Commission and review the status of national regulations, including the way the GFCM decisions were translated into national laws.

The limited information made available for the purposes of the Fourth Session of the Compliance Committee last April 2010 as well as issues of growing concern identified in the GFCM Area of Competence during recent Workshops and Meetings (i.e. artificial reefs, jellyfish blooming, excessive by-catch and discarding, red coral, etc.) demonstrated that the comparative study commissioned by the GFCM and undertaken by P. Cacaud in 2005 needs now to be completed and updated.
Therefore, the Meeting will aim to:

a) provide updated information on the fisheries laws and regulations in the GFCM Area of Competence;

3 Cacaud, P. Fisheries Law and Regulations in the Mediterranean; a comparative Study. *Studies and Reviews*. General Fisheries Commission for the Mediterranean. No.75. Rome, FAO. 2005. 40p.

b) identify priority issues faced in the GFCM Area of Competence and as appropriate, possibilities of harmonization and shared management regulations.

Responses to the GFCM questionnaire distributed in January 2011 will serve as a basis for discussion and identifying areas for cooperation within the GFCM Area of Competence. Emphasis will also be put on the enforcement of the GFCM Recommendations by Members as well as on the relevant GFCM and FAO publications.

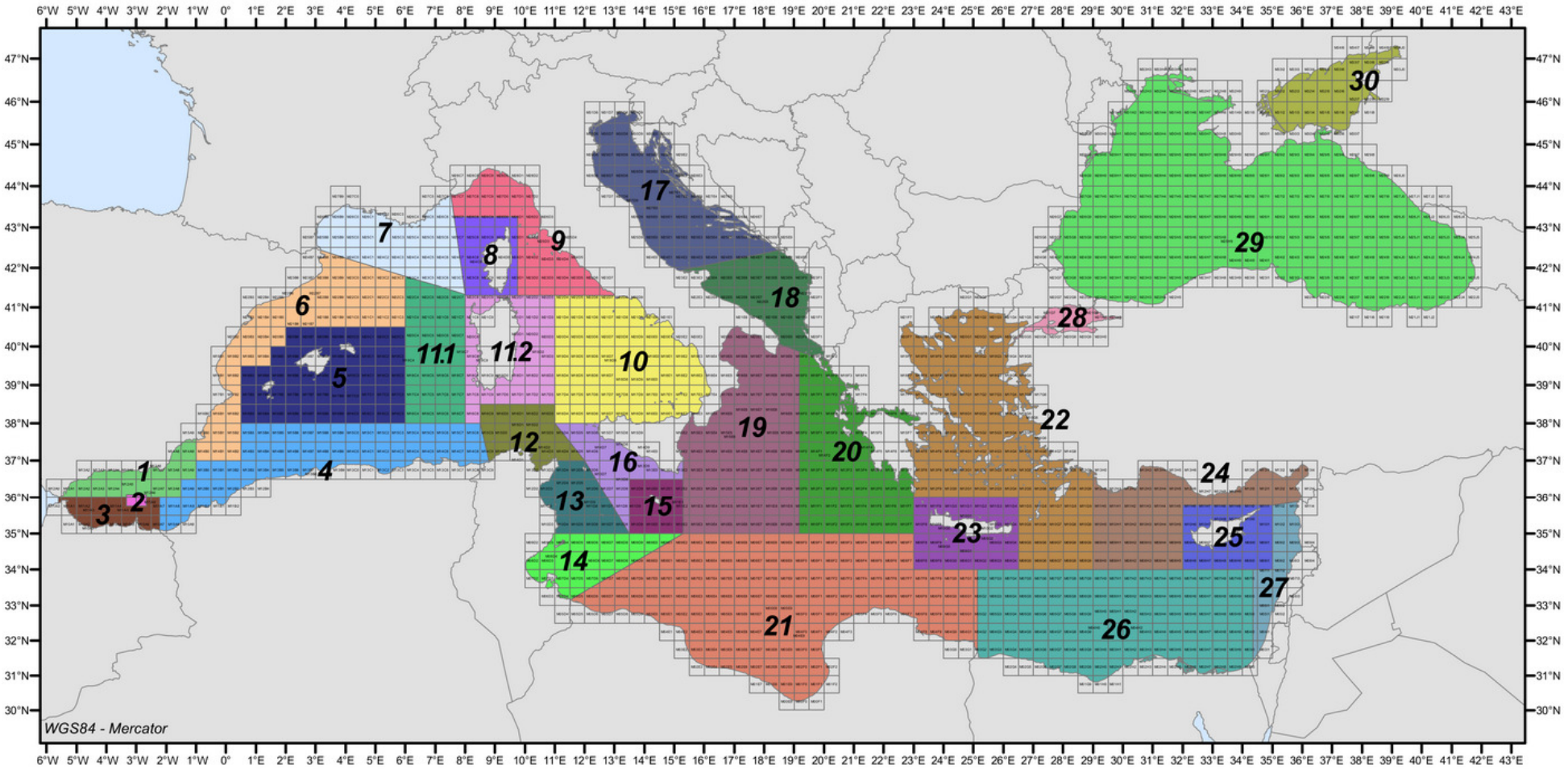
The framework of the discussion will be based on the three categories of fisheries (namely, commercial/industrial fisheries, small-scale fisheries, the recreational fisheries) but also on other matters pointed out during recent GFCM Workshops and SAC Sub-Committees. More specifically, the discussion will be focused on the three following main issues:

1. The fisheries access regimes.
2. The monitoring, control and surveillance.
3. The participation mechanisms in the legal and regulatory framework.

The Meeting will be attended notably by the relevant stakeholders (i.e. policy-makers, legal experts, administrators and fisheries managers). The GFCM partners (IUCN, RAC/SPA, ACCOBAMS, etc.) as well as Regional Projects and initiatives are also expected to contribute actively to the organization of this Meeting.

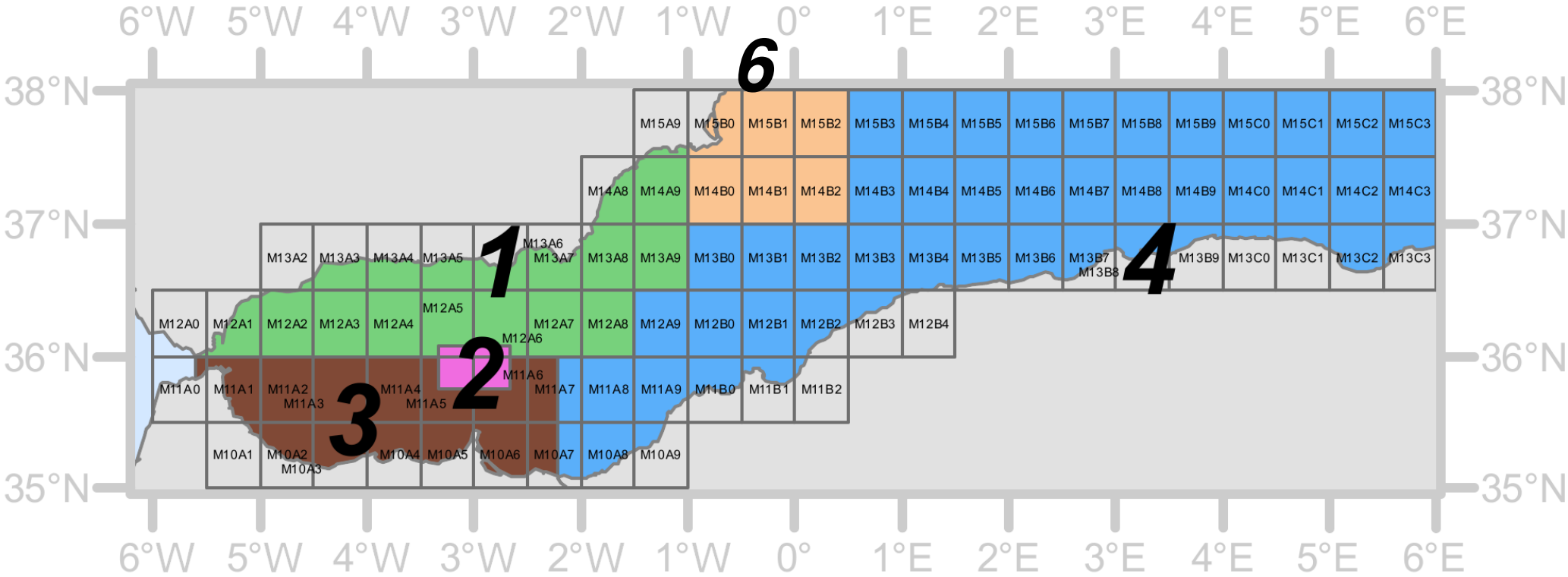
APPENDIX E / ANNEXE E

GSA Grid / Tableau des zones sous-géographiques
(in English only/en anglais seulement)

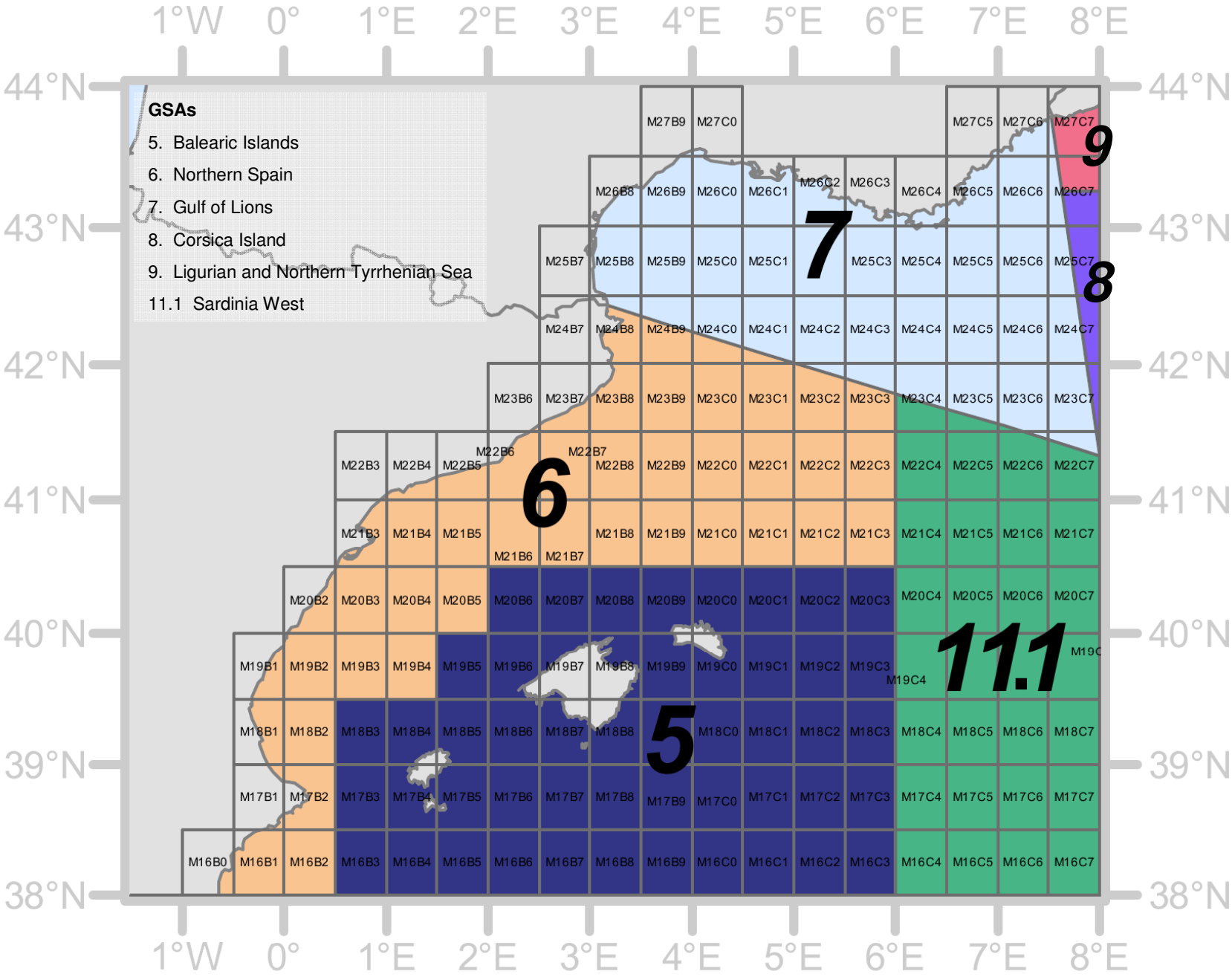


GSAs

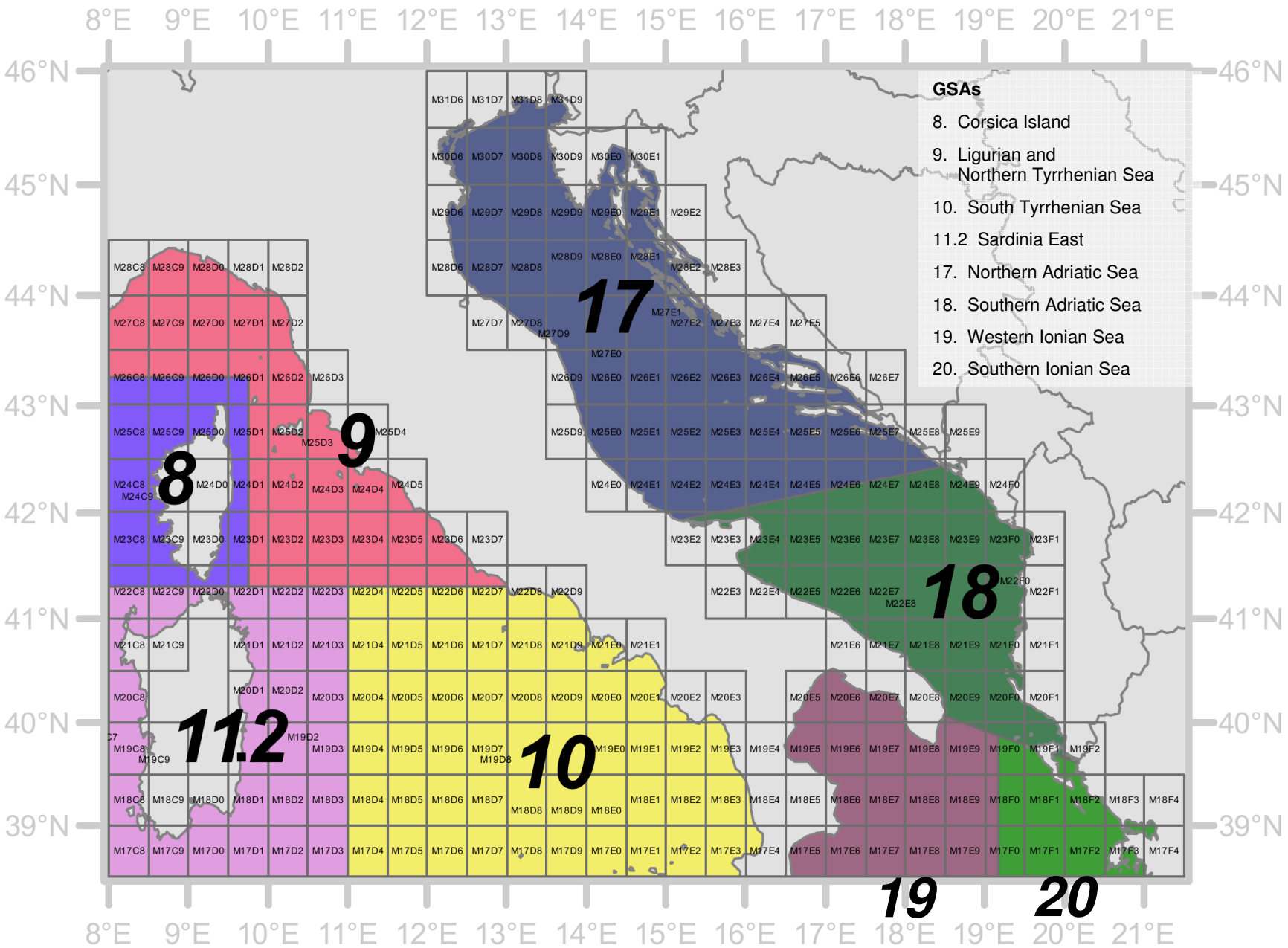
1. Northern Alboran Sea
2. Alboran Sea
3. Southern Alboran Sea
4. Algeria
6. Northern Spain



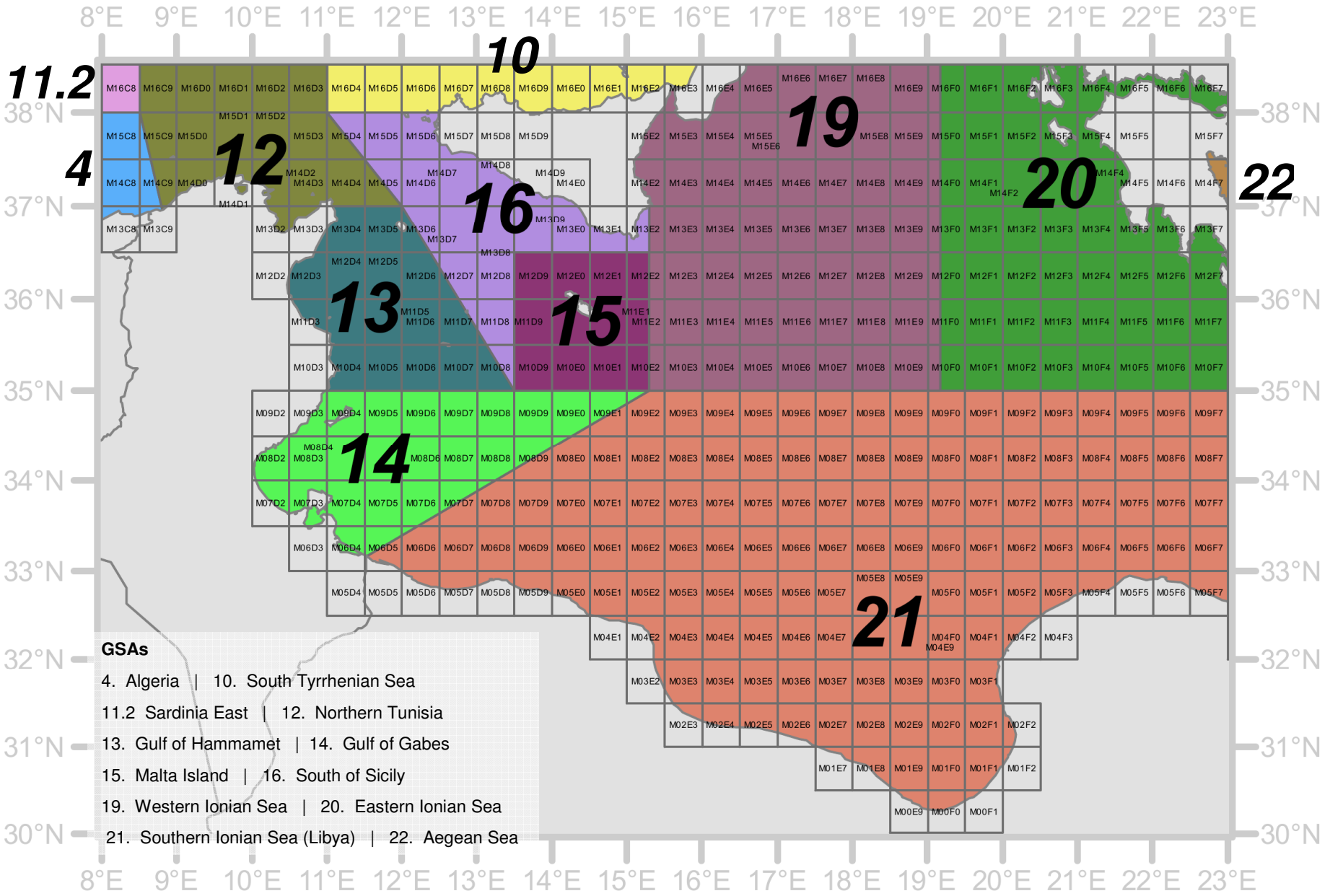
GFCM-GSA map (1/8)



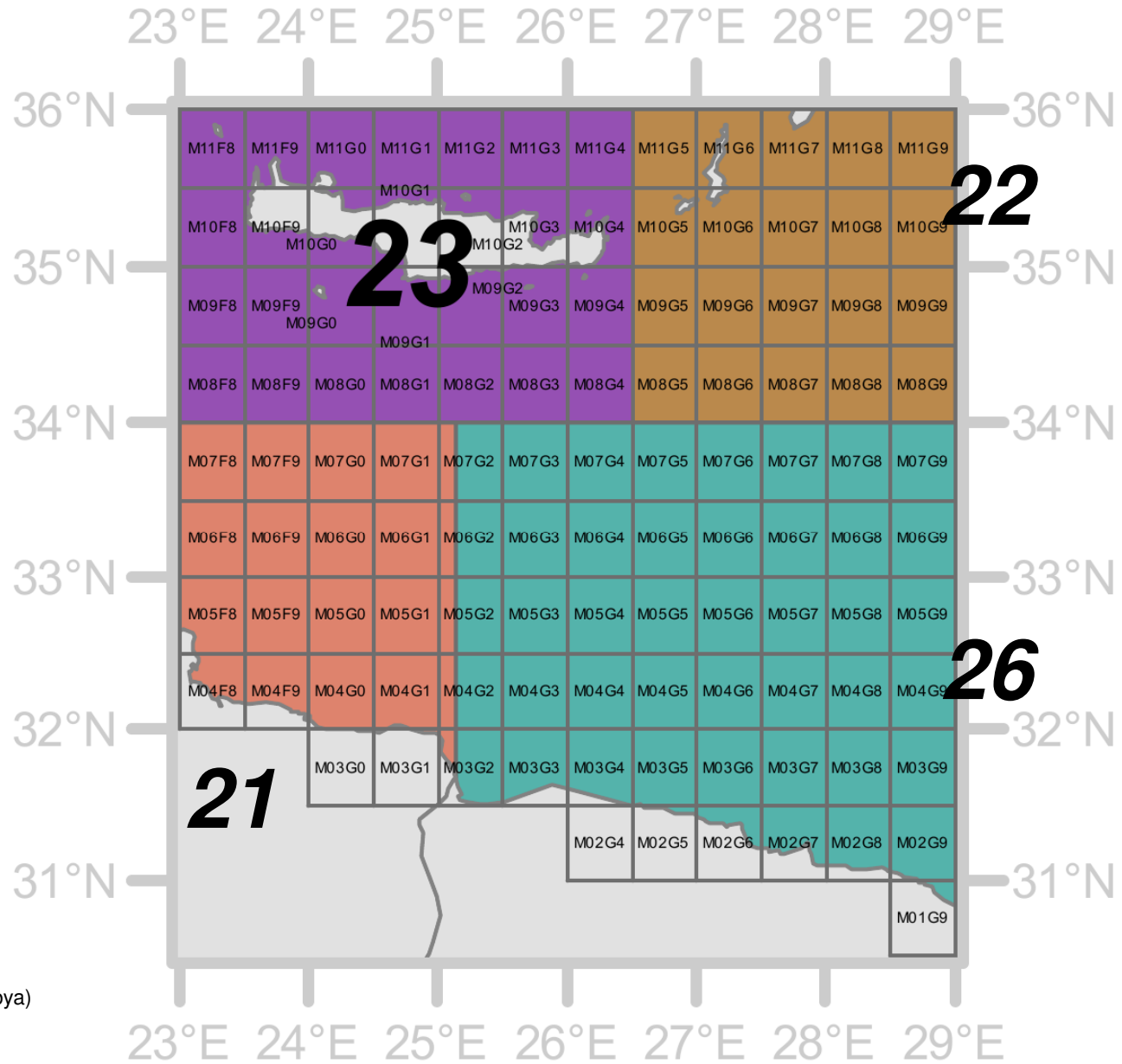
GFCM-GSA map (2/8)



GFCM-GSA map (3/8)



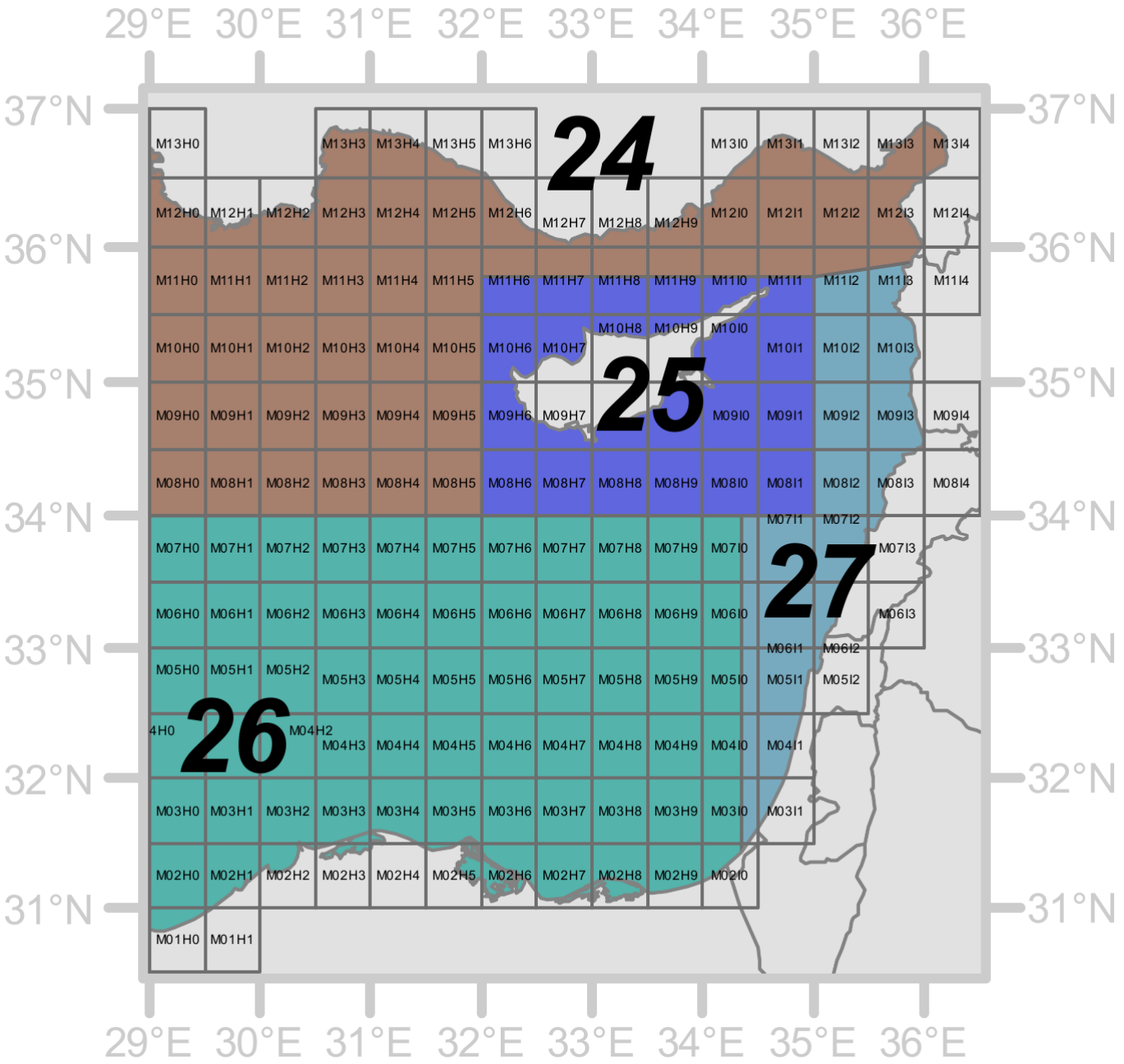
GFCM-GSA map (4/8)



GSAs

21. Southern Ionian Sea (Libya)
22. Aegean Sea
23. Crete Island
26. South Levant (Egypt)

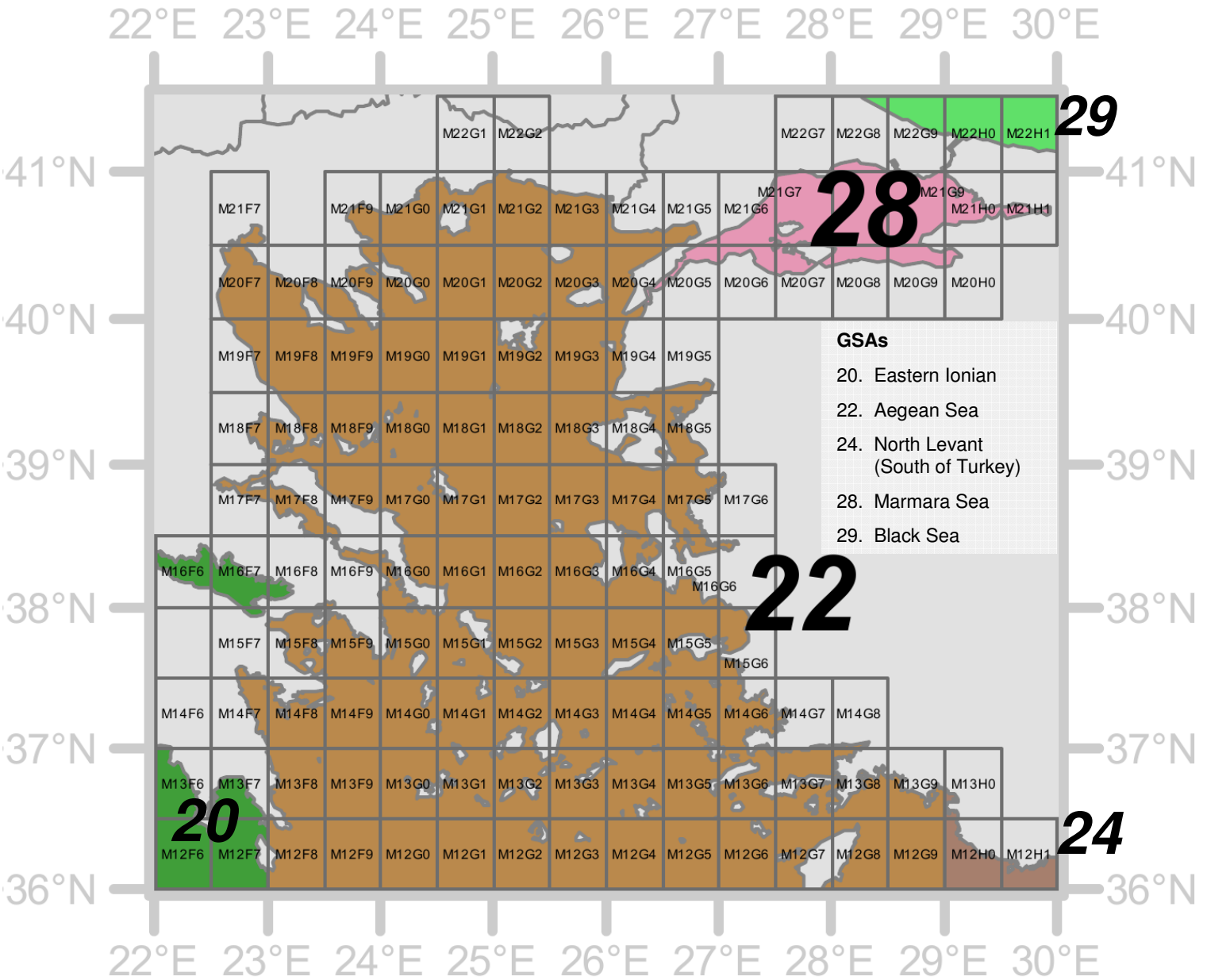
GFCM-GSA map (5/8)



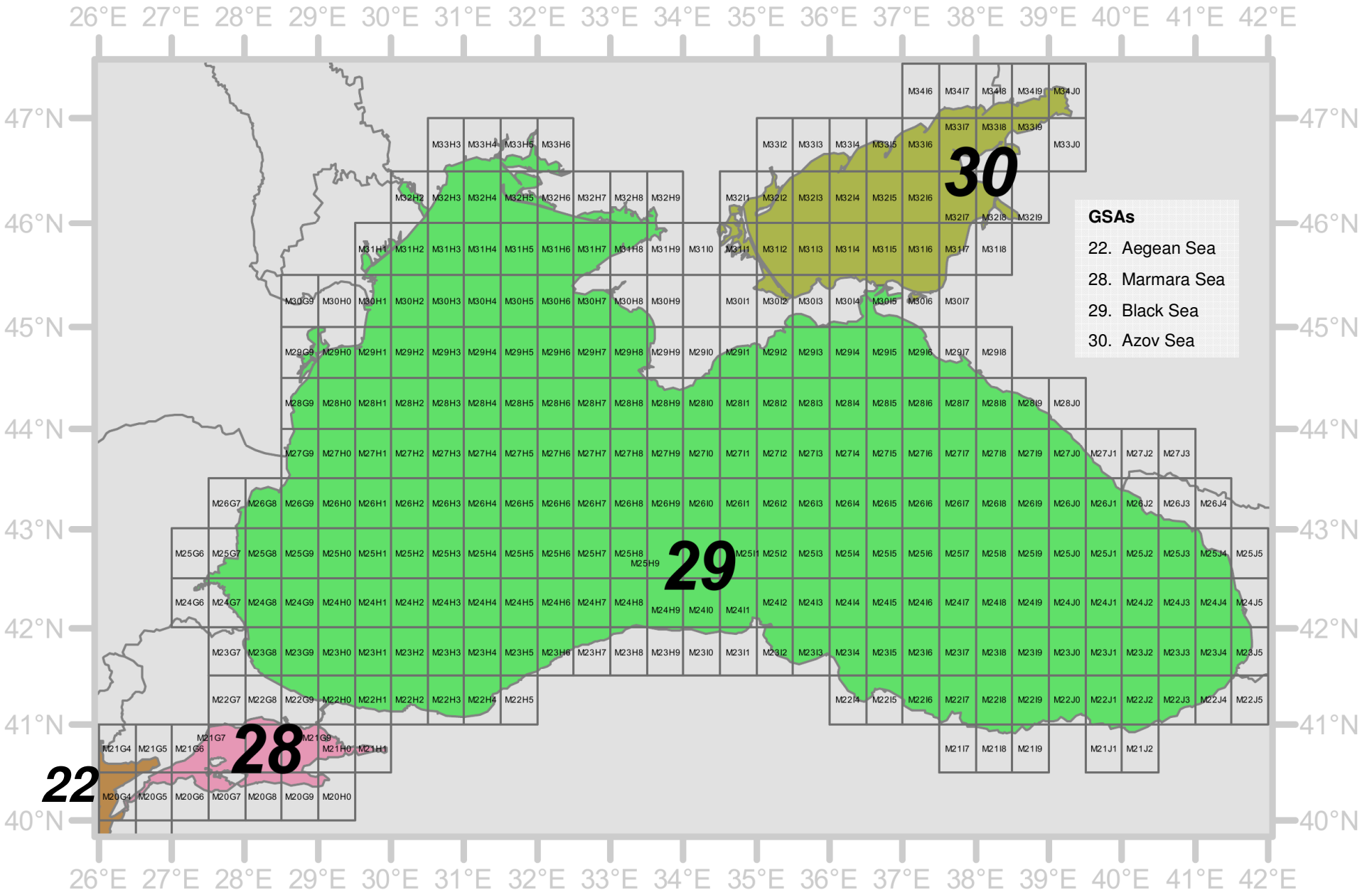
GSAs

24. North Levant (South of Turkey)
25. Cyprus Island
26. South Levant (Egypt)
27. Levant

GFCM-GSA map (6/8)



GFCM-GSA map (7/8)



GFCM-GSA map (8/8)

APPENDIX F(a) / ANNEXE F(a)

Summary table of national reports / Tableau récapitulatif des rapports nationaux (in English only/en anglais seulement)

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Algeria	▪ Fleet: about 4,500 vessels; ▪Production (2009): over 133,000 tonnes	▪ Assessment surveys for commercially important species will take place in 2011.	▪ National statistical scheme covers landing sites for marine fisheries. ▪Catch and effort data for marine fisheries as well as data on inland fisheries and aquaculture are collected. ▪An access-based national database is in place.	▪ Main research objectives focus on: - biological studies of living aquatic resources - assessment and conservation of marine resources - monitoring of fishing effort - improvement and development of aquaculture production systems ▪Five research domains have been established and several projects will be executed over a period of 24 months.	▪One of the national research domains established deals with economics, sociology and regulation.	▪One of the national research domains established deals with coastal ecosystems. ▪Several research projects are in place and conducted by four national institutions.	▪Regulations published in 2009-2010: - 5 fisheries regulations which include issues related to fishing permits, fishing gears, pêche à pied, owner and crew issues, storage and transport of fishery products, bluefin tuna fishing. ▪1 aquaculture regulation relating to conditions for the establishment of aquaculture sites.	▪Stock assessment and EAF ▪Fishing gear technology ▪Physical and chemical variations in the accretionary hard tissues of invertebrates and coralline red algae ▪Mediterranean aquaculture ▪Inland aquaculture ▪Studies on the ecosystems and environmental conditions.

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Cyprus	▪Fleet (2008): 540 vessels; ▪production (2008): 1827 tonnes; ▪Total working days in 2008: 100,270 ▪Fleet operates in GSAs 25 and 26 and international waters of the central and eastern Mediterranean.	▪Monitoring of demersal and large pelagic species in GSA 25, under the EU Data Collection Framework. ▪During the 2010 SCSA Working Group on Demersal Species the status of the five demersal stocks was evaluated, using LCA – pseudo-cohort and Y/R analysis.	▪The Cyprus National Database for the collection and storage of data in the fisheries sector is comprised of the following databases: i).the Data Collection Network System (Data Transmission), ii) the Central Database and iii) the Fishing Vessel Fleet Register (FVR). ▪The system comprises a series of sub-databases: Fishing capacity, Fishing effort, Catches (Landings and Discards), Catch per Unit Effort data series, Biological Measurements, Economic data and processing industry.	▪National Fisheries Data Collection Programme: biological sampling for the evaluation of length and age composition of landings, the estimation of biological parameters (growth, maturity) for a number of species, discards sampling from the bottom otter trawls, Medits trawl survey. ▪Project to collect information on the alien species *Lagocephalus sceleratus* ▪EU Oceanographic research projects	▪Socio-economic surveys through: Inshore Fishery Production Reports, Logbooks, the Fishing Licences and the Sales Notes, interviews.	▪Projects on: marine ecology and biodiversity, anthropogenic effects on the marine ecosystem, marine invasive alien species, eutrophication, endangered aquatic species, MPAs, monitoring of environmental parameters, Ecological Quality Status of coastal waters, ecology and monitoring of the environmental parameters of the Larnaca Salt Lake complex and Akrotiri wetlands, implementation of the Water framework Directive and Habitats Directive.	▪The National and Community legislation provides for a number of management measures for the regulation of the Cyprus fisheries ▪DFMR formulated and implements a Fisheries Management Plan for the Cyprus Fleet targeting demersal and mesopelagic stocks in the coastal zone of the Republic of Cyprus ▪ICCAT recommendations on the management of Mediterranean swordfish, the multiannual recovery plan for bluefin tuna and the conservation of thresher sharks, endorsed by GFCM, are implemented.	

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Croatia	▪Activities in GSAs 17 and 18 ▪Fleet: 3996 units; ▪Production (2009): 55,323 tonnes.	▪Outputs of VPA assessments demonstrated that anchovy and sardine in GSA 17, in relation to their estimated biomass levels in 2009, can be considered as moderately exploited. ▪(Solea solea) stock in GSA 17 is overfished. ▪Long-term trends in biomass index in Croatian fishing sea shows high fluctuation with negative changes in 2009 for the most important stocks as hake and Norway lobster.	▪Croatian Fishing Fleet Register is an electronically-kept register, now web-based, in which relevant data on vessels and vessel activities are registered. ▪Fishing vessels equal to or longer than 10 m have to keep and submit a logbook reporting data on catch and landings; ▪All sales data are reported via a web-based application in an electronic form.	▪Monitoring of small pelagic stock by acoustic survey (PELMON) and VPA stock assessment ▪Project "DEMMON" Monitoring of commercial demersal (bottom trawl) fisheries ▪Project "MEDITS" Mediterranean International Bottom Trawl Survey ▪Project "SOLEMON" Evaluation of stock of Common Sole (*Solea solea*) and other flatfish in the Adriatic sea ▪Project "DEEP SEA" ▪Project "UWTV Survey"	▪One part of socio-economic data gathering is organized through DemMon project.	▪Ecosystem permanent national monitoring project "Systematic exploration of the Adriatic Sea as basis for sustainable resources management". ▪Monitoring of fishery resources (both pelagic and demersal) also provide environmental data related to the marine ecosystems.	▪All recommendations on bluefin tuna and swordfish in Mediterranean Sea as adopted by ICCAT and GFCM are fully incorporated in Croatian legislation and have been implemented in the inter-sessional period.	▪Consideration should be given to international monitoring of demersal resources in Jabuka Pit. ▪Continue with the activities in the framework of Adriamed.

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Egypt	▪Fleet: motorised – 2977 vessels; sail - 1,418 vessels ▪Production (2009): 78,790 tonnes	▪*Diplodus vulgaris* in Abu Qir Bay did not reach the limit reference point (F_{max}), thus the fisheries of this species considered not overexploited ▪*D. sargus* reached the target reference point ($F_{0.1}$) but it did not reach the limit reference point (F_{max}), thus *D. sargus* in Abu Qir Bay is not in the overexploited phase ▪*Pagellus erythrinus, Merluccius merluccius* and *Siganus rivulatus* are heavily exploited. ▪*Etrumeus teres* is under exploited	▪GAFRD collects fisheries data by two methods (Whole survey and Sampling): A system is going to be computerized for registering every fishing unit and the catch data. ▪The statistics collection procedures have recently been upgraded and monitoring, control and surveillance activities have been improved.	▪EastMed project ▪A project to improvement the Egyptian bottom trawl selectivity and reduce its high percentage by-catch. ▪Stock assessment of single species studies are conducting at different universities and National Institute of Fisheries and Oceanography.	▪Few social or economical studies related to the fisheries are conducted. ▪Study on the risk of the investments in the marine crustaceans fisheries		▪Freezing of the issuance of additional fishing boat licenses and a closed season for all fishing activities from 1st May to 30th June each year in the Mediterranean Sea.	▪Stock status and exploitation levels for the target pelagic species and some demersal resources of the Egyptian Mediterranean coast. ▪Social and economical studies related to fisheries in Egypt. ▪The effect of wide spreading urbanization of the coastal area on fisheries activities.

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
France	▪Activities in two GSAs: GSA 07 and GSA 08 ▪1,172 vessels (GSA 07); 209 vessels (GSA 08) ▪Production: 14187 tonnes (GSA 07 for the 10 most important species not excluding bluefin tuna)	▪*Merlussius merluccius* (GSA 07) – growth overexploitation with a risk of recruitment overexploitation. ▪*Mullus barbatus* (GSA 07) – slightly overexploited ▪Sardine and anchovy stock (GSA 07) biomass is lower than in previous years. ▪A large reduction in bluefin tuna catches by the French fleet is coherent with the recovery plan set by ICCAT.	▪The "Système d'Information Halieutique (SIH)" managed by IFREMER is based on four main data collection schemes – biological sampling of catches, surveys-at-sea, fisheries statistics and economic surveys. ▪The national fisheries data collection scheme is carried out within the framework of the Data Collection framework of the EU.	▪SARDONE Project: Studies on anchovy and sardine stocks in the north-western Mediterranean, Adriatic and Aegean. ▪AMPED project: Marine Protected Areas for highly migratory species ▪Project on bio-economic studies to contribute to the fisheries management process ▪Bluefin tuna research ▪IPEP Project: impact of fisheries on protected species ▪Regional research on Mediterranean sharks ▪Selectivity studies on gangui gear ▪Implementation of EC regulation 1967/2006 by French fisheries				

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Greece	▪Fleet: 17,280 vessels; ▪production 81,530 tonnes	▪GSA 22: Anchovy stock is fully exploited; ▪The exploitation rate of the stock of sardine produces high fishing mortality and the stock abundance was estimated as intermediate.	▪Fishery statistical data are collected by Administration under various Ministries.	▪Developing fisheries management indicators and targets (DEFILNET MARIFISH) ▪Bycatch and Discards: Management indicators, trends and location (BADMINTON) ▪Assessment of the interactions between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond (Coral FISH) ▪Management & Monitoring Of Deep-sea Fisheries and Stocks (DEEPFISHMAN) ▪Updating the inventory of Marine Invasive Alien Species across European Seas (MIAS) ▪Harmonisation of the acoustic data in the Mediterranean 2002-2006 (AcousMed) ▪Mediterranean halieutic Resources Evaluation and Advice (MAREA) ▪Assessing the causes and developing measures to prevent the escape of fish from sea-cage aquaculture (PREVENT ESCAPE) ▪Improving assessment and management of small pelagic species in the Mediterranean (SARDONE) ▪Judgment And Knowledge in Fisheries Involving StakeHolders (JAKFISH) ▪Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece. ▪The Structure of Fish Populations an d Traceability of Fish and Fish Products (FishPopTrace) ▪Fishing management study for the province of Kalymnos		▪The 20th Century evolution of Mediterranean exploited demersal resources under increasing fishing disturbance and environmental change (EVOMED) ▪Monitoring and Evaluation of Spatially Managed Areas (MESMA) ▪Options for Delivering Ecosystem-based marine management (ODEMM) ▪People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast (PEGASO) ▪Mitigating adverse ecological impacts of open ocean fisheries (MADE) ▪Fisheries Study of Kyparissia Bay	▪In addition to EC fisheries management measures, Greece has adopted several national measures for managing fishing effort: minimum landing sizes, fishing gear restrictions, seasonal and local closures, distance from coast and depth restrictions; ▪Regarding large pelagics, such as bluefin tuna, albacore and swordfish, fishery is regulating by issuing special permits valid for one year; ▪Seasonal closure for swordfish from October to January.	

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Italy	▪Fleet (2009): 13,301 ▪Production (2009): 234,000 tonnes	▪The available information is included in the report of the stock assessment sub-committee.	▪The production of Italian fisheries statistics is carried out by IREPA on behalf of the Ministry of agriculture and forestry policies and is included in the ISTAT National Statistic Programme. ▪Statistics are produced on the basis of a sample of national fishing fleet, yearly updated, and their reliability is guaranteed by specific validation software.	▪Fisheries data have been collected in the framework of the Italian National Data Collection Program, according to the legal European Union framework put in place in 2008. ▪Development of a net (ITAFISHNET) for the exchange of information between national researchers ▪Development of the System GIS-PESCA on the entire coastline ▪Assessment of by-catch of protected species in the pelagic trawl ▪Concerted Action for the identification of scientific inputs for the development of organic aquaculture in Italy; ▪Strategies for the commercial exploitation of the Adriatic bluefish. Networks and relations with the territory; ▪Study for the detection of integrated tools for the sustainable development of the Italian Fishery following the entry into force of Reg. (CE) 1967/2006 and the application of national management plans. ▪Spatio-temporal identification of nursery area in the italian seas; ▪Guidelines and technical measures for the management of Fishery Restricted Areas; ▪Seafood quality and safety ▪Recreational fishery ▪Bio-economic models ▪Large pelagic stock assessment	▪Cooperation development in the Mediterranean fishery sector – the labour context, the producers associations, training.	▪Spatio-temporal identification of nursery area in the Italian seas ▪Guidelines and technical measures for the management of Fishery Restricted Areas ▪Fishery and marine pollution: studies on the effects of pollutants on marine fishery	▪Technical measures were adopted in order to ensure exploitation and conservation of living aquatic resources or the protection of marine ecosystems. ▪Fishing activities (*i.e.* trawlers) have been temporarily banned. ▪Biological stop changed among regions in order to improve the marine environment and to avoid to the depletion of certain stocks ▪In 2009 - Adjustment plans of Fishing Effort in order to achieve a sustainable balance between capacity and resources.	▪Suggestions include research / studies on: population dynamics and genetics, data collection methods, EAF, oceanography – fisheries interactions, revision of GSA boundaries, stock-recruitment interactions, spawning areas and essential fish habitats, echo surveys, climate change effects on fisheries, spatial management measures, bio-economic models, reference points and indicators for EAF.

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Lebanon	▪Fleet :2,662 vessels ▪Vessels operate in GSA 27	▪Not available.	▪University of Balamand (IOE-UOB) has been collecting commercial fisheries data in the Mohafaza (district) of North Lebanon and Akkar on a regular basis since August 2005. ▪Data is entered into a software application FLOUCA - Fish Landing Operational Utility for Catch Assessment	▪Biology and ecology of Lessepsian species along the Lebanese coast ▪Detection of heavy metals in bivalve shellfish in Koubba/ Selaata region, North Lebanon ▪Monitoring of the Lebanese coastal water - Bacteriological water quality		▪Integrated Management of East Mediterranean Coastline (IMAC) project ▪UNDP early recovery of NBC surrounding municipalities' project ▪People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and Coast (PEGASO)	▪Minister Decision 346/1 on 15/7/2010 regarding organization and specification of marine fishing gear.	▪Developing an "information system" for artisanal fisheries ▪Stock assessment of the commercial fish species in Lebanon ▪Monitoring of invasive species in the Lebanese waters and their population dynamics ▪Impact of invasive species on the coastal marine ecosystem ▪Update of the fish biodiversity richness in the Lebanese territorial waters ▪Monitoring of marine macro-algae in the perspective of climate change

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Libyan Arab Jamahiriya	▪Fleet: 5,160 vessels ▪Production: 52,110 tonnes	▪Biological study on one of the important commercial species *Epinephelus margiratus* was established at the end of 2009 ▪Assessment study of commercial sponges was conducting in 2009.		▪Establishment of a project related to cephalopods species, a biological study of *Sepia officianalis* started in October 2009 ▪Study of genetic composition diversity of *Mugil* sp ▪Report on data collected during blue fin tuna fishing season (2009) was introduced to the ICCAT ▪A project on the study of chondrichthyes is being carried out along the coast of Libya.	▪Economics study on prices of commercial fishes and invertebrates in the Tripoli fish market was established in June 2009.	▪Coastal survey of marine turtle nesting activity along the central and eastern parts of Libya was conducted in summer 2009 ▪Microbiological study for some commercial species fished along the coast of Tripoli-Tajura such as *Epinephelus* sp, *Scomber* sp, Mullet sp ▪Study of influence of untreated drainage water on sea water in the western part of Libya was conducted in 2009 ▪Monitoring study of contamination with hydrocarbons of the marine environment was conducted in Musrata region ▪A study on the contamination with heavy metals was carried out in selected stations along the coast of Libya with the cooperation with (IFREMER).	▪Announcement of Farwa Lagoon as a marine reserve ▪Trawl fishing for demersal fish species was prohibited during the period June through July 2009 ▪In compliance with GFCM recommendation 2006/2 fishing for dolphin fish is prohibited by law from 1st January to 14th August of each year ▪Fishing for sponges in Libyan waters is forbidden from 1st November to 30th May of each year and prohibited for the season of 2010.	▪Marine survey to assess the distribution and abundance of demersal fishes along the western part of Libya

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Malta	▪Fleet: 2,995 vessels ▪Total production of main species: 1,294 tonnes	▪P. longirostris – overexploited in GSA 12-16 ▪An updated stock assessment was conducted for *Thunnus thynnus* in 2010, in the framework of ICCAT.	▪Malta collects data on catch and effort for each segment by species, by quarter and by geographical origin. ▪Catch figures are based on exhaustive data reported in logbooks (for vessels over 10 m LOA), by sampling the small scale fishery in ports (for vessels under 10 m LOA) and on sales notes from the official fish market ▪Malta is at present collecting biological data for the 12 species ▪Fishery independent data is collected as part of the MEDITS international trawl survey and the MEDIAS acoustic survey for small pelagic species ▪Malta is at present developing a new Fisheries Information System (FIS)	▪Stock status of commercially important demersal species ▪Determination of growth parameters for *Coryphaena hippurus* ▪Analysing aspects of the ecology of three demersal elasmobranchs: *Scyliorhinus canicula*, *Galeus melastomus* and *Raja clavata* in the Central Mediterranean ▪A detailed analysis of ecology and stock status of commercially important cephalopod species with particular reference to *Octopus vulgaris*	▪Economic data is being collected per fleet segment on a number of parameters as required for the fulfilment of the EU DCF. ▪Although fish processing activities are limited, a survey amongst local operators has been carried out since 2006.	▪Identification and mapping of the spatial distribution of sediment types and biocenoses in GSA 15, including the spatial distribution of sensitive habitats such as maerl beds ▪Gear alternatives for the artisanal prawn (*Palaemon* and *Processa* spp.) beam trawl ▪The biology of prawns (*Palaemon* and *Processa* spp.) targeted by artisanal beam trawls ▪Genetic analysis of loggerhead turtles (*Caretta caretta*) from Maltese coastal waters ▪Genetic analysis of *Octopus vulgaris* tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12-16)	▪Malta implemented the management measures in line with EU regulations, and according to the recommendations by ICCAT and GFCM.	▪Confirming the taxonomic status of the species *Squalus blainvillei* in the Mediterranean prior to attempting stock assessments for this species ▪Further promoting the regional identification of critical habitats (nursery and spawning areas) as well as stock structure for commercially important species throughout the Mediterranean

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Montenegro	▪Fleet: 213 vessels operating in GSA 18 ▪As from 2011, 10 more trawlers and 20 purse seiners	▪Results of the assessments on *Merluccius merluccius* conducted jointly with Italy and Albania through the Adriamed project were presented at the SCSA assessment working group. ▪Biomass assessment of small pelagic fish species were performed in all GSA 18 in the framework of the AdriaMed project.	▪Monitoring and initial activities on setting up of a database on the statistical and information framework has begun in Montenegro.	▪Activities within the framework of ADRIAMED ▪Biological samples of twenty commercially important species were taken on a monthly basis from all vessels in three fishing ports ▪Biology and ecology demersal species - *Mullus barbatus*, *Merluccius merluccius*, *Parapeaneus longirostris* and juvenile stages of *Engraulis engrasicolus* and *Sardina pilchardus* in Boka Kotorska Bay ▪IPA Sustainable Management of Marine Fishery Project ▪Experiments and adoption of new bivalve molluscs technology for European mussels (*Mytilus galloprovncialis*) and European oysters (*Ostrea edulis*).	▪Description of the achievement and/or progress in activities related to the national research on the socio-economic aspects of the fishing communities and fishing sector. ▪Under the IPA and AdriaMed projects, collecting of socio-economic data on marine fishery will be continued.	▪The status and movement of alga *Caulerpe racemosa* and her influence on ecosystem has been followed on national basis ▪Under the RAC SPA activities in Montenegro, a preliminary analysis of the sites for protection (MAP) is underway.	▪The Parliament of Montenegro adopted the Law on Marine Fisheries and Mariculture (Official Gazzette No. 56/09) and accompanying rulebooks, on the basis of which commercial fishing advertisement would be published.	

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Morocco	▪Fleet: about 600 industrial and 2,700 artisanal vessels ▪Production: about 40,000 tonnes	▪Overall, *Mullus barbatus*, *Boops boops* and *Pagellus acarne* are overexploited ▪Small pelagic species: fully exploited	▪ Three Institutions (INRH, ONP and DPM) are involved in the national statistical system which comprises biological, statistical and fishing effort data collection. ▪INRH is about to establish a statistical system to include exploitation data together with biological data.	▪Monitoring of the trawl fishery ▪Monitoring of the hake and octopus fisheries ▪Monitoring of resources of *Mullus barbatus*, *Pagellus acarne, Boops boops* and *Pagellus erythrinus*. ▪Study on discards of the trawl fishery ▪Monitoring of the longline fishery ▪Monitoring of the swordfish fishery ▪Study on the biology of octopus ▪Monitoring of the small pelagic fishery ▪Scientific surveys-at-sea	▪Moroccan recreational fisheries in the Mediterranean. ▪FMD fishing activities ▪Interactions between cetaceans and fisheries. ▪Characterisation of artisanal fisheries in the zone between Jebha and Saïdia.	▪Status of the ecosystem of the Nador lagoon. ▪Acoustic monitoring of turtles and mammals. ▪Interaction between *Tursiops truncatus* and the sardine fishery. ▪Biodiversity studies. ▪ Monitoring of threats to cetaceans and marine turtles.	▪Several fisheries restriction and control regulations are in place. ▪A new strategy of the Fisheries Department (plan HALIEUTIS) has been created consisting of five core components. ▪Seasonal closures for swordfish and octopus.	

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Slovenia	▪ Fleet (in GSA 17): 185 vessels ▪ production: 866 tonnes.	▪Sardine *(Sardina pilchardus*) : Moderately exploited ▪Anchovy *(Engraulis encrasicolus):* moderately exploited	▪Information system InfoRib contains several modules. The modules are stored in a centralized database in the Ministry of Agriculture, Forestry and Food ▪Trying to establish cooperation with MedFisis for the automatisation of the GFCM Task 1 report. ▪As soon as the connection between InfoRib and the Module of biological data from the biological database at the Fisheries Research Institute of Slovenia will be made. ▪VMS fully operational since June 2009.	▪Slovenia is performing two research surveys at sea: MEDITS and MEDIAS. ▪SOLEMON project (Evaluation of the stock of *Solea vulgaris* in the Central and Northern Adriatic and estimation of the impact of different gear)	▪Three studies on the basis of Council Regulation (EC) No 199/2008 and of Appendix VI to the Commission Decision: (1) Module of evaluation of the fishing sector; (2) module of the evaluation of the economic situation of the aquaculture sector and (3) module of the evaluation of the economic situation of the processing industry.	▪In October 2010 a 3-year survey, determining biological and ecological characteristics and seasonal dynamics of five commercially important fish species in the Portorož Fisheries Reserve.	▪Management measures in the Slovenian seas follow the Council Regulation (EC) No 1976/2006 which contains principles and rules relating to conservation and management of the living resources of the seas. ▪Ministry of Agriculture, Forestry and Food on the basis of the expert opinion of Fisheries Research Institute of Slovenia temporary stopped issuing new fishing permits for trawlers. ▪In May 2008 Slovenia adopted the regulation on monitoring of catches and selling of fisheries products.	▪Support for the 2nd MEDITS trawl survey (i.e. bi-annual) ▪Further development of the SOLEMON project within the framework of the EC DCF.

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Spain	▪Fleet: Operates mainly in 4 GSAs ▪Fleet (2009): 3260 vessels; ▪Production of main species: 42,435 tonnes.	▪GSA 01 – *Engraulis encrasicolus* has a low biomass level – *Sardina pilchardus*: fully exploited ▪GSA 05 – *Aristeus antennatus* is overexploited - *Parapaneus longirostris* is overexploited – *Nephrops norvegicus* is overexploited – *Mullus surmuletus* is overexploited – *Mullus barbatus* is overexploited – *Merluccius merluccius* is overexploited ▪GSA 06 - *Parapenaeus longirostris* is overexploited - *Mullus barbatus* is overexploited – *Merluccius merluccius* is overexploited ▪GSA 01 – *Engraulis encrasicolus* is fully exploited – *Sardina pilchardus* is fully exploited	▪The Spanish fisheries statistics and information system is based on the data from three different sources: sales notes, logbooks and landing declarations. ▪IEO collects length and biological data of main commercial species under the guidelines of the National Program supported by the EU for the collection and management of fisheries data. ▪Data is stored and managed by the SIRENO database developed by the IEO; ▪Secretariat of Maritime Fisheries is developing a global tool to compile the different sources of information in a common database.	▪IEO ensures the scientific monitoring of the fisheries of the main commercial species at the principal landing sites; ▪Studies on growth and reproduction of demersal and small pelagic objective species are routinely carried out. ▪In 2010 experimental fishing and underwater visual census surveys were conducted in the marine protected areas (MPA) of Columbretes, Llevant-Cala Ratjada and Cabrera to assess populations protected from fishing in these areas. ▪The annual international bottom trawl survey MEDITS was carried out with the aim of estimating relative abundance index of the main demersal species. ▪MEDIAS, the international acoustic survey in the Mediterranean, was carried out in summer 2010. ▪IEO Mediterranean tuna research program. ▪The National Research project on BFT biology and migration patterns initiated in 2007 (MIGRATUN), has been developed along 2009. ▪Research activities on Albacore (Thunnus alalunga, ALB) were developed on board recreational and long-line fishery vessels targeting ALB. ▪Small tuna species study on maturity and fecundity rates, age and growth. ▪Biological sampling and tagging of *Xiphas gladius.*	▪Data collection on employment and trends in domestic consumption.	▪Quarterly surveys monitoring oceanographic conditions off Málaga (GSA 1), Murcia (GSA 6) and Mallorca (GSA 5); ▪Research activities are related to Marine Protected Areas. ▪A new project (TROFOALBORAN) has initiated focusing on the pelagic ecosystem trophic web dynamics influencing the early life stages of sardine and anchovy. ▪The project INDEMARES launched in 2009 aiming to promote research, conservation and assessment of the sea and its resources.	▪The Spanish ministerial order APA/254/2008, of January 31st, that establishes an integral management plan for fisheries resource conservation in the Mediterranean is currently enforced. ▪From 2010, the management plan is continued by Order ARM/143/2010, of January 25th, including artisanal gears within the management framework. ▪The General Secretariat for the Sea keeps on managing the seven Spanish Mediterranean Marine Reserves.	▪More emphasis is encouraged on studies focusing on the impact of environmental changes (climatic variability, increase of gelatinous plankton, etc.) on the early life stages of exploited species to assess its consequence on recruitment variability, as well as studies on the influence of environmental factors affecting catchability and fleet efficiency.

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Tunisia	▪Fleet: about 11,298 vessels ▪Production (2009): about 100, 451 tonnes ▪ Fishing operations in GSAs 12, 13 and 14.		▪The national Data collection system is managed by the "Direction générale de la pêche et de l'aquaculture"; ▪Improvements to the system developed in 1995 are foreseen in the coming years; ▪ Data collection is through logbooks and port inspections; ▪Databases for biological and environmental data are in place.	▪Assessment of marine resources in Tunisian waters (1996-2002); ▪Research programmes ESREB, ESSATEL and ERACHID (2002-2006); ▪BIHARE Project: Biology of pelagic and demersal exploited species (2007-2010); ▪LAMPAROS Project: Eggs and larvae, abundance and migration of pelagic species (2007-2010); ▪CHANCHOUL Project: Selective pelagic trawling (2007–2010) ▪Joint assessment of *Parapenaeus longirostris* through MedSudMed framework in 2010.	▪Socio-economic indicators of the fisheries of the Gulf of Gabès and of the north and east regions of the country; ▪Use of bio-economic models for the king prawn fishery in the Gulf of Gabes. ▪Study on the profitability of vessels targeting small pelagic species.	▪Monitoring of nesting sites of turtles. ▪Monitoring network for turtles and cetaceans. ▪Genetic studies on turtles. ▪Age and growth studies of elasmobranches. ▪Systematics of *Dasyatidae*. ▪Interaction of cetaceans with entangling nets	▪Trawling ban in GSA 14 between 1st July 2010 and 30th September 2010.	

Member Country	Description of the fisheries	Status of stocks of priority species	Status of the statistics and information system	Status of research in progress	Status of the social sciences studies in progress	Marine environmental studies in progress	National management measures	Research suggestions for consideration by SAC
Turkey	▪ Fleet (2010): 17,440 units; ▪Production: 425,275 tonnes in 2009. ▪Fishing operations in GSAs 22, 24, 28, 29,	▪Scientific stock assessment studies are currently not in place in Turkey. ▪According to landing figures of recent years it can be said that stocks level reached maximum harvestable level.	▪An integrated web-based Fisheries Information System (FIS) has been developed and is composed of modules interacting to introduce and extract data to/from a centralized database; ▪MARA is planning to shift the paper-based logbook into the electronic one; ▪AVMS has been started in 2008 with the vessels involved into bluefin tuna fishing (about 200 vessels); ▪ As from 2010, fishing vessels over 15 meters (about 1250 vessels) will be under an obligation to have Automated Identification System (AIS) installed.		▪Two studies on socio economical status of Aegean fishery and northern Mediterranean fishery were completed by fisheries faculties of Aegean University and Mersin University. ▪A study on the socio economical analyses of Mediterranean fishermen has been completed by the Economical Research Institute of MARA.	▪On-going project (partly funded by GEF) entitled: *Strengthening Protected Area Network of Turkey.*		

APPENDIX F(b) / ANNEXE F(b)

Countries National reports / Rapports nationaux des pays
(in the original language/dans la langue d'origine)

- Algeria / Algérie
- Bulgaria / Bulgarie
- Croatia / Croatie
- Cyprus / Chypre
- Egypt / Égypte
- France
- Greece / Grèce
- Italy / Italie
- Lebanon / Liban
- Libyan Arab Jamahiriya / Jamahiriya Arabe Libyenne
- Malta / Malte
- Montenegro / Monténégro
- Morocco / Maroc
- Slovenia / Slovénie
- Spain / Espagne
- Tunisia / Tunisie
- Turkey / Turquie

Reports by NON GFCM Members / Rapports de pays non-Membres de la CGPM
(in the original language/dans la langue d'origine)

- Russian Federation / Fédération de Russie

ALGERIA/ALGÉRIE

La production nationale des produits de la pêche et de l'aquaculture en Algérie dépasse les 133 000 tonnes pour l'année 2009, soit une diminution de 8% par apport à 2008. Cette production est répartie comme suit:

- Poissons démersaux : 8200 tonnes;
- Poissons pélagiques : 105 000 tonnes;
- Crustacées : 2700 tonnes;
- Mollusques: 1300 tonnes;
- Produits aquacoles : plus de 2100 tonnes;
- Autres produits tels que les grands migrateurs halieutiques et ceux issus de la pêche plaisancière : 8900 tonnes.

La flottille de pêche se compose de plus de 4 500 unités dont l'âge moyen est de 13 ans. Elle est Caractérisée par des navires dont la longueur est entre 4.80 m et 35 m, une puissance motrice qui varie entre 3 et 1400 CV et une jauge brute allant de 0.6 à 324 TJB.

Notons, que la puissance totale de la flotte algérienne est de 463 300 KW dont 50% des navires sont inactifs.

1. ÉTAT DES STOCKS DES ESPÈCES PRIORITAIRES

La diminution des quantités pêchées de certains produits de la pêche à intérêt commercial, pousse les autorités algériennes à vouloir connaitre les raisons pour lesquelles ces espèces deviennent de moins en moins abondantes.

Des études qui demeurent fragmentaires au niveau des institutions de recherche, signalent le maintien du niveau d'exploitation concernant certaines espèces car ce dernier a atteint sa limite critique.

Pour cela, des campagnes d'évaluation des ressources halieutiques sont programmées pour l'année 2011 dans le but d'estimer et évaluer l'état des stocks des espèces à intérêt économique telles que la sardine (*Sardina pilchardus*), l'anchois (*Engraulis encrasicolus*), l'allache (*Sardinella aurita*), la bogue (*Boops boops*) et la saurel ((*Trachurus trachurus*) pour les espèces pélagiques et le merlu (*Merluccius merluccius*), le rouget de roche (*Mullus surmuletus*), le rouget de vase (*Mullus barbatus*), le pageot (*Pagellus acarne*), la mostelle (*Physis blennies*), la crevette rouge (*Aristeus antennatus*), la crevette rose (*Paracentrotus longirostris*), la langoustine (*Nephrops norvegicus*) et la baudrois (*Lophius piscatorius*) pour les espèces démerssales.
En attendant d'avoir des résultats concrets concernant l'état des stocks de ces espèces, le secteur de la pêche et des ressources halieutiques, suspend toute action d'injection de navires de pêche susceptible d'augmenter l'effort de pêche.

2. ÉTAT DU SYSTÈME D'INFORMATION ET STATISTIQUE

Le dispositif de collecte des données statistiques nationales des pêches couvre essentiellement les lieux de débarquements du produit issu de la pêche maritime ainsi que les sites à activité aquacole et continentale.

- Concernant les informations relatives à la pêche maritime :

Les données sur les quantités du produit débarqué sont enregistrées quotidiennement par des agents collecteurs. Le manque d'effectif de ces agents, ne peut contrôler la totalité des produits débarquées chose qui pousse les collecteurs à avoir ces informations, auprès des professionnels ou des mandataires.
Il est à noter, que le suivi des petits navires présente beaucoup de difficultés du fait qu'ils exercent principalement au niveau des plages d'échouages et donc la mise à jour concernant leur devenir ou leur principale zone d'exercice s'avère souvent difficile contrairement aux grands navires de pêche.
Les données relatives à l'effort de pêche (flottille, collectif marin) sont obtenues auprès de l'autorité maritime locale et du Service national des Gardes côtes (SNCG).

- Concernant les informations relatives à la pêche aquacole et continentale

Ces informations sont prélevées mensuellement au niveau des concessions aquacoles et continentales ainsi qu'au niveau de l'administration chargée de la gestion des barrages.

L'ensemble des données récoltées sont transmises aux Directions des Pêches de Wilaya et plus précisément au niveau du service statistique, qui est chargé de leur saisie sur des fichiers de format Excel. Ces fichiers sont transmis à leur tour, au service des statistiques au niveau de l'administration centrale grâce à un réseau intranet où ces informations sont de suite introduites dans une base de données nationale sur ACCESS compatible à ces fichiers Excel.

Malgré l'immense volonté en vue d'une amélioration du système de collecte de l'information statistique, de nombreux efforts restent à fournir notamment en matière de mise en place de halles à marées, la concrétisation du projet de surveillance des navires de pêche par satellite (VMS) ainsi que le lancement d'enquêtes sur terrain permettront l'obtention des informations nécessaires pour toute prise de décision.

Les données collectées sont transmises annuellement à certains organismes internationaux, notamment la production des thonidés pour la CICTA, les captures par espèces et la production aquacole pour la FAO.

3. ÉTAT DE LA RECHERCHE

Les objectifs scientifiques et de recherche dans le secteur de la pêche et de l'aquaculture portent en grande partie sur la connaissance des ressources biologiques, animales et végétales, marines et continentales, à travers leur évaluation scientifique périodique et l'instauration du suivi de l'effort de pêche, la préservation et la valorisation des ressources halieutiques, l'amélioration de la productivité des systèmes considérés, le développement des technologies adaptées visant l'intensification des systèmes de production et l'exploitation rationnelle des ressources naturelles aquacoles.
L'ensemble de ces objectifs ne peut être atteint sans une connaissance précise et suivie des caractéristiques des milieux récepteurs et de leur potentiel biologique naturel. Il en est de même pour les menaces qui pourraient peser sur la qualité de ces milieux, notamment les impacts dus à l'anthropisation. Par ailleurs, la sécurisation de l'environnement par une pratique responsable de ces activités ne pourrait être ignorée. Du point de vue de la sécurité du consommateur, il est impératif que les aspects de salubrité et de qualité des produits marins soient pris en compte. L'examen de la durabilité du développement du secteur des productions aquatiques doit être intégré dans les préoccupations des gestionnaires et des décideurs, afin de permettre la participation des différents acteurs et leur organisation, le cas échéant. Le but en est d'assurer une activité socialement acceptable et économiquement viable, en conformité avec les orientations actuelles des différentes instances internationales.

Les travaux de recherche liés à l'activité de la pêche et de l'aquaculture sont menés par différentes équipes rattachées aux trois départements ministériels; Ministère de la Pêche et des Ressources Halieutiques à travers le Centre National de Recherche et de Développement de la Pêche et de l'Aquaculture; Ministère de l'Enseignement Supérieur et de la Recherche Scientifique à travers ses centres de recherches, universités et écoles; Ministère de l'Aménagement du Territoire et de l'Environnement à travers l'Observatoire National de l'Environnement et du Développement Durable.

Ainsi, les différents travaux de recherche menés au niveau de ces institutions sont de type académique (projets de recherche inscrits dans le cadre des travaux des laboratoires universitaires ou écoles spécialisées dans le domaine des sciences de la mer et de l'aménagement du littoral) et appliqué (projets de recherche inscrits dans le cadre des activités des centres de recherches et de l'observatoire) dont les axes et les intitulés ont déjà été cités dans le Rapport national de 2010.

Les objectifs scientifiques et de recherche définis pour le secteur de la pêche et de l'aquaculture dans la ***Loi n°08-05*** modifiant et complétant la loi 98-11 portant loi d'orientation et de programme de projection quinquennale sur la recherche scientifique et le développement technologique 1998-2002, portent sur:

- l'évaluation scientifique périodique ;
- l'instauration du suivi de l'effort de pêche ;
- la préservation et la valorisation des ressources halieutiques ;
- l'amélioration de la productivité des systèmes de production ;
- le développement des technologies adaptées visant l'intensification des systèmes de production dans les zones marines à haute réserve et dans les sites hydriques naturels ou artificiels propices au développement de la pêche et de l'aquaculture ;
- l'exploitation des ressources naturelles aquacoles tout en veillant à la protection de l'environnement ;
- la valorisation des plans d'eau naturels et artificiels.

De plus, parmi les 34 programmes Nationaux de recherche scientifique et le développement technologique 2008-2012, le programme national de recherche relatif au secteur des productions aquatiques dont les domaines et les axes ont été identifiés et définis comme suite :

DOMAINE 1: RESSOURCES HALIEUTIQUES : BIOLOGIE, EVALUATION ET GESTION

Axe 1 : Biologie et écologie des ressources halieutiques.

Axe 2 : Evaluation et gestion des ressources halieutiques.

Axe 3 : Gestion écosystémique des ressources biologiques.

Axe 4 : Techniques et technologies des pêches.

DOMAINE 2: RESSOURCES AQUATIQUES: INSTALLATIONS, SURVEILLANCE ET OPTIMISATION

Axe 1 : Valorisation des potentialités et des ressources naturelles.

Axe 2 : Evaluation et identification des sites potentiels.

Axe 3 : Durabilités des systèmes de production.

Axe 4 : Qualité des procédés et des produits.

DOMAINE 3: ECOSYSTEMES COTIERS : SURVEILLANCE, USAGE ET MISE EN VALEUR

Axe 1 : Ecosystèmes marins côtiers vulnérables.

Axe 2 : Mise en valeur et aménagement intégré de la zone côtière.

Axe 3: Surveillance et état de santé des écosystèmes aquatiques.

Axe 4 : Environnement côtier, santé et sécurité du consommateur

Axe 5 : Interactions environnementales - aquaculture

DOMAINE 4: QUALITE ET TRANSFORMATION DES PRODITS AQUACOLES

Axe 1 : Hygiène et contrôle de la qualité.

Axe 2 : Valorisation industrielle et conservation des produits.

Axe 3 Techniques et technologie de la transformation.

DOMAINE 5: ECONOMIE, SOCIOLOGIE ET REGLEMENTATION

Axe 1 : Economie de la pêche et de l'aquaculture.

Axe 2 : Organisation sociale des communautés de pêcheurs.

Axe 3 : Règlementation de la pêche et de l'aquaculture.

Axe 4 : Gestion intégrée des zones côtières (GIZC) et conflits d'usages.

A ce titre, le Secteur de la pêche en Algérie a proposé en 2010 de nombreux projets de recherches auprès du Ministère de l'Enseignement Supérieur et la Recherche Scientifique pour une durée de réalisation de 24 mois. Ainsi, nous citons l'intitulé des projets suivants:

- Modélisation des données multi-sources par l'étude spatio-temporelle de la distribution des petits pélagiques;
- Valorisation des végétaux aquatiques : inventaire et valorisation des algues marines dans la région centrale d'Algérie;
- Biologie et dynamique des petits pélagiques de la côte algérienne;
- Indicateurs socio-économiques des pêcheries algériennes;
- Estimation du niveau d'exploitation des crevettes à intérêt commercial de la côte algérienne;
- Evaluation des ressources aquacoles des plans d'eau d'Algérie;
- Contrôle et surveillance de la pollution au niveau des eaux côtières : cas de la baie de Bou-Ismail (Wilaya de Tipaza);
- Culture de la spiruline et amélioration de la part protéinique des aliments par incorporation;
- Contribution à la protection des eaux côtières algériennes contre la pollution chimique par application d'un nouveau procédé de traitement Electro-Fenton;
- Etude bioéconomique des pêcheries des petits pélagiques de la région ouest;
- La pêche artisanale en Algérie : potentialités et contraintes.

4. TEXTES REGLEMENTAIRES PUBLIES DURANT LA PERIODE INTERSESSION 2009-2010

L'EXERCICE DE L'ACTIVITE DE PECHE

Arrêté du 4 Rajab 1429 correspondant au 7 juillet 2008 fixant le dossier de demande d'autorisation d'exploitation des ressources biologiques marines à la plongée sous marine professionnelle ainsi que les modalités de son octroi**.(JO n°54-2008)**

Arrêté du 13 Rajab 1429 correspondant au 16 juillet 2008 définissant les engins utilisés pour la pêche à pied professionnelle ainsi que les espèces à pêcher, les dates d'ouverture et de fermeture de la pêche à pied professionnelle ainsi que les zones d'exercice de cette pêche. **(JO n°54- 2008).**

Arrêté du 14 Moharram 1430 correspondant au 11 janvier 2009 fixant les éléments constituant les dépenses et charges communes entre l'armateur et le personnel naviguant lors des opérations de pêche.**(JO n°43-2009)**

Arrêté interministériel du 13 Joumada El Oula 1431 correspondant au 28 avril 2010 portant adoption du règlement technique relatif aux caractéristiques des contenants pour l'entreposage et le transport des produits de la pêche et de l'aquaculture**.(JO 38-2010).**
Arrêté du 4 Joumada El Oula 1431 correspondant au 19 avril 2010 instituant des quotas de pêche au thon rouge pour les navires battant pavillon national exerçant dans les eaux sous juridiction nationale et fixant les modalités de leur répartition et de leur mise en œuvre**(JO 26-2010)**

L'EXERCICE DE L'ACTIVITE D'AQUACULTURE

Décret exécutif n° 10-93 du 28 Rabie El Aouel 1431 1428 correspondant au 14 mars 2010 modifiant et complétant le décret exécutif n°04-373 du 8 Chaouel 1425 correspondant au 21 novembre 2004 définissant les conditions et modalités d'octroi de la concession pour la création d'un établissement d'aquaculture. **(JO n°18- 2010).**

5. ÉTUDES DANS LE DOMAINE DE L'ENVIRONNEMENT MARIN

5.1 Études menées par le MPRH (Toujours en cours)

Étude de salubrité et classification des zones de pêches et d'aquaculture: identification et classification des zones productives marines, évaluation du degré de pollution marine dans les baies et les bassins (des zones de pêche), identification des sources et des types de pollution sur le milieu et les ressources halieutiques, évaluation sanitaire des produits de la mer, étude de l'impact de l'activité de la pêche et de l'aquaculture sur le milieu marin et continental, classification des sédiments et des eaux des ports et abris de pêche selon le degré de pollution, conception et réalisation de la cartographie des zones salubres et insalubres marines.

5.2 Études MPRH menées par le Centre national de recherche et de développement de la pêche et l'aquaculture (CNRDPA)toujours en cours de réalisation.

– Étude environnemental de la baie de Bou-Ismail :
1) Études de cas 1: Suivi de la salubrité de la zone d'installation de la filière conchylicole en baie de Bou Ismail.

2) Études de cas 2: Évaluation de la pollution au niveau du littoral et des ports de pêche de la wilaya de Tipaza.
– Recherche Indicateurs biologiques d'exposition à des polluants;
– Mise au point d'un intégrateur des contaminants chimiques dans les eaux côtières. Étude de la faisabilité d'un réseau de surveillance utilisant la transplantation de moules:

1) Études de cas 1: Contribution à l'étude du degré de pollution au niveau de la moule *Mytillus galloprovincialis* en baie de Bou Ismail à travers des stations artificielles de moules.
– Étude systématique des parasites trématodes endogènes:

1) Étude de cas 1: Contribution à l'étude systématique des parasites chez deux espèces de clupéidés *Sardina pilchardus* et *Sardinella aurita* dans la baie de Bou-Ismail.

2) Étude de cas 2: Contribution à l'étude systématique des parasites chez deux espèces de clupéidés *Sardina pilchardus* et *Sardinella aurita* dans la région de Béni Saf (W. Ain Temmouchent).

5.3 Études menées par le MESRS(En cours de réalisation)

– Étude de la pollution et de la fertilité des côtes algériennes.
– La pollution dans les ports algériens.
– Formes naturelles et anthropisation du littoral ouest-algérois.
– Analyse de la pollution et des polluants organiques et inorganiques dans l'environnement marin.
– Étude d'aménagement et de pollution des sédiments des ports algériens.
– Aménagement du littoral: Érosion, dynamique et gestion des zones côtières.
– Aspects juridiques de la gestion de l'environnement côtier.
– Écosystème à *Posidonia oceanica* : approche structurale, fonctionnelle et appliquée.
– Évaluation de la qualité du milieu marin par la mise en place d'un réseau de surveillance des herbiers à *Posidonia oceanica*.
– Inventaire, conservation et gestion de la biodiversité marine et littoral.
– Études sur la mise en place de réserves marines.

5.4 Études menées par le MATET

– Étude de classement des îles Habibas (secteur ouest-algérien, Wilaya d'Oran) et de l'île de Rechgoune (secteur ouest algérien, Wilaya de Aïn Témouchent) en réserve naturelle marine.
– Plan d'aménagement côtier pour les trois secteurs algériens (ouest, centre et est).
– Étude d'aménagement de la zone naturelle Chenoua et Anse de Kouali (secteur centre algérien, Wilaya de Tipaza) et de la réserve naturelle marine des îles Habibas et de l'île Rechgoune.
– Étude de réalisation de trois musées marins (ouest: Oran; centre: Tipaza; est: Annaba).

6. PROPOSITIONS DE RECHERCHE POUR LE CSC

- l'évaluation des ressources halieutiques et l'approche écosystémique de la gestion des pêches ;
- la technologie des engins de pêche ;
- la sclérochronologie ;
- l'aquaculture marine méditerranéenne :
    - pisciculture ;
    - conchyliculture ;
    - crevetticulture.
- l'aquaculture continentale :
    - pisciculture ;
    - gestion et valorisation des plans d'eau continentale.

l'étude des écosystèmes et le suivi des conditions environnementales ;

BULGARIA/BULGARIE

Description of the fishing grounds and GSA

The Bulgarian marine fishery is taking place in the Black Sea (GFCM Fishing Sub-area 37.4 (Division 37.4.2), Fig.1 and Geographical Sub-area (GSA) 29). The opportunities of marine fishing in the country are limited by the specific characteristics of the Black Sea. The exploitation of the fish recourses is limited in the shelf area (depths under 100-150 m concentrate high amounts of H_2S that limits the life).

Fishing grounds

The fishing grounds of the Bulgarian sector are with small depths (up to 100-120m.) - from Cape Kartalburun to the river Rezovo in southern direction. Fishing by active fishing gears is carried out on small fishing vessels (>12m) in the 3-miles zone offshore. During summer (July-August), most abundant fish species in front of the Bulgarian Black Sea coast is the sprat, dwelling in the water column under the termocline (usually under 10,5 C)-under 20m. The warm period (May-October) is the main fishing season along the entire Bulgarian coast.

Total landings by main targeted species

Species composition of the catches is stable and not changed in comparison with the previous years. Information for some species is missing, probably because they present only as a by catch in the targeted fishery. The prevailing are sprat (4551.32 t) and Rapa whelk (2213.94 t.).Commercially important are turbot (reported 52.47 t), bluefish (52.54 t.) and horse mackerel (176.91 t). The rest of the catches are not significant and represent very small percent from total landings in 2009.

Indicators

In accordance with the guidelines supplied by the EC on March 2008 for an improved analysis of the balance between fishing capacity and fishing opportunities, Bulgaria calculated the technical, biological, economic and social indicators for 2008 as outlined below. The indicators were based on data collected under the framework of EC Regulations 1543/2000, 1639/2001 & 1581/2004 and information system of NAFA.

Technical indicator: Ratio between days at sea and maximum days at sea

According to Bulgarian legislation the fishermen have to fill in Logbook sheet for every fishing trip they make and fishing gear used. On that basis NAFA reports effort by fishing technique.
In principle Bulgarian fishing vessels make daily fishing trips. The filled Logbook sheets (Landing declarations) are stored in a separate sub-database directly connected to the FR.
All fishing vessels below 10 m are also included in the FR. They are mainly fishing in the coastal waters with passive gears and are also obliged to fill the standard fisheries Logbook.

The table below includes the following detailed information for each fleet segment (gear used & LOA):

- number of the active vessels during 2008;
- capacity average values (kW & GT);
- average values of days at sea;
- maximum days at sea.

On the base of the mentioned data the current and maximum efforts and capacity utilization were calculated.

State of the Bulgarian Fishing Fleet

On 31 December 2009, the Bulgarian fleet consists of 2206 vessels with an aggregated total of 7701.1 GT and 60379.7 kW. There are 2100 fishing boats less than 12 m representing approximately 96 % of all Bulgarian vessels and producing 58 % of all Bulgarian catches in the Black Sea. In 2009 the vessels were operating in the Black Sea.

Status of stocks of priority species

Sprat in 2010

- The total surveyed area in Bulgarian part was 9136.6 km^2 and total estimated sprat biomass was 75 080.2 t.
- The biomass of the sprat agglomerations for the surveyed area was estimated at about of 28 002 tons, extrapolated for the shelf till 50 Nm from shore, at 59.643 tons.
- The asymptotic length reached 12.77cm and growth rate could be assessed as relatively high accounting 0.45 y^{-1}. The growth of sprat from present research is positive allometric (n=2.66).
- Asymptotic somatic growth reached 11.27 The growth rate in weight is assessed as low at k = 0.24.
- In the present research we used natural mortality coefficient for sprat as equal to 0.95.
- Sustainable levels of fishing mortality are those around F=0.5, which would correspond to the catch level of 12.5 thous.tons of sprat in Bulgarian and Romanian marine waters. Levels above F =0.8 would lead to stock collapse.

Turbot 2010

➢The exploited biomass of turbot in the Romanian Black Sea area was estimated at 603.3 t in the surveyed area and extrapolated to 1149 t for the shelf till 50 Nm from shore (about 5000 Nm^2), including the new area near (Insula Serpilor).

➢The exploited biomass of turbot in the Bulgarian Black Sea area was assessed at 633.12 tones. The fulfilment of bottom trawl survey in the Bulgarian area at the end of the spawning period (June), not in the beginning (April – May), results in spreading of turbot agglomeration due to feeding, low catches and subsequently in estimation of lower biomass indices.

➢The size structure of turbot catches in front of the Romanian Black Sea coast included size classes from 22.5 to 70.0 cm. The very low density of undersized individuals was recorded in the Romanian Black Sea area.

➢The size structure of turbot catches in front of the Bulgarian Black Sea coast included size classes from 26.5 to 74.5 cm. The very low density of undersized individuals was recorded in the Bulgarian Black Sea area, following the tendency from 2008 and 2009.

➢The established ratio between female and male individuals in the catches during the study in the Romanian area was 59.15 % to 40.85 %. For the Bulgarian area, the ratio between females and males was 69.05 % and 30.95%.

➢Age composition of catches encompassed 2 to 8 - years old individuals for both countries, predominantly 4 to 6 years old fish for the Bulgarian area and 4 - 5 years old fish - for the Romanian area.

➢The recommend TAC for each area should not exceed 50 - 60 tons.

Status of statistics and information system

NAFA - Bulgaria developed and implemented two information systems to serve the needs of different management and operative levels – Information Statistical system (ISS) and Vessels Monitoring system (VMS).

Fishery related projects in Black Sea

UNEP/ACCOBAMS (finalized), Years: 2008-2009, Full name: in the text, www.blacksea-commission.org
EC FP7 SESAME, Years: 2007-2010, Full name: "Southern European Seas: Assessing and Modelling Ecosystem changes", (http://www.sesame-ip.eu/)
EC FP7 UBSS, Years: 2009-2012, continuation of the BS SCENE project (2006-2008), Full name: "UP-GRADE Black Sea Scientific Network", (http://www.blackseascene.net/). Working under the standards of SeaDataNet: -http://www.seadatanet.org/
EC FP7 EnviroGRIDS, Years : 2009-2013, Full name : "Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development" Project", (http://www.envirogrids.net/
EC FP7 KnowSeas, Years: 2009-2012. Full name: Knowledge-based Sustainable Management for Europe's Seas, http://www.knowseas.com/
EC FP7 PEGASO, Years: 2010-2014, Full name: People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast, www
WISER will support the implementation of the Water Framework DirectiveDirective 2000/60/EC to establish a framework for water policy and management in Europe
Project: „The Black Sea gobiidae (GOBIIDAE) – biological resource with insufficient appreciation of their exploitation and conservation significance., 2009-2011.

Status of the social sciences studies in progress or achieved during the intersessional period(economy, relevant legislation, sociology, etc.)

The alternative chosen for the present investigation are widely used tools for fishing effort limitation with well expressed positive effects on fish stocks all over the world. The choice of the alternatives was made by the authors on the base of known impact of these measures on different stocks, and including in the Black Sea.
Fishing effort control has been examined as multi aspect task with the following directions:

1. Reducing the fishing fleet capacity trough multi annual fishing fleet management programs;
2. Control through reducing days at sea (fishing effort is the vessel number multiplied by number of the days of fishing activities);
3. Total allowable catch and quotas of the species with great commercial interest and with local or shared stocks;
4. Applying concrete technical measures such as selectivity of the fishing gears used for catching vulnerable or over exploited stocks. Discard and by catch restrictions;
5. Closed zones and seasons – zones closed for fishing activities, after given scientific advice;

Conclusion

For effective implementation in the practice of any of the assessed alternatives, it is necessary the result to be evaluated at each stage of execution. In this view, corrections must be introduced in the method or its rejection could be accepted according to the described problems.
In sake of sector stability preservation, and on the other hand for the fish stocks sustainability it should have a flexible mechanism in force for management of the sector and stocks, as the management and control methods should not be placed within the framework of few alternatives or selection of concrete one. In the selection of the alternatives all dynamic factors of the environment should be taken into consideration, and socio-economic effects of their implementation as decision should be based on reliable statistics and momentary assessments of the state.
Randomized Expert Panel Opinion Marginalizing Procedure was applied in the present research in order to estimate two alternative technologies and can be used instead or simultaneously with many different tools for decision-making process in various sphere of our life.

Economic indicators

Marine fish consumption in Bulgaria is very low. In 1990 to 2005 it increased from 3.0 kg/per capita up to 4.3 kg/per capita. In 2009 some raise of per capita consumption was detected: 4.6 kg/per capita. Import of fish products (in the past frozen Scombridae mostly, nowadays variety of Atlantic, Pacific fish and mollusks imported) exceeds export considerably (*Rapana* spp. mostly and small quantities of Sprat). Employment in the fishery sector in the last years is around 3500 people (only fishermen). 30% are retired men, most of the time engaged with other agriculture activities. Women possess 1% of the issued licenses. Number of authorizations for fishing activities/licences are 3404 for 2009. Number of authorizations for sport fishing (inland waters and Black Sea) is 200 837.

According to the analysis performed the following conclusion could be done: vessels with a length of less than LOA 12 m have the most negative assessment than others and Bulgaria has to apply measures (as scraping & modernization) for improving of the segment's state.
Segments to LOA 12 m refer to the smallscale coastal fishing and despite a negative assessment of other indicators; they have a positive economic assessment. The following facts influenced on the assessment:

- the small vessels are normally operated by the owner, who seems to be satisfied with a smaller remuneration than a skilled worker;
- the profit is the actual remuneration of the working effort of the owner;
- in investment costs calculations do not participate the inactive vessels but they still may have obligations concerning remuneration of invested capital.

It should be pointed out that the indicators give only a rough overview of the ratio, and there may be a huge spread within each segment.

The final conclusion is that by use of the prescribed indicators and given the current stock situation and fleet structure, there seems to be almost balance between the fish stock and the fleet size.

CROATIA/CROATIE

1. Description of the fisheries

Croatian fisheries are carried out within the GSA 17 – Northern Adriatic and GSA 18 – Southern Adriatic. Majority of catches are realized within the GSA 17. Fisheries are divided in several main segments – small pelagic (purse seine and pelagic trawls) fishery, bottom trawl and other towed fishery, fixed gear fishery, bluefin tuna fishery and coastal (artesenal) fishery.

Total landings by main targeted species (in tons) in 2009. :

	2009
Sardina pilchardus	32190,7
Engraulis encrasicolus	15456,2
Osteichthyes – mixed	978,7
Scomber japonicus	552,4
Mullus barbatus	843,9
Merluccius merluccius	839,8
Eledone spp	706,8
Trachurus spp	357,1
Nephrops norvegicus	371,2
Spicara spp	148,9
Octopus vulgaris	146,3
Solea solea	301,1
Boops boops	144,8
Loliginidae	115,8
Sprattus sprattus	89,1
Parapenaeus longirostris	139,1
Oblada melanura	63,5
Loligo spp	63,8
Pagellus erythrinus	80,2
Sarpa salpa	49,6
Triglidae	44,3

Note: Total landings in 2009 in Croatia were 55.323,3 tons.

Plovila registrirana za gospodarski ribolov, a nalaze se u Registru flote RH:

number of vessels	3996	
LOA (range and average)	**number**	
< 12 metres	3345	
12 - 24 metres	523	
more than 24 metres	128	
Total kW + GT	37.568,11 GT	310.800,02 kW

Note: The data provided are preliminary, as the fleet register is still being cross-checked and verified. There are some 11000 subsistence fishermen in Croatia in addition to the aforementioned figure. Most of them operate vessels less than 6 meters.

2. Status of stocks of priority species

Small pelagic
Abundance indices of small pelagic (anchovy and sardine) evaluated by means of fishery independent methods (i.e. acoustic survey), showed large annual changes. For anchovy stock, no significant trend (P=0,1376) in abundance changes has been detected over period from 2003 to 2009. in the eastern part of GSA 17. In case of sardine stock, despite large annual fluctuations, positive trend in abundance changes detected over period from 2003 to 2009. in the eastern part of GSA 17 was significant (P=0,0489). Acoustic estimates (anchovy and sardine abundance) from eastern and western part of GSA 17 have been used for joint VPA assessments performed within AdriaMed Project framework and presented to SCSA-WG in Mazara del Vallo 2010. Outputs of these VPA assessments demonstrated that both stocks (anchovy and sardine) in GSA 17, in relation to their estimated biomass levels in 2009., can be considered as moderately exploited. However, taking into account large annual fluctuations of anchovy and sardine stock biomass and considering precautionary principles, it has been advised not to increase fishing effort on these small pelagic species.

Demersal resources
Assessment of common sole (*Solea solea*) stock in GSA 17 has been performed and presented to SCSA (Malta). According to this assessment, as in previous year, recent state of stock is characterized as "overfishing". Management advice is the same like in the year 2008: reduction of fishing effort by introduction of "closed area" and temporally restriction for fisheries using the beam trawlers (rapido) along Adriatic western coast to protect juveniles. Documents of stock assessment for other demersal species have not been finalized yet. According to the scientific surveys MEDITS, long-term trends in biomass index in Croatian fishing sea shows high fluctuation with negative changes in 2009 for the most important stocks as hake and Norway lobster. Those changes are visible primarily in the decrease in the biomass of recruits in the extraterritorial waters in the open Adriatic Sea (Jabuka pit) which are known as spawning and nursery areas for majority of demersal stocks.

3. Status of the statistics and information system

Croatian Fishing Fleet Register is an electronically-kept register, now web-based, in which relevant data on vessels and vessel activities are registered. At the moment, data are being entered and cross-checked. The Fleet Register functions as a centralized structure, where field offices enter the data which are all immediately recorded and stored in a central database. Data on the vessels (GT, kw, technical elements) are obtained from official documents issued by other relevant institutions (Ministry of sea, transport and infrastructure - Croatian Register of Shipping and Croatian Register of Boats).
Fleet Register contains the data on each vessel. These include the CFR, event code, event date, vessel name or registration, outer markings, date of registration, type of vessel, port of registration, port of operation, base port, activity status, area of operation. The Register also contains the data on the licence (valid through, serial number), data on gears (main gear, additional gears, structural characteristics of the vessel (length, height, GT, construction material), engine characteristics (kW, type, auxiliary engine if available), electronic equipment (IRCS, IRCS no if applicable, VMS, navigational equipment, communication equipment, fish finding equipment), deck equipment, data on the owner, crew number and data on equipment for storage and processing of the catch.
Republic of Croatia has established links between responsible authorities (Croatian Bureau of Statistics and the MAFRD) in order to meet the relevant requirement and secure the delivery of statistical data in a unified manner.
Croatia has since 2000 been implementing the obligation of all license holders to keep and submit the logbooks on fishing activities. According to the provisions of the national regulation, all license holders operating with fishing vessels equal to or longer than 10 m have to keep and submit the logbook. Logbook contains the data on catch and landing per species and quantity. Data on catches over 10 kg has to be entered into the logbook for all species. Species caught in quantities of less than 10 kg are registered as *other catch* in the logbook. Exceptionally, there are 16 species that have to be entered into the logbook regardless of the quantity caught. These are the following: *Spicara sp., Lophius sp., Homarus gammarus, Engraulis encrasicolus, Palinurus elaphas, Zeus faber, Arca noae,*

Eledone sp., Merluccius merluccius, Sprattus sprattus, Maja squinado, Sardina pilchardus, Mullus barbatus, Mullus surmuletus, Nephrops norvegicus and *Scorpaena sp.* Each license holder is obliged to submit the logbook to the MAFRD no later than 48 hours upon landing. It is possible to submit the logbook via mail, fax or a scanned copy. The landing declaration is an integrated part of the logbook, and contains information on catch landed per species and quantities (same rules of data entry apply as for the logbook). MAFRD staff (in field offices of the DoF) has to enter all landing declaration data in the database. Database is kept per license holder and per vessel (linked with the fleet register).
First sales of catches have to be made at places designated as points of first sales. Exceptionally, first sales may take place in a place that is not a designated point of first sales, but only under the condition that the first buyer is a recognized first buyer and submits the information within 48 hours. In cases where the first sales take place in a non-designated place, the first buyer has to submit these information to the MAFRD before placing the goods into further circulation and by no means later than 48 hours upon first sales.
All sales data are reported via a web-based application in an electronic form. The sales note/sales declaration form contains data on producer/fishermen (name and address), CFR of the vessel that caught the fish, registration or name of the vessel, date and place of landing, serial number of landing declaration or serial number of catch report (for vessel less than 10 m), data on first buyer (name, address), registration number of the buyer (number under which the licensed first buyer is registered with the Register of first buyers), date and place of the first sales, number of storage declaration (entered in cases when catch was stored with the fishermen for more than 48 hours and hence was not put on the market within 48 hours upon landing), number of the transport declaration (form that has to follow the fish from the point of landing to the point of first sales), data on species sold per species, catch area, category (size, presentation, preservation, freshness), destination, quantity (in kg), price (in kn).

4. Status of research in progress

Monitoring of small pelagic stock by acoustic survey (PELMON) and VPA stock assessment
Monitoring of small pelagic stocks is based on annual fishery independent evaluations of stocks abundance by annual acoustic surveys, combined with collection of environmental data related to pelagic ecosystem has been continued through PELMON Project (http://jadran.izor.hr/pelmon/eng/index.htm). In addition, collection of fishery-related data as needed for fishery dependent assessments (i.e. VPA) has also been undertaken.

Project "DEMMON" Monitoring of commercial demersal (bottom trawl) fisheries
Monitoring of demersal stocks has been continued, as a part of annual project for status evaluation of demersal resources in the Croatian Fishing Sea and preparation of recommendation for stock assessment and management. Fisheries data collection includes on board sampling and laboratory analysis, sampling on the landing ports and gathering basic socio-economic data.

Project "MEDITS" Mediterranean International Bottom Trawl Survey is EU project for assessment of demersal resources in the Mediterranean and Adriatic Sea during spring - summer period. Croatian scientists are included in this project permanently from 1996.

Project "SOLEMON" Evaluation of stock of Common Sole (Solea solea) and other flatfish in the Adriatic sea is an international project under umbrella of FAO AdriaMed for evaluations of common sole and other flatfish using "beam trawl" (rapido).

Project "DEEP SEA" is an international project started in 2008 year under framework of FAO AdriaMed. All Adriatic countries were involved in this survey. The aim of the project is investigation of distribution and status of biological resources in the deep south Adriatic. During 2009 second survey was conducted using different fishing gears (bottom trawl, pelagic trawl, long-lines and traps)

Project "UWTV Survey" is an international project under umbrella of FAO AdriaMed for alternative assessment of biomass stock of Norway lobster in the Jabuka/Pommo pit using underwater camera. Survey was conducted in 2009 together with scientists from Ancona.

5. Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

One part of socio-economic data gathering is organized through DemMon project. Data collection is done by using national methodology and it is not fully complaining EU DCR rules. Social and economical studies are currently being developed.

6. Marine environmental studies in progress

Croatia has been conducting a permanent national monitoring project "Systematic exploration of the Adriatic Sea as basis for sustainable resources management" (Project Jadran) which includes monitoring of biotic and abiotic parameters relevant to the marine environmental and renewable resources. Monitoring of fishery resources (both pelagic and demersal) also provide environmental data related to the marine ecosystems.

7. Management measures

All recommendations on bluefin tuna and swordfish in Mediterranean Sea as adopted by ICCAT and GFCM are fully incorporated in Croatian legislation and have been implemented in the inter-sessional period.

8. Research suggestions for consideration by SAC

Support from Regional FAO AdriaMed Project related to fisheries research and management within Adriatic Sea (GSA 17&18) has been very important. It is deemed necessary to continue with the activities in this framework.

Consideration should be given to international monitoring of demersal resources in Jabuka Pit. Jabuka/Pommo Pit is a principal fishing ground in the Adriatic Sea for Croatian and Italian bottom trawl fisheries fleet. At the same time, it is the most important spawning and nursery area for majority of demersal species. Recent state of resources in this area show negative changes in communities and population structures, as well as, negative trends in biomass indices and demographic structure of the most important populations. It is considered necessary to establish restrictive fisheries regulation measures to adjust fishing effort to the recent state of stock. Also it is important to organized permanent international monitoring of status of the stocks and fishing effort in this area as the principal tools for responsible fisheries management.

CYPRUS/CHYPRE

1. Description of the Fisheries

The Cyprus capture fisheries consist of the small-scale inshore fishery (artisanal fishery), the trawl fishery and the polyvalent fishery.

The small scale inshore fishery fleet consists of small wooden and or fiber glass vessels with length ranging between 6 to 12m (OAL), and an average length of 8.2 m. It operates within the territorial waters of Cyprus (Geographical Sub Area 25-Cyprus). Fishing gears used are mainly passive gears (bottom set nets and bottom longlines), targeting demersal species.

The Polyvalent fishery fleet consists of vessels with length ranging between 12 – 26m (OAL), and an average length of 16 m. The fleet operates with passive polyvalent gears, both in the territorial waters of Cyprus and international waters of the Eastern Mediterranean, mainly in GSA 26-South Levant. Polyvalent vessels target highly migratory species, such as bluefin tuna (*Thunnus thynnus)*, swordfish (*Xiphias gladius*) and albacore (*Thunnus alalunga*) with surface longlines. Demersal species are also targeted in a lesser extent.

The bottom trawl fishery consists of vessels with length ranging between 21,4 to 26,8m (OAL) and are categorized into trawlers fishing in Cyprus waters (GSA 25) and trawlers fishing in International waters (Central and Eastern Mediterranean), according to their license.

Thus the fishing grounds where the Cyprus fleet operates are distinguished as “Cyprus waters” and “International waters”. For the purpose of this report the term “Cyprus Waters” is used to describe the marine area under the effective control of the Government of Cyprus. It is known that since 1974, the most important fishing grounds of Cyprus are not accessible to the Government of the Republic of Cyprus. From the 846 sq. nautical miles of continental shelf and the total coastline of 773 km, only about 60 percent and 45 percent respectively are effectively controlled by the Government of Cyprus.

Table 1 presents information on fishing effort (number of licensed vessels, working days and total KW and GT) per fleet category for the year 2008.

Table 1: Cyprus Fishery 2008

YEAR 2008	Production Metric tonnes	Effort (Working Days)	Number of Vessels	Fleet Total KW	Production Working Day/Kg
Artisanal Fishery	1,043	96,725	498	20,944	10
Bottom Trawl Fishery Cyprus Waters	264	773	4	1,229	341
Bottom Trawl Fishery International waters	108	523	8	2421	207
Polyvalent Fishery	412	1644	30	5540	251

In 2008 the most significant species landings (in weight) for Cyprus were: *Boops boops*(Boque) 338t, *Spicara spp (Picarel) 244t, Thunnus alalunga* (Albacore) 240t, *Mullus surmuletus* (Stripped Red mullet) 112t, Octopuses nei 112 t, *Xiphias gladius* (Swordish) 56 t. Almost half (44%) of the landed catches are classified by species, the rest of the catch are grouped at family or higher level.

2. Status of stocks of priority species

During the intersessional period Cyprus continued with the monitoring of demersal and large pelagic species in GSA 25, as part of the Cyprus National Fisheries Data Collection Programme, performed

under the framework of the Community Data Collection Framework (Regulations (EC) 199/2008 and (EC) 665/2008, Decision 2008/949/EC).

The GFCM demersal priority species for which biological sampling was performed (for collecting length, age, maturity and sex data) are: *Boops boops*, *Mullus barbatus*, *Mullus surmuletus*, *Pagellus erythrinus*. Sampling was also conducted for *Spicara smaris*, which is of great national commercial importance.
Furthermore, systematic length sampling was performed for an additional number of species: *Sparisoma cretense*, *Siganus rivulatus*, *Siganus luridus*, *Merluccius merluccius*, *Pagrus pagrus*, *Diplodus sargus*, *Diplodus vulgaris* and *Spicara maena*.

Biological sampling was also conducted for the ICCAT and GFCM priority species *Thunnus alalunga*, *Thunnus thynnus* and *Xiphias gladius*. Data have been submitted to ICCAT, contributing to the assessment of the status of the stocks.

During the 2010 SCSA Working Group on Demersal Species the status of the five demersal stocks for which biological sampling is performed was evaluated, using LCA - pseudocohort and Y/R analysis; the findings are considered preliminary.

3. Status of the statistics and information system

The authority responsible for the collection and management of fishery statistics in Cyprus is the Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Natural Resources and Environment.

The data collected by the fishery statistical system are used to fulfil the following objectives:

a) To serve as a guide for management purposes, i.e. to direct the DFMR to decide on the introduction of measures and regulations for the fishery
b) To provide statistical information to other bodies: The data are transmitted to the International Organizations and Agencies, where Cyprus has the legal obligation to send, i.e. FAO, GFCM, ICCAT and the European Union.
c) To be analysed for scientific purposes: Along with length distributions collected by sampling, the data are used to evaluate the stocks of the five most important commercial demersal fish species.

The Cyprus National Database for the collection and storage of data in the fisheries sector is comprised of the following databases: i).the Data Collection Network System (Data Transmission), ii) the Central Database and iii) the Fishing Vessel Fleet Register (FVR). The database facilitates the storage of data and its transmission to the relevant International bodies.

The system comprises a series of sub-databases which include the following data: Fishing capacity, Fishing effort, Catches (Landings and Discards), Catch per Unit Effort data series, Biological Measurements, Economic data on the fishing fleet and processing industry. Updates of the National Database are made whenever necessary, for incorporating new requirements.

All the data collected by the National database are dealt with confidence. Data access is limited to authorised personnel.

4. Status of research in progress

Within the framework of the National Fisheries Data Collection Programme, which is implemented since 2005, Cyprus performs annually biological sampling for the evaluation of length and age composition of landings, and the estimation of biological parameters (growth, maturity) for a number of species. Discards sampling is also performed annually for the evaluation of the discard rates from the bottom otter trawl.

Furthermore, the National Programme includes the implementation of the International Bottom Trawl Survey in the Mediterranean (MEDITS) around Cyprus waters (GSA 25). The aim of the survey is to collect biological data from the Cyprus demersal species and creating time series of abundance and biomass indices and length frequency distributions. The trends of these data will provide information on the status of the Cyprus fishery resources, which may contribute to their management.

During 2010 the national project for collecting information concerning the alien species *Lagocephalus sceleratus* (distribution, biology, feeding behaviour and interaction with fishing gears) was continued for a second year.

Other research activities: The DFMR participates in many EU Oceanographic research projects, most of them aiming to develop the operational Oceanography in the Mediterranean Sea. Finally, research in Aquaculture is being done in the Department's experimental stations.
The research projects of Aquaculture include reproduction, development of brood stock populations and good quality and quantity of eggs and larvae of species cultured.

5. Status of the social science studies in progress

The DFMR carries out socio-economic surveys to assess the economic situation of the fisheries sector in Cyprus. The sources for collecting the socio-economic data are the Inshore Fishery Production Reports, Logbooks, the Fishing Licenses and the Sales Notes from the fishmongers for verifying the quantities of production and the value of production of the Inshore Fishery. Moreover, an important tool used for the economic analysis is the face-to-face interviews. Some of the target variables are income, gross value of landings, production cost, financial position of fishermen, investments, live/weight prices per species and number of persons employed.

6. Marine environmental studies in progress

Marine ecological research is undertaken through various national and EU-funded projects and includes:

- Research on marine ecology with a particular emphasis on marine biodiversity.
- Studies on the effects on the marine ecosystem from various anthropogenic activities, such as aquaculture, desalination, breakwaters, sewage etc.
- Monitoring studies on the appearance and expansion of invasive alien species in the marine environment of Cyprus.
- Monitoring of eutrophication events by nuisance macroalgae.
- Protection and conservation programs for endangered aquatic species and their habitats, e.g., program for the conservation of marine turtles (*Chelonia mydas* & *Caretta caretta*), monk seal (*Monachus monachus*), *Posidonia* seagrass meadows (*Posidonia oceanica*) etc.
- Studies in the framework of the establishment of marine protected areas, including the development of artificial reefs.
- Monitoring of marine ecological and environmental parameters, as well as estimation of pollutants in marine organisms.
- Assessment of the Ecological Quality Status of coastal waters, under the Water Framework Directive (2000/60/EC).
- Study of the ecology and monitoring of the environmental parameters of the Larnaca Salt Lake complex and Akrotiri wetlands.
- Implementation of the Habitats Directive (92/43/EEC) as regards to coastal waters.
- Implementation of the Marine Framework Strategy Directive (2008/56/EC).

7. Management measures

The National and Community legislation provide for a number of management measures for the regulation of the Cyprus fisheries, including:

- Restrictive access to fisheries (limited number of licenses for each fleet segment)
- Effort control: Restrictions on the use of fishing gears (quantities, soaking time, depth and distance off shore)
- Establishment of Fishing Protected Areas (Implementation of (EC) Regulation 1967/2006)
- Regulation of fishing capacity (scrapping, assignment for other uses than fishing, engine restrictions, ceiling of the fleet vessel register)
- Minimum sizes of marine organisms (restriction of catching, retain on board, transship, landing, transfer, store, sell and market)
- Technical conservation measures: minimum mesh sizes
- Seasonal and area closures

Moreover, the DFMR formulated and implements a Fisheries Management Plan for the Cyprus Fleet targeting demersal and mesopelagic stocks in the coastal zone of the Republic of Cyprus. The Plan includes measures which are aimed at reducing the fishing effort for all categories of professional vessels that are active in the territorial waters, under the exclusive control of the Republic of Cyprus and to adjust the fishing fleet to the availability of such stocks.The main measures, which have been programmed, include the permanent withdrawal of vessels, the use of more selective fishing methods, the reduction in the number of fishing licenses, the reduction in the permitted fishing tools, the creation of fishing protected areas and stricter control measures.
During the intersessional period the 2010 ICCAT recommendations on the management of Mediterranean swordfish, the multiannual recovery plan for bluefin tuna and the conservation of thresher sharks, endorsed by GFCM, were implemented.

8. Research suggestions for consideration by SAC

At this point Cyprus has no research suggestions for consideration by SAC.

EGYPT/EGYPTE

Description of the fisheries

Egypt is situated in the eastern part of North Africa, Southern Mediterranean Sea (nominated according to GSA as 26 - South Levant). The country has borders with Libya in the West and Gaza Strip in the East. Coastline of Egypt on the Mediterranean Sea is about 1 100 km long, extending from Sallum in the West to Rafah in the East, with connections to six coastal lagoons (Maruit, Edku, Burollus, Manzala, Port Fouad and Bardawil).

Historical the main fishing ground used by Egyptian vessels is the continental shelf off the Nile delta; extend last ten years to the eastern side off Sinai and seasonally to the western side of Alexandria. The continental shelf is narrow in western area comparable to the wider central delta region and its eastern side. The seabed is flat, mostly muddy to sandy along the middle and eastern coast. Limited grounds for trawling are available on the western coast where the area is sandy and rocky. Inshore fisheries are widespread, with artisanal fishermen along the coast.

Total landings by main targeted species

According to the General Authority for Fish Resources Development (GAFRD, 2010), during 2009 about 78790 MT were landed at different fishing ports from the Egyptian Mediterranean coast.

Species / group	Scientific name	Catch (MT)	%
Sardinellas nei	*Sardinella spp.*	11917	15.1
Shrimp	*Penaeus & Metapenaeus spp*	10632	13.5
Gray mullet	*Mugil spp.& Liza spp*	4733	6.01
Crabs	*Portunus spp*	3949	5.01
Molluscs	*Ex Mollusca*	3231	4.1
Anchovy & small sardine	*Engraulis encrasicolus*	3167	4.02
Red mullet	*Mullus spp.*	3058	3.88
Red porgy	*Pagrus spp.& Pagellus spp.*	2801	3.56
Bogue	Boops boops	2711	3.44
Cuttlefish	*Sepia officinalis*	2473	3.14
Sharks, Rays, etc	*Chondrichthyes spp.*	2468	3.13
Sea breams	*Diplodus spp*	2324	2.95
Little tuna	*Euthynnus alletteratus*	1939	2.46
King fish	*Scomberomorus commerson*	1689	2.14
Lizardfish	*Saurida undosquamis*	1600	2.03
Hairtail	*Trichiurus lepturus*	1549	1.97
Gilthead Sea bream	*Sparus aurata*	1481	1.88
Sea bass	*Dicentrarchus labrax*	1336	1.7
Gurnard	*Eutrigla gurnardus*	1211	1.54

Meagre	*Argyrosomus regius*	1031	1.31
Grouper	*Epinephelus spp.*	1018	1.29
Spinefeet	*Siganus spp.*	945	1.2
Barracudas	*Sphyraena spp.*	919	1.17
Jacks	*Caranx rhonchus*	874	1.11
Sole	*Solea spp.*	738	0.94
Black spotted bass	*Dicentrarchus punctatus*	586	0.74
Bluefish	*Pomatomus saltatrix*	560	0.71
Crustacea	*Oratosquilla massavensis*	300	0.38
Others		7550	9.58

Fleet
The fleet composed from 2977 motorized vessels and 1418 unmotorized boats used sail.

Fishing method		**Number**	**Length (m)**	**GT**	**HP**
Gill & Trammel nets	Average	499	10.3	11.2	42.4
	Range		4-25m	.8-140	6-110
Hooks & line	Average	1185	12.3	17.7	61.3
	Range		3-20.9	1.6-74	6-150
Purse Seine	Average	232	16.3	31.0	158.9
	Range		9.5-27	7.6-103	27-425
Trawl	Average	1061	19.2	60.0	176.9
	Range		5.9-31	7.7-343	10-1150

Status of stocks of priority species
Using per-recruit analysis as a suitable stock assessment tool for data-limited in Egyptian fisheries showed that the fisheries status of *Diplodus vulgaris* in Abu Qir Bay did not reach the limit reference point (F_{max}), thus the fisheries of this species considered not overexploited (Mahmoud *et al*, 2010a). The biological reference points and the effect of age at first capture on Y/R, also Cohort analysis (VPA, age based) were used to study the fisheries status of *Diplodus sargus* in Abu Qir Bay. The study concluded that, the fisheries status of *D. sargus* reached the target reference point ($F_{0.1}$) but it did not reach the limit reference point (F_{max}), thus the fisheries status of *D. sargus* in Abu Qir Bay is not in the overexploited phase (Mahmoud *et al*, 2010b).
Pagellus erythrinus, Merluccius merluccius and *Siganus rivulatus* comprised high percentages in that catch of demersal otter bottom trawl. Most of the commercial fish species are caught with average sizes below 15.0 cm., therefore they are mostly caught before attaining their first sexual maturity, i.e. heavily exploited stocks (Alsayes et al, 2010)
The exploitation rate value (E) of Round herring *Etrumeus teres* was estimated to be 0.320. These findings indicated that purse-seine fishery of round herring *E. teres* in the Egyptian Mediterranean water does not exert intensive fishing pressure on the stock and this fish is under exploitation (Farrag, 2010).

Status of the statistics and information system
GAFRD establish the licenses for fishing unit and fishermen, renew them every year (from January to March). Register all fishing units in a registration book describe fishing units (length, horse power, fishing gears and fishermen names). Record all fish catch (after specify) in a daily book describe each

species amount and fishing unit involved in the landing sites and listing these daily data in a monthly bases according to species amount and landing site. GAFRD is collecting fisheries data by two methods (whole survey and sampling), this system is going to be computerized for registering every fishing unit and the catch data. The manager of each catch office send the monthly data to the central statistical department in GAFRD, where establish statistical tables for catch per landing site to establish the annual statistical report in Arabic and English beside some specific publications.
The statistics collection procedures have recently been upgraded and monitoring, control and surveillance activities have been improved. However, as welcome as these initiatives are, both surveillance activities (including prosecution) and the fisheries statistics collection system (particularly the number of data collectors) requires further improvement.

Both data groups (whole survey and Sampling) are validating by the fisheries data collection committee. Members of the fisheries data collection committee are appointing by the Minister of Agriculture and Land Reclamation. Currently the Committee consists of a representative from GAFRD, representatives from the Planning Institute, the Fisheries Union, an aquaculture scientist, and scientists from the National Institute of Oceanography & fisheries, and Arab Academy for Science & Technology and Maritime transport.

Status of research in progress
The regional project "Scientific and Institutional Cooperation to Support Responsible Fisheries in the Eastern Mediterranean" (EastMed) will support the development of regionally-consistent fisheries management plans among the Eastern Mediterranean countries. The project was started in September 2009 for five years.
The Arab Academy for Science and Technology and Maritime Transport, started a project to improvement the Egyptian bottom trawl selectivity and reduce its high percentage by-catch. Change the foot rope, Square mesh size, different types of panels are examined.
Scattered stock assessment of single species studies are conducting at different universities and National Institute of Fisheries and Oceanography.

Status of the social sciences studies achieved during the intercessional period (economy, relevant legislation, sociology, etc.)
Few social or economical studies related to the fisheries are conducted in Egypt. One of them concluded that the risk of the investments in the marine crustaceans fisheries is a little due to the high investment incentives which referred by the high value of the product, as well as environmental and food incentives (*Hassan and El-Karyony*, 2009).

Marine environmental studies
The Gulf of Sallum (at western coast of Egyptian Mediterranean water) was declared as the first marine Egyptian protected area in the Mediterranean Sea by the Egyptian Prime Minister's decision No. 533 for the year 2010 for the purpose of fisheries and biodiversity conservation. The area consider as a nursing ground for many fish and crustacean species that was destroyed by bottom trawlers last few years (El-Haweet et al, 2011).

Management measures
Specific management regulations are limited to freeze on the issue of additional fishing boat s licenses and a closed season for all fishing activities from 1 May to 30 June each year at the Mediterranean Sea.

Research suggestions for consideration by SAC
- There is a little scientific knowledge on stock status and exploitation levels for the target pelagic species and some demersal resources off the Egyptian Mediterranean coast. It may cover by EestMed project with improvement of catch/ effort data collection.
- Fishing harbour facilities need to be improved at strategic sites.
- Enlarge and modernize offshore fishing in the Egyptian EEZ.
- Social and economical studies related to the fisheries in Egypt.
- The effect of wide spreading urbanization of coastal area on fisheries activities.

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FRANCE

En France, les travaux de recherche halieutique pour la Méditerranée sont essentiellement réalisés au sein du laboratoire « Ressources Halieutiques » et du service «Technologie des pêches» de l'IFREMER, regroupés au sein du Centre de Recherche Méditerranéen et Tropical de Sète.

Description des pêcheries

Description des zones de pêche et GSA

Les pêcheries françaises de Méditerranée sont réparties entre deux GSA: la GSA 07 qui regroupe les zones de pêche du golfe du Lion et celles des côtes continentales françaises du golfe de Gênes et la GSA 08 couvrant les zones de pêche de Corse. A ces pêches maritimes, littorales, et du large, s'ajoutent d'une part une activité de pêche lagunaire intéressant plus d'une vingtaine de lagunes dont la majeure partie borde le littoral du golfe du Lion et d'autre part une activité hauturière couvrant l'ensemble de la Méditerranée, la pêche du thon rouge à la senne tournante. A l'exception de cette dernière, le golfe du Lion, grâce à son plateau continental (15 000 km²) et l'importance de ses lagunes (49 734 ha) regroupe la majeure partie de l'activité halieutique française en Méditerranée et de sa production. Les différents métiers peuvent se définir en 3 grands groupes: le chalutage, la pêche des pélagiques à la senne tournante et un ensemble de métiers divers pratiqués d'une façon polyvalente et à petite échelle, principalement à la côte et dans les lagunes. Ces flottilles et leur production se répartissent de la manière suivante :

GSA 07 – Golfe du Lion et côtes provençales4

Flottilles	Nombre	LHT moy (m)	Puissance totale (kW)	Tonnage total (Tx)
Chalutiers	93	22.6	34312	7207
Thoniers senneurs	28	36	23064	8113
Senneurs sardiniers	10	17.8	2460	345
Petits métiers	1041	8.7	69578	1938
Total	1172			

4 Source SIH/Ifremer - Réseau d'observation des ressources halieutiques et des usages (Activité 2007) et DPMA

Production des 10 principales espèces vendues hors thon rouge (GSA07) 5

Espèces	Tonnage (T)	%
Sardine	3620	26%
Anchois	2460	17%
Merlu	2269	16%
Poulpe	923	7%
Bar	153	1%
Sole	115	1%
Dorade royale	260	2%
Maquereau	1185	8%
Baudroies	367	3%
Calmars	177	1%
Autres	2658	19%
Total	**14187**	**100%**

GSA 08 (Corse)

L'activité de pêche en Corse est répartie sur l'ensemble de son littoral (1043 km) avec 50 % des unités de pêche regroupés dans le golfe d'Ajaccio. La flottille est composée de 209 unités artisanales réparties entre 188 petits métiers côtiers (principalement des navires de 6 à 10 mètres), 4 fileyeurs palangriers, 9 chalutiers de fond dont l'activité est principalement située sur la côte orientale et 8 armements de plongeurs-corailleurs.

Etat des stocks des espèces prioritaires

Evaluation du stock partagé franco-espagnol de merlu (Merluccius merluccius) du golfe du Lion (GSA 07)

Les principales conclusions concernant le stock de merlu du golfe du Lion sont une surexploitation de croissance avec un risque de surexploitation du recrutement. D'exceptionnels forts recrutements sont observés périodiquement (1998, 2002 et 2008) ce qui semble assurer le maintien de l'exploitation. Les tendances de la biomasse reproductrice ne semblent pas montrer de risque de diminution ou d'effondrement. Pour ce stock, une analyse prospective à montré pour le point de référence ($F_{0.1}$) une valeur de 0.2 (valeur absolue), avec un F actuel de 0.88, ce qui correspondrait à une réduction de 60-70 % du taux de mortalité par pêche actuel et permettrait d'augmenter le Y/R de 26 %.

Evaluation du stock partagé franco-espagnol de rouget (Mullus barbatus) du golfe du Lion (GSA 07)

L'évaluation du stock partagé de rouget a permis de mettre en évidence une faible surexploitation du stock. La mortalité par pêche actuelle doit être réduite de 30-40 % pour atteindre le F0.1.

Evaluation du stock partagé franco-espagnol d'anchois (Engraulis encrasicolus) et de sardine (Sardina pilchardus) du golfe du Lion (GSA 07)

La biomasse évaluée pour l'anchois à partir des campagnes PELMED de l'Ifremer dans la GSA 07 est faible et inférieure à celle de l'année précédente (31700 T en 2009 pour 25000 T en 2010); on note la même situation dans la GSA 06 voisine à partir des données des campagnes espagnoles ECOMED de l'IEO. En conséquence Il a été recommandé de veiller à ne pas augmenter l'effort de pêche sur cette espèce dans ces deux zones.

La biomasse de sardine a été évaluée pour la période 2009-2010; bien que la biomasse de juvéniles soit en augmentation sensible depuis 3 ans, la biomasse totale du stock est inférieure aux évaluations des années précédentes (58300 T en 2009 pour 41100 T en 2010). Aussi il a été recommandé de ne pas augmenter l'effort de pêche dirigé sur cette espèce.

5 Constitué des ventes en criée (essentiellement captures des chalutiers), sauf pour merlu (données françaises et espagnoles) et sardine, anchois)

Considérant l'évaluation des biomasses acoustiques des anchois et sardine comme une mesure non biaisée de l'abondance absolue dans le golfe du Lion, les taux d'exploitation ont été modérés en 2010. Les niveaux de biomasse estimée ces dernières années sont faibles considérant la série totale des biomasses acoustiques disponibles.

Pour l'anchois, la biomasse totale a diminué sensiblement après un pic en 2001, pour être stable au niveau le plus bas de la série temporelle depuis 2005 (entre 20,000 et 30,000 T). En 2010, la biomasse d'anchois a été évaluée à 25,000 tonnes. La structure démographique du stock semble être fortement déséquilibrée depuis 2009, avec une très faible abondance des poissons de taille commerciale (groupes 2 +). La biomasse estimée est donc composée en majorité d'anchois de groupe 1. L'analyse des tailles moyennes aux âges et des indices de condition a mis en évidence une diminution sensible de ces indices, comparée aux valeurs habituelles observées pour ce stock. Ces signes indiquent que le renouvellement et le maintien du stock ainsi que sa capacité à supporter une activité économique, sont sévèrement affectés. Il est nécessaire de prendre des mesures de gestion favorisant son maintien et sa consolidation, en limitant les sources supplémentaires de mortalité d'une population déjà fragilisée. Il a donc été recommandé :

- de réduire l'effort de pêche sur l'anchois dans le Golfe de Lion, tel que déjà appliqué par la pêcherie française dans un comportement adaptatif sur les six premiers mois de 2010,
- De respecter la réglementation européenne sur la taille de longueur minimale de prise (> 9 cm, UE 1976/2006) pour préserver le groupe d'age 1, jusqu'à ce qu'il y a la preuve d'un stock équilibré et avec une proportion significative d'anchois des groupes 2+ (par la survie/croissance et/ou l'immigration).

Pour la sardine, la biomasse totale estimée a été d'environ 50,000 tonnes en 2009 et en 2010, niveaux les plus bas de la série temporelle pour le golfe du Lion. La biomasse annuelle des plus grosses sardines (géniteurs de plus de 12,5 cm) a fortement et régulièrement chuté depuis 2005 (> 200,000 tonnes) pour atteindre son niveau le plus faible en 2010, avec moins de 5,000 tonnes de poisson. Toutefois, les petites sardines (<12.5 cm) ont montré de fort recrutement depuis 2008. Elles représentent à elles seules, plus de 80% des biomasses estimées en 2009 et 2010. L'absence des sardines de taille commerciale (>14,5 cm) a contraint la pêcherie de chalutiers français à fortement réduire leur effort de pêche dès la fin de l'année 2009. L'activité "exploratoire" mis en place par quelques chalutiers français en 2010 a montré que les niveaux de captures journalières étaient très faibles. De plus, le recrutement massif de petits sprats dans la pêcherie, se mélangeant aux bancs de petites sardines et d'anchois a contraint les pêcheurs à limiter leur activité. De fait, les débarquements ont été limités par une faible valeur commerciale des sardines disponibles. De plus, les structures démographiques des sardines, et les indicateurs biologiques obtenus en 2009 et 2010 ont montré de nombreuses altérations : 80% de la biomasse totale estimée était composée d'age 0. Les groupes 0 et 1 observés en 2008 et 2009 n'ont pas produit les ages 1 et 2 attendus en 2009 et 2010. Peu de poisson survivent après 2 ans en 2010 (<1%). Les indices de condition, les taux de croissance et la taille de première maturité sexuelle diminuent sensiblement ces 3 dernières années. Enfin, les niveaux très bas des stocks annuels de géniteurs (age 1+), couplés à des mauvaises conditions physiologiques, ne sont plus en accord avec les niveaux de recrutement observés. Cela suggère une importante contribution externe d'un stock de géniteurs au golf du Lion (interdépendance des stocks). Il a donc été recommandé :

- De fortement réduire l'effort de pêche sur la sardine dans le Golfe de Lion, tel que suivi par la pêcherie en 2009/2010 (activité sentinelle),
- Formaliser et établir un protocole d'activité "de veille sentinelle" pour des pêcheurs et produire des observations mensuellement pour décrire l'évolution du système,
- De respecter la réglementation européenne sur la taille de longueur minimale de prise (11cm, UE 1976/2006) pour protéger l'âge 0, jusqu'à ce qu'un rééquilibrage démographique du stock soit observé (biomasse significative de sardine d'âges 1+, par la survie/croissance et/ou l'immigration)

L'écosystème du golfe de Lion montre des signes importants de déséquilibre depuis 2008, avec des réductions importantes de biomasse et des changements dans les structures démographiques

des stocks de sardine et d'anchois, couplés à une abondance exceptionnelle de sprat (non ciblé commercialement). La pêcherie sur les petits pélagiques y est de ce fait multispécifique et l'effort de pêche réalisé sur la sardine ne peut pas être dissocié de celui appliqué à l'anchois. La plupart des décisions de gestion doivent donc être prises en considérant les deux espèces.

Information sur les pêcheries thon rouge

Les captures françaises totales de thon rouge en Méditerranée s'élèvent en 2009 à 3087 tonnes, contre 2922 en 2670 tonnes en 2008 et 10 157 tonnes en 2007 Méditerranée. La très forte diminution des captures françaises en 2008 et en 2009 par rapport aux années précédentes résulte de plusieurs facteurs liés à l'application du plan de reconstitution du thon rouge de la CICTA : la forte restriction de la saison de pêche à la senne en Méditerranée et la fermeture avancée au 15 juin, le renforcement des contrôles à terre et en mer et la mise en place de quotas individuels pour les thoniers senneurs.

En Méditerranée, le thon rouge est pêché principalement par des senneurs depuis les années 1970. Leur niveau de captures est en partie déterminé par des facteurs environnementaux influençant la disponibilité du thon rouge vis-à-vis de l'engin de pêche. Lors de la saison de pêche des Baléares et de Libye (mi-mai à mi-juin), la majorité des prises mesure entre 180 et 250 cm (140 à 250 kg). Le développement du commerce avec le Japon au milieu des années 1990, puis de l'embouche, est notamment à l'origine de cette pêche ciblée sur les gros poissons. La très grande majorité des prises de cette saison est destinée aux cages d'engraissement et n'est donc pas débarquée.

Les autres saisons de pêche (mars-avril et août-octobre) étaient auparavant axées sur des poissons d'un poids moyen de 10 à 30 kg (essentiellement de classe d'âge 2 et 3), principalement au large des côtes franco-catalanes, et secondairement au large des côtes de l'Afrique du Nord, jusqu'en 2006 (et en partie 2007). Suite au plan de reconstitution, les senneurs ne pêchent plus à ces périodes. La pêcherie artisanale méditerranéenne, pratiquant maintenant principalement la canne ou la palangre, a pêché 169.4 tonnes de thons rouge de mai à octobre 2009 le long des côtes françaises méditerranéennes.

Etat des statistiques et du système d'information

Le Système d'Information Halieutique (SIH) de l'IFREMER constitue le réseau pérenne d'observation des ressources halieutiques et des usages associés. Il est dépositaire des cahiers des charges et des spécifications techniques pour les plans d'échantillonnage, la collecte, le stockage, l'accès aux données halieutiques (de base et agrégées), les restitutions internes et externes. Il se situe en soutien à l'ensemble des programmes de recherche et des missions d'avis et d'expertise halieutique institutionnelle de l'Ifremer. Enfin, il est en charge de l'élaboration d'indicateurs intégrés sur les pêcheries et de la réalisation de synthèses à destination des acteurs de la filière pêche (recherche, usagers et gestionnaires) et du grand public. Toutes les données halieutiques ainsi récoltées sont misent à la disposition des équipes de l'institut. Le SIH s'appuie sur quatre grandes actions pour le recueil des données: l'échantillonnage des captures commerciales, les campagnes à la mer. Les statistiques de pêche et les enquêtes économiques.

A terme l'ensemble des données du SIH devra être intégré dans la base HARMONIE du SIH de l'IFREMER. Actuellement, les données de production et les enquêtes activité sont archivées dans cette base de données nationale. Concernant les côtes continentales de Méditerranée française, de Nice à Port-Vendres (GSA 7), et la Corse (GSA 8) depuis 2011, la collecte de données sur les ressources exploitées par la pêche professionnelle est réalisée dans le cadre de la DCF (Data Collection Framework). Cette collecte repose sur différents programmes qui sont détaillés ci-dessous

Programme d'échantillonnage biologique

GSA 7 : Des échantillonnages biologiques en taille sont effectués sur les principales espèces débarquées dans les ports du golfe du Lion par les métiers représentant la plus grande part de l'activité de pêche, à savoir les chaluts et filets à divers démersaux, les chaluts à petits pélagiques, les senneurs à grands et petits pélagiques. Depuis 2010, des mensurations sont également réalisées sur les principaux métiers opérés par les navires de moins de 12 mètres (240 sorties

échantillonnées/an). Les métiers identifiés ciblent préférentiellement daurade, loup, sole, merlu, poulpe de roche et anguille. Des prélèvements d'otolithes sont réalisés sur la daurade, le merlu, le rouget de vase, l'anchois et la sardine. Les lectures sont réalisées sur l'ensemble des espèces citées, à l'exception du merlu pour lequel des incertitudes existent sur les lectures d'otolithes. Concernant l'anchois et la sardine, un protocole complémentaire de suivi mensuel de la maturité et d'indices de condition a été initié depuis janvier 2009, afin d'obtenir des indicateurs sur l'état de « santé » des populations exploitées et leur capacité à se renouveler et croître (projet Contrat Bleu).

GSA 8 : A partir de 2011, des échantillonnages en taille sont effectués sur les espèces débarquées par les principaux métiers opérant en Corse, i.e. les tramails à langouste rouge (*Palinurus elephas*), les chaluts à poissons démersaux ciblant la langoustine *(Nephrops norvegicus)* et le rouget barbet (*Mullus surmuletus),* ainsi que les palangres à espadon *(Xiphias gladius).* Des données biologiques (poids individuels, sex-ratio, maturité) seront collectées sur la langouste rouge et la langoustine.

Programme d'enquêtes d'activités et des débarquements « petits métiers »

GSA 7 : Des enquêtes sont conduites pour estimer l'effort de pêche et la production des navires de moins de 12 mètres (« petits métiers », mer et lagune) de la frontière italienne à la frontière espagnole, correspondant aux quartiers maritimes de Nice à Port-Vendres, par type d'activité et par mois. Les données recueillies permettent de répondre aux besoins de données de débarquement par espèce et de données d'effort, tels que définit dans l'annexe 2 de la recommandation Task 1 (GFCM/33/2009/3).

GSA 8 : la qualité des données déclaratives s'étant améliorée ces dernières années, une évaluation en sera faite en 2011 par validation croisée avec les données d'observations à la mer et les enquêtes au débarquement. Une estimation des variables d'effort et de débarquements par espèce et par unité opérationnelle sera proposée.

Programme ObsMer d'observation des captures en mer

GSA 7 : Le programme national prévoit pour la façade méditerranéenne, des observations des captures en mer sur les chalutiers (fond et pélagique). Le plan d'échantillonnage prévoit depuis 2007, 12 observations annuelles à effectuer à bord de navires pratiquant le chalutage de fond. Des informations sont collectées sur les quantités et les espèces commercialisées des captures, sur les prises accessoires et sur les rejets, ainsi que sur les caractéristiques techniques de chaque trait. De 2008 à 2010 inclus, le programme ObsMer s'est lié au programme ObsMam afin d'observer les prises de cétacés. Le fait marquant 2010 a été la difficulté d'embarquer sur les navires professionnels dus à des problèmes administratifs liés à la sécurité sur les navires. Ces difficultés ont fortement revu à la baisse la réalisation du programme prévu.

GSA 8 : dès 2011, 144 marées sont prévues dans ce secteur et concernent 120 fileyeurs, 12 palangriers et 12 chalutiers.

Programme ObsMam d'observation des captures accidentelles de mammifères marins

Conformément aux dispositions du règlement (CE) n°812/2004 ce programme d'observation a été tenu d'assurer chaque année une couverture de 5% de la flottille pratiquant le chalutage pélagique. Depuis 2008, ce programme est inclus dans le programme ci-dessus OBSMER

Evaluation des prises de germon et d'espadon des flottilles françaises en Méditerranée
Dans la perspective de disposer d'éléments d'analyse actualisés pour une évaluation des stocks de germon et d'espadon, un bilan des prélèvements effectués par les diverses flottilles de petits métiers méditerranéens a été fait en 2010 pour transmission à la DPMA.

Programme d'observations aériennes du thon rouge dans le golfe du Lion

L'IFREMER a renouvelé pour 2009-2010 les prospections aériennes du thon rouge en Méditerranée qu'il avait conduit en 2000-2003. Un total de 25 survols aériens en 2009 et 17 en 2010 a été réalisé sur le golfe du Lion en période estivale. Les positions GPS des bancs de thon rouge repérés en surface ainsi que les tailles estimées des bancs et des individus ont été relevées. L'analyse présentée au groupe de travail thon rouge du SCRS de la CICTA fait apparaître une

densité observée environ deux fois supérieure à celles observées sur la période 2000-2003. Ces résultats sont cohérents avec les observations aériennes menées par les scientifiques espagnols en Méditerranée Nord Occidentale en 2009-2010. Cette campagne confirme donc l'intérêt des survols pour suivre l'abondance du thon rouge et de la nécessité de poursuivre ce type d'opération sur plusieurs années. Une campagne en 2011 est d'ores et déjà prévues.

Programme MEDITS-France (GSA 07 et 08)

Ce programme a pour objet principal de produire des indices d'abondance relatifs sur les principales espèces démersales du golfe du Lion et de l'Est Corse à partir de campagnes annuelles. Il comporte environ 90 traits de chalut par an, 66 dans le golfe du Lion et 24 pour la façade Est de la Corse. Dans le golfe du Lion, la situation semble, sur la période 1994-2010, en légère augmentation pour quelques espèces, tant en terme d'abondance que de tailles modales, stable pour d'autres mais en très nette diminution notamment pour les raies. A la vue de ces résultats, l'état des stocks démersaux peut être considéré dans l'ensemble comme bon mais une stabilisation voire une diminution de l'effort de pêche ne pourrait être que profitable. Une diversification vers le large de quelques unités pourrait être envisagée, une partie de l'année, ciblant notamment les crustacés. Les stocks sont abondants mais ne pourraient pas supporter une exploitation massive.

En Corse, l'analyse conduite sur toute la série historique de cette campagne (1994-2010 et sur les 22 espèces les plus abondantes, montre que tous les indicateurs sont extrêmement optimistes et que la situation actuelle ne présente aucun signe alarmant, même si on envisageait une légère augmentation de l'effort de pêche. La seule légère inquiétude concerne les tailles modales du merlu montrant une tendance en légère baisse.

Programme PELMED (GSA 07)

L'évaluation des stocks de petits pélagiques est menée une fois par an en juillet à l'aide de prospections acoustiques, par la méthode d'écho intégration à l'aide du logiciel Movies+ et de chalutages d'identification. Les campagnes annuelles PELMED couvrent l'ensemble du golfe du Lion (GSA07) et appliquent un protocole strictement identique depuis 1993. Toutes les principales espèces de petits pélagiques sont évaluées mais seules les biomasses de l'anchois et de la sardine font l'objet d'une fiche d'évaluation, l'évolution des biomasses des autres espèces étant montrée à titre de tendance comme pouvant servir à l'explication du niveau des stocks des deux espèces principales. Les résultats de ces campagnes sont discutés aux sessions des groupes de travail sur les petits pélagiques du SCSA. Depuis la mise en place de l'harmonisation des campagnes acoustiques en Méditerranée à travers le protocole MEDIAS, les campagnes PELMED rejoignent les priorités internationales pour les campagnes financées par l'UE et couvrent le nord de la mer Catalane depuis 2008.

Statistiques thon rouge

La flottille de senneurs méditerranéens est soumise à la remise d'un journal de bord conforme aux normes de la CICTA et à la réglementation communautaire. Les informations provenant de ces documents sont croisées avec celles concernant les débarquements et surtout les transferts en cages pour évaluer le montant des captures totales. Les positions des captures déclarées dans les journaux de bord sont aussi comparées à celle des données VMS (Vessel Monitoring System). Un programme d'observateurs à bord des senneurs méditerranéens a été partiellement mis en place en juin 2008 selon la réglementation de la CICTA et de manière complète en 2009 et 2010.

Etat des recherches en cours

Projet UE SARDONE

Ce projet en phase finale avait pour objectif général la connaissance des stades post larvaires et juvéniles de l'anchois et de la sardine et la réduction de leurs captures. Ce projet a permis de montrer des phénomènes de transport des œufs et larves d'anchois au-delà du golfe du Lion vers le plateau catalan. La recherche de l'amélioration de la sélectivité des chaluts pélagiques a conduit à l'essai de plusieurs innovations dont l'utilisation d'une nappe horizontale dans le but de favoriser la

séparation des espèces et des tailles en fonction de leur comportement. L'analyse des résultats se heurte à la difficulté d'estimer l'effet de cette nappe séparatrice sur le volume filtré.

Programme sur les Aires Marines Protégées pour poissons se déplaçant beaucoup (AMPED)
Avec l'objectif d'estimer les bénéfices potentiels d'aires marines protégées sur les espèces qui se déplacent (merlu, petits pélagiques et thon rouge), plusieurs travaux réalisés par l'IFREMER et l'IRD sont en cours dans le golfe du Lion. Ces travaux regroupent (1) une étude sur la répartition spatio-temporelle des stades de maturité du merlu et plus particulièrement des reproducteurs, (2) une modélisation des réseaux trophiques (modèle Ecopath et Osmose) intégrant l'ensemble des compartiments du plancton aux poissons, mammifères et oiseaux (3) une thèse sur la dynamique spatio-temporelle des espèces de poissons exploités (4) une étude de faisabilité sur le marquage de merlus adultes, (5) la poursuite de marquage (marques électroniques archives de type « pop-up ») de thon rouge. Ce programme a démarré en 2009 et se terminera en 2012.

Projet Groupe de travail partenarial Bioéconomique d'aide à la décision pour l'aménagement des pêcheries
Ce projet s'inscrit dans le cadre de la convention PPDR (Plan pour une Pêche Durable et Responsable) 2009-2010 entre la DPMA et l'IFREMER. Il s'agit d'une démarche « expérimentale » qui vise à rassembler un groupe d'experts constitué de professionnels (ou représentants), de la DPMA et de scientifiques (biologistes, économistes des pêches, sociologues) autour des questions méthodologiques relatives à la construction d'outils bioéconomiques d'aide à la décision pour l'aménagement des pêcheries en s'appuyant sur des cas d'étude ou comment se munir dans le cadre d'un partenariat des outils/modèles bioéconomiques qui permettent des répondre aux demandes d'expertises, aux questions d'intérêt pour les différents partenaires
Dans le cadre de ce programme (Plan Barnier) trois cas d'application ont été choisis sur les différentes façades françaises dont celui de la pêcherie de merlu du golfe du Lion. Des scénarios ont été choisis en partenariat avec les différents interlocuteurs.

Recherche sur le thon rouge
L'IFREMER mène des travaux de recherche dans le cadre de programmes nationaux et internationaux depuis une vingtaine d'années, portant la reproduction et la croissance du thon rouge, la collecte et l'analyse des données historiques de pêcheries visant cette espèce, sa distribution spatiale, l'impact des structures océaniques sur la dynamique de l'espèce ainsi que des travaux de modélisation sur la dynamique de population. L'ensemble de ces travaux a donné lieu à publications. En complément, l'Ifremer continue ses travaux de modélisation en appui à l'évaluation de stock qui se traduisent par des documents de travail présentés aux différents groupes de travail du comité scientifique de l'ICCAT. Depuis 2009, l'Ifremer encadre une thèse, en collaboration avec l'IRD, sur le développement d'un modèle de biomasse dynamique bayésien qui sera appliqué au thon rouge.

Depuis 2006, l'IFREMER mène des travaux de marquage électronique (marque pop-up archive) et conventionnel sur le thon rouge en Méditerranée. Les premiers résultats tendent à montrer un fort taux résidence en Méditerranée de la part des jeunes adultes. L'Ifremer a par ailleurs repris les suivis aériens sur le thon rouge du golfe du Lion en 2009 et 2010 dans le cadre du programme national. La plupart des vols ont permis de détecter une présence abondante de thon rouge dans l'ensemble du golfe du Lion, particulièrement marquée au niveau du talus continental. Il en ressort que la densité observée en 2009 et 2010 est environ deux fois supérieure à celles observées sur la période 2000-2003. Cette campagne confirme l'intérêt des survols pour suivre l'abondance des juvéniles de thon rouge sur ces aires de nutrition clé, mais pour améliorer le diagnostic scientifique, il sera nécessaire de poursuivre ce type d'opération sur plusieurs années et de l'étendre en Méditerranée centrale et orientale.

Projet IPEP (Impact de la pêche sur les espèces protégées)

En 2010 dans le cadre de ce projet, un Symposium international a été organisé et deux études ont été mises en place :

(1) Symposium international sur les interactions entre activités halieutiques et écosystèmes

Le colloque franco-japonais d'océanographie, intitulé « Interactions entre activités halieutiques et écosystèmes : réduction des impacts négatifs » s'est tenu du 1er au 3 septembre 2010 à Sète. Il a été organisé conjointement par l'Ifremer (Centre de Recherche Halieutique Méditerranéenne et Tropicale de Sète) et par l'Université japonaise de Kinki (Province d'Osaka), sélectionnée comme COE parmi toutes les universités japonaises pour son programme "International Education and Research Center for Aquaculture Science of Bluefin tuna and cultured fish". Cette conférence s'est déroulée sous l'égide de la CGPM et a reçu le soutien des institutions nationales et européennes, des assemblées d'élus locales et régionales, ainsi que des représentants professionnels de la pêche et de l'aquaculture des côtes du golfe du Lion.

La démarche adoptée pour ce symposium international était d'offrir aux chercheurs, gestionnaires, délégués de l'industrie de la pêche et de l'aquaculture, un forum de partage d'idées, d'informations, d'expériences sur la réduction de l'impact de l'exploitation des ressources marines sur l'environnement.

Les présentations (conférences, posters) on mis l'accent sur :

- les interactions entre l'aquaculture, les pêcheries et les écosystèmes;
- les mesures visant à réduire les impacts négatifs et à encourager les bonnes pratiques;
- l'intégration des acteurs dans la gestion des activités halieutiques et aquacoles;
- les systèmes de gouvernance.

Les délégués de 8 pays (Canada, Croatie, France, Italie, Philippines, Slovénie, Espagne et Tunisie) ont participé à cet événement et 61 communications ont été présentées, soulignant ainsi la dimension internationale de la problématique de ce colloque.

Les informations relatives au colloque sont accessibles, en anglais, sur les pages dédiées du site Internet de l'Ifremer :

http://wwz.ifremer.fr/mediterranee/Evenements-en-regions/Symposium-Kinki-2010/Themes

(2) Tortues marines en Méditerranée

L'objectif de l'étude est d'approfondir la caractérisation de l'impact des pêcheries du littoral méditerranéen sur les tortues marines, suite à une première enquête nationale pour le Ministère chargé des pêches en 2009. Un premier travail a été mené dans le cadre des activités du groupe « réductions des captures accidentelles » du Groupe Tortues Marines France (GTMF). Le GTMF a été créé à l'initiative du Ministère chargé de l'environnement, et en coordination avec le Réseau Tortues Marines en Méditerranée Française (RTMMF), réseau composé d'observateurs agissant dans le cadre du Réseau National d'Echouage (RNE). En cas d'échouages et de captures accidentelles de tortue marine ce réseau est alerté. Il a recensé 82 captures accidentelles par les engins de pêche entre 1996 à 2008. La première phase a débuté en mars 2010 pour une période de 6 mois et a comporté 3 volets :

- Enquête de terrain auprès des professionnels de la pêche (pêcheurs, mareyeurs, organisations de professionnels) : conception du questionnaire, réalisation d'un fichier de professionnels à contacter. Cette enquête sera menée en coordination avec les observateurs du RTMMF ;
- Constitution d'un fichier de données (séries disponibles et données de l'enquête permettant de caractériser/quantifier des captures accidentelles de tortues marines, l'évolution de l'effort et du rendement de pêche des flottilles) et analyse des données ;
- Mise à jour / approfondissement de la bibliographie sur les captures accidentelles.

Un document de synthèse est en cours de préparation.

(3) Projet ALOP : Protection des requins pélagiques (Programme Action Locale de Préservation)

Une étude sur les requins renards (*Alopias spp*.) capturés accidentellement par la flottille de chalutiers de Sète a été initiée à la demande /et avec la profession (Organisation de Producteurs de

Sète SATHOAN). Ce projet répond directement aux recommandations: du plan d'action national requin, de l'ICCAT (résolutions 08-07/09-07), de la CGPM, du CIEM. L'étude a débuté en mars 2010 pour une période de 2 ans et comporte 3 axes : l'amélioration des données statistiques, l'étude de l'impact des activités halieutiques sur la dynamique des stocks de requins, l'amélioration des connaissances sur la biologie, l'écologie alimentaire et le comportement. Pour se faire des d'enquêtes menées sur le terrain auprès des acteurs de la filière (pêcheurs, organisation de professionnels, mareyeurs) ont été effectuées. Des échantillonnages en mer ainsi que des marquages de quelques individus à l'aide de balises satellitaires sont prévus au cours d'embarquements durant l'été 2011.

Projet de recherche régional sur les requins méditerranéens

Lors de la réunion du sous-comité environnement de la CGPM (29 novembre -2 décembre, 2010, Malte), le représentant Ifremer a présenté brièvement un projet de recherche régional sur les requins méditerranéens. Il a été préparé conjointement par l'IRD (N.Bodin) et l'Ifremer (F. Poisson).

Selon une des recommandations du premier groupe de travail sur le statut des élasmobranches (Sfax-Tunisia, 20-22 September 2010), les auteurs ont proposé une collaboration avec d'autres Institutions de recherche membres de la GFCM.

Trois espèces ont été proposées pour cette étude : le requin renard commun (*Alopias vulpinus*), le requin peau bleue (*Prionace glauca*) et la petite roussette (*Scyliorhinus canicula*). Une approche multi-marqueurs est envisagée incluant la mesure de paramètres morphométriques et chimiques (lipides et acides gras; isotopes stables ; polluants organiques et non organiques).

Le projet est conçu pour améliorer les connaissances sur leur biologie, leur écologie et les dynamiques de population en Méditerranée, et évaluer la présence ou non d'une contamination chimique.

Etude de la sélectivité du Gangui à panneaux des côtes varoises

En 2010, l'Ifremer et les pêcheurs professionnels du Var ont réalisé une étude concernant l'application d'un maillage carré de 40 mm pour la poche des engins « Gangui sur herbiers », comparativement au maillage actuel de la poche de 20 mm losange, dans un contexte de plan de gestion en cours d'adoption pour cette activité pratiquée dans le Var.

Pour cette expérimentation comparée avec l'engin actuellement utilisé par les pêcheurs professionnels, un gangui expérimental a été développé spécifiquement pour ces tests. Les résultats obtenus permettent de qualifier et de quantifier plusieurs paramètres de sélectivité : la composition spécifique des captures, la taille des individus capturés et les rendements de pêche en poids et en valeur.

Le bilan de cette étude montre que les effets produits par l'adoption d'un maillage carré de 40 mm modifient radicalement cette activité, avec une diminution significative sur les deux catégories d'espèces capturées, mixtes et ciblées « Soupe » et « Bouillabaisse » induisant une réduction importante de la valeur débarquée. L'analyse conjointe des gains de sélectivité et des risques induits d'augmentation d'impacts environnementaux, montre que l'application d'un maillage de ce type (maille carrée, 40 mm) est un dispositif inadéquat pour une gestion durable de cette activité.

Application aux pêcheries françaises du règlement européen n° 1967/2006 pour la Méditerranée

En application par étape depuis 2006, le règlement européen n° 1967/2006 instaure la possibilité de définir régionalement des plans de gestion au niveau national ou communautaire, avec adoption de règles complémentaires au règlement cadre ou des mesures techniques spécifiques (Chap.VII).

En 2010, un document de référence a été produit par l'Ifremer et l'AAMP pour établir des indicateurs, proposer des diagnostics et des propositions de gestion des activités de pêche de chalutage, de sennes tournantes, de dragues, de ganguis et de sennes de plage, et pour établir une cartographie de référence des herbiers de posidonies des côtes françaises méditerranéennes, par compilation des sources existantes. Ce travail a été réalisé en intégrant des données collectées dans le cadre du programme européen Data Collection Framework, et en s'appuyant sur les analyses et recommandations produites par les groupes de travail de la CGPM.

Après une concertation sous le pilotage du Ministère de l'Agriculture, de Alimentation et de la Pêche, avec les pêcheurs professionnels et les scientifiques, un document "proposition de plans de gestion" a été transmis à la Commission Européenne pour évaluation et approbation. Parmi les actions de surveillance proposées pour les flottilles concernées par ces plans de gestion, la mise en œuvre d'un dispositif de géolocalisation des activités de pêche s'est imposée pour obtenir la capacité de décrire et mesurer précisément l'effort de pêche de navires de moins de 12 mètres en zone côtière, mais également pour estimer les impacts sur l'environnement de ces pratiques. Il a été programmé pour 2011, de réaliser une opération pilote de suivi d'un échantillon de navire, basée sur la technologie RECOPESCA, qui combine une instrumentation de géolocalisation et de transmission automatique des données sur le navire, et des capteurs d'immersion fixés sur les engins de pêche.

Références :

"Indicateurs, diagnostics et propositions de gestion des activités de pêche concernées : chalutage, sennes tournantes, dragues, ganguis et sennes de plage, en réponse à la saisine 09-2829 de la DPMA concernant le plan de gestion Méditerranée, conformément aux dispositions de l'article 19 du règlement (CE) n° 1967/2006", Avril 2010. Ifremer : coordination G. Le Corre, 271p.

«Plan de gestion Méditerranée, Règlement (CE) n°1967/2006 du Conseil du 21 décembre 2006 concernant des mesures de gestion pour l'exploitation durable des ressources halieutiques en Méditerranée », 2010. Ministère de l'Alimentation, de l'Agriculture et de la Pêche, 250p.

"La sélectivité du gangui à panneaux des côtes varoises - Analyse comparative de l'application de la maille carrée de 40 mm", 2010. Ifremer : J. Sacchi, G. Le Corre et S. Mortreux, 32p.

GREECE/GRÈCE

1. DESCRIPTION OF FISHERIES

Description of fisheries in Greece regarding and landings and fleet is given in the tables below.

Table 1. Provisional landing data for **2009** year provided by National Statistics Service. The quantities are expressed in live weight.

	Common name	Scientific name	Landings (tons)*
	Sole	Solea vulgaris	654
	Other		91
Flatfish			745
	Hake	Merluccius merluccius	5.230
	Other		12.844
Groundfish			18.074
	Horse mackerel	Trachurus spp.	3.164
	Mackerel	Scomber scombrus	292
	Sardine	Sardina pilchardus	10.071
	Anchovy	Engraulis encrasicolus	14.538
	Other pelagics		10.357
Pelagics			38.422
	Bluefin tuna	Thunnus thynnus	373
	Albacore	Thunnus albacares	116
	Other tuna		1.130
	Swordfish	Xiphias gladius	1.132
Tunas			2.751
Other fish			9.806
Total fish			**69.798**
	Lobster	Palinurus elephas	149
	Norway lobster	Nephrops norvegicus	491
	Shrimp	Parapenaeus longirostris	3.098
	Other crustaceans		76
Total crustaceans			**3.814**
	Oyster	Ostrea edulis	21
	Mussel	Mytilus galloprovincialis	708
	Scallop	Pecten opercularis	3
	Other shellfish		1.467
	Squid	Loligo vulgaris	725
	Cuttlefish	Sepia officinalis	1.494
	Octopus	Octopus vulgaris	1.580
	Other molluscs		1.920
Total mollusks			**7.918**
Grand Total			**81.530**

*Landings from vessels with engine power over 19HP

Table 2. Fishing Fleet Characteristics			
LOA	No of vessels	Capasity	Engine power
m.		GT	KW
0-9.99	15.538	27.284,92	263.832,08
10-14.99	1.084	11.631,02	83.560,56
15-23.99	432	17.720,19	86.027,00
24-49.99	226	31.439,69	73.922,89
	17.280	88.075,82	507.342,53
TOTAL			
Range o LOA	2.56-48.98		
Average LOA	7.44		

2. STATUS OF STOCKS OF PRIORITY SPECIES

Anchovy, *Engraulis encrasicolus* - GSA22 (Aegean Sea-NWpart)

In GSA 22 the Greek anchovy fishery is almost exclusively exploited by the purse seine fleet. Regarding the regulations enforced they concern a closed period from the mid December till the end of February and technical measures such as minimum distance from shore, gear and mesh size, vessel capacity, power of engine. There is a minimum landing size at 9 cm. Discards values are less than 1%, reaching approximately 0.06% data for GSA 22. Data of the landings per vessel class indicate that small vessels (12-24 m) are mainly responsible for anchovy catches (>70% of sardine catches).

The assessment of the stock has been based on fishery independent surveys information as well as on Integrated Catch at Age (ICA) analysis model. Acoustic surveys estimations were used for Total Biomass estimates. ICA assessment method uses separable virtual population analysis (VPA) with weighted tuning indices. The application of ICA was based on commercial catch data (2000-2008) and as tuning indices were used the biomass estimates from acoustic surveys estimates and DEPM surveys estimates over the period 2003-2008 with a gap in 2007, as no surveys data were available for this year. The stock was found as fully exploited with no expected room for further expansion. The exploitation rate was found to produce moderate to high fishing mortality and the stock abundance was estimated as intermediate. No further surveys and assessments were carried out in 2009. No further surveys and assessments were carried out in 2009, while landings reduced of about 2000 tons in 2009.

Sardine, *Sardina pilchardus* in the Aegean sea - GSA22 (Aegean Sea-NW part)

In GSA 22 the Greek sardine fishery is almost exclusively exploited by the purse seine fleet. Regarding the regulations enforced they concern a closed period from the mid December till the end of February and technical measures such as minimum distance from shore, gear and mesh size, vessel capacity, power of engine. There is a minimum landing size at 11 cm. Discards values are less than 1%, reaching approximately 0.3% data for GSA 22. Data of the landings per vessel class indicate that small vessels (12-24 m) are mainly responsible for sardine catches (>88% of sardine catches).

The assessment of the stock has been based on fishery independent surveys information as well as on Integrated Catch at Age (ICA) analysis model. Acoustic surveys estimations were used for Total Biomass estimates. ICA assessment method uses separable virtual population analysis (VPA) with weighted tuning indices. The application of ICA was based on commercial catch data (2000-2008) and as tuning indices were used the biomass estimates from acoustic surveys estimates over the period 2003-2008 with a gap in 2007, as no acoustic survey data were available for this year. The exploitation rate was found to produce high fishing mortality and the stock abundance was estimated as intermediate. No further surveys and assessments were carried out in 2009 while landings remain stable since 2008. No further surveys and assessments were carried out in 2009, while landings remained stable since 2008.

Conclusions for both anchovy and sardine

The conclusions based on those assessments should be considered preliminary and cautionary because they are based on a short time series of data. Based on the assessment results the anchovy stock is considered to be harvested sustainably, operating below but close to an optimal yield level, with no however expected room for further expansion. On the other hand the stock of sardine was found to be exploited above but close to the empirical level for stock decline. Thus the management advice is not to increase the fishing effort. The sustainability for harvesting of both stocks has to be confirmed in following years, while the stocks should be monitored in an annual basis with direct assessment surveys.

3. STATUS OF THE STATISTICS AND THE INFORMATION SYSTEM

There is not any significant change of the National System of fisheries statistics during the last year. Fishery statistical data are collected by Administration under various Ministries.

Fish landing data are collected by the National Statistical Service (Hellenic Statistical Authority). Landing data are also collected under the Reg. (EC) 2847/93 by the Ministry of Maritime Affairs, Islands and Fisheries and transmitted to DG MARE. These data provided by the masters of fishing vessels having on overall length more than 10 metres and for specific species according to the above mentioned regulation.

In particular, catch data for large pelagics, e.g. tunas and tunas like species, are collected from all fishing vessels for the purpose of monitoring bluefin tuna (Thunnus thynnus) quotas.

The Ministry of Maritime Affairs, Islands and Fisheries / General Directorate of Fisheries and Local Prefectures keep data of the fishing fleet, which include vessel technical characteristics. All these data are inputted in the National Fleet Registry. The Ministry updates the Community Fleet Registry which is kept by the European Commission and allows for updating in terms of fishing vessels characteristics.

The fisheries data arrive to the FAO through the Hellenic Statistical Authority and as fleet data concerns through the Ministry of Maritime Affairs, Islands and Fisheries.

4. STATUS OF RESEARCH IN PROGRESS

- **Developing fisheries management indicators and targets (DEFILNET MARIFISH)**

The project aims to produce the tools necessary to determine the economically optimal level of exploitation of European ecosystems under changing climatic conditions while ensuring that the pressure exerted on both commercial stocks and susceptible fish species is biologically sustainable.

To reach the project aim, the project objective is to construct operational models of fish stock dynamics explicitly taking account of climatically induced ecosystem changes as well as exploitation and to combine these models with economical models capable of predicting the effort require to reach the optimal yield. To ensure that the advice on biological sustainability derived from using the models is consistent at levels ranging from ensuring stock reproductive potential and safeguarding susceptible species to maximising yield, the project integrates knowledge from a range of areas, each of which affects the sustainability of the exploitation of the ecosystem.

- **Bycatch and Discards: Management indicators, trends and location (BADMINTON)**

The project aims to develop the knowledge of discarding patterns and factors in European fisheries, evaluate the efficacy of selective devices and other discard management measures that have been implemented in the past and improve methods to analyse, monitor, and manage by-catch and discarding in European fisheries.

The project is developed along five main steps:

1. A descriptive analysis of total catch in terms of species and size composition.
2. The development of indicators of discard issues: indicators of discard state (amounts and characteristics of discards), of the pressures that determine discards (selectivity of fishing), and of the management responses to this issue.

3. An analysis of the factors that determine discard amounts, including environmental settings, year-class strength, community composition, and fishing practices.
4. An analysis of socio-economic and institutional drivers and incentives that influence fishers' behaviour in regard to selectivity and discard.
5. Based on all previous steps, the elaboration of potential mitigation measures.

- **Assessment of the interactions between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond (Coral FISH)**

The CoralFISH project aims to support the implementation of an ecosystem-based management approach in the deep-sea by studying the interaction between cold-water coral habitat, fish and fisheries. Within the CoralFish project, multidisciplinary research cruises will be carried out in areas around Zakynthos and Cephalonia involving fisheries biologists, marine biologists, geologists and oceanographers. The seabed will be mapped and surveyed with high technology imaging tools including multibeam sonar, side scan sonar and remotely operated vehicles, to locate areas of corals and to identify the key organisms and the conditions that they live in. Further cruises will be carried out to investigate the fish communities and their behavior around the coral areas by ROV observation and long-line fishing studies. The project will last over 4 years and brings together 16 participating institutions from 11 European countries investigating study sites from Northern Europe to the Azores and from Italy to Greece in the Mediterranean.
The information collected in Greece, along with data from the other sites, will be used by the project participants to:
- develop essential methodologies and indicators for baseline monitoring of closed areas
- integrate fish into coral ecosystem models to understand coral fish-carrying capacity,
- evaluate the distribution of deepwater bottom fishing effort to identify areas of potential interaction and impact upon coral habitat,
- use genetic fingerprinting to assess the potential erosion of genetic fitness of corals due to long-term exposure to fishing impacts,
- construct bio-economic models to assess management effects on corals and fisheries to provide policy options,
- produce as a key output, habitat suitability maps to identify areas likely to contain vulnerable habitat.

- **Management & Monitoring Of Deep-sea Fisheries and Stocks (DEEPFISHMAN)**

Target species in the Deep-water fisheries have posed particular difficulties for monitoring and management. There are few fisheries independent surveys carried out, their life history characteristics makes them difficult to assess and many of these fisheries are predominantly in international waters.
The primary objective of the project is to identify and develop new and more effective monitoring and assessment methods, reference points, control rules and a management framework to be used in the short term. The second objective is to develop a long-term monitoring and management framework to achieve reliable long-term management requirements.
The project outputs will aim to provide robust guidelines for deepwater fisheries management suitable for adoption within the Common Fishery Policy.

- **Updating the inventory of Marine Invasive Alien Species across European Seas (MIAS)**

Brief Description of the study: HCMR for the EEA will a)update and verify MIAS (Marine Invasive Alien Species) related data, and b) proceed to their assessment-Assessment Report-be used as part of both the SEBI2010 Report and the Marine system assessment in Part B of the SoER2010 to be produced by the EEA.
HCMR will update its existing Marine Invasive Alien Species data base (HCMR database) based on new publications and updated national and regional websites (Cross-check MIAS databases and data archived in NOBANIS, and NEMO (Baltic Sea countries), DAISIE (Pan European excluding however the Black Sea) and the Black Sea MIAS list produced by the Black Sea Ecosystem Recovery Programme. This is to include resolution of initial significant disparities among data presented in the countries and regional websites on alien biota and those archived in the aforementioned databases.

The updated data will then analysed, validated (via expert workshops organised by HCMR) and assessed by HCMR. HCMR will prepare a short Assessment Report (AR) to be used as part of both the SEBI2010 Report and the Marine system assessment in Part B of the SoER2010 of the EEA. The AR should be both about state of the environment and trends/Outlooks and also state of action. The report will link the state/impacts to the relevant EU policies, evaluate policy effectiveness and progress towards the 2010 CBD objective of halting biodiversity loss and will include the socio-economic dimension of the alien species issue. Finally the Assessment Report will have a 2020 Outlook on Future marine invasions in the main 4 European seas and why, taking also into account climate change impacts

- **Harmonisation of the acoustic data in the Mediterranean 2002-2006 (AcousMed)**

This study aims to assure the harmonization of past acoustic surveys that have been conducted by Member states of EU on a regular basis in five different Mediterranean geographical subdivisions during the last decade. Specifically within the objectives of the study is the optimization of acoustic surveys design, the compatibility of the acoustic estimations among these areas as well as the compatibility of old and new acoustic data within each area.

- **Mediterranean hAlieutic Resources Evaluation and Advice (MAREA)**

This study aims in the provision of scientific advice and other services for the implementation of the CFP in the Mediterranean. Within the objectives of the study are a) the assessment of the state of aquatic living resources and advise on fisheries management scenarios, b) the integration of ecosystems knowledge into fisheries management, c) monitoring of specific fisheries and fishing gears that are not included or insufficiently covered in the data collection framework and d) assessing the effects of pollutants and of other human activities at sea on aquatic leaving resources and fisheries

- **Assessing the causes and developing measures to prevent the escape of fish from sea-cage aquaculture (PREVENT ESCAPE)**

The primary objective of the project is to develop methods and technologies to prevent the escape of fish from aquaculture cages after the detailed assessment of such incidents in European waters and the study of their causes, as well as the species specific behavioural and biological characteristics of escapees and their interactions with the wild populations.

- **Improving assessment and management of small pelagic species in the Mediterranean (SARDONE)**

The project aims a better understanding, stock assessment and fishery management of small pelagic fish resources (anchovy and sardine) of the Mediterranean. The project also aims at detecting nursery areas, at developing echo-surveys for recruitment strength estimation, at filling the gap in knowledge on the ecology of late larvae and juveniles, at improving the selectivity of current fishing gear, at assessing the impact of fry fisheries on the stocks, at exploring the application of novel stock assessment methodologies to Mediterranean small pelagic stocks.

- **Judgment And Knowledge in Fisheries Involving StakeHolders (JAKFISH)**

The primary objective of the project is to examine and develop the institutions, practices and tools that allow complexity and uncertainty in fisheries management to be effectively taken into consideration within participatory decision-making processes.

- **Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece, including the Inventory of Relevant Marine IBAs (ConShagAudMIBAGR)**

Objectives:
-Preparatoty actions for defining marine Important Bird Areas (mIBAs), and defining of mIBAs.
-Preparatoty action for rat elimination and population control of sea gulls and realization of the respective actions in selected islets.
-Actions for public awareness on sea bird conservation.

- **The Structure of Fish Populations an d Traceability of Fish and Fish Products (FishPopTrace)**

Coordinator: Bangor University UK (Gary R. Carvalho)
Participants: National Institute of Aquatic Resources Technical University of Denmark; DK, University of Padova (UNIPD); IT, Universidad Complutense de Madrid (UCM); ES, Katholieke Universiteit Leuven (K.U.Leuven) ; BE, Alma Mater Studiorum University of Bologna (UNIBO); IT, University of Bergen (UiB); NO, European Commission - Joint Research Centre (JRC); EU, University of Bremen (UNI.HB); DE, Wildlife DNA Services (WDNAS); UK, Département Sciences & Techniques Alimentaires Marines (IFREMER); FR, National Agricultural Research Foundation (NAGREF); GR, Spanish National Foundation of Fish and Seafood Processors; ES, Aarhus University (AU); DK, The Centre of Molecular Genetic Identification (VNIRO); RU, National Oceanic and Atmospheric Administration (NOAA); US
Aim of the project:
FishPopTrace is funded under the European Union (EU) 7FP and aims at developing a forensic framework for the enforcement of regulations and laws to reduce the amount of Illegal, Unreported and Unregulated fishing (IUU). Starting out as a fundamental and explorative research project, results emerging from FishPopTrace will be translated into end-user tools for fish population structure analysis and fish (product) traceability. These tools will be scrutinized applying forensic standards and developed for monitoring, control, surveillance (MCS) and enforcement in the fisheries sector. The strategy of FishPopTrace is to take advantage of the rapid progress in life science technologies. Currently, our research focuses on four commercially important fish species, cod *(Gadus morhua)*, hake *(Merluccius merluccius)*, herring *(Clupea harengus)* and common sole *(Solea solea)*, by using state of the art DNA-based analytical methods (SNPs) for population identification. In parallel, the consortium explores the potential of otolith microchemistry and shape, fatty acid analysis, proteomics, gene expression, and microarrays. The FishPopTrace consortium consists of 15 partners with expertise in fish biology, population and conservation genetics, molecular biology and biochemistry, wildlife forensics, with representatives of the food industry and with strong links to European fisheries policy makers.

- **Fishing management study for the province of Kalymnos**

Coordinator: Dr. Kallianiotis Argyris
Aim of the project:
Collection of data regarding the local fleet and classification of vessels and activities. Data analysis and modelling of a fishing management plan for the area. Diffusion of results, publication of printed material for the briefing of professionals.
According to the data collected during the project, management measures were proposed for the fishing stock of the Kalymnos province in SE Aegean Sea. The following are included among others: Rules that must be applied in the area between Kalymnos and Kos islands, delimited by a specific Presidential Decree. For that to be feasible it was proposed specific mesh opening and hook size of fishing gears used in the area, such as nets, long-lines with specific hook type, trailnets and fishing lines.
In regard of trawlers fishing beyond the Kalymnos-Kos managed zone, the determination of a closed zone in distance of 1 nm from the coast for areas being across the Asia Minor shores, where usually is the middle line for determining the territorial waters between Greece and Turkey, has already been proposed to the competent authorities.
According to the gathered data, the maintenance of the management zone between Kalymnos and Kos is proposed. Among the clauses of the existing Presidential Decree is the prohibition of fishing in the area between Kalymnos and Kos where the depth is less than 50 meters for the most part, and therefore application of the European regulation would prohibit trawling in any case. The standing measures seem to render since the mean lengths of most fish species are larger than of other areas with better feeding conditions.
In regard of amateur fishing we propose that the fishing gear regulations standing for professionals should be applied and the arrangement for fishing exclusively during the weekends should be maintained. For the octopus especially it was proposed that exactly the same prohibition regulations standing for professionals should apply to amateurs too, so that the species to be protected during

spawning season. In order for the exceptional quality local products to be highlighted, the creation of a quality label for local fish should be created according to European instructions.

5. MARINE ENVIRONMENTAL STUDIES IN PROGRESS

- **The 20th Century evolution of Mediterranean exploited demersal resources under increasing fishing disturbance and environmental change (EVOMED)**

The background info that dictated the EVOMED study was given in the EC Call for tender: "Exploited fish and shellfish communities and populations in the Mediterranean have been constantly changing over times due both to increasing disturbances and stresses from fisheries and other anthropogenic sources like pollution, nutrients enrichments and habitats deteriorations. Moreover, changes of the exploited populations have been occurring in parallel to possible more general changes of the marine biota and marine environment as a consequence of global warming and introduction of invasive alien species". The idea behind the EVOMED project was that as fisheries management deals with evolving stocks and ecosystems and despite the lack of long-time series of scientific quantitative data, the analysis of historical, empirical and anecdotal evidences could have helped to launch some enlightening statements about recent past times both of Mediterranean fisheries and marine exploited populations and ecosystems. As a matter of fact, considerable material has been produced in Mediterranean since the late 19th century in the field of fishery sciences and marine ecology, but a large part of this effort has been only partially exploited.
The main objective of EVOMED has been to provide information on the evolution, over the past 100 years, of the Mediterranean demersal fisheries and the marine exploited populations.
Other specific objectives have been the following:
- To identify, collect and organize the historical information in order to demonstrate all its potential.
- To collect information from old fishermen on fishing activity performed in the past.
- To standardize the different data, to validate a common methodology of analysis.
- To characterize the evolution over time of the trawl fleets, their consistence and characteristics.
- To estimate trends of abundance indices, such as standardized CPUEs, over time for important commercial and non commercial species.
- To describe the temporal evolution of communities and species assemblages.

- **Monitoring and Evaluation of Spatially Managed Areas (MESMA)**

The MESMA project focuses on marine spatial planning and aims to produce integrated management tools (concepts, models and guidelines) for monitoring, evaluation and implementation of Spatially Managed Areas (SMAs). The project results will support integrated management plans for designated or proposed sites with assessment methods based on European collaboration. It comprises an easily accessible information system, containing gathered facts on the distribution of marine habitats and species, economic values and benefits, and human uses and their effects, aiming to support activities needed for sustainable use and protection of vulnerable areas. It will develop a strategic tool that can be applied throughout Europe, and will combine an optimized area use with a sustained ecosystem of high quality, taking into account the different ecological and economic features prevailing in diverse regions of the European seas.

- **Options for Delivering Ecosystem-based marine management (ODEMM)**

The overall aim of the ODEMM project is to develop a set of fully-costed ecosystem management options that would deliver the objectives of the Marine Strategy Framework Directive, the Habitats Directive, the European Commission Blue Book and the Guidelines for the Integrated Approach to Maritime Policy. This will be achieved by: (i) providing a comprehensive knowledge base to support policy for the development of sustainable and integrated management of European marine ecosystems; (ii) developing Operational Objectives to achieve the High-Level Policy Objectives set by the MSFD and the HD, and with reference to the proposed Maritime Policy; (iii) identifying Management Options (individual management tools and combinations of tools) to meet the Operational Objectives; (iv) providing a risk assessment framework for the evaluation of Management Options and to assess the risk associated with the different options; (v) conducting a cost-benefit analysis of a range of Management Options using appropriate techniques; (vi) identifying stakeholder

opinions on the creation of governance structures directed towards implementation of the ecosystem approach, and to elaborate different scenarios for changing governance structures and legislation to facilitate a gradual transition from the current fragmented management approach towards fully integrated ecosystem management; (vii) documenting the steps necessary for the transition from the current fragmented management scheme to a mature and integrated approach, and providing a toolkit that could be used to evaluate options for delivering ecosystem-based management; and (viii) communicating and consulting on the outcomes of the project effectively with policy makers and other relevant user groups.

- **People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast (PEGASO)**

The aim of PEGASO is to build on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean.

Many efforts have been deployed for developing Integrated Coastal Zone Management (ICZM) in the Mediterranean and the Black Sea which continue to suffer from severe environmental degradation.

PEGASO will use the model of the existing ICZM Protocol for the Mediterranean and adjust it to the needs of the Black Sea through four innovative actions:

- Construct an ICZM governance platform as a bridge between scientist and end-user communities, going far beyond a conventional bridging. The building of a shared scientific and end users platform is at the heart of our proposal linked with new models of governance.

-Refine and further develop efficient and easy to use tools for making sustainability assessments in the coastal zone (indicators, accounting methods and models, scenarios, socio-economic valuations, etc). They will be tested and validated in 9 sites (CASES) and by the ICZM Platform, using a multi-scale approach for integrated regional assessment.

-Implement a Spatial Data Infrastructure (SDI), following INSPIRE Directive, to organize local geonodes and standardize spatial data to make it available to the ICZM Platform, and to disseminate all results.

-Enhance regional networks of scientists and stakeholders in ICPC countries, supported by capacity building, to implement the PEGASO tools and lessons learned, to assess the state and trends for coast and sea in both basins, identifying present and future main threats, agree on responses to be done at different scales in an integrated approach, including transdisciplinary and transboundary long-term collaborations.

- **Mitigating adverse ecological impacts of open ocean fisheries (MADE)**

The primary objective of the project is to propose measures to mitigate adverse impacts of fisheries targeting large pelagic fish in the open ocean (purse seiners using FADs and longliners), through appropriate knowledge on the biology and ecology of species, and of the fisheries.

- **Fisheries Study of Kyparissia Bay**

Coordinator: Dr. Kallianiotis Argyris

Aim of the project: The project aims to study the area of Kyparissia Bay in SW Ionian Sea. The fish fauna and the ecosystems of the zone were investigated and the physical and chemical characteristics of the water in the area were recorded.

The local Arcadikos River, although small in size, has a constant water flow almost all year round. Despite that, brought soil and organic debris does not affect the southern part of the bay which is the most productive area. In addition, the quality of the sediment does not affect the system, since no heavy metals or exceeding quantities of nutritional salts were traced, despite the presence of small industries and olive mills in the area. Fresh water affects the sea only seasonally, due to increased flow from the nearby Neda River estuary and not the Arcadikos one. The nitrate concentration was still very low indicating low pollution levels in the area.

The main fish fauna sampling method was experimental bottom trawling. Data analysis indicated that the majority of the most abundant commercial species (red mullet, picarel, common pandora, pilchard, horse mackerel, bogue) were present during all sampling periods. It was also indicated that the shallow coastal area is a nursery for many important commercial species and therefore specific proposed measures is expected to reduce natural mortality since they will provide a shelter for young fish. Reduced fishing mortality is expected also through the management plan that will be implemented and the limitation in the use of fishing gear which the plan will include. Visual census sampling in a nearby natural reef indicated that the main reef dwelling species in the area are *Diplodus annularis, Diplodus vulgaris* and *Diplodus sargus.* Other species abundant in the zone were *Oblada melanura* and *Spondyliosoma cantharus* as well as grouper species such as *Epinephelus marginatus* and *Epinephelus fasciatus* in the central part of the bay and *Epinephelus aenaeus* in the perimeter due to the sandy substrate. The latter was recorded in all samplings.

6. MANAGEMENT MEASURES

In addition to EC fisheries management measures, Greece has adopted several national measures for managing fishing effort. These are applied either to the whole of the country or locally and concern the following:

- Fish minimum sizes
- Certain characteristics of the fishing vessels and fishing gear
- Seasonal and local closures of fisheries
- Banned fishing gears
- Minimum distance of the shore and depth restrictions where fisheries can operate

Regarding large pelagics, such as *Thunnus thynnus*, *Thunnus alalunga* and *Xiphias gladius*, fishery is regulating by issuing special permits valid for one year. As far as *Xiphias gladius* fishery concern, there is a seasonal closure during October to January.

ITALY/ITALIE

1 . Description of the fisheries

In 2009, total production showed a small increase respect to 2008 with a total volume of 234,000 tonnes and total value of € 1179 million, reflecting an increase of around 8% both in the weight and value of the products landed (Table 1). The recovery has affected all fleet segments except manufacturing hydraulic dredges and long lines. With an increase of 5.6% trawlers partially recovered losses suffered in 2008.

In 2009, the Italian fishing fleet consisted of 13,301 active vessels. The total fleet accounted for a combined registered tonnage of 182,000 and a total power of 1,097,000 kW. Data 2009 confirm the decreasing trend in the capacity variables of the previous period (2002-2007) by means of scrapping backed by public aid.

The Italian fleet is characterised by a strong multi-specificity and multi-gear activity. Landings from the Adriatic Sea and the Sicily Channel account for almost two thirds of national production. Except for one percent of vessels operating in the high Mediterranean waters and outside the Straits (distant water fleet), the majority of vessels operate in coastal waters around the Italian peninsula.

The small-scale fishery (small fishing boats with an overall length of less than 12 meters using passive gears) is the most important fishery in terms of vessels' number, employment and activity. It accounts for a 66% of the total fleet in number and for about a quarter of the national value of landings. This segment is also the most active one representing 65% of total days at sea in 2009. Fishermen represent 47% of total employment with an average crew of two men.

The trawling segment is the main fleet segments both in volume and value. In 2009, it produced 36% of total national landings and 50% of the total value of landings, employing around 9,000 fishermen (31% of total employment).

Pelagic fisheries are exclusively practiced by vessels authorized to mid-water pair trawl and purse seines. While purse seiners are concentrated in Tyrrhenian and Sicilian waters, mid-water pair trawlers fish exclusively in the Adriatic waters. This fleet accounts for a 33% of all landings in volume and 10% in value.

The other important fishery is represented by dredgers (700 vessels in 2009), almost exclusively located in the central-north Adriatic coast. This fishery is highly specialised targeting mainly clams (Venus gallina).

The segment of multi-purpose vessels is composed of polyvalent vessels using passive gears (mainly nets) in combination with mobile gears (mainly trawls) according to season, demand and fishing grounds. In 2009, they accounted for a 4% of total fleet and represented around 4% of national landings in volume and a 6% in value.

The segment of longlines comprises many types of set and drift longlines used to catch different species, such as swordfishes, Bluefin tuna, albacore tuna and hakes. The production is concentrated in the Tyrrhenian littoral and particularly in Sicily, where there is the largest fleet. This segment represents around 3% of national landings.

In 2009, as a consequence of the reduction in the number of vessels, employment showed a decline of 1% compared with the previous year.

Table 1. Capacity and economic indicators by fleet segments, 2009

	2009						
	Total fleet	Trawlers	Pelagic fleet	Dredges	Smallscale fishery	Multipurpose vessels	Longlines
Capacity Indicators							
Volume of landings ('000ton)	234	85	77	20	38	10	5
Value of landings (EUR million)	1179	586	122	63	303	68	37
Economic indicators							
Fleet - number of vessels	13301	2679	444	700	8795	491	192
Fleet - total GT ('000)	182	113	30	9	16	7	6
Fleet - total kW ('000)	1097	537	132	76	244	69	39
Average days at sea	133	159	119	87	130	135	126
Employment	28967	9021	2883	1417	13657	1276	713

Source: MIPAAF - IREPA

The main species caught by the Italian fishing fleet are reported in table 2. The bulk of the catch consisted of European anchovy (23.2%), followed by other fish (13.5%). The next biggest catches were Striped venus (7.4%), European pilchard (15.6%) and European hake (12%). Within molluscs, cuttlefish is the most important species, representing 3.4% of the total production and 5.3% of total revenues. The most important crustacean is deep water rose shrimp, followed by Norway lobster that because of the high price shows a very different contribution to the total volume and value of landings (1.5% in terms of volume and 5.8% in value).

Table 1. Main species harvested by quantity and value

	2009			
	Tonnes ('000)	%	EUR million	%o
European Anchovy	54.4	23.2	87.8	7.4
Other fish	31.6	13.5	193.7	16.4
Striped venus	17.3	7.4	51.8	4.4
European pilchards	15.6	6.7	12.7	1.1
European Hake	12.0	5.1	90.6	7.7
Deep-water rose shrimp	9.6	4.1	69.9	5.9
Cuttlefish	7.9	3.4	62.7	5.3
Other molluscs	7.6	3.3	46.8	4.0
Mantis squillids	6.5	2.8	39.7	3.4
Striped red mullet	6.1	2.6	30.6	2.6
Swordfish	5.1	2.2	61.3	5.2
Musky octopus	4.1	1.8	16.2	1.4
Common squids	4.1	1.7	21.2	1.8
Horse Mackerel	3.8	1.6	6.1	0.5
Norway Lobster (Nephrops)	3.6	1.5	68.2	5.8
Total	234.1	100.0	1179.0	100.0

Source:Mipaf-IREPA

2. Status of stocks of priority species

The available informations are included in the report of the stock assessment sub-committee.

3. Status of the statistics and information system

The production of Italian fisheries statistics is carried out by IREPA on behalf of the Ministry of agriculture and forestry policies and is included in the ISTAT National Statistic Programme. As for art.10 of the Legislative decree n.322/89 (*Data produced within statistic surveys included in the National Statistic Programme belong to the community...)* the fisheries statistics are available on the Institute web site and are also published in the "Economic observatory on the productive structures of the Italian maritime fisheries". Statistics are produced on the basis of a sample of national fishing fleet, yearly updated, and their reliability is guaranteed by specific validation software.

4. Status of research in progress

Fisheries data have been collected in the framework of the Italian National Data Collection Program 2009, according to the legal Community framework put in place in 2008 with the adoption of a Council Regulations, a Commission Regulation and a Commission Decision laying down the detailed rules of application

In accordance with chapter II of the annex of the Commission Decision, this national program comprises of the following modules:

Module of evaluation of the fishing sector:
- Section for the collection of economic variables
- Section for the collection of biological variables
- Section for the collection of transversal variables
- Section for research surveys at sea

1. Module of evaluation of the economic situation of the aquaculture and processing industry sectors:
   - Section for the collection of economic data for the aquaculture sector
   - Section for the collection of economic data for the processing industry
2. Module of evaluation of the effects of the fishing sector on the marine ecosystem
3. Module for management and use of the data covered by the data collection framework

In implementing the new DCR framework, continuity with data and time series collected under the previous DCR has been assured. In particular economic and transversal data has been collected applying the same methodologies. A particular attention will be given to the regional approach and compliance with RCMMed&BS will be assured. The higher level of disaggregation required by the "metier" approach has been obtained through an increase of the sampling intensities, where necessary. Regarding the surveys, MEDITs has been carried out in line with previous years and the MEDIAS survey started in 2009.

Research activities on marine living resources have been carried out in Italy by several bodies, both private and public, among which are mainly involved University Departments and Research Institutes. During 2009 the following main activities have been performed, as they are included in the Italian National Program 2009:

Module of evaluation of the fishing sector:

Section for the collection of economic variables

The parameters evaluated for analysis of the economic situation of the sector are those reported in Appendix VI of Commission Decision 2008/949/EC.
The following variables has been estimated through a specific sample survey:
Income, personnel costs, Energy costs, Repair and maintenance costs, Other operational costs, Investments Effort - Energy consumption

The survey was continuous in character and has a reference period of one year. The target population of the survey comprises the Italian fishing fleet and the list was based on the Vessel Register kept at the Directorate-General of Fisheries and Acquaculture of the Ministry of Agricultural and Forestry Policies. It includes vessels < 12 meters.

Section for the collection of biological variables

Metier related variables

Sampling has been performed in order to evaluate the quarterly length distribution of species in the catches, and the quarterly volume of discards.
The biological parameters (sex, weight, maturity) has been collected by scientific institutes covering each of the seven FAO/GFCM GSA.

Stock related variables

Biological sampling has been carried out by scientific institutions designated by the relevant Italian Administration separately for each GFCM Geographical Sub-area and by major groups of species (small pelagic species, large pelagic species and demersal species).
Within its assigned area, each scientific institution carried out biological sampling and data analysis and processing. Strata, as for Biological-Metier-related variables of the NP, were represented by a combination of geographical sub-areas (GSA) and métier. The sampling unit was the fishing day (corresponding to the fishing trip). Biological parameters (sex, weight, maturity) has been collected from commercial fisheries (i.e. landing, on board sampling) following each stratum.

Recreational fisheries of bluefin tuna

Data collection on recreational and sport fisheries of bluefin tuna in 2009 and 2010 follows the methodologies suggested by the pilot study previously carried out within the 2004 National Program.
Applied methodologies assured the estimate of total catches and total fleet, as well as biological information on length composition of catches. The main basis of the data collection program was the overall census of recreational and sport fisheries that cover all the Italian coast line and islands, that means more than 800 ports and landing sites. Starting from this census, information on fleet and type of activities and an estimate of catches per administrative region has been obtained.

Recreational fisheries of eels

In 2009 a pilot study has been carried out to identify the importance of recreational fishery compared with the commercial one.
The pilot survey collected information on the general context of the eels recreational fisheries (marine or inland, fishermen population, types of fishing, seasonality).

Section for the collection of transversal variables

Capacity

The following parameters has been given for capacity estimation:
- number of vessels
- GT, kW, Age (as defined in Regulation (EC) No 26/2004)

Parameters has been given annually, per fleet segments (Appendix III - Commission Decision 2008/949EC)) and per supra-regions (Mediterranean & Black Seas and Other regions).
The basic data source has been the fleet register at the 1st of January.

More than 70% of the Italian fishing-vessel licences allow the use of more than one fishing system. In these cases the existence or otherwise of actual polyvalent activity have to be verified.

- In order to get this information on the prevalent fishing activity, field surveys have been carried out periodically since the implementation of the DCR and will be updated every quarter.

This survey involves all the vessels in the fleet register, including those less than 12 meters.

Effort

Effort has been estimated according to the variables and disaggregation levels listed in Appendix VIII (Commission Decision 2008/949EC).
In order to estimate fishing effort per metier and GSA, different data sources has been used:

- field survey to detect the prevalent fishing activity
- sample survey to estimate the monthly distribution of activity by métiers.

The sample survey was based on a panel of around 1500 vessels (10% of the fleet), including the small scale (vessels < 12 m). Survey takes place every week on a continuous basis. Data on fishing effort, vessel activity and fishing area have been recorded by gear and species using purposely formulated questionnaires. Results for each area, by month and by metier have been obtained by applying raising factors to the sampled.

Landing

Landings has been estimated according to the variables and disaggregation levels listed in Appendix VIII (Commission Decision 2008/949EC).
Conversion factors has not been applied to landing-weight-based quantities as all species are landed ungutted. Conversion factors has been necessary only for marginal share of landings. For these species, quantities has been converted to live weight by the FAO and Eurostat conversion factors[6].
Commercial landings has been assessed on the basis of a sampling procedure. The survey has been based on a sample of around 1500 vessels, that is about 10% of the total fleet. The sample was stratified according to fishing segments and geographical areas. Elementary data have been collected through questionnaires filled by data collectors, which are about 60 and are scattered along the Italian coast. Survey takes place every week on a continuous basis. Data on landings (weight and prices) and fishing area have been recorded by gear and species.

Section for research surveys at sea

MEDITs

The Medits programme aims to conduct co-ordinated surveys from bottom trawling in the Mediterranean. This survey derives from a EU project started in 1994 at European Mediterranean level (Bertrand, et al., 2002).
The basic protocol (Medits, Instruction manual 2007), common to all the Mediterranean partners, includes the design of the survey, the sampling gear (feature and handling), the information to be collected, and the management of the data as far as the production of common standardized analyses of the data.
The challenge of Medits survey, as for other scientific trawl-surveys, is to provide data useful for describing and quantifying changes in the fish populations, through indices of demography, mortality, spatial occupation, biological traits, thus contributing to the development of assessment and management advice tools.
The Italian data collection program foresees the continuation of the Medits survey, principally in the perspective of obtaining information comparable among the various Italian areas and with other Mediterranean countries. Since the beginning of the survey (1994) Medits produce, for a pool of

target species (benthic and demersal): abundance indices by species (in number of individuals and biomass per square km; i.e. N/km^2 and kg/km^2) and length frequency distribution (splitted by sex and maturity stages) by depth macrostratum (shelf and slope) and geographical sub-area (FAO/GFCM Geographical sub-areas, GSA).
The working zone has been defined as the totality of the trawlable areas off the Italian coasts from 10 to 800 m depth (on the continental shelves and along the upper slopes). These limits have been adopted to cover at best the distribution areas of the main exploited - or potentially exploitable - species, considering the administrative and technical constraints of the project.
The stations have been distributed in each GSA applying a stratified sampling scheme with random drawing inside each stratum.

MEDIAS

The MEDIAS echo-survey on small pelagic fish targets anchovy (*Engraulis encrasicolus*), and sardine (*Sardina pilchardus*) and it covers a series of areas in the Mediterranean EU MS (Spain, France, Italy Malta, Slovenia and Greece) with a standardised methodology. The aim is to gain knowledge of biomass levels and spatial distribution of small pelagic fishes. Italy was responsible for the performance of two cruises which include also territorial waters of Slovenia and Malta:
a) in the Adriatic Sea (GSAs 17 and 18; FAO sub areas 37.2.1 and 37.2.2)
b) in the Sicilian Channel (GSA 15 and 16), FAO sub area 37.2.2)
Surveys have been performed in summer-early autumn following an internationally agreed MEDIAS protocol.

Module of evaluation of the economic situation of the aquaculture and processing industry sectors:

Section for the collection of economic data for the aquaculture sector

The present analysis of the structure of the Italian aquaculture was based on the population of active enterprises that reaches 715 units (Idroconsult 2002).

Section for the collection of economic data for the processing industry

The population was composed by all the companies that belong to the sector of transformation of fishery products, that is those identified by the activities corresponding to the following ATECO codes:

15201 Preserving of fish, crustaceans and molluscs by freezing, salting, etc
15202 Production of fish products, crustaceans and molluscs The official register that has been used is ASIA (statistical archives of active companies) and it is managed by ISTAT (the national statistical institute). The sector is composed by around 500 companies and employees 7600 people (source: Istat).

The sector is composed by around 500 companies and employees 7600 people (source: Istat).

Module of evaluation of the effects of the fishing sector on the marine ecosystem

Environmental indicators listed in Appendix XIII of the Commission Decision 2008/949EC has been estimated. The following tables reports the different data sources that has been used for each indicator:

Code specification	Indicator	Definition	Source
1	Conservation status of fish species	Indicator of biodiversity to be used for synthesizing, assessing and reporting trends in the biodiversity of vulnerable fish species	MEDITs/MEDIAS
2	Proportion of large fish	Indicator for the proportion of large fish by weight in the assemblage, reflecting the size structure and life history composition of the fish community.	MEDITs/MEDIAS
3	Mean maximum length of fishes	Indicator for the life history composition of the fish community	MEDITs/MEDIAS
4	Size at maturation of exploited fish species	Indicator of the potential "genetic effects" on a population	MEDITs/Biological sampling of catches
5	Distribution of fishing activities	Indicator of the spatial extent of fishing activity. It would be reported in conjunction with the indicator for 'Aggregation of fishing activity'.	VMS data Vessel Register
6	Aggregation of fishing activities	Indicator of the extent to which fishing activity is aggregated. It would be reported in conjunction with the indicator for 'Distribution of fishing activity'.	VMS data Vessel Register
7	Areas not impacted by mobile bottom gears	Indicator of the area of seabed that has not been impacted by mobile bottom fishing gears in the last year. It responds to changes in the distribution of bottom fishing activity resulting from catch controls, effort controls or technical measures (including MPA established in support of conservation legislation) and to the development of any other human activities that displace fishing activity (e.g. wind farms).	VMS data Vessel Register Other sources
8	Discarding rates of commercially exploited species	Indicator of the rate of discarding of commercially exploited species in relation to landings.	Biological sampling of catches
9	Fuel efficiency of fish capture	Indicator of the relationship between fuel consumption and the value of landed catch. It will provide information on trends in the fuel efficiency of different fisheries.	Economic data, see chapter III B of the NP

Module for management and use of the data covered by the data collection framework

This paragraph describes the project for the implementation of an information system for the fishing sector in application of Reg. (EU) 199/2008
In order to comply with the provisions contained in Reg. (EU) 199/2008 and subsequent Reg. (EU) 665/2008, it becomes necessary to proceed to the implementation of a Databank for the fishing sector directed toward the collection, storage, management and systemisation of data of an economic and biological nature pertaining to the sector, coming from different sources and intended for differentiated users. Under the provisions of the previous NP 2009-2010, an information system for the fishing sector in application of Reg. (EU) 199/2008 has been implemented.
This databank is directed toward the collection, storage, management and systemisation of data of an economic and biological nature pertaining to the sector, coming from different sources and intended for differentiated users. In particular, the information system allows different levels of access to meet the information needs of the Commission, the General Directorate of Maritime Fishing and Aquaculture, the same suppliers of the data and general use.

The substantial novelties provided for by the project are concisely described below:
- implementation of the system through the methodological and technological development of the current procedures for the collection and storage of data;
- creation of a Web platform that, in addition to allowing the updating and loading of data directly by the suppliers, permits different degrees of access in compliance with the requirements of the Commission and the Central Administration, as well as providing for a level of less detailed data available for general use;
- development of the system in compliance with national legislative provisions in the matter of accessibility of the Websites (known as the Stanca Law), in the aftermath of positive past experiences in the ambit of portals of bodies pertaining to the MIPAF.

OTHER RESEARCH ACTIVITIES

Development of a net (ITAFISHNET) for the exchange of information between national researchers

Development of the System GIS-PESCA on the entire coastline

Assessment of Bycatch of protected species in the pelagic trawl

Concerted Action for the identification of scientific inputs for the development of organic aquaculture in Italy;

Strategies for the commercial exploitation of the Adriatic bluefish. Networks and relations with the territory;

Study for the detection of integrated tools for the sustainable development of the Italian Fishery following the entry into force of Reg. (CE) 1967/2006 and the application of national management plans.

Spatio-temporal identification of nursery area in the italian seas;

Guidelines and technical measures for the management of Fishery Restricted Areas;

Seafood quality and safety

Recreational fishery

Bio-economic models

Large pelagic stock assessment

5. Status of the social sciences studies in progress

Cooperation development in the Mediterranean fishery sector – the labor context, the producers associations, training

6. Marine environmental studies in progress

- Spatio-temporal identification of nursery area in the italian seas;
- Guidelines and technical measures for the management of Fishery Restricted Areas;
- Fishery and marine pollution: studies on the effects of pollutants on marine fishery.

6. National Management measures

Technical measures were adopted in order to ensure exploitation and conservation of living aquatic resources or the protection of marine ecosystems. Fishing activities (i.e. trawlers) have been temporarily banned. Biological stop changed among regions in order to improve the marine environment and to avoid to the depletion of certain stocks.
In 2009, the Ministry for Food, Agriculture and Forestry (MIPAAF) implemented Adjustment plans of Fishing Effort in order to achieve a sustainable balance between capacity and resources. The Fishing Effort Adjustment Plans have been implemented within the framework of the Fisheries Operational Programme and have been defined by fleet segment and geographical sub-area (GSA).

7. Research Suggestions for consideration by SAC

In certain fisheries, where some fishery stocks are transboundary and exploited by more than one country could have international relevancy:
- the knowledge of population biology and the identification of population units;
- a common collection of data on stocks and fisheries, within the framework of an international program;
- representative and standardized data on commercial fisheries, both in terms of fishing effort and catches, to evaluate at regional level the impact of fisheries on the shared resources
- together with the classical biological information, the genetic features of the population subunits should be investigated in order to clarify relationships among populations.
- within the context of Ecological Approach to Fishery Management, an effort should be done to produce a common map reporting both bathymetric, substratum features and biocenoses including inshore and offshore areas;
- coupling of hydrological information with biological data should be improved at regional level.
- on the basis of the results reported in recent literature, the borders of some GSA in the area need some revision.

Further research proposals are:

- Stock-recruitment relationships
- improve the knowledge on population biology and to identify the population units (stock boundaries);
- improve the knowledge on the adults fraction of the exploited populations (e.g. to map the spawning grounds, to better estimate the spawning stock biomass and to estimate the stock/recruitment relationship)
- Identification of spawning grounds and other essential fish habitats
- Impact of fishing on communities and ecosystems
- Effect of climate change on stock dynamic

- Evaluation of spatial management measures (no take zones, marine reserves)
- improve the knowledge on the effect of fishery at ecosystem level, performing specific studies on discards, bottom and sediments morphology.

Further research effort is suggested in the fields of bio-economic models, reference points and indicators for the ecosystem approach to fishery management (EAFM).

LEBANON/LIBAN

Description of the fisheries

Description of the fishing grounds and GSA:

GSA 27. The Lebanese coastline is 220 km long. The continental shelf is narrow, especially in the South. Bottom grounds are mainly rough with intensive rocky patches, good for stationary demersal gear. The fisheries of Lebanon are classified as small-scale, artisanal, and are traditionally based on bottom stationary gear (trammel nets and longlines), purse seine nets, and beach seines. Fishing operations, with the exception of longlines, are mostly carried out at depths of up to 50 meters. Most of the fishing nets (purse seines, gillnets and beach seines) have small mesh sizes (less than 2x2 cm).

Total landings by main targeted species: **N/A**

Fleet:

- Number of vessels: 2,662
- LOA (range and average):
  - Range: 2.5-24.8 m
  - Average: 6.92m
- Total KW + GT:
  - KW: 48341 (for 2,378 vessels)
  - GT: 18426 ton (data available for only 608 vessels)

Status of stocks of priority species

N/A

Status of the statistics and information system

An initiative at the Marine Resources and Coastal Zone Management program (MRCZM) at the Institute of the Environment, University of Balamand (IOE-UOB) has been collecting commercial fisheries data in the Mohafaza (district) of North Lebanon and Akkar on a regular basis since August 2005. The geographical coverage of the monitoring program represents approximately 42% of the Lebanese coast. The main goal is to establish long-term monitoring of commercial fish species landings and effort in order to develop appropriate management plans based on scientific data to sustainably benefit from the resource. The monitoring program has been striving to meet the following objectives:

- Establish an easy to implement data collection & analysis method
- Develop & validate the socio-economic, fish catch and fishing effort surveys
- Share the collected data with the Ministry of Agriculture
- Raise the awareness of fishermen about the importance of co-managing the resource themselves: promote ownership
- Identify the season in which targeted species will fetch the highest price

The data collection is an indirect method where data is collected twice per week, 12 months a year. The data is gathered from the four main fishing harbors in addition to the main fish markets in the target area while fishing effort is obtained from the records of the Lebanese Army that records boat activity on a daily basis. The variables currently being evaluated are:

- Fishing gear type (Nets, Lines, Pots)
- Fish species landed per gear type: Quantity (Kg)
- Average fish size (# Fish/Kg)
- Prices (LBP/Kg)

- Fishing effort: Total number of fishing boat outings during 24 hours; and number of fishing boats per gear type

Data is then entered into a software application dubbed **FLOUCA** (Lebanese term for fishing boat and stands for **F**ish **L**anding **O**perational **U**tility for **C**atch **A**ssessment) based on the generic software and standard statistical methodology available on the web by the FAO. The system is structured into three distinct but inter-related components:

FLOUCA 1: creates automatically sampling frames (i.e. extrapolating factors) for the estimation of fishing effort. It is not used currently since at the launching of the monitoring system, a fishing vessel register was not available. The recent publication of the MEDFISIS report by the Ministry of Agriculture that includes the register will allow the use of this component

FLOUCA 2: Works on sample data and generates monthly estimates on catch, effort, CPUE, prices, values, average fish weight and number of individuals in the catch. The collected data is entered into this component of the system

FLOUCA 3: Integrates monthly estimates into year-based databases. It is the principal program for reporting raw and grouped data. Data from this component can easily be exported to **EXCEL** for further statistical analysis

The sampling scenarios used by the system (particularly those relating to fishing effort) are flexible and capable of responding to specific needs and field conditions. Such flexibility of action has made the system independent of eventual external changes to its statistical structure and/or sampling operations, thus eliminating the need for software maintenance and ensuring robustness and sustainability.

Status of research in progress

- Biology and ecology of Lessepsian species along the Lebanese coast.
- Detection of heavy metals in bivalve shellfish in Koubba/ Selaata region, North Lebanon
- **Bariche M.**, 2010. *Champsodon vorax* (Teleostei: Champsodontidae), a new alien fish in the Mediterranean. *Aqua, International Journal of Ichthyology*, 16(4): 197-200.
- **Bariche M.**, 2010. First record of the angelfish *Pomacanthus maculosus* (Teleostei: Pomacanthidae) in the Mediterranean. *Aqua, International Journal of Ichthyology*, 16(1): 31-33.
- Monitoring of the Lebanese coastal water - Bacteriological water quality

Monitoring of the Lebanese coastal water - Bacteriological water quality

Blue = exempt of pollution
Yellow = occasional pollution
Red = permanent pollution

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

N/A

Marine environmental studies in progress

- Integrated Management of East Mediterranean Coastline (IMAC) project
- UNDP early recovery of NBC surrounding municipalities' project
- People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and Coast (PEGASO)

Management measures

Minister Decision 346/1 on 15/7/2010 regarding organization and specification of marine fishing gear.

Research suggestions for consideration by SAC

- Researching the best means of developing an "information system" for artisanal fisheries
- Stock assessment of the commercial fish species in Lebanon
- Monitoring of invasive species in the Lebanese waters and their population dynamics
- Impact of invasive species on the coastal marine ecosystem
- Update of the fish biodiversity richness in the Lebanese territorial waters
- Monitoring of marine macro-algae in the perspective of climate change

LIBYAN ARAB JAMAHIRIYA/JAMAHIRIYA ARABE LIBYENNE

Description of the fisheries 2009:
A) Total landings of demersal and pelagic fish amounted to 52110 tons.
B) Fleet segments consist of the following:-

NO . OF decked vessels	GT	HP
1882	84573	406830
Powered	Unpowered	Undecked
3278	3076	202

The Total OF the fleet 5160
ALL the details OF (Fishstat FF1 and Fishsat FF2) have been sent to Mr. Abdullah Srour by email on 05 09 2010

C) Status OF Stock of Priority Species
- Biological study on one of the important commercially species *Epinephelus margiratus* was established at the end of 2009.
-Assessment study of commercially sponges was conducting in 2009 along the cost from Al khomes and musrata in the west part of Libya

E) Status OF research Progress
- Establish of a project related to the cephalopods species ,a biobgical study of *Sepia officianalis* was started in October 2009 .
- Study of genetic composition Diversity of mugil sp.
- Report on data collected during blue fin tuna fishing season (2009)was introduced to the ICCAT.
- A Project of chondroctyes study being carried out a along the coast of Libya. Phase 1 was prepare in ventory of species.

F) Status OF social science studies in progress or achieved during the intercessional period.
- Economically study for prices of commercial fishes and invertebrates in fish market in Tripoli was established in June 2009.

G) Marine environmental studies in progress
-Coastal survey of marine turtle nesting Actiuity a long the middle and east parts of Libya was conducted in summer of 2009.
- Microbiological study for some commercial species fished a long the coast of Tripoli- Tajura such as *Epinephelus* sp, scomber sp, Mullet sp.
- study of influnce of untreatment drainge water on sea water in the west part of Libya was achieved in 2009.
- Monitoring study of contamination with Hydro carbrne on Marine environment was conducting in Musrata region.
- contamination study with heavey metals was carriedout in selected stations along the coast OF Libya with cooperation with (IFREMER).

H) Management measures

- Announcement OF Farwa Lagoon as a marine reserve.
- Trawl fishing for demersal fish species was prohibited during the period Jun through July 2009.
- In compliance with GFCM recommendation 2006-2 fishing for dolphin fish is prohibited by law from 1 January to 14 August of each year.
- Fishing for sponges in Libyan waters is being forbidden from 1 November to 30 May of each year and prohibited for tha season of 2010.

I) Research suggestion For consideration by SAC
A proposal OF Marine survey related to assess the distribution and abundance of demersal fishes along the western part of Libya
Already prepared

MALTA/MALTE

1. Description of the fisheries

Fisheries in Malta are a relatively small industry where its social significance far outweighs its economic importance. The economic contribution of capture fisheries to the national economy is negligible, accounting for approximately €8.5 million. It is in fact a traditional activity which however operates on a small scale, producing small volumes of a very valuable product. The industry is mainly artisanal and fairly typical of the fisheries found in many Mediterranean countries. There are no inland fisheries in Malta. The average value of catches is around 0.10 percent of the Malta's Gross Domestic Product (GDP), with the industry's direct contribution to GDP estimated at around two-thirds of this figure when the cost of imported inputs, particularly fuel, is considered.

The Maltese fishing fleet as at 6th December 2010 was composed of 2,995 vessels of which 396 vessels (13.2%) and 701 (23.4%) vessels were commercial full-time and part-time vessels respectively. The recreational category made up of 1,869 (62.4%) vessels operating recreational fishing gear and fish caught were not commercialised. The remaining 1% represents the work boat category. The total gross tonnage and power (main engine) for the full-time commercial vessels were in GT and Power 10,763 t and 49,361 kW respectively; whilst for the part-time commercial vessels the values were 1,481 t and 35,160 kW respectively. The length of registered vessels operating within the Mediterranean ranged from 3.05 m to 37.7 m with 77.5% of the commercial full-time and 99.12% of the commercial part-time vessels measuring less than 12 m. The fleet operates predominantly in a small scale artisanal manner and half of the vessels are of a traditional type of craft. A total of 23 demersal trawlers are registered.

Landings from marine capture fisheries are dominated by bluefin tuna (*Thunnus, thynnus*), swordfish (*Xiphias gladius*) and dolphinfish (*Coryphaena hippurus*) in decreasing order of importance (Table 1). Between the months of April and July the market is dominated by landings of bluefin tuna with swordfish being the second most available species. Both these species are targeted by the same method, that is pelagic drifting long-lines. Landings of dolphinfish occur mainly between the 15 August and 31 December mostly by the Fish Aggregating Device (FAD) fishery. The major fishing area is GSA 15, however the longline fleet and the trawling fleet also operates in neighbouring GSAs.

Table 1. Composition of landings in 2009.

Scientific name	FAO 3A Code	Weight (t)	% by weight
Coryphaena hippurus	DOL	394.73	24.87
Xiphias gladius	SWO	265.94	16.75
Thunnus thynnus	BFT	262.59	16.54
Scomber spp	MAZ	224.01	14.11
Aristaeomorpha foliacea	ARS	41.52	2.62
Mullus spp	MUX	32.47	2.05
Sepia officinalis	CTC	19.41	1.22
Parapenaeus longirostris	DPS	18.24	1.15
Scorpaena scrofa	RSE	17.98	1.13
Mustelus spp	SDV	17.30	1.09

The landings of shrimps (*Aristaeomorpha foliacea* and *Parapenaeus longirostris*) originate exclusively from trawling which takes place throughout the year with quantities decreasing in the winter months due to unfavourable weather. Landings of other demersal species originate from

trawling, long lining and fixed net operations (trammel and gill nets). During the winter months (December to April) most boats target demersal species.

2. Status of stocks of priority species

The most important demersal stocks being targeted by the Maltese trawling industry are red mullet (*Mullus barbatus*), stripped red mullet (*Mullus surmuletus*), hake (*Merluccius merluccius*), red shrimp (*Aristeomorpha foliacea*) and deep water pink shrimp (*Parapenaeus longirostris*), with a number of other accessory species. In 2010 a joint stock assessment for pink shrimp in GSAs 12-16 was for the first time conducted under the auspices of the MedSudMed project. Maltese data was derived from the sampling activities in line the EC Data Collection Framework (EC 199/08, EC 949/08), and the biological reference points used were $F_{0.1}$, and F_{max}.

Table 2. Results of pink shrimp stock assessment conducted within the framework of GFCM in 2010

GSAs	Scientific name	Stock Status	F_{cur}	$F_{0.1}$	F max
12-16	*P. longirostris*	Overexploited	1.21	0.95	0.63

At STECF's SGMED 03/2010 held in December 2010, joint stock assessments as well as short term forecasts based on a series of management scenarios were carried out for hake (*Merluccius merluccius*), giant red shrimp (*Aristaeomorpha foliacea*) in GSA 15 and 16. Results still have to be formally accepted by STECF, and will be presented to GFCM at the next SCSA WG.

An updated stock assessment was also conducted for bluefin tuna (*Thunnus thynnus*) in 2010, but this was conducted in the framework of the International Commission for the Conservation of Atlantic Tunas (ICCAT) for the entire Mediterranean tuna stock. Malta supplied data on this stock and Maltese representatives attended the stock assessment session.

3. Status of the statistics and information systems

Malta collects data on catch and effort for each segment by species, by quarter and by geographical origin. Catch figures are based on exhaustive data reported in logbooks (for vessels over 10 m LOA) and thus a census is made, by sampling the small scale fishery (for vessels under 10 m LOA) and on sales notes from the official fish market. Malta is at present collecting data on catch length, weight, sex and maturity for the 12 species which make up the bulk of its fishery: *Thunnus thynnus*, *Coryphaena hippurus, Xiphias gladius*, *Mullus barbatus*, *Mullus surmuletus*, *Merluccius merluccius*, *Aristaeomorpha foliacea*, *Parapenaeus longirostris*, *Nephrops norvegicus*, *Aristeus antennatus*, *Raja clavata*, *Octopus vulgaris* and all species of Selachii. Age data is also collected for *Thunnus thynnus*, *Coryphaena hippurus* and *Xiphias gladius*. Apart from fishery dependent data Malta also collects fishery independent data as part of the MEDITS international trawl survey and the MEDIAS acoustic survey for small pelagic species.

Malta is at present developing a new Fisheries Information System (FIS) since the MaltaStat database and information system which had initially been developed through MedStat is out of date. The FIS under development will be an integrated system whereby the databases related to the fleet register, catch assessment survey, logbooks, biological sampling, biological surveys and economic surveys will be consolidated. All data submission obligations in connection with GFCM, EC and ICCAT are currently handled by MaltaStat, and will in the future be handled through the new FIS.

The data collected is in line with the EU Data Collection Framework (DCF) EC 199/2008, EC 949/2008. The data has been used to produce scientific works to better understand the population dynamics of the stocks and to understand the environmental impacts of fisheries. The data has been submitted to international organisations for stock assessment purposes and scientific analysis. Malta has submitted data collected within the framework of the DCF to the following international bodies:

i) Joint Research Centre (JRC) of the European Commission
ii) International Commission for the Conservation of Atlantic Tunas (ICCAT) including Form I, Task I and Task II.
iii) General Fisheries Commission for the Mediterranean (GFCM) including dolphinfish annual reporting form and Task I statistical matrix.

4. Status of research in progress

Using data collected under the DCF of the EU, the FAO sub-regional project MedsudMed and EU projects, Malta has been focussing on analysing data with particular reference to determining the stock status of commercially important demersal species (see section 2 above). In addition, research is being conducted on the following themes:

i) Determination of growth parameters for *Coryphaena hippurus*

ii) Analysing aspects of the ecology of three demersal elasmobranchs: *Scyliorhinus canicula, Galeus melastomus* and *Raja clavata* in the Central Mediterranean (Gravino, 2010)

iii) A detailed analysis of ecology and stock status of commercially important cephalopod species with particular reference to *Octopus vulgaris*

Reference

Gravino F. (2010). Aspects of the ecology of three demersal elasmobranchs: Scyliorhinus canicula, Galeus melastomus and Raja clavata in the Central Mediterranean. University of Malta, MSc Thesis.

5. Status of the social sciences in progress or achieved during the intercessional period

Economic data is being collected per fleet segment on a number of parameters as required for the fulfilment of the EU DCF, including income (both total income and also for separate variables such as gross value of landings, income from leasing out quota and other fishing rights, income from direct subsidies and any other income), costs incl. those for personnel, energy, repair and maintenance, other operational costs and capital costs, data with regards to investments in physical capital, the financial position of fishers (debt/asset ratio), capital value and data with regards to employment such as engaged crew and the number of employees in terms of FTE (full-time equivalent) national and harmonised. The sampling population is based on the fishing vessel register, as well as on logbook information where data on catch and landings is recorded.

Although fish processing activities are limited, a survey amongst local operators has been carried out since 2006. Additionally, data with regards to aquaculture farms started to be collected as from 2008.

Information on the social dimension of the Maltese fishing industry exists from the vessel registry database, the economic surveys, and a survey carried out in 2006, which analysed the demographic characteristics of fishers and their perceptions related to the Maltese 25-nautical mile Fisheries Management Zone (Dimech *et al*., 2009). However there are no routine surveys or current projects specifically focussing on social aspects of the fishing industry at the moment.

Reference

Dimech, M., Darmanin, M., Smith, P., Kaiser, M. J., Schembri P., (2009) Fishers' perception of a 35 year old exclusive Fisheries Management Zone. Biological Conservation. 142: 2691–2702.

6. Marine environmental studies in progress

Recent as well as ongoing studies with relevance to the marine environment surrounding the Maltese Islands include:

i) Identification and mapping of the spatial distribution of sediment types and biocenoses in GSA 15, including the spatial distribution of sensitive habitats such as maerl beds

ii) Researching gear alternatives for the artisanal prawn (*Palaemon* and *Processa spp.*) beam trawl traditionally used on *Posidonia oceanica* meadows

iii) Researching the biology of prawns (*Palaemon* and *Processa spp.*) targeted by artisanal beam trawls traditionally used on *Posidonia oceanica* meadows

iv) Genetic analysis of loggerhead turtles (*Caretta caretta*) from Maltese coastal waters

v) Genetic analysis of *Octopus vulgaris* tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12-16)

7. Management measures

Malta implemented the management measures in line with EU regulations, and according to the recommendations by ICCAT and GFCM.

8. Research suggestions for consideration by SAC

- Confirming the taxonomic status of the species *Squalus blainvillei* in the Mediterranean prior to attempting stock assessments for this species (based on Marouani et al. 2010)
- Further promoting the regional identification of critical habitats (nursery and spawning areas) as well as stock structure for commercially important species throughout the Mediterranean

Reference

Marouani S., Saidi B., Bouain A., Bradai M. N. (2010). Occurrence of Squalus megalops (Chondrichthyes: Squalidae) in the Mediterranean Sea. First transversal expert meeting on the status of Elasmobranches in the Mediterranean and Black. SeasSfax, Tunisia, 20-22 September 2010.

MONTENEGRO/MONTÉNÉGRO

Description of the fisheries

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Montenegro is part of GSA 18 that shares with Albania on the east coast and with Italy on the west coast. In front of Montenegro is south Adriatic basin with the greatest depth of 1228m. The area of territorial water is 2460km² and continental shelf 3885km². The greatest part of Adriatic shelf is covered with muddy and sandy sediments. Sandy sediments are formed on the coastal area and in the shallow parts of Adriatic shelf, where on greater depths can be found muddy sediment, i.e. mud that derives from the land.

Activities of data collection on landings of main species have just begun.

Table 1. Fleet:

LOA	Number	KW	GT
Minor gear without engine < 6 m	5		5.8
Minor gear with engine < 6	130	455	111.80
Minor gear with engine 6-12 m	55	495	129.34
Trawl 6-12 m	3	295	37.66
Trawl 12-24 m	15	2 300	456.62
Trawl > 24 m	2	2 200	248.00
Purse seiners 6-12 m	6	1 500	75.87
Purse seiners 12-24 m	2	749.00	870.00

Note:

Approximately 30 vessels more will be operating in Montenegro starting from 2011:

4 trawlers 12-24 m LOA; 6 trawlers > 24 m; 20 purse seins 12-24 m LOA

Status of stocks of priority species

In July 2010, the second research on demersal stocks under the MEDITS project took place in territorial and international waters of Montenegro (GSA18). A total area of 5000 km^2 was covered in 10 sites under 5 strata (10-50, 50-100, 100-200, 200-500 and 500-800 meters). All the data were entered into the FAO AdriaMed AtrIS program. The preliminary data show that the median biomass is 380.45 kg/km^2 while the number was 7056.20 individuals /km^2.
Under the AdriaMed project and covering the GSA 18 area, experts from southern Italy, Albania and Montenegro worked on assessment of the European hake, *Merliccius merluccius*, L., on which occasion a comparative analysis of two methods (assesment model-SURBA and VIT, Prediction model-ALADYM) was made. The results were presented at the WG Demersal Stocks, Istanbul, September 2010.

Biomass assessment of small pelagic fish species were performed in all GSA 18 in the frame of AdriaMed project applying two methods simultaneously - DEPM and acoustic method. Survey was conducted from 5th to 20th of July 2010.

Total surface of surveyed area in Italian territorial and adjacent international waters was 8608 km^2, and in Montenegrin and Albanian territorial and adjacent international waters was 8908 km^2. Preliminary results of the DEPM survey were presented in AdriaMed Working Group of Small

Pelagic fisheries Resources that was held in Split (Croatia) from 11-15 October 2010. All data are still in process in the Institute of marine biology (Kotor, Montenegro) and Institute of Marine Sciences (ISMAR- CNR Ancona, Italy) and results will be presented on Coordination Committee of Adriamed Project which is planned for March 2011.

Status of the statistics and information system

Under the AdriaMed projekta, with IREP experts, monitoring and initial activities on setting up of a database on the statistical and information framework has begun in Montenegro. Under the IPA 2009 project Sustainable Management of Marine Fishery, the Ministry of Agriculture, Forestry and Water Management is going to continue the work on the further development of the fisheries information system, which will become functional in 2011.

Status of research in progress

Also, activities under the AdriaMed project have been continued. A pilot study on biological sampling data in Montenegrin coast was developed. Samples of about 20 commercially significant species were taken on monthly basis, from all vessel and fishing types in three fishery ports: Bar, Budva, Herceg Novi. The results were presented at the AdriaMed WG of Demersal recourses in Fano, September 2010, while the final report is being drafted for Adriamed 12th Coordination Committee (Ljubljana March 2011). Biology and ecology demersal species - *Mullus barbatusa, Merluccius merluccius, Parapeaneus longirostris* in the open sea and ichthyoplankton and juvenile stages of *Engraulis engrasicolus* and *Sardina pilchardus* in Boka Kotorska Bay - is under survey. In September 2010, the IPA Sustainable Management of Marine Fishery Project: Europeaid/128947/C/SER/ME was launched, which provides for a series of activities, research and training.
Experiments and adoption of new bivalve molluscs technology for European mussels (*Mytilus galloprovncialis)* and (European oysters) *Ostrea edulis* are underway in the Boka Kotorska Bay, with a view to developing further this sector.

Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

Description of the achievement and/or progress in activities related to the national research on the socio-economic aspects of the fishing communities and fishing sector.

Under the IPA and AdriaMed projects, collecting of socio-economic data on marine fishery will be continued, which are to be harmonized with the biological monitoring. Fisheries Information System (FIS), to be used as of 2010 is to provide support to this activity. This activity would be coordinated between the AdriaMed and IPA projects.

Marine environmental studies in progress

The status and movement of alga *Caulerpe racemosa* and her influence on ecosystem has been followed on national basis.

Under the RAC SPA activities in Montenegro, a preliminary analysis of the sites for protection (MAP) is underway. Currently, there are four sites proposed for the protection: 1. Islands between Petrovac and Buljarica, 2. Platamuni-Žukovica, 3. Old Town Ulcinj and 4. the Mamula Island. The RAC SPA report is expected in the months to come.

Management measures

Description of the management measures (legislation, regulations, etc) implemented during the intersessional period and their (expected) effects on the fishery.

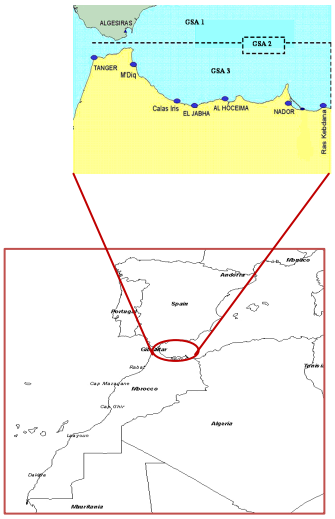
The Parliament of Montenegro adopted the Law on Marine Fisheries and Mariculture (Official Gazzette No. 56/09) and accompanying rulebooks, on the basis of which commercial fishing advertisement would be published.

Research suggestions for consideration by SAC

NO

MOROCCO/MAROC

INTRODUCTION



La pêche en alboran marocain (GSA 03) est une activité très ancienne, mettant en oeuvre une importante communauté de pêcheurs qui dispose, cependant, d'une flottille de pêche à capacité modeste avec 80% des unités de pêche de moins de 12 m de longueur. Au niveau de cette région Cette flottille est composite. Elle est constituée de chalutiers, de palangriers, de senneurs et de barques artisanales.
La pêche côtière domine largement cette activité par le tonnage et la puissance motrice de ses flottes ainsi que les débarquements réalisés et les emplois qu'elle fournit. Elle est caractérisée par le fait qu'elle est exercée par des navires de tailles relativement moyennes.
La contribution du poisson de l'alboran dans la production globale marocaine est faible (3 à 8%), mais sa contribution sur le plan économique est assez importante (7 à 9%). En effet, le poisson de l'alboran est largement valorisé par sa qualité très appréciée.
L'activité de la pêche en alboran marocain est exercée à partir des principaux ports, notamment, Nador, Tanger, Al Hoceima et M'diq qui montrent des inégalités d'infrastructures portuaires dont certains sont bien équipés en infrastructures liées à la pêche.
Les bateaux attachés aux ports moins autonomes font des visites fréquentes dans les autres ports pour l'approvisionnement en glace, carburant et matériel de pêche.
La flotte de pêche est constituée en général de deux types d'unités :

- les unités côtières, qui englobent les senneurs, les chalutiers et les palangriers et
- les unités artisanales constituées de barques.

Le suivi régulier des pêcheries de l'Alboran est de responsabilité de l'Institut National de Recherche Halieutique par ses deux représentations basées à Nador et Tanger.

I. DESCRIPTION DE LA FLOTTE

La production moyenne de l'Alboran marocain est d'environ 40 000 tonnes/an, dont près de 70% de cette production est constituée des espèces de petits pélagiques. Les 25% sont constitués d'espèces démersales.
Cette production est l'œuvre d'une flottille de pêche constituée d'environ 600 unités, composée de 55 % de palangriers, 25 % de sardiniers et 20 % de chalutiers. Ces unités opèrent à partir de sept ports dont les plus importants sont ceux de Nador, Al Hoceima et M'diq.
Les petits pélagiques sont exploités par des senneurs côtiers, composée de 165 senneurs, dont la senne tournante est l'unique engin de pêche. La production des sardiniers dépasse de peu les 20 000 tonnes pour une valeur d'environ 120 millions de dirhams.
Les caractéristiques techniques de ces senneurs sont assez moyennes. Ainsi, leur puissance motrice moyenne est de 334 cv, le tonnage moyen est de 49,69 tonneaux et la longueur moyenne est de 19,5 m.
Les palangriers ciblent l'espadon et sont en nombre de 247 unités. Plus des 2/3 sont basés au port de Tanger. Ces unités ont une taille moyenne d'environ 12 m, une puissance motrice moyenne de 80 cv et un TJB moyen de 10 tonneaux. En plus de l'espadon, les palangriers ciblent les petits thonidés, le poisson sabre, le mérou, les rascasses et la dorade grise.
Les chalutiers dont le nombre avoisine les 144 bateaux, exploitent les espèces démersales. Leur puissance motrice moyenne est de 325 cv et le TJB moyen de 50 tonneaux. Ces espèces démersales

sont aussi la cible de palangriers et des barques artisanales (2 700 barques) ayant une puissance motrice moyenne de 15 cv et un TJB inférieur à 2 tonneaux.

II. ÉVALUATION DES STOCKS PRIORITAIRES

Chaque année, et selon la liste des espèces prioritaires établie au niveau de la CGPM, les principales espèces débarquées en Méditerranée marocaine, font l'objet d'un suivi régulier par l'INRH pour la collecte de données nécessaires à l'analyse des indicateurs d'exploitation et l'évaluation de l'état des stocks.

En effet, et durant l'année 2010, les travaux d'échantillonnage biologique et de suivi de l'état d'exploitation ont concerné 8 espèces réalisées d'une façon plus au moins régulière. Ces espèces sont en l'occurrence ; Le merlu européen « Merluccius merluccius », le rouget de vase « Mullus barbatus », la besugue « Pagellus acarne », la bogue « Boops boops », le pageot commun « Pagellus erythrinus » le poulpe « Octopus vulgaris », le chinchard « trachurus trachurus » et la sardine « sardina pilchardus ».

Pour les travaux d'évaluation des stocks indirectes, qui sont basés sur les données des fréquences de tailles, ventilées aux captures commerciales réalisées durant la période 2000-2009, 4 principales espèces ont été concernées par ces travaux durant l'année 2010 à savoir ; le rouget de vase « Mullus barbatus », la bogue « Boops boops », la besugue « Pagellus acarne » et la sardine « sardina pilchardus » Les évaluations ont été effectuées en utilisant les méthodes indirectes basées sur l'analyse des données de composition en tailles.

Les résultas de ces études d'évaluation ont montré un état de surexploitation pour l'ensemble des stocks des espèces étudiées, avec une mortalité par pêche qui dépasse l'optimum de 48 %, 40 % et de 15 %, respectivement pour le rouget de vase, la besugue et la bogue.

Pour les stocks des petits pélagiques, dont la sardine constitue l'espèce dominante, les travaux d'évaluation et l'analyse de rendement par recru, ont conduit à la détermination des points de référence biologiques, qui sont Fmax = 1,86 et F0.1 : 0,62. Cette situation indique un état de pleine exploitation du stock de cette espèce.

Tableau 3 : Points de référence biologique, estimés pour les stocks des espèces demersales étudiées

(rouget de vase, de la bogue et de la besugue)

III. STATISTIQUES ET SYSTÈME D'INFORMATION

Pour cerner l'activité de pêche en

	Rouget de vase	Bogue	Besugue
Current YR	16,533	8,368	29.223
Maximum Y/R	16,11	8,38	35.894
Y/R 0.1	16,058	8,29	35.869
Fmax	0,56	0,75	0.4
F0.1	0,55	0,61	0.42
Current B/R	15,419	11,171	29.791
Maximum B/R	25,714	12,825	444.688
B/R 0.1	26,114	14,262	99.863

Méditerranée marocaine, suivre les débarquements des espèces capturées et collecter les données statistiques nécessaires pour les programmes de suivi de l'état d'exploitation et l'estimation des stocks, l'INRH est sur le point de mettre en place un système statistique de collecte de données

relatives à la pêche (Système d'Information Halieutique SIH) et qui concernent en particulier, les statistiques d'exploitation et aussi les données biologiques sur les espèces suivies.
Selon l'objet de l'étude, les données insérées dans ce système statistique (SIH) sont comme suit :

- Les données recueillies dans le cadre du programme de l'échantillonnage biologique effectué au niveau des principaux points de débarquement, à savoir les données de fréquence de taille et paramètres biologiques, relatives à chaque espèce concernée par les études de suivi des pêcheries ;

- Les données collectées auprès des administrations de pêche (données de débarquement et de l'effort de pêche auprès de l'ONP et informations sur la structure de la flottille auprès de la DPM) ;

- Les données relatives aux échouages des cétacés produits au long du littoral méditerranéen ;

- Les données des campagnes de prospections par chalutage et les compagnes acoustiques.

IV. PROGRAMMES DE RECHERCHE EN COURS

En fonction des spécificités de la zone d'étude, en relation avec l'importance des pêcheries développées dans la région Méditerranéenne marocaine, et tenant compte aussi des recommandations de la CGPM, des programmes de recherche scientifiques sont mises en place par l'INRH à Nador.
Ces programmes concernent :

- Suivi de la pêcherie chalutière : il s'agit d'un programme qui englobe l'ensemble des espèces à importance commerciale et qui ont une bonne représentativité en termes de quantité dans les débarquements. Cette étude concerne l'analyse des indicateurs d'exploitation, à savoir les captures, l'effort de pêche et les CPUE. Pour se faire, les données statistiques des pêches sont collectées régulièrement au niveau des différents ports de la Méditerranée marocaine au près des délégations de l'Office National des Pêches. Pour l'estimation de l'effort de pêche, les données sur les caractéristiques techniques de la flotte chalutière opérationnelle (Tjb, CV..), sont collectées au près des Délégations des Pêches Maritimes (DPM) au niveau de chaque port.

- Suivi de la pêcherie du merlu « Merluccius merluccius » et du poulpe « Octopus vulgaris »: à l'instar des autres espèces à importance quantitative et commerciale dans les débarquements de la Méditerranée marocaine, un programme d'échantillonnage biologique des captures commerciales est établi pour ces deux espèces, mais aussi au niveau des unités de transformation et de congélation, pour l'espèce du poulpe, qui est le produit de débarquement de deux type de flottilles à savoir les chalutiers et le barques de la pêche artisanale. Les données collectées portent sur la composition en taille, le sexe, la maturité sexuelle, le poids individuel, le poids de la gonade, le contenue stomacal, prélèvement d'otolithe, etc. Des séries mensuelles de données sur la composition en tailles et sur certains paramètres biologiques sont ainsi obtenues.

- Suivi des ressources de rouget de vase « Mullus barbatus », de la besugue « Pagellus acarne », de la bogue « Boops boops » et de pageot commun « Pagellus erythrinus»: un échantillonnage des fréquences de tailles des débarquements de ces espèces s'effectue régulièrement à raison de deux fois par semaine. Ces données ont permis de construire une matrice mensuelle sur la composition en taille de ces espèces.

- Etude des rejets de la pêche chalutière en méditerranée marocaine : cette étude a pour objectif l'amélioration des connaissances en ce qui concerne les rejets de la pêche chalutière exercée en Méditerranée marocaine à travers l'identification et la quantification des principales espèces constituant les rejets de la pêche chalutière. Ce programme a été relancé en avril 2010, par la réalisation des embarquements à bord des chalutiers. Une série de données sur les quantités des rejets par espèce et par zone de pêche a été obtenue, une analyse et synthèse des données sont en cours de réalisation.

- Suivi de la pêcherie palangrière : Le suivi de cette pêcherie rentre dans le cadre du programme national sur l'étude de la pêcherie palangrière. Ce suivi consiste à caractériser cette pêcherie à travers l'étude de la flottille, des engins de pêche, la détermination des zones et des saisons de pêche ainsi que l'étude de la structure démographique des principales espèces débarquées (notamment l'espadon, la bésugue et le thon rouge).

- Suivi de la pêcherie de l'espadon : Ce suivi consiste à la collecte des données biologiques concernant la taille et le poids de l'espadon débarqué dans l'ensemble des points de débarquement, en vue de déterminer la structure démographique et réaliser certaines études de croissance, ainsi que l'analyse des indicateurs d'exploitation, basée sur les données de capture et d'effort de pêche appliqué sur cette espèce. Cette étude de la croissance et la structuration en âge des débarquements de l'espadon a été appuyée en l'année 2010, par le lancement d'une étude sur l'estimation de l'âge de cette espèce de grands pélagiques, en procédant à la collecte et l'observation de coupes réalisées au niveau des épines de la nageoire anale pour déterminer les paramètres de croissance de l'espadon.

- Suivi biologique du poulpe : En plus des actions scientifiques, décrites précédemment pour le poulpe, l'INRH a entamé depuis l'année 2007 au niveau de la Méditerranée marocaine, un programme national, concernant l'étude du cycle biologique du poulpe pour cerner les aspects relatifs à l'exploitation et à la biologie du poulpe commun «Octopus vulgaris».

- Suivi de la pêcherie des petits pélagiques : ce programme concerne le suivi de l'état d'exploitation des principales espèces qui composent les petits pélagiques , à savoir la sardine, l'anchois, les chinchards, le maquereau et les sardinelles. Pour ce qui est travaux d'évaluation des stocks et à l'aide de séries de données de fréquences de taille pour « Sardina pilchardus » « Trachurus trachurus », les travaux d'évaluation de stock sont assurés pour ces deux espèces. Un programme d'échantillonnage concerne les fréquences de tailles, est réalisée, en raison de deux fois par semaine pour ces deux espèces.

- Campagnes Scientifiques : Pour l'année 2010, et pour des raisons techniques des navires de recherche de l'INRH, seule une campagne de prospection sur les ressources demersales a été réalisée, moyennant le bateau espagnole « Emma Bardan ».

V. ÉTUDES SOCIALES ET ÉCONOMIQUES

Les études socioéconomiques, réalisées par l'INRH, concernent l'analyse de l'activité de la pêche artisanale, celle de la pêche sardinière et celle de l'activité palangrière et chalutière.

- **Activité de pêche récréative en Méditerranée marocaine** : Ce travail porte sur le suivi de l'activité notamment par le recueil des informations sur les permis et autorisations de pêche, les espèces ciblées, les bénéficiers et la répartition spatiale.
- **Activité de pêche artisanale dans la région Jebha-Saïdia (en cours)** : Le travail consiste en la caractérisation de l'activité de pêche artisanale dans l'optique de l'établissement d'un système d'indicateurs socio-économique de l'activité.
- **Activité de pêche au FMD (en cours) :** Une étude qui a pour objectif l'analyse de la chaîne de valeur des produits de la pêche au FMD, en vu d'évaluer l'impact de l'abondant de cet engin.
- **Interaction entre cétacés et pêche à la senne coulissante (en cours) :** Etude pilote à l'échelle de la Méditerranée en vu de limiter les effets négatifs de cette interaction sur les revenus des pêcheurs.

VI. ÉTUDES SUR L'ENVIRONNEMENT MARIN

Des programmes de recherche pour l'étude de l'environnement marin ont été mis en place, et assurent, d'une façon régulière ou ponctuelle, l'étude de la biodiversité marine au niveau de la Méditerranée marocaine et la caractérisation de certains écosystèmes marins, notamment ceux des zones sensibles, comme c'est le cas de la lagune de Nador.
Dans ce sens certains programmes de recherche sont en cours de réalisation. Ces programmes portent sur :

- **Etude de l'état de réfernce de la lagune de Nador** : il s'agit d'une étude qui a été lancée durant la fin de l'année 2009, et se fonde sur le principe de connaissance de l'écosystème de la lagune de Nador, de ses ressources biologiques et basée aussi sur le principe de développement durable et la conservation des richesses existantes, pour assurer la production et la communication des connaissances scientifiques, utiles à la gestion et la mise en place d'un plan de gestion de cette lagune, destinées non seulement aux décideurs, mais aussi vers les acteurs économiques.

Ainsi, les objectifs généraux escomptés de cette étude sont :

- Définir l'état actuel de l'écosystème de la lagune de Nador ;
- Caractériser cet écosystème lagunaire, par des études pointues sur le milieu ;
- Mieux connaître ses potentialités biologiques et apprécier ses valeurs ;
- Disposer de données scientifiques sur les potentialités existantes ;
- Regrouper les différents éléments scientifiques pour tracer en conséquence un plan d'aménagement de la lagune de Nador, qui tient en compte les changements qui vont affectés cet écosystème marin côtier.

- Mettre à disposition des décideurs et des acteurs économiques, les connaissances scientifiques sur les divers compartiments qui composent l'écosystème de la lagune, notamment biologiques, surtout après l'ouverture de la nouvelle passe;

- **Le suivi régulier des échouages des tortues et des mammifères marins** : ce suivi s'effctue le long du littoral de la zone Est de la Méditerranée marocaine s'étendant entre Jebha et Saidia. Ce programme a permis, depuis son élaboration, de collecter une série de données relativement importante. Ces données permettent de déterminer la diversité biologique des cétacés fréquentant les côtes méditerranéennes marocaines et d'apporter des réponses scientifiques sur les problèmes auxquels font face les populations de ces espèces.

- **L'étude des interactions entre le Grand dauphin « Tursiops truncatus » et la pêche sardinière en Méditerranée marocaine** : Dans ce sens, une étude pilote à l'échelle de la Méditerranée en vue de limiter le problème d'interaction est en cours de réalisation en collaboration avec l'ACCOBAMS. Cette étude qui consiste à l'expérimentation des dispositifs acoustiques, qui œuvre pour éloigner le grand dauphin de la zone de pêche, est en phase de l'analyse de données et de la préparation du rapport final.

VII. MESURES D'AMÉNAGEMENT DES PÊCHERIES

- Limites de la taille minimale: interdiction de la capture des poissons juvéniles, fixant la taille marchande minimale des espèces pêchées dans les eaux marocaines.

- Limitation de l'effort de pêche: les investissements en matière de construction navale ont été suspendus.

- Contrôle des activités de pêche: un contrôle s'étend à l'ensemble de la filière pêche.

- Mise en place de structure pour l'utilisation des systèmes de suivi et de transmission de données par satellite.

- Recoupements avec les services du Ministère de l'économie et des finances afin de vérifier l'authenticité des quantités déclarées à l'exportation et les croiser avec le montant des devises rapatriées.

- Nouvelle stratégie du Département de la pêche maritime (dénommé plan HALIEUTIS).

Cinq instruments ont été créés à savoir:

- le Comité national de la pêche;

- une Agence nationale pour le développement de l'aquaculture;

- un Centre de valorisation des produits de la mer;

- un Observatoire de l'emploi du secteur halieutique; et

- un Fonds pour l'ajustement et la modernisation de la pêche qui sera consacré à la restructuration de la flotte de pêche au Maroc.

- Certification des captures.

- Conservation des requins.

- L'arrêté n° 3083-09 du 12 moharrem 1431 (29 décembre 2009) modifiant et complétant l'arrêté n° 1154-88 du 20 safar 1409 du 3 octobre 1988, fixant la taille marchande minimale des espèces pêchées dans les eaux marocaines, réitère qu'il est interdit de pêcher des espèces réglementées dont la taille ou le poids est inférieur aux normes établies. Toutefois, il précise qu'une quantité limitée de prises non réglementaires pourra être tolérée (article 1).

- La circulaire n° RE 1/09 du 22 juin 2009 portant sur la conservation des espèces de requins et en déterminant le volume de ces espèces dans les captures de chaque navire qui ne doit en aucun cas dépasser le seuil maximal de 5% du volume total de ses capture par marée. Les individus capturés doivent être conservés entiers et débarqués en l'état (article1).

D'autres mesures ont été prises par le ministère de la pêche maritime à savoir :

- Arrêt de la pêche de l'espadon durant les mois de novembre et décembre 2010

Arrêt de pêche du poulpe en décembre 2010.

SLOVENIA/SLOVÉNIE

1. Description of the fisheries

a.) Description of the fishing grounds and GSA:
The Slovenian fishing vessels are carrying out fishing activities in the area GSA 17.

b.) Total landings by main targeted species (year 2009):

Species	Landings (kg)
Sardine *(Sardina pilchadus)*	428.305 kg
Anchovy *(Engraulis encrasicolus)*	208.823 kg
Whiting *(Merlangius merlangus)*	53.430 kg
Octopus *(Eledone moschata)*	24.554 kg
Golden grey mullet (*Liza aurata*)	15.195 kg
Cuttlefish *(Sepia officinalis)*	13.789 kg
Sprat *(Sprattus sprattus)*	12.785 kg
Other	109.958 kg
TOTAL	**866.839 kg**

c.) Fleet:

- Number of vessels
- LOA (range and average)
- Total kW + GT

LOA	Number	LOA (average)	kW	GT
Minor gear without engine < 6 m	10	4,6	0	7,11
Minor gear with engine < 6	75	4,73	894,23	71,38
Minor gear with engine 6-12 m	65	7,52	3435,34	202,5
Trawl 6-12 m	9	10,63	1587,8	67,53
Trawl 12-24 m	11	14,26	1840,5	193,34
Trawl > 24 m	2	29,13	1200	312,4
Purse seiners 6-12 m	2	11,6	383,82	15,85
Purse seiners 12-24 m	5	14,46	599,78	65,16
Other	6	11,71	1014,9	69,01
TOTAL	**185**		**10.956,37**	**1.004,28**

The data of the Slovenian fishing fleet are referring to the date of 1 November 2010.

2. Status of stocks of priority species

In the case of Slovenia five species can be considered as priority species: sardine (*Sardina pilchadus*), anchovy (*Engraulis encrasicolus*), whiting (*Merlangius merlangus*), cuttlefish (*Sepia officinalis*), and musky octopus (*Eledone moschata*). The stock assessment for sardine and anchovy has been performed recently in the frame of AdriaMed project for GSA 17. Taking in consideration relatively small part of Adriatic Sea where Slovenian fisherman are active and relatively small part of shared stocks affected by our fishery all fish stock assessment should be done jointly on the level of GSA 17.

The available information is part of the GFCM Report of the 13th Session of the WG on Stock Assessment of Small Pelagic Species and the Report of the tenth session of the sub-committee on stock assessment (SCSA).

GSA 17 (Northern Adriatic Sea):

Stock	**Stock status**	**WG management advice**	**SCSA management advice**	**SCSA Comments**
Sardine *(Sardina pilchardus)*	Moderately 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)*	Moderately 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

3. Status of the statistics and information system

InfoRib is centralized information system for fisheries data collection in Slovenia. It consists of several modules:

- Fleet vessel register
- Logbooks
- Fishing Permits
- Fisheries Economics / Socio-economic questionnaires
- Reporting
- Sampling
- Technical indicators
- Code lists
- First sale
- Aquaculture
- Processing Industry
- Discoverer

Those modules are stored in the centralized database in the Ministry of Agriculture, Forestry and Food. Biological-Sampling data Module is permanently stored in the Fisheries Research Institute database. The information system is designed in the Oracle database. The Oracle Discoverer application enables the user to make different data inquiries and reports.

Because of our limited personnel dealing with fisheries and to avoid human errors we are striving to make automatic all the possible reports for different occasions.

Unfortunately until now Slovenia did not manage to make an automatic reporting system for the GFCM Task 1. Last year we reported for the first time GFCM Task 1 report and we did it manually by filling in the GFCM Task 1 Application tool.

This year we are trying to establish cooperation with MedFisis to improve our work on the filed of automation of GFCM Task 1 report.

As soon as possible we will also make the connection between our centralized database (InfoRib) at Ministry of Agriculture, Forestry and Food, and the Module of biological data from the biological database at the Fisheries Research Institute of Slovenia.

Vessel Monitoring System is fully operational since June 2009.

4. Status of research in progress

In the frame of National Program of the Republic of Slovenia for the collection and management of data 2009-2010, Slovenia is performing two research surveys at sea: MEDITS and MEDIAS.

MEDITS surveys have been performed from 1996 on two stations in Slovenian Sea. Altogether 28 samples have been taken with three rented Italian fishing vessels and from 1999 with Italian research vessel Andrea. All biological material has been elaborated on Fishery Research Institute of Slovenia. We are also performing data aggregations according MEDITS protocol.

MEDIAS surveys have been performed from 2007. The survey in Slovenian waters is a part of joint North Adriatic Echo-survey performed by Italian scientists from CNR ISMAR of Ancona with the research vessel G. Dallaporta each year, usually in September or October. The survey is performed in one day by echo-sounding and two samplings with pelagic trawl net.

In the frame of FAO-AdriaMed project the SOLEMON survey is performed in Slovenian waters by Italian scientists from CNR ISMAR of Ancona with the research vessel G. Dallaporta.

5. Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.)

On the economic field Slovenia is implementing three studies on the basis of Council Regulation (EC) No 199/2008 and of Appendix VI to the Commission Decision. The studies are:

1. Module of evaluation of the fishing sector,
2. Module of the evaluation of the economic situation of the aquaculture sector and
3. Module of the evaluation of the economic situation of the processing industry.

Slovenia has complete data for 2008 on fishing sector, processing industry and aquaculture sector. The 2009 data for all three sectors will be available at the end of the year 2010 or in the beginning of 2011.

6. Marine environmental studies in progress

In October, 2010 we have started a 3-year survey, determining biological and ecological characteristics and seasonal dynamics of five commercially important fish species in the Portorož Fisheries Reserve. With this research we wish to gain scientific basis for fisheries management and suggest a non-destructive method for monitoring wild fish populations inside the Reserve.

7. Management measures

Management measures in the Slovenian sea follow the Council Regulation (EC) No 1967/2006 which contains principles and rules relating to the conservation and management of the living resources of the seas. In order to ensure conservation of living aquatic resources and the protection of marine ecosystem Ministry of Agriculture, Forestry and Food on the basis of the expert opinion of Fisheries Research Institute of Slovenia temporary stopped issuing new fishing permits for trawlers.

In May 2008 Slovenia adopted the regulation on monitoring of catches and selling of fisheries products.

8. Research suggestions for consideration by SAC

Regarding MEDITS, Slovenia is supporting the Italian proposal about second MEDITS survey. We also support the further development of SOLEMON project (proposed as Adriatic “Rapido” Trawl Survey - ARTS) to become eligible research project in the frame of DCF.

SPAIN/ESPAGNE

Description of the fisheries

Spanish fleet operates mainly within four GSAs (excluding GSA2, which only supports a deep trawl fishery around Alboran Island). In each of them, different types of fishing grounds are exploited from shallow to deep waters by trawl, purse seine, long line and artisanal fleets. The total number of fishing vessels included in the Fleet Register for the Mediterranean in 2009 was 3.260, with a mean length of 14.44 m, a total GT of 69.145,53 and a total power of 376.588,84 HP. Most of the fisheries are multiespecific, especially the trawl fishery which catches a great diversity of species of fish, crustaceans and molluscs (Table 2).

GEAR		Total
Trawl	nº	797
	Average HP	255,72
	Total GT	47.933,64
	Average LOA	20,42
Purse seine	nº	268
	Average HP	227,86
	Total GT	9.217,71
	Average LOA	17,45
Long line (census LLD especific for Mediterranean Sea, but other LLD Spanish National census can operate as well in Mediterranean waters)	nº	61
	Average HP	125,68
	Total GT	1987,16
	Average LOA	15,69
Set longlines	nº	104
	Average HP	92,35
	Total GT	997,23
	Average LOA	10,62
Artisanal	nº	2.024
	Average HP	44,83
	Total GT	7.401,79
	Average LOA	8,05

Total	nº	3.260
	Total HP	376.588,84
	Total GT	69.145,53
	Average LOA	14,46

Table 1. Number and technical characteristics of the Spanish Mediterranean fleet by type of gear (Year 2009)

SPECIES	Tm
Engraulis encrasicolus	10.318,40
Aristeus antennatus	982,87
Sepia officinalis	621,91
Merluccius merluccius	5.127,55
Trachurus spp	584,43
Scomber spp	1.149,16
Lophius spp	13,13
Squilla mantis	598,29
Mullus spp	721,44
Nephrops norvegicus	522,65
Octopus vulgaris	2.284,01
Spicara spp	147,24
Sardina pilchardus	13.032,35
Loligo vulgaris	62,45
Micromesistius poutassou	2.310,36
Thunnus thynnus	1755
Thunnus alalunga	204
Xiphias gladius	2000

Table 2. Total landings in 2009 by main target species (in Tons)

Status of stocks of priority species

The state of exploitation of some of the main demersal and small pelagic species was assessed by VPA tuned with standardised CPUE from the commercial fleet and abundance indices from trawl surveys.

Red shrimp (*Aristeus antennatus*) exploited by the Spanish trawl fishery: in the geographical sub-areas GSA 05 (Balearic Islands) is considered overexploited The WG recommended to reduce fishing mortalities by 30% to 50% through reducing the effort activity and improving the selection pattern of the fishery and implementing area closures for fishing in the nursery areas during the recruitment period. The WG recommended to perform a sensitivity analysis and endorsed the assessment and the related recommendations. The SC agreed that given the high value of F_{curr} (0.62) over $F_{0.1}$ (0.33) to change the term "Moderate" by "high" referring to the level of fishing mortality, endorsed the WG recommendation and with this minor change, accepted the assessment.

The deep water rose shrimp (*Parapaneus longirostris*.) in GSA05 is considered over-exploited and the WG found problems with the residuals and the retrospective analysis does not make possible to provide a full management advice. The assessment must be considered as a rough estimation of the stock status to be verified. The SC considered that the assessment must be considered as a rough estimation of the stock status to be verified.

Norway lobster (*Nephrops norvegicus*) in GSA05 is overexploited. The WG recommended decreasing fishing mortality by 20-30% by; 1) Reducing effort, both in capacity and/or activity 2) Improving the selection pattern of the fishery 3) Implementing area closures for fishing.The WG recommended to perform a sensitivity analysis and endorsed the assessment and the related recommendations. The SC accepted the assessment.

Striped red mullet (*Mullus surmuletus*) exploited by the trawl and artisanal fisheries in the Balearic Islands (GSA 05) is overexploited and and it was recommended to reduce fishing mortalities by 30% to 50% through reducing the effort activity and improving the selection pattern of the fishery. The assessment was endorsed by the WG and accepted by the SC.

Striped red mullet (*Mullus barbatus*) exploited by the trawl and artisanal fisheries in the Balearic Islands (GSA 05) is considered overexploited and and it was recommended to reduce fishing mortalities by 40% to 60% through reducing the effort activity and improving the selection pattern of the fishery.The WG recommended to explore the parameterisation of XSA (the contribution of each tuning fleet in the model).The WG group noticed that while SSB appears increasing, recruitment time series suggest an increasing trend. The WG suggest performing sensitivity tests for defining the influence of input biological parameters in the results. The WG and the SC endorsed the assessment and the related recommendations.
Hake (*Merluccius merluccius*) exploited by the trawl fishery off Mallorca (Balearic Islands, GSA05) is considered over-exploited and it was recommended to reduce fishing mortalities by 30 to 50% by reducing the effort activity and improving the selection pattern of the fishery. The assessment was endorsed by the WG and accepted by the SC.

Hake (*Merluccius merluccius*) exploited by the trawl fishery off the northern coasts of Spain in GSA06 is one of the most important target species for the trawl fisheries. The resource is over-exploited (growth over-fishing), with a risk of recruitment over-fishing. The management advice is to reduce growth overfishing through: 1) reduce the effort of trawl, 2) improve the fishing pattern of the trawl fleets.The stock showed dangerous signals of of recruitment overexploitation due to the decreasing trend in recruitment and very low levels of the spawning stock. The WG endorses the assessment and the related recommendations. The SC accepted the assessment.

Striped red mullet (*Mullus barbatus*) exploited by the trawl fishery off the northern coasts of Spain in GSA06 is considered overexploited and the WG recommended to decrease the fishing effort by 70% and a more effective control in shelf areas above 50 m depth to reduce the catch of small individuals under the minimum legal size. The use of the 40 mm square mesh in the cod-end should improve trawl exploitation pattern and Y/R by 24%, but a close supervision of the observance of this measure is needed. The WG endorses the assessment and the related recommendations. The SC accepted the assessment.

The deep water pink shrimp (*Parapaneus longirostris*.) in GSA06 is is an important component of commercial landings in some ports of the Mediterranean Northern Spain and occasionally a target species of the trawl fleet. It is considered over-exploited and it was recommended to reduce growth overfishing by reducing the effort of trawl by 70% and by improving the fishing pattern of the trawl. Since there was some evidences of synchronous oscillation of abundance of the species in the western Mediterranean, environmental factors (e.g. water temperature) are thought can notably affect the stock dynamics. The WG and the SC endorses the assessment and the related recommendations.

Anchovy (*Engraulis encrasicolus*) in Geographical Sub-Area GSA 01, Northern Alboran Sea. Catches are quite stable or slightly going down, the stock seems to be in a relatively comfortable situation, with good signs of recruitment and good amount of survivors, according to the size distributions. According to that, the stock is considered fully exploited, with moderate fishing mortality and intermediate abundance and it is recommended not to increase the fishing effort Nevertheless, the management of anchovy fisheries needs to account for the multi-species effect, mainly the interaction with sardine.

The XSA analysis does not provide a reliable assessment due to the lack of reliable tuning data in terms of coverage and age-length keys. Tuning data series from acoustic surveys (ECOMED and MEDIAS) in the GSA01 is incomplete and fragmented: there are no survey data from 2000, 2001, 2002, 2007 and 2009, and incomplete coverage in 2003, 2006, 2008 and 2010. Acoustic estimates by age are not coherent with catches by age due to ALK problems. The WG considers the XSA analysis as provisional and found it unsuitable as basis for advice.

The SC endorsed the assessment as provisional, recommends to gather more reliable information and to use all the available data to produce an effective assessment of this stock and accepted the comments of the WG regarding the reliability of the Extended Survivor Analysis results.

Sardine (*Sardina pilchardus*) in Geographical Sub-Area GSA 01, Northern Alboran Sea. In the first years covered by the XSA analysis in which the assessment of the fishing mortality is less sensitive to the survey information it appears that the fishing mortality has been in the order of 0.2 to 0.43 suggesting a moderate fishing mortality in those years. The Yield per Recruit analysis indicates F0.1 at 0.23. The change in the age composition in the catches in the last three years may suggest lower recruitment than in the past. Accordingly, the stock is considered Fully exploited, with moderate fishing mortality, intermediate abundance and some concerns about the recruitment. It is recommended not increase the fishing effort and take into account that the management of sardine fisheries needs to account for the multi-species effects, mainly the interaction with anchovy.

The XSA analysis does not provide a reliable assessment due to the lack of reliable tuning data in terms of coverage and age-length keys. Tuning data series from acoustic surveys (ECOMED and MEDIAS) in the GSA01 is incomplete and fragmented: there are no survey data from 2000, 2001, 2002, 2007 and 2009, and incomplete coverage in 2003, 2006, 2008 and 2010. Acoustic estimates by age are not coherent with catches by age due to ALK problems. The WG considers the XSA analysis as provisional and found it unacceptable as basis for advice.

The SC endorsed the assessment, recommended to gather more reliable information and to use all the available data to produce an effective assessment of this stock and accepted the comments of the WG regarding the reliability of the Extended Survivor Analysis results.

Anchovy (*Engraulis encrasicolus*) in GSA06 is exploited by purse seiners. The exploitation is based on the first age classes 0, 1 and 2. The number of vessels in the fleet has declined slightly over time, but has been stable at 132 vessels since 2007.

The WG considers the XSA analysis as provisional and found it unacceptable as basis for advice. The main shortcomings of the analysis were the use of a common ALK for all years, and doubts about the natural mortality. The WG and the SC endorses the assessment and the related recommendations.

Sardine (*Sardina pilchardus*) in GSA06 is exploited by purse seiners. The WG considers the XSA analysis as provisional and found it unacceptable as basis for advice. The main shortcoming of the analysis is the lack of reliable tuning data.The WG also would recommend that further consideration is given to the assumptions about natural mortality.
The WG and the SC endorses the assessment and the related recommendations.

1755 tons (RW) of Bluefin tuna (*Thunnus thynnus*) were caught in the Mediterranean Sea during 2009, most of which (66%) were caught by Purse seine. The rest correspond to long-liners and other minor gears. The main fishing grounds were Balearic islands, Alboran Sea and Central Mediterranean.

Albacore (*Thunnus alalunga*) was caught in the Mediterranean during 2009 using only surface long-lines and trol. In 2009, 204 tons (RW) were landed in the Mediterranean (which represents a 15% decline from the catches taken in 2008). 198 t were caught using Long-lines.

Swordfish (*Xiphias gladius*) landings in 2009 were 2000 t (RW) in the Spanish Mediterranean. The main catches (95%) correspond to long-line. Other minor catches were obtained by traps and trols.

The small tuna catches in Spain are mainly from the Mediterranean Sea. Small tunas are caught using surface gears and Traps. The total catches along 2009 were 2225 t (RW) which represents a decline of 40% from the catches taken in 2008. The specific composition of these catches were: 238 t of Atlantic Bonito (*Sarda sarda*), 1820 of bullet tuna (*Auxis rochei*), and 121 of Atlantic little tunny (*Euthynnus alletteratus*).

Status of the statistics and information system

The Spanish fisheries statistics and information system is based on the data from three different sources: sales notes, logbooks and landing declarations (under RD 1822/2009 and in compliance with Regulation CE 1224/09 and Regulation CE 2371/2002). Data are collected in port and in all places in which a first sale of the fishery products is carried out. Data of landings by species, commercial categories, prices, fishery vessel identification, fishing grounds, landing ports and dates are recorded on a daily basis. Data from logbooks and landing declarations are collected by General Secretariat for the Sea of the Spanish Ministry. Data from sale notes are primarily collected and processed by the fisheries offices of the autonomous governments, and recorded in the centralized database of General Secretariat for the Sea, in charge of collecting all the information related to fisheries and transmitting to the Commission, Fisheries Organizations and any other National or International Institutions.

IEO collects length and biological data of main commercial species under the guidelines of the National Program supported by the EU for the collection and management of fisheries data in accordance with Community programmes (Reg. (EC) 199/2008). Data information is managed in the frame of the SIRENO database developed by the IEO. SIRENO moreover stores fish market information, observers on board information and research surveys data. Moreover, the General Subdirectorate for Statistics collects and processes the economic information on fisheries.

To appropriately manage this information, the General Secretariat for the Sea is developing a global tool to compile the different sources of information in a common database. The main purpose is to store and to export the data in the suitable format required by International bodies.

Status of research in progress

During the interssesional period, the IEO continued to monitor the fisheries of the main commercial species at the principal landing sites. The target demersal species sampled are Hake, Red mullet, Stripped red mullet, Anglerfish (2 species), red shrimp (*Aristeus antennatus*), *Parapenaeus longirostris* and *Loligo vulgaris* while the target of small pelagic species are Anchovy and Sardine, and the target of large pelagic species are Albacore, Bluefin tuna and Swordfish.

Studies on growth and reproduction of demersal and small pelagic objective species are routinely carried out to estimate the assessments parameters.

En 2010experimental fishing and underwater visual census surveys were conducted in the marine protected areas (MPA) of Columbretes, Llevant-Cala Ratjada and Cabrera to asssess populations protected from fishing in these areas. The species of interest were spiny lobster, grouper, black scorpionfish, and littoral fish and shellfish communities exploited by the artisanal fisheries in the Western Mediterranean. Tagging experiments were conducted to assess movement and biomass export of spiny lobster from the Columbretes MPA and of grouper to assess habitat use in Cabrera MPA.'

The annual international bottom trawl survey MEDITS was carried out with the aim of estimating relative abundance index of the main demersal species in the continental shelf and slope of the Spanish Mediterranean, including Balearic Islands. MEDIAS, the international acoustic survey in the Mediterranean, was carried out in summer 2010. Both surveys are activities carried out on a yearly basis under the framework of the National Program supported by the EU.

Bluefin tuna, swordfish, albacore and small tuna (Atlantic bonito, bullet tuna, Atlantic little tuna, and skipjack tuna) are the main target of tuna and tuna-like species by the Mediterranean tuna research program of the IEO. The main objective of biological sampling of tuna species is to support research on stock structure by means of genetic analyses (tissue) and microconstituents analyses (otoliths); as well as on reproduction (gonads) and growth (spines, vertebrae and otoliths) research.

For 2009, 6372 bluefin tuna were measured in the Mediterranean. 200 sets of biological samples were collected in Spanish BFT fisheries (mainly by long-line and sport fishing).

The National Research project on BFT biology and migration patterns initiated in 2007 (MIGRATUN), has been developed along 2009. BFT were tagged using Pop-Up Archival tags and archival internal tags in the recreational fishery in 2009. Conventional tagging activities were also developed in collaboration with commercial and recreational fisheries.

In collaboration with the Balfego Group, the IEO has developed an aereal prospective survey in order to estimate the reproductive schools (reproductive stock biomass).

Research activities on Albacore (*Thunnus alalunga*, ALB) were developed on board recreational and long-line fishery vessels targeting ALB. A total of 3000 albacore were measured and 200 sets of biological samples were collected. Research on maturity and growth has been developed in 2009 and 2010. Results on both items have been communicated to ICCAT species group and other specialized groups. Conventional tagging activities were also developed in collaboration with commercial and recreational fisheries, 205 albacore were tagged along 2009.

Small tuna species, mainly Atlantic bonito (*Sarda sarda*, n=101), Atlantic little tuna (*Euthynnus alletteratus*, n=79), and bullet tuna (*Auxis rochei,* n=51*)* were collected to mainly study maturity and fecundity rates, age and growth. In addition, a total of 638 bullet tuna, 664 Atlantic little tuna and 747 Atlantic bonito were measured in tuna traps.

16352 swordfish were sampled (Rw and/or lenth) in the Mediterranean in 2009. 413 sets of biological samples were collected along 2009 in the Spanish swordfish fisheries (mainly long-line). Swordfish were tagged using Conventional tags in 2009 and some recoveries were obtained. These activities were developed in collaboration with commercial fisheries

Status of the social sciences studies in progress or achieved during the intersessional period

The following data are for the whole Fisheries sector in Spain, not only Mediterranean:

- *Employment:* Total 37.604 (Men 31.251, females 6.353) Marin fishing: 30.525; Aquaculture 7.079
- *Trends in domestic consumption:* The total amount of Spanish household consumption of fishery products in 2009 was 1.261.720 Tm. an 0,89% increase from previous year, representing 4,37 % of total amount of food household consumption. Spending amounted to EUR 191,65 per person per year, a decrease of 4,4% from previous year. The consumption per person was 27, 57 kg, a decrease of 0,8% from previous year.

Marine environmental studies in progress

During this intersessional period, the IEO has carried out a series of quarterly surveys monitoring oceanographic conditions off Málaga (GSA1), Murcia (GSA6) and Mallorca (GSA5) under the framework of the activities developed to study climatic changes in the Mediterranean.

During 2009-2010 other research activities related to Marine Protected Areas have been performed. In this case, three topics are studied: quantification of exported biomass from the MPAs to adjacent areas, evolution of the resources in areas previously exploited and currently protected and the monitoring of artisanal fisheries. Furthermore, in each of the 7 Spanish Mediterranean Marine Reserves, managed by the General Secretariat for the Sea, several studies are carried out on fisheries enhancement and biodiversity.

A new project (TROFOALBORAN) has initiated focusing on the pelagic ecosystem trophic web dynamics influencing the early life stages of sardine and anchovy off their main nursery grounds in the Bays of Málaga and Almería.

The project INDEMARES launched in 2009 aiming to promote research, conservation and assessment of the sea and its resources in order to reinforce the application of International conventions on the sea (as OSPAR and Barcelona) and raise public awareness on biodiversity conservation has established its webpage which outlines its main activities (/www.indemares.es). Nine institutions are involved in the

project -among which IEO, CSIC, General Secretariat for the Sea and the NGO's WWF-Adena and OCEANA- in the study of 5 Marine areas (Creus Canyon, Menorca Channel, Columbretes delta area, Seco de los Olivos, and the Island of Alborán and its volcanic chimneys). Oceanographic surveys have been undertaken during 2010 in the Island of Alboran, Creus Canyon, Menorca channel and Columbretes Islands.

Management measures

The Spanish ministerial *Order APA/254/2008, of January 31th, that establishes an integral management plan for fisheries resources conservation within the Mediterranean* has been in force during the years 2008 and 2009, regulating purse seine, bottom trawl and long line fisheries, and establishing a series of closed seasons/areas. The expected effect is to contribute to the conservation and regeneration of fishery resources, as well as protecting nursery areas, protected habitats, and reducing fishing mortality. From 2010, the management plan is continued by Order ARM/143/2010, of January 25th, including artisanal gears within the management framework. The goal is reducing the fishing effort in at least 10% for the fishing gears above mentioned, until the completion of the plan.

With regard to Marine Reserves, the General Secretariat for the Sea keeps on managing the seven Spanish Mediterranean Marine Reserves existing at present, with enforcement through guards on the spot, follow up, awareness programs, etc.

Research suggestions for consideration by SAC

More emphasis is encouraged on studies focusing on the impact of environmental changes (climatic variability, increase of gelatinous plankton, etc.) on the early life stages of exploited species to assess its consequence on recruitment variability, as well as studies on the influence of environmental factors affecting catchability and fleet efficiency.

TUNISIA/TUNISIE

1.- DESCRIPTION DE L'ACTIVITE DE PECHE

Les côtes tunisiennes s'étendent sur environ 1 300 km abritant 8 ports hauturiers, une quarantaine de ports côtiers et de nombreux sites de débarquement éparpillés tout au long des côtes. Selon les dernières statistiques de la Direction Générale de la Pêche et de l'Aquaculture (DGPA), la production annuelle en 2009 a atteint environ 100 451 tonnes dont 49 000 tonnes constitués d'espèces de petits pélagiques (sardine, sardinelle, saurel, maquereaux, anchois, …). Les différents types de pêche pratiqués sont essentiellement la pêche côtière, la pêche au chalut benthique, la pêche au feu et à la petite senne, la pêche au thon, la pêche au coquillage et la pêche aux éponges et au corail. Selon l'activité de pêche pratiquée, les fonds fréquentés pourraient s'étendre du rivage (pêche à pied des coquillages) jusqu'à plus de 600 m de profondeur (pêche au chalut). Par ailleurs, il est à noter que les eaux tunisiennes sont subdivisées en trois zones principales : la zone Nord (GSA 12) ; la zone Est (GSA 13) et la zone Sud (GSA 14). La flottille de pêche active est constituée d'environ 11 298 unités de pêche dont 5806 barques côtières non motorisées, 4478 barques côtières motorisées, 402 chalutiers, 360 sardiniers et 42 thoniers (Annuaire Statistique de la DGPA, 2009). Selon leur activité et leur zone de pêche, la longueur totale des unités de cette flottille peut varier d'environ 3 m (barques non motorisées) à environ une trentaine de mètres (chalutiers puissants et thoniers). De même pour la puissance des moteurs qui peut osciller entre 0 et 90 Cv (Chevaux vapeur) pour les barques côtières et de 250 à 700Cv pour les unités les plus puissantes.

2.- STATUT DU SYSTEME D'INFORMATION ET STATISTIQUE

Tout d'abord, il est important de noter que la collecte, l'archivage et l'élaboration des bases de données des statistiques de la pêche (production, effort, flottille) sont assurés par les services du Ministère de l'Agriculture, plus particulièrement la Direction Générale de la Pêche et de l'Aquaculture (DGPA). Le Ministère dispose actuellement d'une base de données informatisée et l'information selon l'espèce, l'engin, les unités de pêche, …remonte à l'année 1995. Ce système serait amélioré au courant des années à venir pour renforcer la qualité des données collectées. En effet, actuellement, au niveau de collecte de données, la méthode appliquée repose sur les journaux de pêche, particulièrement pour les chalutiers, les thoniers et les senneurs. Pour la pêche côtière, la collecte se base sur un recensement et une présence physique lors des débarquements, un travail délicat qui demande beaucoup d'effort et de moyens. Pour améliorer la collecte des données statistiques d'effort et de production de la pêche artisanale, la Tunisie a demandé l'assistance technique de la FAO qui sera fournie particulièrement par le projet régional FAO/COPEMEDII.

Au niveau recherche, nous disposons également de certaines bases de données relatives à celles des campagnes de prospection benthiques, au phytoplancton, ainsi qu'à certains autres types de données environnementales.

3.- ACTIVITES DE RECHERCHE EN COURS

Dans le domaine de l'évaluation des stocks, les différentes activités de recherche sont effectuées par l'Institut National des Sciences et Technologies de la Mer (INSTM), plus particulièrement le Laboratoire des Ressources Marines Vivantes (LRMV), en collaboration très étroite avec l'université tunisienne, les services du Ministère de l'Agriculture et la Profession (Union Tunisienne de l'Agriculture et de la Pêche (UTAP)). En effet, depuis l'année 1996, la Tunisie a lancé, d'une façon continue, un grand programme d'évaluation des ressources halieutiques tunisiennes. Ce programme a été structuré selon des étapes comme suit :

- Le Programme National Mobilisateur (PNM) : Evaluation des Ressources marines des côtes tunisiennes (1996 – 1999).
- Le Programme de Recherche sur Contrat (PRC) : Evaluation des Ressources marines des côtes tunisiennes (1999 – 2002).
- Les Actions de Recherche (ESREB, ESSATEL et ERACHID) (2002 – 2006).

- Les actions de recherche (BIHARE, LAMPAROS et CHANCHOUL) (2007 – 2010).

Au courant de l'année 2010, le LRMV de l'INSTM a achevé les activités de recherche programmées dans le cadre de ces trois dernières actions :

- **Action BIHARE** : **BI**ologie et **HA**lieutique des **R**essources benthiques **E**xploitables
- **Action LAMPAROS** : Œufs et **L**arves, **A**bondance et **M**igration des **P**oissons pélagiques : **A**ménagement des **R**essources et **O**ptimisation **S**ocio-économiques.
- **Action CHANCHOUL : CH**alutage pélagique sélectif, **A**daptation d'une **N**ouvelle senne tournante **C**iblant l'anc**H**ois, **C**onfection de nouveaux engins côtiers adaptés au c**O**mportement des cr**U**stacés et des coqui**L**lages.

Concernant les différents thèmes abordés par ces actions de recherche, les opérations de collecte et de traitement des données ont été achevées et les rapports finaux déjà finalisés. Pour les stocks démersaux, les résultats obtenus ont montré que la majorité des espèces de la région sud de la Tunisie sont en état de surexploitation (le merlu *Merluccius merluccius*, le rouget blanc *Mullus barbatus*, le rouget rouge *Mullus surmuletus*, le pageot *Pagellus erythrinus*, le petit pagre *Pagrus caeruleostictis* et le serre *Pomatomus saltatrix*) alors que pour la région Nord, nous constatons un certain équilibre d'exploitation au niveau de cette région. De ce fait, les scientifiques ont recommandé de diminuer l'effort de pêche dans la région Sud (GSA 14) et de ne plus augmenter l'effort de pêche au niveau des deux autres régions Est et Nord du pays. Cependant, pour les espèces de petits pélagiques, les évaluations basées sur les campagnes d'écho-intégration ont montré que le potentiel exploitable de ces espèces durant l'été de l'année 2009 est de 119 000 tonnes alors que les captures actuelles ne dépassent pas les 50 000 tonnes.

En conclusion et au niveau recherche, l'année 2010 a été consacrée à finaliser les travaux de collecte de l'information, à préparer les différentes bases de données, aux traitements finaux et à l'élaboration des rapports finaux des différentes actions de recherche déjà citées.

Enfin, il est important de signaler que les équipes de recherche tunisiennes et en collaboration avec leurs homologues italiens et maltais ont finalisé, dans le cadre des activités du projet MedSudMed, une évaluation commune du stock partagé de la chevrette *Parapenaeus longirostris* dans la région du Canal de Sicile (GSA 12, 13, 14, 15 et 16). Ce travail a été présenté lors de l'atelier du groupe de travail Démersaux (Istanbul, 25 au 29 septembre 2010).

4.- ETUDES EN SCIENCES SOCIO-ECONOMIQUES

Il faut, tout d'abord rappeler que la Tunisie a réalisé un travail très intéressant sur les indicateurs socio-économiques des pêcheries du golfe de Gabès. Très récemment ce travail a été étendu pour les pêcheries de la région Nord et Est du pays. De plus, en 2006, nous avons pu achever un travail sur l'application des modèles bio-économiques de la pêcherie de la crevette royale dans la région du golfe de Gabès. Les plus importants résultats de ce travail ont été présentés par notre expert lors de la dernière réunion du SC Sciences Sociales et Economique du SAC (Malagua, 30 novembre – 3 décembre 2009). Dans le cadre de la réalisation de l'action de recherche LAMPAROS, notre regard s'est retourné vers l'étude de la rentabilité économique des unités de pêche ciblant les petits pélagiques, particulièrement les unités de la pêche au feu et des petits sardiniers. Les opérations de collecte des données ont été déjà entamées depuis la fin de l'année 2007, celles des traitements des données et l'élaboration du rapport final ont été également achevées.

5. - ETUDE DANS LE DOMAINE DE L'ENVIRONNEMENT MARIN

Les programmes de recherche exécutés au sein du laboratoire biodiversité et biotechnologie marines de l'INSTM et entrant dans la mise en œuvre du plan de travail du SCMEE pendant l'intersession 2010 sont les suivants :

5.1. Conservation des tortues marines

- **Monitoring des sites de ponte de la tortue marine**

Le monitoring du site de ponte des îles Kuriat a été lancé depuis 2007 avec le support du CAR/ASP. Pour l'année 2010, nous avons enregistré 33 nids sur la grande Kuriat, il s'agit du nombre le plus important depuis 1993. Deux nids ont été déposés également sur l'île petite Kuriat au cours du mois de juillet 2010. Nous avons, par ailleurs, entamé des études de suivi satellitaire d'une femelle nidifiante et de sex-ratio des nouveau-nés. En effet, dans le cadre de la collaboration entre la CAR/ASP et la Station Zoologique de Naples (SZN), nous avons équipé cette année une femelle nidifiante nommée « Kuriate » d'une balise Argos fixée sur la carapace pour connaître davantage la population nidifiant en Tunisie.
Depuis son lâcher, la tortue « Kuriate » a parcourue environ 3000 km pendant une période de 206 jours le 25 janvier 2010. Elle séjourne actuellement près de l'île Lampedusa.

Suite au phénomène de réchauffement global et dans un but de conservation, nous avons estimé la sex-ratio des nouveau-nés de la tortue marine *Caretta caretta* sur les îles Kuriat, principal site de ponte en Tunisie.
L'estimation de la sex-ratio en Méditerranée et dans les autres régions du monde est toujours biaisée vers les femelles. L'estimation sur la grande Kuriat vient s'ajouter avec la même tendance.

- **Réseau d'échouage des tortues marines et des cétacés**

Nous poursuivons toujours la collecte d'informations sur les échouages de ces deux groupes systématiques.

- **Etudes génétiques**

- L'analyse moléculaire au niveau des nouveau-nés n'a révélé qu'un seul haplotype

mitochondrial, CC-A2, le plus commun en Méditerranée. L'étude allozymique a permis de mettre en évidence l'incidence du comportement de la paternité multiple chez environ 50% des nids analysés.

- L'étude génétique entreprise sur les tortues échouées et capturées accidentellement

montre qu'un total de 7 haplotypes mitochondriaux a été trouvé dans le golfe de Tunis, le Golfe de Hammamet et le Golfe de Gabès. Les populations des caouannes des deux premières zones se sont révélées génétiquement homogènes et différentes de celle du Golfe de Gabès. Les tortues fréquentant les 2 premières zones ont des origines méditerranéennes et atlantiques (atlantique : 30%); alors que ceux fréquentant le Golfe de Gabès seraient exclusivement d'origine méditerranéenne, et proviennent particulièrement des sites de nidification situés en Grèce (contribution estimée à environ 70%).

5.2. Conservation des Elasmobranches

- **Données sur l'âge et la croissance**

- **Le poisson guitare fouisseur *Glaucostegus cemiculus***

Nous avons utilisé pour l'étude de la croissance les vertèbres. Les paramètres de l'équation théorique de croissance de Von Bertalanffy sont les suivants :

	Paramètres		
	LT∞ (cm)	**K**	**t_0**
Mâles	179 ± 2,62	0,272±0,014	-0,71±0,07
Femelles	198,7 ±1,39	0,202±0,005	-0,81±0,05

L'âge de la première maturité sexuelle (t_{50}) et l'âge théorique maximal (t_{max}) sont consignés dans le tableau suivant :

	Mâles	femelles
t_{50}	2,89	5,09
t_{max}	10,32	14,40

- **La raie bouclée, *Raja Clavata***

Les paramètres de l'équation théorique de croissance de Von Bertalanffy sont les suivants :

	L∞(mm)	k year–1	t0 year–1
Femelles	1114.6 ±4.31 10-1	0.11± 1.06 10-4	1.23±2.03 10-1
Mâles	1008±7.65 10+1	0.14±1.32 10-1	1.13 ± 2.42 10-1

L'âge à la maturité (A50%) est estimé être 7 ans chez les femelles et de 5.3 ans chez les mâles de R. clavata.

- **Systématique des Dasyatidae**

L'étude anatomique et la comparaison statistique des mesures biométriques et méristiques entre *D. pastinaca* et *D. tortonesei* a permis de dégager certains caractères qui permettent de différencier ces deux espèces qui présentaient des confusions et des controverses.

Toutefois, une nouvelle description des deux espèces et une recherche rigoureuse pour connaitre laquelle des deux espèces a été décrite par Linné sont nécessaires. L'appellation tortonesi devrait remplacée par une nouvelle appellation parce qu'elle est considérée comme synonyme de *Pastinaca*.

5.3. Conservation des Cétacés

- **Etude de l'interaction Grand dauphin -filets trémail (Kerkennah) (étude financée par ACCOBAMS)**

- 23,31 % sorties effectuées sont sujettes à des interactions avec les dauphins. Les interactions sont plus fréquentes au printemps.
- La Capture Par Unité d'Effort global est de l'ordre de 0,300 Kg. Dans le cas où il n'y a pas interaction avec les dauphins, cette CPUE est de 0,320 kg et elle chute à 0,235 pour les sorties et les filets attaqués
- La déprédation a été observée dans 86,84% des sorties attaquées. Il s'agit de restes de seiche, de rougets, de soles, de serran *Serranus scriba* et de spicarelle *Spicara maena*
- La production perdue par sortie a été évaluée à 1,79 Kg toute espèce confondue. La perte économique s'élèverait donc à 12,761 dinars par sortie attaquée soient 36,33 % des recettes.

6. NOUVELLES MESURES D'AMENAGEMENT

Instauration d'une nouvelle réglementation de l'activité de pêche durant la période d'intersession qui se résume à la fermeture totale de la région sud de la Tunisie (GSA 14, golfe de Gabès) à la pêche au chalut durant une période de 3 mois (du 1er juillet 2009 au 30 septembre 2009. cette mesure a été maintenue également durant la période du 1er juillet 2010 au 30 septembre 2010.

7. – PROPOSITION DE RECHERCHE POUR LE CSC

L'INSTM continue régulièrement ses activités de recherche et entretient une collaboration assez étroite avec les deux projets régionaux FAO/MEDSUDMED et FAO/COPEMEDII. En effet, dans le cadre des activités de ces deux projets, la Tunisie continue ses activités concernant les évaluations des stocks partagés, particulièrement la chevrette dans la région du Canal de Sicile, la pêche artisanale et l'opération d'intercalibartion des deux bateaux de recherche italienne et tunisienne. Par ailleurs, dans une perspective de l'application de l'approche écosystémique en tant qu'outil d'aménagement des pêcheries méditerranéennes, la Tunisie a intégré un projet européen sur cet aspect

(Projet CREAM). Ce projet de recherche qui regroupe de nombreux instituts de recherche méditerranéens, a été dernièrement approuvé pour financement par la Communauté européenne.

TURKEY/TURQUIE

DESCRIPTION OF THE FISHERIES

Total fish production of Turkey in 2009(latest official) including inland fishery and aquaculture was 623.191 tones. (inland catch 39.187tones, aquaculture production 158.729 tones and marine catch 425.275 tones). Turkish fishery can be described as multi type fishery, from artisanal to small scale and to industrial fishery. Fishing is conducted in international waters, EEZ and Turkish territorial waters of Mediterranean sea, Aegean sea, Marmara sea and Black sea. Major landing comes from small pelagic fishery mostly anchovy, sprat, sardine, horse mackerel and Atlantic bonito of industrial fishery. Shell fish fishery is also important export product of Turkish fishery.

Table 1. Fisheries type by regions and main commercial species

Fishing type	**Sea regions**	**GSAs**	**Species**
Pelagic fisheries	Eastern Black Sea	29	Anchovy, horse mackerel, bonito, sprat
	Western Black Sea	29	Anchovy, sprat, bonito, bluefish, scad, chub mackerel, Sardines, dogfish
	Marmara	28	Anchovy, bonito, sprat, scad, blue fish, Sardines
	Mediterranean and Aegean	22, 24	Sardines, chub mackerel
Trawl fisheries	Western Black Sea	29	Whiting, red mullet, turbot
	Aegean	22	Mixed
	Mediterranean	24	Mixed
Highly Migratory Species	Mediterranean and Aegean	24 22	Tuna Swordfish
Artisanal fisheries (gillnet, trammel net, longline, traps)	Black Sea, Marmara, Mediterranean and Aegean	29, 28, 24, 22	Mixed (whiting, turbot, red mullet, grey mullet, shrimp, sparids, sole and dab, squids, octopus and cuttlefish, swordfish)

Sea snail fisheries (dredging)	Eastern Black Sea	29	Sea snail
Clam Fisheries (dredging	Western Black Sea	29	Baby clams
Shrimp/prawn fisheries	Marmara, Aegean and Mediterranean	28, 22, 24	Shrimp
Lagoon fisheries	Mediterranean, Aegean, and Marmara	24, 22, 28	Mixed (sea bass, sea bream, eel, mullets)

Table 2. Catch by species and years

Species/Years	2007	2008	2009
Anchovy	385.000	251.675	204.699
Striped venus	47.215	38.999	24.574
Sprat	11.921	48.164	53.385
Horse mackerel	32.021	32.177	47.878
Sea snail	13.791	14.741	6.085
Whiting	12.940	12.231	11.146
Atlantic bonito	5.965	6.448	7.036
Grey mullet	8.291	3.345	2.987
Blue fish	6.858	4.536	5.999
Red mullet	3.823	3.903	5.279
Turbot	769	528	383
Others	60.535	36.366	55.824
Total	589.129	453.113	425.275

FLEET STRUCTURE

In 2010, there were 17440 vessels registered with a total tonnage of 185.807,93GT. Information on national fleet is given in the Table 3. The majority of fishing fleet is comprised of small vessels less than 18 meters in length. Nearly half of the total fishing fleet is based in the Black Sea ports, The majority of large vessels operate in the Sea of Marmara and the Black Sea. Under the current fishing fleet management system, fishing license is not granted to a new vessel. The fleet has been decreasing in number.

Table 3. Fleet Structure

	2010	
	Number	**Total GT**
Total Vessels	**17440**	**185807,93**
0 - 5.9 m	3063	3138,35
6 - 11.9 m	12477	44404,28
12 - 17.9 m	920	19985,66
18 - 23.9 m	464	30078,26
24 - 29.9 m	297	34658,35
30 - 35.9 m	106	17616,32
36 - 44.9 m	84	22074,84
45 - 59.9 m	27	12463,87
60 - 74.9 m	2	1388,00

STATUS OF STOCKS OF PRIORITY SPECIES

Due to lack of stock assessment research, status of marine resource stocks of Turkey is not properly known. Although there have been some attempts and intentions, programmed scientific stock assessment studies are currently not part of fisheries management regime. This makes it difficult to classify the status of stocks as overfished, fully-fished or under fished. However according to landing figures of recent years it can be said that stocks level reached maximum harvestable level and somehow stagnant for majority of the species.

STATUS OF THE STATISTICS AND INFORMATION SYSTEM

Official statistics are still collected with sampling and survey system by State Statistic Organization. To replace that system with Fisheries Information System(FIS) has been developed and set up with the EU supported projects. . The system is an integrated Web-based database and composed of modules interacting to introduce and extract data to/from a centralized database. The integrated FIS includes vessel registry, fishing license registry, data on landings, quota (bluefin tuna), catch quota (striped venus dam, and — as from 2010 — anchovy) and sales notes. Vessels over 15 meters are obligated to record and keep logbook. The Ministry of Agriculture and Rural Affairs (MARA) planning to shift paper-based logbook into the electronic one due to excess work burden associated with the paper logbook. Development of an integrated system for electronic logbook is being considered.

The application of VMS has been started in 2008 with the vessels involved into bluefin tuna fishing under the rules of ICCAT. About 200 vessels have been equipped with VMS-device. As from 2010, fishing vessels over 15 metres (about 1 250 vessels) will be under an obligation to have Automated Identification System (AIS). FIS has been used as legal database for all official works other than landing since not all the log books data has been registered to the system.

STATUS OF MARINE ENVIRONMENTAL STUDIES IN PROGRESS

An ongoing project titled “Strengthening Protected Area Network of Turkey: Catalyzing Sustainability of Marine and Coastal Protected Areas” aims to facilitate expansion of the national system of marine and coastal protected areas, including fisheries protected areas, and improve their management effectiveness. The project is partly funded by GEF and will be completed in October 2013.

STATUS OF THE SOCIAL SCIENCES STUDIES STATUS

In 2010,Two studies on socio economical status of Aegean fishery and northern Mediterranean fishery were completed by fisheries faculties of Aegean university and Mersin university. And also another study " socio economical analyses of Mediterranean fishermen" by Economical Research Institute of MARA has been completed.

MANAGEMENT MEASURES

None

RESEARCH SUGGESTIONS FOR CONSIDERATION BY SAC

None

RUSSIAN FEDERATION/FÉDÉRATION DE RUSSIE

Reporting Organization

Federal State Unitary Enterprise "Azov Fisheries Research Institute" ("AzNIIRKh"), Rostov-on-Don, Russian Federation.

Organizations providing data

Federal Agency for Fishery, Moscow, Russian Federation

Federal State Unitary Enterprise "Azov Fisheries Research Institute" ("AzNIIRKh"), Rostov-on-Don, Russian Federation.

1. Description of the fisheries in the Black Sea maritime belt of the Russian Federation.

1.1. Catches of main commercial fish species. The water bioresources harvest in the Russian territorial waters of the Black Sea is regulated by Order of Russian Federal Agency for Fisheries "On Confirmation of Fishery Rules in the Azov and Black Sea Basin", No. 149 of 8.09.2008 (hereinafter referred to as Fishery Rules).

In accordance with the Fishery Rules the following fish species are caught in the Russian territorial waters of the Black Sea:

a) sprat: during the whole year - in the sea by fixed and sweep nets and scrapers; from April, 1 to October, 31 - in the sea by midwater trawls;

b) red mullet: during the whole year - in the sea by fixed and sweep nets and scrapers; from September, 1 to June, 30 - in the sea by single-walled nets;

c) scad: during the whole year - in the sea by fixed, sweep, purse and ring nets; from November, 1 to April, 30 - in the sea by conical nets with light traps;

d) whiting: during the whole year - in the sea by midwater trawls;

e) turbot: from February, 1 to October, 31 - in the sea by stationary single-walled nets, baited hooks (bottom longlines);

f) dog-fish and rays: from February, 1 to October, 31 - in the sea by stationary single-walled nets, bottom longlines.

Catches of main commercial fish species in 2009 are presented in Table 1.

1.2. Fleet. There are two groups of vessels which are working at both the Black Sea and Sea of Azov maritime belt areas of the Russian Federation. First of them is Krasnodar Region group. According to the operative report, this group included 25th vessels worked in 2008 and 29th vessels worked in 2009. The second one is Rostov Region group, which included 19th vessels worked in 2008 and 13th vessels worked in 2009.

Table 1. Landings by species in Russian Federation Black Sea waters for 2005-2009, tones.

Species	Year				
	2005	2006	2007	2008	2009
Merlangius merlangus	75	52	22	96	46.48
Mullus barbatus	125	55.8	13.7	114.84	211.51
Psetta maeotica	7.5	7.6	5.7	4.70	21.27
Raja clavata, *Dasyatis pastinaca*	-	14.80	28.1	10.65	20.63
Sprattus sprattus	13247	9920	6000	7814	8734
Squalus acanthias	-	23.94	28.1	58.53	12.08

Trachurus mediterrancus	169	200.5	63.2	154.24	89.67
Mugilidae	65	106.2	26.2	47.05	23.19

2. Status of stocks of priority species

2.1. Sprat *Sprattus sprattus phalericus* Risso. The first mass fattening migrations of sprat into the Black Sea shelf zone of Russia began, as in the previous years, in the last week of March. In April-May the fish spread along the coastal zone at 20-80 m depths. The sprat fishing has begun since the 1st of April. From 12 to 15 vessels were engaged in the harvest. The total landings amounted to 8.73 th. tones during the fishing season lasting from April to the 1st of November.

2.2. Whiting *Merlangius merlangus euxinus* Nordmann. Specialized fishing of whiting has been developing during the last 10-15 years. In 2009 no commercial aggregations consisting of large specimens were observed, and its harvest amounted merely to 43.5 th. tones.

2.3. Black Sea Turbot *Psetta maeotica maeotica* Pallas. The turbot fishing was recommenced in the middle May. The loads for 10 net-days were in the range 5-10 kg that corresponded to averaged annual parameters.

2.4. Scad *Trachurus mediterraneus ponticus* Aleev. Certain amount of the North-Caucasian stock of Black Sea scad spent the winter of 2008/2009 in the Russian territorial waters. The main aggregations of the species were observed between Sochi and Adler.

2.5. Red mullet *Mullus barbatus ponticus* Essipov. May the red mullet catches ranged from 12 kg to 22 kg per a fixed net which corresponded to averaged annual parameters. The red mullet were fished for the most part in middle July, with 500-2500 kg loads per one fixed net.

2.6. Mugilidae *Liza aurata* Risso, *Mugil cephalus* L. In winter of 2009 the Azov – Black Sea mullets were caught by rigged mullet nets, in spring there were used fixed, rigged mullet and gill nets, in August lifting mullet nets were applied. As in the previous year, the landings of mullets migrating in middle April – May were at the level of 1.4 tons. In August-September (spawning migrations season) golden grey mullet was harvested. Lifting mullet nets were applied. The total yield amounted to 10.0 tons.

2.7. Spiny dog-fish *Squalus acanthias* L. According to the results of May trawl survey (2009), the dog-fish was found only in the Kerch-Taman region at 21-24 m depths, with catches coming to 15 kg/hour. All the landings were presented by grown-up males of 6.0 kg weight. Mature females were not observed in the region surveyed.

2.8. Rays *Raja clavata* L., *Dasyatis pastinaca* L. Two species of rays live in the Black Sea; they are thornback ray and stingray, whose fishing is of secondary importance. There is no special fishing of rays, they are met in nets used for dog-fish and mullet harvesting, in fixed nets, midwater trawls, on hooks when sprat and Azov anchovy are being fished.

2.9. Other Black Sea fish species. According to fishery statistics in 2009, Russian fishermen caught 30 tons of other marine fish species, including pickarel (8.8 tons), silverside (3.7 tons), scorpionfish (1.7 tons) and garfish (2.3 tons).

3. Marine environmental studies

3.1. Scientific research. Commercial fish stocks in the Black Sea have been estimated by method of direct census per area unit based on the results of trawl surveys made in May-June and August-September. The studies were being conducted within the boundaries of closed and territorial sea of Russian Federation in the Black Sea from the Kerch Strait to Adler by midwater trawl working as a bottom net with 6.0-8.0 mm mesh in the belly end. In 2009 eighty-three control trawlings were carried out.

Biological sampling, qualitative and quantitative analysis of the catches from nets that were used in the coastal zone were carried out at eight control stations belonging to AzNIIRKH.

3.2. Commercial stocks and population characteristics of species. Stock biomass of main Black Sea fish species for 2005-2009 is presented in Table 2. The last data available on the catches and forecast for the 2011 are represented in table 3.

Table 2. Stock biomass of main fish species in Russian Federation Black Sea waters for 2005-2009, tons.

Species			Years		
	2005	2006	2007	2008	2009
Merlangius merlangus	2820	3890	3350	2160	3310
Mullus barbatus	1600	1560	1300	1300	1200
Psetta maeotica	920	960	980	1000	1000
Raja clavata, Dasyatis pastinaca	700	500	500	500	400
Sprattus sprattus	170000	132000	127000	110000	100000
Squalus acanthias	5500	5000	4500	4500	4000
Trachurus mediterrancus	9500	8600	8300	8400	8300
Mugilidae	4000	3700	3700	3700	3500

Table 3. Main targeted species of the Black Sea maritime belt of the Russian Federation (thousands tones) for 2010 and forecast for 2011. PC means possible catches, TAC means total allowable catches, "-" means no data available.

Species	**2010**			**2011 PC/TAC**
	Catches	**PC/TAC**	**% of exploitation**	
Black Sea Anchovy	**10,741**	**-**	**-**	**60,0**
Sprat	**5,839**	**21,0**	**27,8**	**20,0**
Whiting	**0,0227**	**0,57**	**3,98**	**0,66**
Mullet	**0,173**	**0,23**	**75,2**	**0,22**
Scad	**0,109**	**2,48**	**4,4**	**2,45**
Black Sea Turbot	**0,025**	**0,04**	**62,5**	**0,04**
Mugilidae	**0,015**	**0,358**	**4,19**	**0,358**
Shark	**0,0085**	**0,10**	**0,85**	**0,10**
Rays	**0,0194**	**0,04**	**48,5**	**0,04**
Mugil cephalus	**0,3625**	**0,5**	**72,5**	**0,5**
Herring	**0,0129**	**0,07**	**18,4**	**0,053**
Sturgeon	**-**	**0,002**	**-**	**0,002**
Others	**0,0234**	**0,26**	**9,0**	**0,3**
Total fish catches	**17,3514**	**25,65**	**67,6**	**24,723**

The Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) held its thirteenth session in Marseille, France, from 7 to 11 February 2011. The session was attended by delegates from 21 Members of the Commission as well as observers from intergovernmental organizations and non-governmental organizations together with the Russian Federation. The session appraised the achievements of its subsidiary bodies along with the outcome of the Coordinating Meeting of the Sub-Committees (CMSC). The Committee reviewed the topics addressed by the 17 technical meetings held by its subsidiary bodies. These included proposals for fishery management measures, research programmes, data collection schemes and development of Management Plans. It discussed several other technical issues connected to the exploitation of red coral and European eel, the status of elasmobranchs, the protection of seabirds, turtles and monk seals as well as the monitoring of the by-catch in the Mediterranean fisheries. The SAC further commented on the outputs of the workshop on algal and jellyfish blooms which provided options to tackle the problems posed by this phenomenon on fisheries and also gave due importance to the results of the workshops on recreational fisheries and on fishing gear selectivity. Definitions of some socio-economic parameters within the Task 1 data collection framework were reviewed and options for the improvement of the collection and submission of biological data under this framework were considered. The Committee acknowledged the progress made in undertaking joint stock assessments of several demersal and small pelagic species and identified a way of progression of the use of Biological Reference Points. The SAC also reviewed the progress made on the development and management of GFCM databases, including the new Biological Parameters Database and the newly released e-Glossary, as well as that made on the issue of catch weight thresholds in logbook reporting. Finally, the Committee proposed the establishment of a new Working Group to specifically address the Black Sea issues and agreed upon its workplan for 2011.

Le Comité Scientifique Consultatif (CSC) de la Commission Générale des Pêches pour la Méditerranée (CGPM) a tenu sa treizième session à Marseille, France, du 7 au 11 février 2011. Ont participé à cette session, les délégués de 21 membres de la Commission, des observateurs d'organisations intergouvernementales et d'organisations non-gouvernementales ainsi que la Fédération de Russie. Le Comité a examiné les activités et résultats de ses organes subsidiaires ainsi que de la Réunion de coordination des Sous-Comités (CMSC). Le Comité a analysé les questions abordées par les 17 réunions techniques organisées par ses organes subsidiaires, qui comprennent des avis en matière de gestion des pêches, des programmes de recherche, des systèmes de collecte de données ainsi que le développement de plans de gestion. Le CSC a discuté plusieurs autres questions techniques en relation avec l'exploitation du corail rouge et de l'anguille européenne, la situation des espèces d'élasmobranches, la protection des oiseaux de mer, des tortues et des phoques moines ainsi que le suivi des prises accessoires dans les pêcheries Méditerranéennes. Il a examiné les résultats de l'atelier sur la prolifération d'algues et de méduses qui a proposé des options pour résoudre les problèmes d'interaction de ce phénomène avec la pêche et a également reconnu l'importance des résultats des ateliers sur la pêche récréative et la sélectivité des engins de pêche. Les définitions de certains paramètres socio-économiques dans le cadre de la collecte de données de la Tâche 1 ont été examinées et des options pour l'amélioration de la collecte et la transmission des données biologiques ont été considérées. Le Comité a reconnu les progrès accomplis dans la réalisation d'évaluations conjointes des stocks de plusieurs espèces démersales et petits pélagiques et a identifié un moyen pour avancer sur l'utilisation des points de référence biologiques. Le CSC a examiné les progrès accomplis dans l'élaboration et la gestion des bases de données de la CGPM, y compris la nouvelle base de données des paramètres biologiques, le glossaire électronique (e-Glossary), ainsi que sur la question des seuils de poids des captures dans les carnets de bord. Finalement, le Comité a proposé l'établissement d'un groupe de travail dont la mission est d'aborder de manière spécifique les questions concernant la Mer Noire et a approuvé son plan de travail pour 2011.

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