

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

Report of the fourteenth session of the

SCIENTIFIC ADVISORY COMMITTEE

Sofia, Bulgaria, 20–24 February 2012

Rapport de la quatorzième session du

COMITÉ SCIENTIFIQUE CONSULTATIF

Sofia, Bulgarie, 20-24 février 2012



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PREPARATION OF THIS DOCUMENT

This is the final report approved by the participants at the fourteenth session of the Scientific Advisory Committee of the General Fisheries Commission for the Mediterranean held in Sofia, Bulgaria, from 20 to 24 February 2012.

PRÉPARATION DE CE DOCUMENT

Le présent document est le rapport final adopté par les participants de la quatorzième session du Comité Scientifique Consultatif de la Commission générale des pêches pour la Méditerranée tenue à Sofia, Bulgarie, du 20 au 24 février 2012.

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ABSTRACT

The Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) held its fourteenth session in Sofia, Bulgaria, from 20 to 24 February 2012. The session was attended by delegates from 19 Members of the Commission as well as observers from intergovernmental organizations together with Georgia, the Russian Federation and Ukraine. The Committee reviewed the topics addressed by the 11 technical meetings and the 4 Sub-Committees sessions held in the 2011–2012 intersessional period. These included proposals for fishery management measures, research programmes, data collection schemes, development of Management Plans for Red Coral and for Fishing Capacity as well as technical issues, in connection with the use of spatial based measures, Vessel Monitoring System (VMS) data and the management related to by-catch of species of conservation concern as well as of discards of commercial and non-commercial species. The agreed priority actions to be undertaken in the Black Sea area were also appraised. Remarkable progress was noted on the definition of a new Task 2 for gathering biological information of catches and on the proposal to revisit the frame and scope of whole Task 1 given the problems of compliance detected. The Committee acknowledged also the progress made in undertaking joint stock assessments of selected demersal, small pelagic and elasmobranchs species and on the modification of the Stock Assessment Forms. The Committee was informed about the progress achieved on the process of modernizing GFCM legal and institutional framework through the creation of the ad hoc Task Force, including on its activities and work plan. The first Framework Program in support to this process was also introduced. With regard to the GFCM decision-making process the SAC agreed that a mechanism should be defined, to facilitate the adoption of recommendations. In this respect, an ad hoc meeting was convened to be held before the 36th Session (May 2012) to address this issue. The Committee decided to postpone the election of its Bureau until next session and agreed upon its workplan for 2012–2013.

RÉSUMÉ

Le Comité Scientifique Consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) a tenu sa quatorzième session à Sofia, Bulgarie, 20 au 24 février 2012. Ont participé à cette session, les délégués de 19 membres de la Commission, des observateurs d'organisations intergouvernementales ainsi que la Géorgie, la Fédération de Russie et l'Ukraine. Le Comité a analysé les questions abordées par les 11 réunions techniques ainsi et les sessions 4 sous-comités tenues pendant la période intersessions 2011-2012, 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 pour le corail rouge et pour la capacité de pêche. Le CSC a discuté plusieurs autres questions techniques en relation avec l'utilisation de mesures spatiales, données des systèmes de surveillance des navires (SSN) et la gestion liée aux captures accessoires et des rejets d'espèces commerciales et non-commerciales. Les actions prioritaires à entreprendre en mer Noire ont aussi été identifiées. Des progrès remarquables ont été notés quant à la définition d'une nouvelle Tâche 2 pour la collecte d'informations biologiques sur les captures ainsi qu'à la proposition de redéfinir le cadre et l'objectif de la Tâche 1 étant donnés les problèmes d'application identifiés. Le Comité a reconnu les progrès accomplis dans la réalisation d'évaluations conjointes des stocks de plusieurs espèces démersales, de petits pélagiques et d'élasmobranches et dans la modification des formulaires d'évaluation des stocks. Le Comité a été informé des progrès du Groupe de travail pour la modernisation du cadre légal et institutionnel de la CGPM, dont les activités et programme ont été reportés. Le premier Programme Cadre de la CGPM en support de ce processus a également été introduit. Le CSC a convenu qu'un mécanisme devrait être défini pour la prise de décision, afin de faciliter l'adoption de recommandations. À cet égard, il a été décidé qu'une réunion ad hoc se tiendra avant la 36^{ème} session de la Commission (mai 2012) afin d'adresser ce thème. Le Comité a décidé de reporter l'élection de son Bureau jusqu'à la prochaine session et a approuvé son plan de travail pour 2012-2013.

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OPENING AND ARRANGEMENTS FOR THE SESSION

1. The fourteenth session of the Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) was held in Sofia, Bulgaria, from 20 to 24 February 2012. The session was attended by delegates from 19 Contracting Parties, cooperating non-Contracting Parties (Georgia, Russian Federation, Ukraine), intergovernmental organizations, namely the Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Mediterranean Marine Protected Areas Network (MedPAN), as well as representatives of the FAO regional projects and GFCM Secretariat. The list of participants is reproduced as Appendix B to this report.

2. Mr Henri Farrugio, SAC Chairperson, opened the meeting and greeted participants. He introduced Mr Dragomir Gospodinov, Executive Director of the National Agency for Fisheries and Aquaculture (NAFA) who welcomed attendants on behalf of the Bulgarian authorities and thanked Mr Farrugio and the GFCM Secretariat for the preparatory work of the Session. He then highlighted the importance of SAC, including its role in promoting joint efforts to contribute to the attainment of sustainable development of fishery resources in the Mediterranean and the Black Sea. In this connection, Mr Gospodinov stressed that scientific advice by SAC should always account for the specificities of the GFCM area, bearing in mind the current status of fisheries which calls for the even implementation of GFCM management measures.

3. Mr Abdellah Srour, GFCM Executive Secretary, and on behalf of Mr Stefano Cataudella, GFCM Chairperson, warmly thanked Bulgaria for the hospitality and the excellent organization of the meeting. He stated that major contributions to fisheries management have been provided by SAC although there was a need for renewed commitment due to the critical status of several stocks. With the occasion, Mr Srour mentioned the work of the Task Force to improve and modernize GFCM which is expected to have a positive bearing on SAC. Also, he acknowledged the contribution by FAO regional projects to GFCM and announced the launching of the first GFCM Framework Programme in support of Task Force activities (FWP).

ADOPTION OF THE AGENDA

4. After having invited participants to introduce themselves, the Chairperson gave the floor to the Executive Secretary who informed the meeting about organizational arrangements relating to the Session.

5. The Agenda, as introduced by Mr Srour and adopted by the Committee, is reproduced under Appendix A of this report. Documents placed before the fourteenth session of SAC are listed in Appendix C.

INTERSESSIONAL ACTIVITIES

Review of the main decisions adopted at the thirty-fifth session of the GFCM concerning fisheries management

6. Mr Srour presented the decisions by the thirty-fifth session of the Commission starting with Resolutions (i) GFCM/35/2011/1 on the submission of combined data on fishing vessels, (ii) GFCM/35/2011/2 on data confidentiality policy and procedures, (iii) GFCM/35/2011/3 concerning the procedure to submit new proposals of decisions to the annual session of the GFCM.

7. Mr Sroul outlined provisions of Recommendations (i) GFCM/35/2011/1 concerning the establishment of a GFCM Logbook, (ii) GFCM/35/2011/2 on the exploitation of red coral in the GFCM Competence Area, (iii) GFCM/35/2011/3 on reducing incidental by-catch of seabirds in fisheries in the GFCM Competence Area, (iv) GFCM/35/2011/4 on the incidental by-catch of sea turtles in fisheries in the GFCM Competence Area, (v) GFCM/35/2011/5 on fisheries measures for the conservation of the Mediterranean monk seal in the GFCM Competence Area, (vi) GFCM/35/2011/6 on reporting of aquaculture data and information. He added that five management measures by ICCAT were also endorsed.

8. The Committee noted that several management advice proposed during its thirteenth session were not followed by concrete actions by the Commission. It stressed the importance for a real improvement of the decision-making mechanism to overcome this gap. Mr Sroul reported that the Task Force for the modernization of the GFCM is considering this issue.

Overview of SAC activities during the intersessional period

9. On the basis of document GFCM:SAC14/2012/2, the Chairperson presented the activities undertaken by the four Sub-Committees during the intersession. He informed the delegates that fifteen scheduled meetings had been convened including the four Sub-Committees.

10. Referring to the technical workshops, the Chairperson reported 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 use of vessel monitoring system (VMS) data, the management related to by-catch and discards and the use of spatial based measures. Furthermore, the Chairperson provided an overview of the outputs of the workshop on Fisheries Legislation which emphasized overlaps and gaps at different administration levels and stressed the need for better involvement of stakeholders.

11. In relation to 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 including on the establishment of a VMS.

12. The Chairperson informed SAC that the Sub-Committee on Economic and Social Sciences (SCESS) reviewed the outcomes of the Expert Meeting on Fisheries Legislation in the Mediterranean and the Black Sea, held under the LaMed Project framework, and especially the main recommendations that were drawn by the participants. Among them, he stressed in particular the need to enhance the level of coordination, whether at national level or between institutions active in the GFCM Area, and the level of implementation of GFCM Recommendations.

13. With regards to the Sub-Committee on Stock Assessment (SCSA) the Chairperson reported that the SCSA has reviewed 30 technical papers on demersal species and 14 technical papers on small pelagic species elaborated by the two Working Groups on Stock Assessment. He added that the SCSA also reviewed the outcomes of the Workshop on Stock Assessment of Selected Species of Elasmobranchs. SAC was also informed that the SCSA decided to change the format of Stock Assessment Forms to facilitate the inclusion of data and to ease the filing up process.

14. The Chairperson also informed the SAC that the work of the Sub-Committee on Marine Environment and Ecosystems (SCMEE) focused on possible proposal of technical and scientific elements for a regional management plan for red coral, on the status of reporting data on by-catch through Task 1, on the development of artificial reefs (ARs) in the Mediterranean region, on the importance of protecting deep sea habitats and on the impact of alien species on fisheries. He then noted the proposal by SCMEE to update the standard form to propose new fisheries restricted areas (FRAs). The valuable results achieved so far by the Technomed network were also underlined.

15. Referring to document GFCM:SAC14/2012/Inf.17, the Chairperson presented the conclusions and proposed workplan for both short and medium term activities of the ad-hoc Working Group on the Black Sea, underlining that the success of the meeting was assured by the high level of participation from all riparian countries and by the quality of results obtained.

16. The Committee acknowledged the support provided by the European Union (EU) for the organization of the workshops of VMS and on the stock assessment of elasmobranchs that will lead to a publication on updated information on fisheries, biology, ecology and taxonomy of these fish species.

17. 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 achievements obtained. The Committee also congratulated the GFCM Secretariat for the excellent work made during the intersessional period and for the organization of the Session.

Major activities and initiatives of FAO regional projects

18. The activities carried out by the FAO led Mediterranean Projects (AdriaMed, CopeMed II, ArtFiMed, EastMed, MedSudMed, MedFisis, MedLME and Black Sea Fish initiative) during the intersessional period were presented, including research activities, training programmes, workshops and working groups as well as technical assistance to the countries and support to SAC activities. The delegates were reminded that detailed information on the activities and outputs of the projects could be found in the annual report of the Coordination Committees of the different projects and in document GFCM:SAC14/2012/Inf.19.

19. The Committee acknowledged the extensive work undertaken by the FAO regional projects and the valuable scientific contributions provided, and congratulated the FAO for the efforts in the increased cooperation with GFCM.

20. Delegates stressed the importance of the existence of the FAO regional projects for their support to the countries and to GFCM.

21. Delegates from Croatia and Montenegro in particular affirmed that AdriaMed has a strategic role, being the only project which groups all the Adriatic countries. Reference was also made to the importance of AdriaMed as a forum for supporting the formulation of joint multiannual management plan in the Adriatic Sea (e.g. Jabuka/Pomo Pit area).

22. The delegates from Egypt and Lebanon acknowledged the role of EastMed in the area. Especially the delegate from Lebanon stressed that without this support such activities could not be implemented in his country.

23. The delegate from Tunisia highlighted the important role of CopeMed II and MedSudMed. He referred to the MedSudMed meeting on closed season for fisheries as a new phase of cooperation in the framework of the project, with the involvement of national administrations. During this meeting a pilot experiment was initiated for the harmonization of fishing closure in Italy, Libya, Malta and Tunisia. He considered advisable that, taking advantage of this pilot action and of the support of the FAO regional projects, the initiative be expanded to the Mediterranean regional level, possibly through a GFCM decision.

24. The Egyptian delegate recognized the importance of the ArtFiMed project in support to small scale fisheries (SSF) and wished the extension of similar initiatives to Egypt.

25. The Algerian and Moroccan delegates expressed satisfaction for the results obtained by CopeMed II and the ArtFiMed. They appreciated in particular the integrated approach adopted by the projects in supporting the development of small scale fisheries. Mention was made that GFCM should refer to the results obtained by the ArtFiMed project to support small scale fisheries in the Mediterranean.

26. The Committee was reminded that all projects activities are in line with EAF principles, and stronger collaboration with GFCM on the implementation of the EAF in the Mediterranean will have to be sought. In this regard, the representative of ACCOBAMS welcomed stronger regional co-operation on this topic.

27. The delegate of EU acknowledged the work carried out by the the FAO regional projects. In particular, reference was made to the sharing and joint analysis of fisheries data carried out under the umbrella of the FAO regional projects. In light of the above, he looked forward to expanding data sharing within the scientific community and proposed the establishment of a common database accessible to all the Mediterranean countries.

28. The Romanian delegate congratulated the FAO regional projects for their achievements and underlined that similar initiatives should be implemented in the Black Sea region. In this connection, he referred to the FAO Black Sea Fish Project and emphasized the need for coordination with the Working Group on the Black Sea and the first GFCM FWP.

29. Finally, the Committee stressed the importance of the FAO regional projects for their role in supporting and facilitating joint and common assessments of shared stocks, thus significantly contributing to the work of SCSA.

SALIENT RESEARCH ACTIVITIES BY MEMBER COUNTRIES

30. Ms Pilar Hernández from the GFCM Secretariat presented the document GFCM:SAC14/2012/Inf.9, providing a synthesis of the information contained in 14 national reports received by the Secretariat prior to the meeting (Appendix G). She stressed that the number and diversity of research projects had improved.

31. SAC expressed his gratitude to the Secretariat for the format used to present such relevant documentation which provided a clear idea of the current situation of national fisheries and took note of the suggestion by the Tunisian and Romanian delegates to include into the format of national reports additional information, such as bibliographical references and links to pertinent institutional Web sites.

32. Mr Srour underlined the importance of national reports and noted that some of them were received by the Secretariat shortly ahead of the meeting whilst several were still missing. He mentioned the possibility for cooperating non-Contracting Parties to also submit national reports to SAC, recalling to the report submitted by the Russian Federation at the thirteenth session of SAC.

FORMULATION OF ADVICE IN THE FIELD OF FISHERY MANAGEMENT AND RESEARCH

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

33. The Coordinator of the Sub-Committee, Mr Federico Alvarez, presented the conclusions and recommendations of the SCMEE on the basis of document GFCM:SAC14/2012/2 and document GFCM:SAC14/2012/Inf.5. He described the outputs focusing on management and research issues.

34. The Committee reviewed the four recommendations emanating from the Working Group on Red Coral, namely: i) establishing a minimum size of seven mm of diameter measured within one centimeter from the base with a tolerance of 5 percent of the total weight of the daily catch; ii) establish a quota system based on number of licenses; iii) establish a statistical form to facilitate the transmission of the data required in Recommendation GFCM/35/2011/2; and iv) to set up an Adaptive Regional Management Plan on Red Coral.

35. The Committee was recalled on the fact that the main motivation to adopt such measures was to ensure that red coral *Corallium rubrum* is rationally exploited according to conservation standards shared among the concerned countries.

36. The delegates from Algeria, Morocco and Tunisia pointed out that the proposal to adopt a minimum size for the exploitation of coral was difficult to be applied in practice and generated disconformities on the timing for the design of a regional management plan which, in their opinion, should be based on research studies of at least four years and take into account the characteristics of each population.

37. The Italian delegate reported that size of 7 mm is reached only at approximately 25 years of age and that the minimum depth for harvesting should be established at 80 m. He referred to the experience of the management plan in force in Sardinia indicating that exploited populations there are in equilibrium. He also recalled the importance of establishing specific management measures such as minimum landing size and minimum depth of harvesting.

38. The EU delegate questioned the five percent threshold of tolerance for the excess undersized catches and noted the undesirable negative effects of such measures as observed in other species. He further proposed to avoid establishing such a margin.

39. In light of these discussions, the Committee agreed that the four proposals be transmitted to the Commission for consideration and possible adoption, taking into account the positions expressed by some delegations.

40. Concerning the workshop on by-catch, the following recommendations for management were reviewed by the Committee: i) prohibition of the use of inoxidable materials in hooks and metals in snoods in long lines; ii) Member countries should make every effort possible in order to eliminate ghost fishing; iii) an increase in gill net mesh size up to 400 mm (measured among 3 knots) and the use of filaments of a thickness of less than 0.5 mm (160-Rtex) was proposed for the turbot fishery in the Black Sea.

41. Comments were made in relation with the recommendation on increasing the mesh size of gillnets which was considered not very specific in terms of target species, fishery and technical details. After an extensive discussion, the three recommendations mentioned above were adopted by the Committee. Moreover, with a view to ease the release of cetaceans accidentally entangled in bottom-set net fishing and in ghost-fishing, due consideration should be given to ensure a wider use of bottom-set gillnets with a twine thickness smaller than 0.5 m.

42. The Committee also took note of other conclusions and proposals emanating from the SCMEP aiming at reducing interactions between fisheries and marine mammals, namely: i) seasonal closure during spawning period of the animal's prey during which period the highest rate of entanglement of marine mammals juveniles is usually observed (Tunisia, Greece); ii) ban of the dogfish fishery using nets in Black Sea, as it has a high rate of cetacean by-catch and most of the targeted catch is discarded due to the species dying very fast after being caught; and iii) adaptation of the gears so as to reduce cetacean fatalities and losses to the fishermen: test to verify if increasing the purse seine net filament thickness can prevent holes made by the dolphins in those nets (Tunisia).

43. The Croatian delegate underlined the problem of definition of mesh size and proposed a definition that is accepted in the fisheries regulation of EU (EC no. 517/2008 and provided as Appendix D to this report).

44. Ms Marie-Christine Grillo-Compulsione, Executive Secretary of ACCOBAMS, expressed satisfaction for the excellent collaboration with GFCM and insisted on continuing and strengthening this collaboration. She expressed her willingness to share ACCOBAMS data on by-catch among the scientific community of SAC, recalling the importance of collecting and submitting by-catch data of cetaceans through the established Task 1 protocol. She further informed about a project proposed for the reduction of cetaceans by-catch in long-lines and gillnet fisheries that could be included within the FWP.

45. With regards the workshop on ARs, the Committee acknowledged the positive effects of the use of such structures, namely in protecting fishing grounds, in seeking appropriate solutions for conflicts between fisheries and in increasing productivity through the food web. Nevertheless, the Committee also took note of some potential negative effects, such as concentration of commercial species, which can facilitate their capture by the operating fleets.

46. In this respect, the Egyptian delegate suggested that the installation of ARs be linked to the establishment of some kind of protected areas where fishing activities should be strictly regulated and controlled.

47. The Tunisian delegate reported information on a current project on the effects of ARs, for which pilot studies were implemented with the support of the Japanese Government. He expressed the view that there is a need for experiment on the use of ARs to be shared with countries concerned.

48. The Committee endorsed the following proposals emanating from the SCMEE and aimed to: i) to modify the GFCM standard forms for the new proposals of FRA; ii) to establish a protocol for data collection of Alien species; and iii) to collect ecological and biological information on seamounts.

49. The Committee also agreed on the need to undertake training courses in collaboration with the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) and FAO regional projects to enhance the knowledge on fishing gear technologies. In this connection, the CopeMed Project expressed its willingness to envisage the organization of such activities in close cooperation with the GFCM Secretariat.

50. Finally, referring to an initial proposal during the First Meeting of the ad hoc Working Group on the Black Sea to publish a catalogue of fishing gears for the Black Sea, the Committee proposed to extend such initiative to also cover the Mediterranean region. It was mentioned that similar publications already existed and it was hence suggested to ensure duplicities were avoided.

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

51. The Sub-Committee Coordinator, Mr Fabio Fiorentino, presented the conclusions and recommendations of the SCSA on the basis of documents GFCM:SAC14/2012/2 and GFCM:SAC14/2012/Inf.8.

52. The Coordinator further introduced the conclusions and advices emanating from the meetings organized during the intersessional period. He introduced those assessments carried out by the two Working Groups which covered 16 GSAs and 13 demersal species and 11 GSAs and 2 small pelagic species. He noted that 28 stock assessments of demersal species were validated by the Sub-Committee (SC) (27 stocks pointed to overfishing/overexploited status and one to sustainable exploitation). For

small pelagic species nine stock assessments were validated (seven stocks resulted fully exploited, two overexploited and one depleted).

53. He also informed that during the meeting of the two Working Groups some agreements were reached on several issues to be addressed in the future. He mentioned in particular the proposal to use 40 percent of biomass at sustainable yield (BMSY) as provisional limit reference point for small pelagic stocks, suggesting that this reference point be tested during the next Working Group (WG) of Small Pelagic species. The modifications of the Stock Assessment Forms was also discussed. A new format was agreed consisting of text files with the inclusion of data tables and figures in order to facilitate both the filling up by the experts and the utilisation of the information to perform new analysis, as deemed necessary.

54. The Coordinator also informed about the results of the MedSudMed Intercalibration exercise carried out in June 2012 in the Strait of Sicily, which involved the vessels and gears, the Santanna and the Hannibal, used by the Consiglio Nazionale delle Ricerche - CNR (Italy) and the Malta Centre for Fisheries Science - MCFCS (Malta) and by the Institut national des sciences et technologies de la mer - INSTM (Tunisia), respectively. The scientists tested catch rates targeted to deep water rose shrimp and hake allowing to produce time series indices and spatial patterns of abundance for the whole area where the stocks are shared.

55. The Committee acknowledged the importance of these exercises for the comparison of data coming from direct surveys in the Mediterranean and Black Sea and encouraged other research institutions to perform similar studies.

56. The Coordinator then reported on the main results and conclusions of the Workshop on the Stock Assessment of Selected Species of Elasmobranchs, held in Brussels on 12–16 December 2011, where eight elasmobranch stocks were assessed (five being in overfishing status, one being sustainably exploited and 1 of uncertain status).

57. The Coordinator also summarized the main conclusions and recommendations of the Transversal Workshop on the Establishment of Task 2 data collection framework on biological information (SCSA/SCSI), held at the SCSA session in January 2012 in Rome and also presented the most relevant outcomes and recommendations of the Transversal Workshop on Spatial based Approach to Fishery Management (SCSA/SCMEE), held in Rome (6–8 February 2012).

58. The Committee, after having introduced some amendments and considered some remarks as reflected in the following Tables 1 and 2, reviewed and endorsed the assessment and the related advice formulated by the SCSA.

59. The delegates from Croatia, recalling the WG and SCSA discussions on stock boundaries, reminded that spatial distribution of shared stocks of small pelagics in the Adriatic Sea (anchovy and sardine) is not only limited to the area of GSA17, but it also extends to GSA18. Therefore, following WG and SCSA suggestions, the need for future assessments was emphasized in order to take into account combined data from both GSA 17 and GSA 18 as well as information on catches (not only restricted to official landings) from sardine juvenile-fry fishery, such as the results from the SARDONE project.

Table 1

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 01 Northern Alboran Sea	<i>Merluccius merluccius</i>	Size composition of commercial landings tuned by MEDITS and commercial CPUE.	2002–2010	VPA, XSA, Y/R.	In overfishing with intermediate abundance F_c (1.33) higher than $F_{0.1}$ (0.20).	To reach $F_{0.1}$ a reduction of 80% of the F_c is advisable; Improve the fishing pattern of the trawl fleets Especial surveillance in the use of 40mm square/50 diamond mesh size in the cod end in trawl gears.	The WG endorsed the assessment and recommendations.	The SC commented that the low contribution of long-liners and gillnetters to fishery not necessarily implies the absence of recruitment overexploitation risks. Endorsed.	No further comments. Endorsed.
GSA 05 Balearic islands	<i>Merluccius merluccius</i>	Catch, effort, Lfreq catch, Trawl surveys.	Size structure of commercial trawl catches and official landings (1980-2010), CPUE from the commercial fleet (2000-2010) and bottom trawl surveys (2001-2010).	Extended Survivor Analysis (XSA) & Y/R analysis.	Over-exploited; current F (1.21) higher than $F_{0.1}$ (0.16) and F_{max} (0.24).	Reduce fishing mortality by reducing the effort activity and improving the selection pattern of the fishery. The use of the information from the vessel monitoring system will help to improve the knowledge about the spatial distribution of the fishing effort.	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	SC comments	SAC comments
GSA 05 Balearic islands	<i>Mullus surmuletus</i>	Catch, effort, Lfreq catch, Trawl surveys.	Size structure of commercial landing of trawlers and artisanal fisheries (2000–2010), CPUE from commercial trawl fleet (2000–2010) and bottom trawl surveys (2001–2010).	Extended Survivor Analysis (XSA) and Y/R analysis.	In overfishing; current F (0.55) higher than F0.1 (0.55) and lower than Fmax (1.10).	Reduce fishing mortalities by 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.
	<i>Aristeus antennatus</i>	Catch, effort, Lfreq catch, Trawl surveys.	Size structure of commercial landing of trawlers (1992–2010) CPUE from commercial trawlers (1978–2010).	Extended Survivor Analysis (XSA) & Y/R analysis.	In overfishing; current F (0.59) higher than F0.1 (0.15) and lower than Fmax (0.23).	A decrease in F could be provided using complementary management measures like temporal fishing time reduction for some periods like at the beginning of the reproduction or spawning period and during the recruitment period at the beginning of autumn period.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
GSA 06 Northern Spain	<i>Mullus barbatus</i>	Catch, effort, Lfreq catch, trawl surveys.	Size structure of commercial landing of trawlers (1995–2010) CPUE from commercial trawlers and Medits.	Extended Survivor Analysis (XSA) & Y/R analysis.	In overfishing; current F (0.72) higher than F0.1 (0.20) and Fmax (0.35).	Decrease the fishing mortality of about 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.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
	<i>Aristeus antennatus</i>	Catch, effort, Lfreq catch, trawl surveys.	Size structure of commercial landing of trawlers (1996–2010) CPUE from commercial trawlers and Medits.	Extended Survivor Analysis (XSA) & Y/R analysis.	In overfishing; current F (1.33) higher than F0.1 (0.28) and Fmax (0.49).	Reduce F by 72% trough a reduction in effort capacity and improving the selection pattern. Implementing areas closed to fishing in the nursery areas during the recruitment period.	Check the influence of using biological parameter in combined sex assessment. The WG endorses the assessment and the related recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
GSA 06 Northern Spain	<i>Parapenaeus longirostris</i>	Catch, effort, Lfreq catch, trawl surveys.	Size structure of commercial landing of trawlers (2001-2010) CPUE from commercial trawlers and Medits.	VPA, Extended Survivor Analysis (XSA) and Y/R analysis.	In overfishing and low level of abundance; current F (1.14) higher than F0.1(0.30) and lower than Fmax (2.73).	Reduce growth overfishing: - Reduce the fishing mortality by 70%.	The oscillation found for this species is in agreement with other areas of the Mediterranean. It is assumed that environmental and ecological factors (e.g. water temperature, predatory release effect) can affect the stock in addition to the fishing mortality and difficult to evaluate the status of the stock. 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	SC comments	SAC comments
GSA 07 Gulf of Lion	<i>Merluccius merluccius</i>	Catch, effort, Lfreq catch, trawl surveys.	Size structure of commercial landing (French and Spanish data from trawlers, gillnetters and longliners) 1998-2010 CPUE from commercial trawlers and Medits.	Extended Survivor Analysis (XSA) and Y/R analysis.	In overfishing and low abundance; current F (1.43) higher than F0.1(0.19) and Fmax (0.29).	Reduce growth overfishing: <ul style="list-style-type: none"> • Improve the fishing pattern of the trawl to rise the minimum length of catches equal to the minimum legal landing size • 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: <ul style="list-style-type: none"> • 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 (end of autumn and beginning of winter, main peak of spawning period) • Freezing of the effort in the Fishery Restricted Area. 	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
GSA 07 Gulf of Lion	<i>Mullus barbatus</i>	Catch and Lfreq of catch.	Size structure of commercial landing (French and Spanish data from trawlers,) 2004-2010 CPUE from Medits.	VPA, Extended Survivor Analysis (XSA) & Y/R analysis for 2004-2010.	In overfishing and intermediate level of abundance current F (0.85) higher than F0.1 (0.45) and lower than Fmax (1.68).	Current F has to be reduced to reach F0.1.	The SSB was found to increase, so there was some doubt about the XSA results. The MEDITS trend was the same with that of SSB. It is rather odd that with so high overexploitation the trend of SSB is increasing. The WG endorsed the assessment and recommendations.		No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 09 Ligurian and North Tyrrhenian Sea	<i>Merluccius merluccius</i>	Lfreq Catch Surveys data.	Size structure of commercial landing 2005-2010 CPUE from commercial trawlers and Medit 1994-2010	XSA for 2004- 2010 LCA – Pseudocohort analysis (VIT) Y/R ; SURBA (1994-2010).	In overfishing; current F (1.5-2) higher than F0.1 (0.22) and Fmax (0.35).	A reduction of F is recommended.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
	<i>Mullus barbatus</i>	Catch, effort & trawl surveys.	1994-2010	Non- equilibrium production model and LCA.	In overfishing and overexploited; current F (0.54) higher than FMSY (0.47) B2010/Bmsy=0.60	A reduction of F is recommended.	The WG endorsed the assessment and recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
GSA 09 Ligurian and North Tyrrhenian Sea	<i>Mullus surmuletus</i>	Lfreq Catch Surveys data.	Size structure of commercial landing 2009-2010	LCA – Pseudocohort analysis (VIT) Y/R;	In overfishing; current F (0.56_0.71) higher than F0.1 (0.35) and lower than Fmax (1.00).	A reduction of F is recommended.	The WG endorsed the assessment and recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
	<i>Galeus melastomus</i>	Length frequency distribution of catch.	2009-2010	LCA and Y/R.	In overfishing current F (0.35) lower than F0.1 (0.10).	A reduction of F is recommended. Reduce the catch in areas where juveniles are concentrated.	The WG endorsed the assessment and recommendations.	The SC endorses the assessment and the related recommendations of the WG. The Advice to reduce the catch in areas where juveniles concentrate should be supported by a map with the spatial distribution of juveniles.	No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
	<i>Aristeus antennatus</i>	Length frequency distribution of catch.	2009–2010	LCA and Y/R.	In overfishing current F (0.62) lower than F _{0.1} (0.32).	A reduction of F is recommended.	The WG endorsed the assessment and recommendations.	The SCSA endorsed the assessment presented at the WG. In the WG report, in the diagnosis of stock status. Exploitation rate should be substituted by “fishing mortality rate”.	No further comments. Endorsed.
GSA 09 Ligurian and North Tyrrhenian Sea	<i>Nephrops norvegicus</i>	Length frequency distribution of catch and trawl surveys.	LFD of catch 2006–2010; LFD of trawl surveys 1994–2010	LCA – Pseudocohort analysis (VIT) Y/R; SURBA.	In overfishing current F =0.35 higher than F _{0.1} (0.21).	A reduction of F is recommended.	The WG endorsed the assessment and recommendations.	The SC recommended for sedentary species to assess stock status using a spatial scale lower than that of GSA. Endorsed.	No further comments. Endorsed.
	<i>Parapenaeus longirostris</i>	Length frequency distribution of catch and trawl surveys.	LFD of catch 2006–2010; LFD of trawl surveys 1994–2010	XSA, LCA – Pseudocohort analysis (VIT) Y/R; SURBA.	Under-exploited current F =0.40 in 2009 and 0.29 in 2010 lower than F _{0.1} (0.78).	The current F is considered low and appears to ensure good yields and a safe situation. In any case, it is advisable, within the precautionary framework, to keep the fishing pressure on this stock at the current level.	The WG endorses the assessment and the related recommendations.	The SC recommend to substitute in the stock status “underexploited” with “sustainable exploitation”.	No further comments. Endorsed.
GSAs 12/13 Northern and Eastern Tunisia	<i>Shpyraean sphyraena</i>	Length frequency distribution of catch.	LFD of catch 2006–2008	LCA and Y/R.	In overfishing.	A reduction of F is recommended (40% in northern and 60% in eastern sector).	The WG endorsed the assessment and recommendations.	The SC endorses the assessment and the related recommendations of the WG. The use of F _{max} as RP should be however replaced by F ₀₁ .	No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 12/13/14/15/16 Strait of Sicily	<i>Parapenaeus longirostris</i>	Length frequency distribution of catch & trawl surveys.	2007–2010	LCA – Pseudocohort analysis (VIT and ANALEN) & Y/R.	In overfishing; current F (1.21) higher than F0.1 (0.95).	A reduction of 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.	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.	No further comments. Endorsed.
GSA 15/16 Strait of Sicily	<i>Mullus barbatus</i>	Length Frequency Distribution of catch and SSB and recruit indices from trawl surveys.	LFD of catch 2006–2010; trawl surveys 1994–2010	LCA – Pseudocohort analysis (VIT) & Y/R.	In overfishing current F =0.78 (mean 2006–2010) higher than F0.1 (0.45) Increasing trend of SSB and recruitment in the last years was higher than that in the nineties.	A reduction of F is recommended.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
	<i>Pagellus erythrinus</i>	Length Frequency Distribution of catch & SSB and Recruit indices from trawl surveys.	LFD of catch 2006–2010; trawl surveys 1994–2010	LCA – Pseudocohort analysis (VIT) & Y/R.	In overfishing current F =0.60 (mean 2006–2010) higher than F0.1 (0.30) No signs of decrease in SSB and recruitment in the last years.	A reduction of F is recommended.	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed.	No further comments. Endorsed.
GSA 15/16 Strait of Sicily	<i>Aristaeomorpha foliacea</i>	Length frequency distribution of catch and trawl surveys.	LFD of catch 2006–2010; LFD of trawl surveys 1994–2010	LCA – Pseudocohort analysis (VIT) Y/R; SURBA.	In overfishing current F =1.00 (2010 value) higher than F0.1 (0.40) SSB and recruitment at low level from 2002 to 2010.	A reduction of F is recommended.	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	SC comments	SAC comments
GSA 17 Northern Adriatic	<i>Solea solea</i>	Length frequency distribution of catch and trawl surveys.	2005–2010	XSA, LCA – Pseudocohort analysis (VIT) Y/R; SURBA.	In overfishing; current F (1.34–1.20) higher than F0.1 (0.24–0.26) and Fmax (0.38–0.46).	A reduction of F, especially by rapido trawling, is recommended. A two-months closure for rapido trawling inside 11 km off-shore along the Italian coast, after the biological fishing ban, would be advisable to reduce the portion of juvenile in the catches.	The WG highlights the use of data from the eastern side of the basin. Moreover, the group underlines the need to extend the rapido trawl survey inside the 12 nm from the Croatian coast, as was performed in 2005 and 2006.	No further comments. Endorsed.	No further comments. Endorsed.
GSA 18 Southern Adriatic Sea	<i>Merluccius merluccius</i>	Length frequency distribution of catch and trawl surveys.		SURBA software, ALADYM model, VIT software and the R-routine developed at SGMED working group.	In overfishing; current F (0.87) higher than F0.1 (0.21) and Fmax (0.27). ALADYM simulations show that after a decrease of the catches in the short terms the yield trend is increasing and reach levels higher than the values in the beginning of the time series with an improvement of stock productivity SSB.	Reduce fishing mortality through fishing activity limitations and possibly fishing capacity decreasing. Most of the F is derived from the Italian bottom trawlers, that represent about 85% of the total F in the GSA, and from the Italian longliners, accounting for about 7–8% (overall 92–93% of F). Montenegrin trawlers account for about 1% of the F and Albanian trawlers for about 6.5%.	The assessment provides a wide range of analysis useful to managers for assisting the decision process. The WG endorses the assessment and the related recommendations.	Since the fleets of three countries (Albania, Italy and Montenegro) are involved in hake fishery in GSA18, the advice for management should consider the different situations of the three countries. Endorsed.	No further comments. Endorsed.
GSA 25 Cyprus island	<i>Mullus barbatus</i>	Length frequency distribution of catch.	2005–2010	Separable VPA for the period 2005–2010, VPA-pseudocohort and Y/R analysis for 2009 and 2010.	In overfishing; current F (0.43–0.46) higher than F0.1 (0.33) and lower than Fmax (0.51).	The stock is in overfishing state, considering that the current F should be reduced by 24% (based on 2010 Y/R analysis) or by 28% (based on 2009 Y/R analysis) for reaching the F0.1 reference point.	The WG endorses the assessment and the related recommendations.		No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 25 Cyprus island	<i>Mullus surmuletus</i>	Length frequency distribution of catch.	2009–2010	VPA-pseudocohort and Y/R analysis for 2009 and 2010.	In overfishing; current F (0.42–0.49) higher than F0.1 (0.22–0.23) and lower than Fmax (0.32–0.34).	Current F should be reduced by 53% (2010 results) or 48% (2009 results) for reaching the F0.1 reference point.	The WG endorses the assessment and the related recommendations.		No further comments. Endorsed.
	<i>Spicara smaris</i>	Length frequency distribution of catch.	2005–2010	VPA-pseudocohort and Y/R analysis for 2005–2007 and 2008–2010.	Fully exploitation in 2005–2007 being Fcur= 0.19, Fmax= 0.38 and F0.1=0.19. In overfishing in 2008–2010 being Fcur= 0.37, Fmax= 0.40 and F0.1=0.24. In overfishing in 2005–2007 being Fcur= 0.57, Fmax= 0.38 and F0.1=0.24.	According to transition analysis, an approximate reduction of 15% (10–20%) of the current F could lead to F0.1. This could be achieved with the reduction of licensed fishing vessels LOA 6–12m and trawlers LOA 12–24m. The increase of selectivity is also important.	The WG recommends improving the analyses by using approach out steady state (VPA or XSA). The WG endorsed the assessment and recommendations.	The SC endorses this assessment as preliminary due to some inconsistencies in the results of the analyses on the two sets of data. It would advisable to carry out the VIT analysis for each year separately to better evaluate the consistency of the steady state assumption for the stock.	No further comments. Endorsed.
	<i>Boops boops</i>	Length frequency distribution of catch.	2005–2010	VPA-pseudocohort and Y/R analysis for 2005–2007 and 2008–2010	In overfishing in 2008–2010 being Fcur= 0.37, Fmax= 0.39 and F0.1=0.24.	F must be reduced in the case of artisanal fishery. According to transition analysis, an approximate reduction of 15% (10–20%) of the current F could lead to F0.1. This could be achieved with the reduction of licensed fishing vessels OAL 6–12m and increasing the selectivity.	The WG recommends improving the analyses by using approach out steady state (VPA or XSA). The WG endorsed the assessment and recommendations.		No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 26 South levant	<i>Pagellus erytrinus</i>	LFD of catch and trawl surveys.	2006–2007	Z by the length converted catch curve and M was estimated by the Pauly equation. Beverton and Holt Y/R model and relative Y/R analysis (knife edge selection).	In overfishing; current F (0.55–0.72) higher than F0.1 (0.27–0.30) and Fmax (0.54–0.57).	Reduce the fishing mortality by 45% (entire Egyptian coast) and 60% (Port Said area). Improve the exploitation pattern.	The WG endorsed the assessment and recommendations.	The SC recommends enhancing data collection to improve the quality of the assessment. The Eastmed Project Coordinator highlighted that the present assessment has been guided by the project staff during the WG and although the data concern previous years it was tried the best use of them.	No further comments. Endorsed.

Table 2

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 03 Southern Alboran sea	<i>Sardina pilchardus</i>	Catch, effort, Lfreq catch.	2003–2010	Pseudocohort (LCA, VIT), Y/R.	Exploitation rate: Moderate in East, high in west; Biomass level: lower than previous year; Fully exploited.	<ul style="list-style-type: none"> • 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. 	The WG endorses the assessment and the related recommendations.	No further comments. Endorsed	The Morocco delegate commented that the management options should be given in a more general way, avoiding of being too specific on defining the management measure.
GSA 06 Northern Spain	<i>Engraulis encrasicolus</i>	Catch, effort, Lfreq catch, Echo-surveys.	2002–2009	Extended Survivor Analysis (XSA), tuned with acoustic.	The stock abundance is considered as low, while the exploitation rate is uncertain. Fully exploited.	Not to increase the fishing effort. Despite F resulted quite stable there are fluctuations in biomass.	The WG endorses the advice and recommendation for this stock. The WG encourages improving the quality of data used for the analysis in terms of the length of the time series and the biological data used (age – length keys).	The SC support the recommendation of the WG to improve the ageing problem by obtaining more reliable age-length-keys in the area. The lack of reference point to support the diagnosis of the stock status (fully exploited) was discussed.	No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 06 Northern Spain	<i>Sardina pilchardus</i>	Catch, effort, Lfreq catch, Echo-surveys.	2002–2009	Extended Survivor Analysis (XSA), tuned with acoustic.	Exploitation rate: high; Biomass level: the lowest value in time series Overexploited.	Reduce the fishing effort until the recruitment increase.	The WG detected a danger of recruitment overexploitation due to the decreasing trend in recruitment and very low levels of the spawning stock. The WG also recommends that a series of tests be carried out for future assessments of the robustness. The WG endorsed the assessment and the related recommendations.	The SC noted the decreasing trend in landing, SSB and recruitment recognizing the risk of stock collapse. The advice was found not in line with the assessments results and stock diagnosis (overexploited) which clearly indicated the need to reduce the fishing mortality to the lowest value possible.	No further comments. Endorsed.
GSA 07 Gulf of Lion	<i>Engraulis encrasicolus</i>	Echosurveys and catch.	1998–2010	Biomass at sea and harvest ratio catch/biomass.	Exploitation rate: Moderate; Biomass level: low; Fully exploited.	Not to increase fishing effort.	The WG endorses the assessment and the related recommendations. The WG also acknowledges that there is evidences on changes in the pelagic ecosystem of this area, and suggest that further ecological studies are conducted to clarify the ecosystem status.	The SC endorsed the assessment but proposes to change the status to “recovering” instead of fully exploited.	Demographic structure of anchovy highly unbalanced since 2009 with very low abundance of larger individuals corresponding to age 2+ in landings. Age group 1 represents more than 60% of the estimated total biomass. Moreover, the analysis of different biological indicators showed a lower mean length at age, distortion of sex-ratio and decrease of condition index, growth rate and size-at-first maturity than previously observed (stock assessment form). This stock should be considered as fully exploited and not as in a recovery state.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 07 Gulf of Lion	<i>Sardina pilchardus</i>	Echosurveys and catch.	1998–2010	Biomass at sea and harvest ratio Catch/Biomass.	Exploitation rate: very low; Biomass level: very low with decreasing trend. Close to collapse; Fully exploited.	Fishing effort cannot be increased until the system stabilise or show signals of recovery.	The WG endorsed the assessment and recommendations The WG also acknowledges that there is evidences on changes in the pelagic ecosystem of this area, and suggest that further ecological studies are conducted to clarify the ecosystem status.	The SC endorsed the assessment, recommending anyhow to change the stock status from “fully exploited” to “depleted” as showed by the drastic reduction of the catch and biomass and consequently of the fishing activity.	No further comments. Endorsed.
GSA 16 Strait of Sicily	<i>Engraulis encrasicolus</i>	Echosurveys and catch.	1998–2010	Surplus production (SPM) including environmental anomalies and harvest ratio Catch/Biomass.	Exploitation rate (ratio between total landings and biomass estimates): high fishing mortality. $F_{Cur}/F_{MSY}=1.76$ Stock abundance (acoustic biomass estimate): intermediate abundance $B_{Cur}/B_{MSY} = 0.85$ Overexploited.	- Fishing effort should not be allowed to increase and consistent catches should be determined; - Prevent a possible further shift of effort back from anchovy to sardine.	The WG endorses the advice and recommendation given for this stock. No specific limit or precautionary reference point have been yet endorsed for small pelagic fish species in the framework of GFCM. The fitting of the SPM is poor.	The SC endorses the assessment and the related recommendations of the WG, and proposed to amend the last sentence that has an apparent contradiction. In the advice provided in the assessment report of the WG the term “anchovy” should be read as “sardine”.	No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 16 Strait of Sicily	<i>Sardina pilchardus</i>	Echosurveys and catch.	1998–2010	Surplus production model including environmental anomalies and harvest ratio Catch/Biomass.	Exploitation rate (ratio between total landings and biomass estimates): moderate fishing mortality. Fc/FMSY(2010)=0.22 Stock abundance (acoustic biomass estimate): low/intermediate abundance. Bc/BMSY(2010)=0.48 Fully exploited.	- Fishing effort should not be allowed to increase and consistent catches should be determined; - Prevent a possible further shift of effort back from anchovy to sardine.	The WG endorses the advice and recommendation. The WG appreciated the use of surplus production model with the inclusion of the environmental factor improves the fitting of the production model. The WG also recommend trying to estimate a B-Lim reference point, as it will facilitate taking advise in relation to the current stock status.	The SC endorsed the assessment and the related recommendations. The SC also discussed the use of 40% Bmsy as technical limit reference point for small pelagic stocks, recommending to test this biomass RP during the next WG of Small Pelagic.	No further comments. Endorsed.
GSA 17 Northern Adriatic	<i>Sardina pilchardus</i>	Catch, effort, LFD, ALK, echo-surveys.	1975–2010 (Catch data) 2004–2010 (echo-survey).	VPA with Laurec-Shepherd tuning; integrated catch analysis (ICA).	Exploitation rate (ratio between total landings and biomass estimates): moderate. Stock abundance (VPA and acoustic biomass estimate): low abundance. Fully exploited.	- No increase the fishing effort. - Consider the interactions with anchovy fisheries.	The WG endorses the advice and recommendation. The WG suggests that future assessments take into account combined data from 17 and 18 GSAs. The WG also suggests continuing to explore the relationships between recruitment and environment.	The SC endorses the assessment and the related recommendations of the WG. Advice should be related to fishing mortality and not directly to fishing effort, or eventually both fishing effort and catches should be mentioned. Endorsed.	No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
GSA 17 Northern Adriatic	<i>Engraulis encrasicolus</i>	Catch, effort, LFD, ALK, echo-surveys.	1975–2010 (Catch data) 2004–2010 (echo-survey).	VPA with Laurec-Shepherd tuning; integrated catch analysis (ICA).	Exploitation rate (ratio between total landings and biomass estimates): moderate Stock abundance (VPA and acoustic biomass estimate): intermediate abundance. Fully exploited.	- No increase the fishing effort. - Consider the interactions with sardine fisheries.	The WG endorses the advice and recommendation. The WG suggests that future assessments take into account combined data from 17 and 18 GSAs. The WG also suggests continuing to explore the relationships between recruitment and environment.	The SC endorses the assessment and the related recommendations of the WG. Advice should be related to fishing mortality and not directly to fishing effort, or eventually both fishing effort and catches should be mentioned. Endorsed.	No further comments. Endorsed.
GSA 18 Southern Adriatic Sea	<i>Engraulis encrasicolus</i>	Echo-surveys and DEPM.	Western part 1987–2010 (catch data) 1987–2010 (echo-surveys) Eastern part 2002, 2004, 2005, 2008, 2010 (echo-surveys) DEPM (2005, 2008, 2010).	Biomass and Catch estimates.	Exploitation rate (ratio between total landings and biomass estimates): moderate Stock abundance (DEPM and acoustic biomass estimate): Moderately exploited with uncertain in exploitation rate.	- No increase the fishing effort in the western part low abundance.	The WG endorses the conclusions and recommendations. It is necessary to improve data collection of catches. The WG recommends to continue with the two direct assessments of anchovy biomass, checking the reliability of spawning frequency for anchovy obtained through eggs and larvae surveys and cross-comparing the final estimates from the two methods. Also the WG recommends obtaining yearly estimates of the harvest rate.	The SC found not clear the stock identification in the GSA 18. The participants agreed on the need to provide SSB estimates on a stock basis and not at the country level. The SC evidenced the uncertainty of the evaluation and the poor knowledge of the status of the stock and considered the assessment as preliminary. Anyway on the base of the precautionary approach the advice should be: not to increase the fishing mortality. The need to merge the GSA 17 and 18 was also stressed by the SC.	No further comments. Endorsed.

GSA	Species	Data type	Years data	Methodology used	Stock status	Management opinion	WG	SC comments	SAC comments
	<i>Sardina pilchardus</i>	Echo-surveys and DEPM	Western part 1987-2010 (catch data) 1987-2010 (echo-surveys) Eastern part 2002-2010 (echo-surveys).	Biomass & Catch estimates.	Exploitation rate (ratio between total landings and biomass estimates): moderate. Stock abundance (acoustic biomass estimate): low abundance. Moderately exploited with uncertain in exploitation rate.	No increase the fishing effort in the western part.	The WG endorses the conclusions and recommendations for this stock. Nevertheless, the assessment is considered uncertain, as it is difficult to assess the relation between current stock levels and catches in the area. An effort should be made to improve the quality and availability of landings data. Exploitation rate should be calculated each year on the base of survey and landings data. The WG suggests that future assessments take into account combined data from 17 and 18 GSAs.	The SC found not clear the stock identification in the GSA 18. The participants agreed on the need to provide SSB estimates on a stock basis and not at the country level. The SC evidenced the uncertainty of the evaluation and the poor knowledge of the status of the stock and considered the assessment as preliminary. Anyway on the base of the precautionary approach the advice should be: not increase the fishing mortality. The need to merge the GSA 17 and 18 was also stressed by the Sub-Committee.	No further comments. Endorsed.

60. Mr Farrugio referred to demersal stocks as being in overfishing status, while small pelagics are in a more sustainable exploitation status. He furthermore stressed the importance to combine biological and socioeconomic information in bio-economic models to evaluate different management scenarios.

61. Some delegations favored the possibility of considering management measures in addition to effort control such as seasonal closures, improvement of selectivity, including considering limiting catches in specific cases of species such as small pelagics, and always taking into account the socio economic effects of their potential application.

62. A proposal was made in relation to the need of establishing catch limits for small pelagic stocks, consistent with an adequate exploitation or harvest rate when fishing mortality reduction is advisable. Following a thorough discussion, SAC recommended that different management scenarios including fisheries outputs (e.g. catch limitations) and fisheries inputs (e.g. fishing effort, technical measures) should be considered.

63. Ms Gabriella Bianchi, FAO Fishery Resources Officer, recalled that FAO developed a study together with the World Bank about the economic losses of different management measures with negative impact of fisheries at a global scale. She suggested that similar studies could be undertaken in the future to analyse the potential positive effects of a well managed sustainable fishery.

64. The recommendations of the Workshop on the Stock Assessment of Selected Species of Elasmobranchs were endorsed, and reproduced here below.

Summary of the assessments presented and/or performed during the Workshop on Stock Assessment of Elasmobranchs

Stock	GSA	Data	Method and Software	Reference point	Stock status	Advice and recommendation
<i>Raja asterias</i>	9 <i>Ligurian and North Tyrrhenian Sea</i>	Abundance indices from 28 years trawl surveys and 20 years of commercial catch. Age structure of commercial catch 2 yrs. Biological parameters. Growth, natural mortality, fecundity at age.	$F_{rm=0}$ with Leslie matrix, Z with catch curve, and $F_{0.1}$ with Y/R Software: poptools and YPR NOAA.	$F_{rm=0}$ $F_{30\%SSB}$ and $F_{0.1}$	In overfishing status.	Reduction of F.
<i>Raja clavata</i>	9 <i>Ligurian and North Tyrrhenian Sea</i>	Size composition from trawl surveys and 20 years of abundance index commercial catch. Biological parameters. Growth, natural mortality, fecundity at age.	$F_{rm=0}$ with Leslie matrix, Z with SEINE and $F_{0.1}$ with Y/R Software: poptools and YPR NOAA.	$F_{rm=0}$ $F_{30\%SSB}$ and $F_{0.1}$	In overfishing status.	Reduction of F.
<i>Scyliorhinus canicula</i>	9 <i>Ligurian and North Tyrrhenian Sea</i>	Size composition from trawl surveys and 2 years of commercial catch. Biological parameters. Growth, natural mortality, fecundity at age.	$F_{rm=0}$ with Leslie matrix, Z with SEINE and $F_{0.1}$ with Y/R Software: poptools and YPR NOAA.	$F_{rm=0}$ $F_{30\%SSB}$ and $F_{0.1}$	In overfishing status.	Reduction of F.
<i>Galeus melastomus</i>	9 <i>Ligurian and North Tyrrhenian Sea</i>	Size composition from trawl surveys and 2 years of commercial catch. Biological parameters. Growth, natural mortality, fecundity at age.	$F_{rm=0}$ with Leslie matrix, Z with SEINE and $F_{0.1}$ with Y/R Software: poptools and YPR NOAA.	$F_{rm=0}$ $F_{30\%SSB}$ and $F_{0.1}$	In overfishing status.	Reduction of F.
<i>Raja clavata</i>	15,16 <i>Malta Island and South of Sicily</i>	Size distribution and abundance from trawl surveys. Biological parameters. Growth curve, L/W, M	Catch curve and Y/R analysis Software: LFDA and Yield of CEFAS-FAO.	F_{max} , $F_{0.1}$, $F_{30\%SSB}$	In overfishing status.	Reduction of F.
<i>Scyliorhinus canicula</i>	4 <i>Algeria</i>	Size distribution and abundance from trawl surveys. Biological parameters. Growth curve, L/W, M.	Catch curve and Y/R analysis Software: LFDA and YPR NOAA.	F_{max} , $F_{0.1}$, $F_{30\%SSB}$	In overfishing status.	Reduction of F.
<i>Glaucostegus cemiculus</i>	14 <i>Gulf of Gabes</i>	Size/Age distribution commercial catches, trawl surveys. Biological parameters. Growth curve, L/W, M, fecundity.	Catch curve and Y/R analysis Software: VIT and YPR NOAA.	F_{max} , $F_{0.1}$, $F_{30\%SSB}$	Underexploitation status.	No recommendations.
<i>Squalus acanthias</i>	29 <i>Black Sea</i>	Size/Age distribution commercial catches, trawl surveys. Biological parameters. Growth curve, L/W, M.	Catch curve and Y/R analysis Software: VIT and YPR NOAA.	F_{max} , $F_{0.1}$, $F_{30\%SSB}$	Uncertain considering the highly variable natural mortality along time series.	Enhance the knowledge on influence of environment and species interactions on abundance and survival.

65. In this regard, and taking into account the need to ensure a better knowledge and monitoring of elasmobranchs catches and fisheries, also to act consistently with the conservation goals underlined by the listing of most species in either Annex II or III of the SPA/BD Protocol, the EU delegate stressed the importance that these species are kept on board and landed in a manner to facilitate the species identification. In this respect, due attention should be given to avoid manipulation of the caught animal, such as for example finning, trunking and skinning, which make then difficult or impossible to identify of individuals landed.

66. SAC reviewed the recommendations emanating the Transversal Workshop on Spatial Based Approach to Fishery Management (SBAFM), and discussed their scope.

67. In relation to the utilization of VMS data for investigating the spatial distribution of fishing effort was acknowledged as a powerful tool and was strongly recommended.

68. Some delegates underlined that despite the sensitivity of VMS data, SAC should have access to these data for scientific purposes. In this context, Recommendation GFCM/33/2009/7, where it is specified that VMS data must be made available to SAC in summary form for its meetings, including its sub-committees to estimate fishing effort and for any other scientific purpose it deems important for its work, was recalled. The way these data are transmitted is still a matter under consideration as several workshops and consultations are being organized by GFCM.

69. The Committee took note of the recommendation drawn up by the Workshop on Spatial Based Approach to Fishery Management aiming at protecting at least 10 percent of demersal fishing grounds from bottom-towed fishing gear in order to contribute to Target 11 of the Strategic Plan for Biodiversity (2011–2020) of the Convention on Biological Diversity¹. Without any formal adoption, SAC outlined that this issue should be further addressed in the framework of the Memoranda of Understanding foreseen with partner organisations.

70. The Committee addressed the issue of the case of proposals of FRAs not validated by SAC due to lack of relevant information (as the case of last year on the Sea Mounts of Balearic Islands). In this regard, it was noted that information about the eventual progress on its further analysis should be reported through the relevant SAC working groups and subcommittees instead of through national reports as suggested by the Workshop on SBAFM. In this context, the Spanish delegate informed that the Secretaría General de Pesca, together with the Instituto Español de Oceanografía (IEO) was progressing on the analysis of data as provided by OCEANA and on the evaluation of fisheries activities that take place in those areas in order to improve the existing knowledge, as suggested by the thirteenth session of SAC.

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

71. The Coordinator of the Sub-Committee, Mr Vahdet Ünal, presented the conclusions and recommendations of the SCESS, as well as the major outcomes of the transversal workshop on processing and analysis of Task 1.3 data, on the basis of the documents GFCM: SAC14/2012/2 and GFCM:SAC14/2012/Inf.7.

72. The Committee noted that although the level participation in the activities of the SCESS increased compared to previous sessions, only a limited number of presentations (focusing on

¹ “By 2020, at least 17 percent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.” (Convention on Biological Diversity, Target 11: www.cbd.int/sp/targets).

recreational fisheries solely) were given, a situation that hindered the effectiveness of the work of the Sub-Committee. The Coordinator deplored the lack of data (e.g. Task 1.3) and stressed the urgency to increase their availability.

73. With regards to the general conclusions and recommendations of the SCESS, SAC noted that despite the progress made by SCESS further efforts are still needed in order to formulate integrated advice incorporating exploitation control measures and economic aspects. In this regard, it was underlined that its activities should be better integrated with those of the other SAC Sub-Committees, which implies an in-depth revision of its objectives and its functioning.

74. The Committee welcomed this initiative and recalled the crucial importance of the socio-economic sciences for fisheries management, especially given their transversal trait. It reiterated the need to enhance the expertise in the GFCM area and to further support related activities, in synergy with other projects, including through the FWP.

75. Concurring with these comments, the Committee reiterated the importance to assess the socio-economic impacts of management measures, especially through the use of bio-economic models. However, in order for SCESS to work in a more effective manner over the next years, it was decided to focus its attention only on a limited number of stocks, for which the required data are available and sufficient, thus allowing economists and biologists to carry out bio-economic analysis within the framework of defined management objectives. On this issue, SAC noted the need to identify priority stocks to be subject to this bio-economic modelisation.

76. With regards the suggestion of the SCESS to set up a Working Group to further analyse legislative issues on fisheries management, it was agreed that the LaMed Project could currently suit this purpose, as it was designed to compile all relevant information regarding fisheries legislation with a view to identifying further areas of potential harmonization in the GFCM area. In this regard, it was recalled that templates summarizing all the information provided so far to the Secretariat will be soon circulated to experts, in order to ensure the proper finalization of the Project.

77. Concerning the use of bio-economic models, the Committee agreed to launch a capacity building programme tailored to the specific needs and priorities of Members, possibly with the support of regional projects and programmes.

78. With regards to the conclusions of SCESS on recreational fisheries, the Committee recalled the importance of technical guidelines adapted to the specific regional features, taking into account in particular the recently adopted *FAO Technical Guidelines for Responsible Recreational Fisheries*, soon available for distribution. The Committee reiterated the extreme importance and urgency to establish an authorization or licensing system in order to ensure a better monitoring of recreational fishing activities.

79. The Committee acknowledged the importance of the economic impacts of ecolabelling in marine capture fishery and agreed to include the matter in SCESS future workplan, with special attention paid to the work carried out by FAO on the subject.

80. There was a broad consensus that priority should be given to small-scale fisheries, owing to the importance of the segment in the fisheries sector. However, concerns were raised about the definition to be used before undertaking any socio-economic analysis on the sector.

81. Concluding on this issue, the SAC agreed to put forward the socio-economic analysis of the small-scale fisheries, as proposed by SCESS, on the basis of the definition already provided in Task 1, which identifies the small-scale segment according to the length of the vessel (< 12 metres).

82. As regards the project on "*Development of cooperation in the fishery sector in the Mediterranean: the world of labour, producers' organizations, consumers' associations and training*"

(PESCAMED), funded by the Italian Ministry of Agriculture, Food and Forestry Policies and carried out by CIHEAM, the Committee acknowledged the importance of the issues and agreed to extend the scope of the study to other countries.

83. Finally, the Committee agreed that issues regarding the functioning of SCESS should be further addressed within the activities of Task Force established to modernize the legal and institutional GFCM Agreement.

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

84. The Coordinator of the Sub-Committee, Mr Joël Vigneau, presented the conclusions and recommendations of SCSI on the basis of the documents GFCM:SAC14/2012/2 and GFCM:SAC14/2012/Inf.6. He highlighted in a positive way the follow-up of its last year recommendations by the Commission. Furthermore, he underlined the significant level of attendance by experts as a key element of the success of SCSI.

85. The Coordinator informed the Committee about the progress made in the field of VMS as follow-up of the workshop held in November 2011 (Zagreb, Croatia). He briefly introduced the proposed roadmap of VMS consisting in the identification of selected activities with the aim of defining potential difficulties and requirements for technical assistance of Members, designing and implementing the plan and finally reviewing the plan for future actions. The Secretariat informed that additional technical documentation on VMS will be available at the next Commission. The Committee wished to emphasize the importance of regional standardization of the format for VMS data transmission. SAC approved the need expressed by SCSI to (i) also develop alternative means of geo-referencing the fishing vessels activities; and (ii) to clarify the role GFCM will be given in handling and managing VMS data, in particular in helping those Members not willing to invest in infrastructure because of the small number of large vessels in their national fishing fleet.

86. The delegate of Egypt sought financial and technical assistance to launch a pilot project for the establishment of VMS at national level. He explained that the launching of such an initiative would significantly help his country in the implementation of Recommendation GFCM/33/2007/7. The Committee took note of the request and it was envisaged that a meeting will take place in Egypt before the thirty-sixth session of the Commission to look into the administrative and technical details pertaining to the prospective pilot project on VMS.

87. Concerning the Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) in the GFCM area, SAC supported the idea to improve the already existing draft proposal of this plan of action defined by the workshop on fishing capacity held in Rome in September 2010 (Appendix C of GFCM:SAC13/2011/Inf.15). The Secretariat with the support of experts on this matter will be responsible for this task. The Committee agreed that this consolidated version of the Plan of Action will be reviewed by the next Coordination Meeting to be finally submitted for the consideration of the Commission at its thirty-sixth session. The Committee also expressed the need to encompass the scope of this RPOA and that GFCM should initiate the setting of a RPOA addressing fisheries management in general.

88. The Committee agreed with SCSI proposal to continue using STATLANT 37A form for catch data submission as long as Task 1 is not fully operational and able to replace it.

89. The Committee was informed about the outcome of the workshop on Task 1.3 data. In addition the Coordinator recalled that the analysis of strengths, weaknesses, threats and opportunities (SWOT) was undertaken to identify problems and solutions of Task 1 data collection framework (see Annex C in SCSI report). He presented a proposal to revisit the frame and scope of Task 1 and potential Task 2 (biological information) in light of the aforementioned analysis and demands for new

information to be included, emanating from the other sub-committees. The terms of reference for the consultants, agreed by SAC, are presented in the SCSI workplan in this report.

90. The Committee noted the problem of compliance concerning the submission of Task 1 and Fleet data. On the basis of the data transmission table presented by the SCSI Coordinator (Appendix E), the delegates were invited to provide insights on blocking points and/or ongoing initiatives to improve their fulfilling of the GFCM data requirements. In certain cases national difficulties in collecting the information were highlighted. For other countries, internal communication problems between authorities were stressed. On this point, SAC reiterated the request already made in 2011, for a formal nomination national focal points for Task 1 data submission. The Committee noted the general willingness to submit all missing information to comply with the mentioned GFCM requirements. The EU delegate informed that the non submission of data to Task 1 by EU Member countries was considered as a non compliance with EU data collection regulation that, from 2009, could lead to reductions of financial contributions. He also informed that the above mentioned tables would be forwarded to the relevant EU direction for follow-up.

91. The increasing amount of data to be transmitted to and handled by Secretariat is a matter of concern for the SCSI participants, especially in relation to the need expressed by some Members to rely on the Secretariat expertise to help them fulfilling their transmission obligations. SAC supported and found relevant the demand for strengthening the human resources of the Secretariat.

92. Following up on Recommendation GFCM/35/2011/2 on data confidentiality policy and procedures, the SCSI requested the Secretariat to display on the GFCM website vessel-related information with the means of user-friendly interface and dynamic charts means and begin initiating basic capacity indicators to monitor historic trends.

93. After this review of the recommendations emanating from the four Sub-Committees, SAC echoed the conclusions reached by the GFCM Performance Review, which highlighted a clear failure as regards the decision-making mechanism of the Commission. It deplored that the advice formulated by the Committee on the conservation and management of fisheries were not further followed up by the Commission, a situation that compromise the efforts of SAC and the Commission for a sustainable fisheries management in the region.

94. The Committee further agreed to convene a meeting before the next GFCM Annual Session, which would be attended by the SAC Bureau, the Coordinators of the four Sub-Committees, invited experts in fisheries management as well as the GFCM Secretariat. This Meeting will have the following objectives:

- Finalize the draft Regional Plan of Action for the management of fishing capacity as proposed by the Transversal Workshop on fishing capacity (Rome, September 2010) and improved by the GFCM Secretariat, with the assistance of FAO;
- Based on the advice for fisheries management adopted at the fourteenth Session of the SAC, identify a number of limited priority stocks (with a maximum of 3), for which the relevant data is known to be available, in order to propose them as bio-economic simulation models in 2013;
- Review the advice for fisheries management formulated by the four Sub-Committees and carried out a work aimed at further integrating them, consolidating their provisions and improving their presentation format in order to ultimately facilitate the work carried out by the Commission;
- Review the activities proposed by the Committee and define priorities for 2012–2013.

95. Conclusions resulted from these four activities will be included in the background document usually prepared by the Secretariat that will be considered at the thirty-sixth annual session to be held in May 2012.

Issues related to management advices from ICCAT/SCRS

96. Mr Farrugio informed the Committee about recent developments concerning the ongoing cooperation between GFCM and ICCAT. In this respect, he recapped discussions on the ICCAT Bluefin Tuna Species Group meeting he attended in 2011 which, *inter alia*, addressed catch statistics and stock assessment related issues. Mr Farrugio then recalled that the GFCM “Studies and Reviews No. 85” on a regional study on small tunas in the Mediterranean and the Black Sea was produced in 2009 as a contribution to the improvement of knowledge on various aspects related to the fish stocks of small tunas, namely biology, exploitation, ecology, socio-economy and other. He made also reference to the GFCM-ICCAT joint meeting on small tunas held in 2008 which recommended to hold a joint meeting in 2010 to be dedicated to the stock assessment of selected species of small tunas. Such meeting was scheduled and then postponed.

97. Ms Pilar Pallarés, ICCAT Assistant Executive Secretary, provided additional information on a two years Research Programme on Small Tunas (SMTYP), with the objective of recovering historical data and improving biological sampling and suggested to hold a GFCM-ICCAT joint meeting by the end of this research programme, possibly in 2014. Ms Pallarés also pointed out by-catch issues as another potential area of collaboration. In this regard, she informed that a management measure adopted by ICCAT in 2011 (Rec.[11-09]) to reduce incidental by-catch of sea birds in longline fisheries has a provision encouraging ICCAT and GFCM to work together on this matter in the Mediterranean area.

98. The Committee concluded that reinforcing the cooperating framework between the two organizations would be useful so to identify areas of joint intervention and guarantee effectiveness. To this end, it was stressed that formalizing ongoing cooperation between GFCM and ICCAT would help scientists in their respective scientific committees to work together more efficiently on topics of common interest.

REVIEW OF THE RELEVANT SAC ACTIONS WITH REGARDS TO THE TASK FORCE ON THE IMPROVEMENT AND MODERNIZATION OF GFCM, INCLUDING THE FRAMEWORK PROGRAMME INITIATIVE

99. Mr Nicola Ferri, from GFCM Secretariat, delivered a presentation on the GFCM Task Force and on the development of the first GFCM Framework Programme in support of the activities of the Task Force. After recalling the outcomes of the GFCM Performance Review, he explained how they had a bearing on the establishment of the Task Force. Mr Ferri also explained that to address the challenges consequential to the current status of fisheries and aquaculture in the Mediterranean and the Black Sea, the Task Force has already initiated to work. This work included the preparation of a questionnaire which elaborates upon the terms of reference of the Task Force, currently uploaded on the GFCM Discussion Forum, an expert meeting for SAC and CAQ (15–16 December 2011, Rome) and the first sub-regional meeting of the Task Force (13–14 February 2012, Rabat). In this connection, Mr Ferri clarified that the work of the Task Force aims at promoting a bottom-up participatory approach which involves all relevant actors, namely GFCM Members, GFCM committees, GFCM sub-regions and FAO regional projects, in order to identify those areas of the GFCM Agreement that might induce the Commission at its thirty-sixth session to decide the amendment of its legal framework.

100. With regard to the FWP, Mr Ferri illustrated that this is the first medium term initiative launched by the GFCM to promote sustainable development and cooperation in the Mediterranean and the Black Sea, whereas in the past GFCM has mainly executed short term projects. He then clarified that a link exists between the Task Force and the FWP which is to be regarded as the means that will allow the Commission to efficiently carry out its increasing activities under a set of pre-identified work programmes. These work programmes were introduced by Mr Ferri who reported that

the finalization of a conceptual note on the FWP, expected to be submitted by the GFCM Secretariat to the attention of the 36th Session of the Commission, is currently underway.

101. In the ensuing discussions a general consent was expressed concerning the importance of both the Task Force and the FWP to bring about a more functional GFCM. With regard to the latter in particular, the Committee acknowledged that the pre-identified work programmes appear to be consistent with the priorities and the needs of GFCM Members as well as with FAO policies, recent international developments relating to sustainable development and both existing GFCM programmes and FAO regional projects. Mr Srour, in response to requests concerning elements that might be included within the FWP, indicated that its development is still at a preliminary stage and that the Secretariat has purportedly avoided to identify specific activities thus far. This will be done after the presentation of the FWP to the Commission at its thirty-sixth session, together with Members and relying on the support of FAO regional projects. The Committee expressed the view that, while the FWP should strengthen cooperation among the GFCM, FAO regional projects and partner organizations, duplications should be avoided and the use of resources optimized. Mr Srour, after having reported that some Members have been already informed about the FWP, encouraged delegates to begin considering providing financial support to the FWP.

102. Mr Farrugio asserted that the modernization process of the GFCM provides the opportunity to strengthen the role of SAC. In this regard, he recalled discussions that occurred at the SAC expert meeting in December 2011 (Rome, Italy). After extensive discussions, the Committee made the following proposals for the consideration of the Task Force: (i) whereas there is a clear need to ensure that SAC scientific advice is conveyed to the Commission to facilitate the elaboration of management measures, it would not be advisable to endow SAC with the power to adopt recommendations; conversely, a mechanism should be established, possibly composed by national delegates together with experts in conservation and management as well as in other fields of expertise (e.g. social and economic sciences), to assist the Commission in elaborating management measures based on SAC scientific advice; (ii) the structure of SAC could be revised to the extent that Sub-Committees would meet back to back to the annual session and (iii) simultaneous translation (English-French) should be provided at the meetings of Sub-Committees to ensure better involvement of the scientists, subject to the availability of funds and considering alternative options (e.g. reducing SAC meetings to four days in order to allocate the budget for the simultaneous translation).

REVIEW OF THE ACTIVITIES ON THE BLACK SEA INCLUDING THE OUTCOME FROM THE FIRST MEETING OF THE WORKING GROUP ON BLACK SEA

103. Mr Farrugio presented the main activities carried out in the Black Sea, and especially the outcome of the First ad hoc Working Group on the Black Sea (Constanta, Romania, 16–18 January 2012). After an overview of the peculiarities of the Black Sea and its fisheries, he drew the attention of the participants on the main deficiencies and needs faced in the region. He highlighted the main priority actions, planned through both a short and medium term GFCM programme, which would be mostly focused on improving the scientific knowledge and contrasting IUU fishing for a sustainable development of fisheries and aquaculture in the region.

104. The Committee expressed its great satisfaction for the outcomes achieved by this First ad hoc Working Group on the Black Sea as well as at the level of participation and expertise reached. The Committee also congratulated Mr Simion Nicolaev (Romania) and Mr Violin Raykov (Bulgaria) for their nomination as, respectively, coordinator and vice-coordinator of the Working Group in the region. The Committee also welcomed the nomination of the following focal points for each country: Konstantin Petrov (Bulgaria), Vakhtang Gogaladze (Georgia), Gheorghe Radu (Romania), Mikhail Kumantsov (Russian Federation), Attila Özdemir (Turkey), Vladyslav Shlyakov (Ukraine).

105. As regards sub-regional stock assessments on small pelagics and demersal species, the Committee welcomed the upcoming meeting to be convened in October 2012 in collaboration with

the EU Scientific, Technical and Economic Committee for Fisheries (STECF) in order to avoid any duplication. SAC also suggested to extend this type of collaboration to the assessments to be carried out in the Mediterranean.

106. With reference to the ongoing initiatives and projects in the Black Sea, the Committee was informed that FAO will be soon acting as a GEF Executing and Implementing Agency under the GEF Strategic Partnership for the Mediterranean Large Marine Ecosystem (LME) by UNEP. The FAO Representative expressed its willingness to shape this initiative with the GFCM, while taking into account other existing relevant initiatives, for the sake of optimal coordination and exploitation of synergies.

107. The delegate of Romania recalled the ongoing drafting of the Memorandum of Understanding between the GFCM and the Black Sea Commission. Mr Srouf expressed his satisfaction with the progress already made and voiced his hope to see this memorandum adopted at the next thirty-sixth session.

REVIEW OF SAC PRELIMINARY WORKPLAN FOR 2012–2013

108. This agenda item was introduced on the basis of the suggestions made by the Sub-Committees as reflected in document GFCM:SAC14/2012/2, together with the reports of the Sub-Committees (documents GFCM:SAC14/2012/Inf.5, Inf.6, Inf.7 and Inf.8).

109. Several delegates suggested to hold a training course on bio-economic analysis-models prior to the Working Group already planned. In support of this proposal, CopeMed explained that information on already completed training courses could be found in the project webpage.

110. SAC noted the technical and administrative difficulties in progressing with the studies of the socio-economic impact of the use of 40mm square mesh. In this respect, some delegations suggested to postpone the deadline set under Recommendation GFCM/33/2009/2 on a minimum mesh size in the codend of demersal trawls nets. Among the means to overcome the said difficulties, it was proposed to conduct a bibliographic desk study based on biological analyses whose results on the catch structure could be interrelated with the available economic information. This exercise would partially balance the lack of data on experimental runs. The importance of socio-economic pilot studies on the impact of 40 mm square mesh to be carried out at sub-regional level was acknowledged by the Committee and the CopeMed II Project reiterated its willingness to support these activities. In this connection, Mr Srouf invited Members to submit to the Secretariat any request of assistance, if needed, for these studies within the next two months.

111. In light of the above, the Committee further agreed on its working programme for 2012 as follows:

Sub-Committee on Marine Environment and Ecosystems (SCMEE)

- On artificial reefs:
 - To develop and/or implement the already existing databases (e.g. www.habitatartificiali.it) under the GFCM umbrella.
- On gear selectivity:
 - To complete the different database of TECHNOMED network and to re-activate the TECHNOMED Web site by providing the appropriate means
 - Elaborate a catalogue of fishing gears in the GFCM area.
- On the implementation of the medium-term **elasmobranchs** programme:
 - To produce factsheets to facilitate the identification of the most commonly landed species.

- To publish the updated version of the Draft GFCM publication on: Status of Elasmobranchs in the Mediterranean and the Black Sea.
- Training Workshop on elasmobranch age reading methodologies to be held in June 2012 in Turkey.
- To develop the Regional Management Plan for **Red Coral** with the terms of references provided below:
 - Collect and organize all scientific literature on the Red Coral in the Mediterranean covering points II and III of Appendix E of the Report of the second Transversal Workshop on red coral held in Ajaccio in October 2011.
 - Collect information differentiating the use of remotely operated vehicles (ROVs) for surveying and security and for scientific purposes, and also on the present research programmes performed on the use of ROVs following REC. GFCM/35/2011/2.
 - Collect information on the socio-economic aspects of red coral harvesting both from the fishermen and from the artisanal industry.
 - Formulate advice for potential management measures.

Sub-Committee on Statistics and Information (SCSI)

- Launch a consultation phase for reviewing Task 1 data submission framework with the following Terms of Reference:
 - Proceed to a comparative analysis of Data Collection systems in other Regional Fisheries Management Organisations.
 - Analyse the relevant subcommittee and SAC reports, the GFCM performance review, documents and work done by FAO sub-regional projects in relation to data collection and data submission to Task 1.
 - Revise the purpose of Task 1 and possible extension towards a Task 2, including the need to standardise the methodologies for the collection and reporting of data.
 - Taking into consideration (i) the SCSI/SCCESS analysis of the strengths, weaknesses, threats and opportunities, (ii) the SCSI/SCCESS discussion of a possible new Task 2, (iii) the national potentialities, (iv) the need to keep memory of the data already submitted and (v) the need to build a cost effective system, define the structure of a refined Task 1 and a possibly a new Task 2 to hold all the information.
- Organize a workshop for finalizing the new Task 1 and 2 data submission framework and define a plan of action for improving member countries capacity to collect and submit relevant data. The proposed terms of reference are shown in Appendix F of this report.
- The GFCM Secretariat should display on the GFCM Web site vessel-related information with the means of user-friendly interface and dynamic charts means and begin initiating basic capacity indicators to monitor historic trends.

Sub-Committee on Economic and Social Sciences (SCCESS)

- Organize a working group on bio-economic analysis-models used in the GFCM area
 - Review the existing bio-economic studies and/or models in the GFCM area.
 - Simulation of the potential effects of management measures.
- Promote regional case studies related to the socio-economic analysis of:
 - Recreational fisheries.
 - Small-scale fisheries.
- Hold a specific Working Group back-to-back to the forthcoming SCCESS meeting on the review of the variables list of Task 1.3 and their according definitions

Sub-Committee on Stock Assessment (SCSA)

- Two working groups on demersal and on small pelagic species including some species of elasmobranchs, to be held back-to-back in Split, Croatia 22–26 October 2012.
- Expert consultation to elaborate the design and contents of the new module for Task 2.
- Joint ICES/ EIFAAC/GFCM Working Group on European Eel.
- Meeting of Permanent Working Group on Stock Assessment Methodology on: *Time Series Analysis*. The working group should be training orientated and the results of case studies that participants would provide, and that would be addressed by the working group within practical sessions, should be published.

Ad hoc Working Group on Black Sea

- Organize a workshop on data collection and information systems on fisheries in the Black Sea with the aim of:
 - assessing the existing fisheries data and information systems.
 - drawing up an inventory of existing tools and methods for data collection and analysis.
 - producing standard criteria for establishing a harmonized data collection system in the region taking in consideration the requirement for various users (GFCM, EU, BSC, etc).
- Organize a training course on direct and indirect stock assessment methodologies.
- Organize sub-regional stock assessments on small pelagic and demersal stocks (possibly in collaboration with STECF).
- Organize a workshop to assess IUU fishing and its impact in the region.
- Gather all relevant information on the fisheries and aquaculture related legislation in force in the area, with a view to creating a regional database.
- Create, through the GFCM website, a common regional database of experts and research institutions working in the Black Sea area.
- Elaborate a publication on the most recent status of fisheries and aquaculture, as a result of the collaboration between the GFCM Secretariat and national experts from all riparian countries.
- Elaborate a technical publication on the main fishing gear and fleets typology.
- Revitalize the joint GFCM/EIFAAC Working Group on Sturgeon.
- Organize a workshop on new aquaculture species to be developed in the region.
- Organize training on site selection procedures, allocated zones for aquaculture and monitoring for aquaculture activities.
- Data inventory of marine and brackish aquaculture farms and production centres.

Meetings

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

Meeting	Place/Date
GFCM/ICES/EIFAAC Working Group on EEL	Rome? June 2012
Workshop on Artificial Reefs (3 days)	Morocco TBD
Working Group on Selectivity and Fishing Technology (3 days)	TBD
Meeting of Permanent Working Group on Stock Assessment Methodology on: Time Series Analysis	TBD
Working Group on the review of the variables list of Task 1.3 and their according definitions (back-to-back with the SCESS Session) (SCESS)	TBD
Working Group on Bio-economic Analysis-Models used in the GFCM Area (SCESS)	Tunisia TBD
Workshop for finalising the new Task 1 & 2 data submission framework (SCSI)	TBD
Workshop to assess IUU fishing and its impact in the Black Sea	TBD
Workshop on Data Collection and Information Systems on Fisheries in the Black Sea	TBD September 2012
Training on direct and indirect stock assessment methodologies (possibly with the STECF)	TBD October 2012
Sub-regional stock assessments on small pelagic and demersal stocks (possibly in collaboration with STECF)	Bucharest, Romania October 2012
Working Group on Stock Assessment of Demersal and Elasmobranchs Species (SCSA) (5 days)	Split, Croatia, 22–26 October 2012
Working Group on Stock Assessment of Small Pelagic Species (SCSA) (5 days)	Split, Croatia, 22–26 October 2012
14 th Session of the SCSA (2 days)	Egypt February 2013
13 th Session of the SCMEEE (2 days)	Egypt February 2013
13 th Session of the SCSI (2 days)	Egypt February 2013
13 th Session of the SCESS (2 days)	Egypt February 2013
15 th Session of the SAC (4 days)	Egypt February 2013

112. SAC took note of the offer made by some delegations to host meetings, subject to confirmation by their relevant competent authorities.

ELECTION OF SAC BUREAU AND CONFIRMATION OF THE NOMINATIONS OF SUB-COMMITTEES COORDINATORS

113. The Committee, after having expressed satisfaction for the work done by SAC under the stewardship of the present Bureau, and considering the ongoing process of improvement and modernization of the GFCM, agreed to defer the elections to next year.

114. The Committee also agreed that Mr Alvarez Prado, Mr Fiorentino, Mr Ünal and Mr Vigneau will continue acting as coordinator of SCMEE, SCSA, SCESS and SCSI, respectively, for one additional year.

DATE AND VENUE OF NEXT SESSION

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

116. In this regard, Ms Karlou-Riga announced that the FAO EastMed regional project is ready to support Egypt in the organization of the fifteenth session of SAC.

ANY OTHER MATTERS

117. 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 Black Sea countries, namely Georgia, the Russian Federation and Ukraine and expressed the wish that close collaboration with these countries will be maintained in the future. SAC looked forward to the possibility that these countries join GFCM.

118. The Committee extended its appreciation to the Bulgarian Government for hosting the Session and for the great hospitality. In particular, it warmly thanked NAFA 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 Bulgaria were highly appreciated by all the delegates.

ADOPTION OF THE REPORT

119. The report, including its appendices, was adopted on Friday 24 February 2012.

OUVERTURE ET ORGANISATION DE LA RÉUNION

1. Le Comité scientifique consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) a tenu sa quatorzième session à Sofia (Bulgarie) du 20 au 24 février 2012. Y ont assisté les délégués de 19 Parties contractantes, de Parties non contractantes coopérantes (Géorgie, Fédération de Russie, Ukraine), d'organisations intergouvernementales telles que l'Accord sur la conservation des cétacés de la mer Noire, de la Méditerranée et de la zone atlantique adjacente (ACCOBAMS), la Commission Internationale pour la Conservation des Thonidés de l'Atlantique (CICTA), et le réseau des gestionnaires d'aires marines protégées en Méditerranée (MedPAN), ainsi que des représentants des projets régionaux de la FAO et du Secrétariat de la CGPM. La liste des participants est reproduite comme Annexe B à ce rapport.

2. M. Henri Farrugio, Président du CSC, a ouvert la réunion et accueilli les participants. Il a présenté M. Dragomir Gospodinov, Directeur exécutif de l'Agence nationale de la pêche et de l'aquaculture (NAFA) qui a souhaité la bienvenue aux participants au nom des autorités bulgares et remercié M. Farrugio et le Secrétariat de la CGPM pour les préparatifs de la réunion. Il a ensuite fait valoir l'importance du CSC, notamment son rôle en faveur des efforts communs qui sont consentis pour parvenir à la mise en valeur durable des ressources halieutiques en Méditerranée et dans la mer Noire. À ce sujet, M. Gospodinov a souligné que les avis scientifiques du CSC devraient toujours tenir compte des particularités de la zone de compétence de la CGPM, et qu'il fallait avoir présent à l'esprit la situation actuelle des pêcheries qui exige une mise en œuvre uniforme des mesures d'aménagement de la CGPM.

3. M. Abdellah Srour, Secrétaire exécutif de la CGPM, au nom du Président de la CGPM, M. Stefano Cataudella, a chaleureusement remercié la Bulgarie de son accueil et de l'excellente organisation de la réunion. Il a déclaré que le CSC avait apporté des contributions de taille à la gestion des pêches mais qu'il était nécessaire de réaffirmer l'engagement dans ce domaine compte tenu de la situation critique des stocks de plusieurs espèces. M. Srour a profité de l'occasion pour mentionner les activités du Groupe de travail chargé de l'amélioration et de la modernisation de la CGPM, qui devrait avoir des conséquences positives pour le CSC. Il a aussi fait part de sa gratitude pour la contribution des projets de la FAO à la CGPM et a annoncé le lancement du premier Programme-cadre de la CGPM à l'appui des activités du Groupe de travail.

ADOPTION DE L'ORDRE DU JOUR

4. Après avoir invité les délégués à se présenter, le Président a donné la parole au Secrétaire exécutif qui a informé le Comité au sujet des modalités d'organisation de la session.

5. L'ordre du jour a été présenté par M. Srour et adopté par le Comité. Il est reproduit en Annexe A au présent rapport. La liste des documents de la quatorzième session du CSC figure à l'Annexe C.

ACTIVITÉS INTERSESSIONS

Examen des recommandations formulées par la CGPM, à sa trente-cinquième session, au sujet de la gestion des pêches

6. M. Srour a fait le point des décisions adoptées par la Commission à sa trente-cinquième session, en commençant par les résolutions suivantes: i) Résolution CGPM/35/2011/1 relative à la transmission de données combinées sur les navires de pêche, ii) Résolution CGPM/35/2011/2 sur les règles et procédures de confidentialité des données, iii) Résolution CGPM/35/2011/3 concernant la

procédure de soumission de nouvelles propositions de décisions au cours des sessions annuelles de la CGPM.

7. M. Srour a aussi donné un aperçu des mesures figurant dans les recommandations suivantes: i) Recommandation CGPM/35/2011/1 concernant l'établissement d'un journal de bord de la CGPM, ii) Recommandation CGPM/35/2011/2 sur l'exploitation du corail rouge dans la zone de compétence de la CGPM, iii) Recommandation CGPM/35/2011/3 sur la réduction des captures accidentelles d'oiseaux de mer dans la zone de compétence de la CGPM, iv) Recommandation CGPM/35/2011/4 sur les prises accidentelles de tortues de mer dans la zone de compétence de la CGPM, v) Recommandation CGPM/35/2011/5 concernant les mesures de gestion pour la conservation du phoque moine de la Méditerranée (*Monachus monachus*) dans la zone de compétence de la CGPM, vi) Recommandation CGPM/35/2011/6 relative à la communication de données et d'informations sur l'aquaculture. Il a ajouté que cinq mesures d'aménagement de la CICTA avaient été également approuvées.

8. Durant les discussions qui ont suivi, le Comité a noté que plusieurs avis en matière d'aménagement adoptés à sa treizième session n'ont pas été suivis d'effet par la Commission. Il a souligné l'importance d'une amélioration du mécanisme décisionnel de la Commission pour surmonter cette défaillance. M. Srour a fait savoir que le Groupe de travail sur la modernisation de la CGPM réfléchissait à cette question.

Aperçu des activités menées par le CSC durant la période intersessions

9. En s'appuyant sur le document CGPM:CSC14/2012/2, le Président a présenté les activités conduites par les quatre Sous-Comités depuis la dernière session. Il a informé les délégués que 15 réunions prévues s'étaient tenues, y compris celles des quatre Sous-Comités.

10. S'agissant des ateliers techniques, le Président a indiqué que plusieurs sujets avaient été traités, et que des résultats notables 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, à l'exploitation des données des systèmes de surveillance des navires (SSN), à la gestion liée aux captures accessoires et des rejets, et au recours aux mesures spatiales. Il a donné par ailleurs une vue d'ensemble des conclusions de l'atelier sur la législation des pêches, qui ont mis en évidence des chevauchements et des lacunes à différents niveaux administratifs, et souligné la nécessité d'un engagement plus marqué de la part des parties concernées.

11. Évoquant les travaux menés par le Sous-Comité des statistiques et de l'information (SCSI), le Président a particulièrement souligné les progrès accomplis du point de vue de l'élaboration et de la gestion des bases de données et des systèmes d'information de la CGPM, notamment l'établissement d'un SSN.

12. Le Président a informé le CSC que le Sous-Comité des sciences économiques et sociales (SCESS) avait étudié les conclusions de la Réunion d'experts sur la législation des pêches dans les pays de la Méditerranée et de la mer Noire, qui s'est tenue dans le cadre du projet LaMed, et plus particulièrement les principales recommandations formulées par les participants. Parmi ces recommandations, il a souligné notamment la nécessité d'améliorer le degré de coordination, que ce soit à l'échelon national ou entre les institutions intervenant dans la zone de compétence de la CGPM, ainsi que le degré d'application de ces recommandations.

13. S'agissant du Sous-Comité sur l'évaluation des stocks (SCES), il a indiqué que le Sous-Comité avait examiné 30 documents techniques sur les espèces démersales, et 14 documents techniques sur les espèces des petits pélagiques, qui avaient été établis par les deux groupes de travail

sur l'évaluation des stocks. Il a ajouté que le SCES s'était également penché sur les conclusions de l'Atelier sur l'évaluation des stocks de certaines espèces d'éla-smobran-ches. Le Comité a également été informé que le SCES avait décidé de modifier la présentation des formulaires d'évaluation des stocks pour faciliter la saisie des données et le processus de classement.

14. Le Président a encore indiqué au CSC que les travaux du Sous-Comité de l'environnement et des écosystèmes marins (SCMEE) avaient été axés sur une éventuelle proposition d'éléments techniques et scientifiques pour un plan régional de gestion du corail rouge, sur la situation de la déclaration des données sur les captures accessoires au titre de la Tâche 1, sur la création de récifs artificiels en Méditerranée, sur l'importance de la protection des habitats profonds et, une nouvelle fois, sur l'impact des espèces non indigènes sur les pêcheries. Il a également évoqué une proposition du SCMEE visant à actualiser le formulaire type pour y ajouter de nouvelles zones de pêche à accès réglementé. Les résultats notables obtenus à ce jour par le réseau Technomed ont aussi été soulignés.

15. En référence au document CGPM:CSC14/2012/Inf.17, le Président du CSC a présenté les conclusions et le plan de travail proposé du Groupe de travail *ad hoc* sur la mer Noire, pour les activités à court et à moyen termes, faisant valoir que la réussite de la réunion tenait à une forte participation de l'ensemble des pays riverains et à la qualité des résultats obtenus.

16. Le Comité a évoqué le soutien apporté par l'UE en vue de l'organisation des ateliers sur les SSN et sur l'évaluation des stocks d'éla-smobran-ches, qui donneront lieu à une publication présentant des informations à jour sur la pêche, la biologie, l'écologie et la taxonomie de ces espèces de poissons.

17. Le CSC s'est félicité des travaux réalisés par ses organes subsidiaires pendant l'intersession, malgré le peu de temps à disposition, et s'est dit satisfait de la qualité des résultats obtenus. Il a également félicité le Secrétariat de la CGPM pour l'excellent travail accompli entre les sessions et pour l'organisation de cette session.

Principales activités dans le cadre des projets régionaux de la FAO

18. Les activités engagées pendant la période intersessions dans le cadre des projets régionaux de la FAO (AdriaMed, CopeMed II, ArtFiMed, EastMed, MedSudMed, MedFisis, MedLME et l'initiative Black Sea Fish relative à la mer Noire) ont été présentées, y compris les activités de recherche, les programmes de formation, les ateliers et les groupes de travail, ainsi que l'assistance technique aux pays et le soutien aux activités du CSC. Il a été rappelé aux délégués que des informations détaillées sur les activités et les résultats des projets en question figuraient dans le rapport annuel des comités de coordination des différents projets et dans le document CGPM:CSC14/2012/Inf.19.

19. Le CSC a pris acte des travaux approfondis effectués dans le cadre des projets régionaux de la FAO et des contributions scientifiques précieuses de ces derniers. Il a, par ailleurs, salué les efforts consentis par la FAO pour accroître la coopération avec la CGPM.

20. Des délégués ont souligné l'importance de l'existence des projets régionaux de la FAO du point de vue de l'aide qu'ils apportent aux pays et du soutien à la CGPM.

21. En particulier, les délégués de la Croatie et du Monténégro ont rappelé le rôle stratégique du projet AdriaMed, qui est le seul à réunir tous les pays de l'Adriatique. Ils ont signalé l'importance d'AdriaMed en tant que forum pour ce qui est de la formulation d'un plan de gestion pluriannuel commun dans l'Adriatique (région de la fosse de Pomo/Jabuca, par exemple).

22. Les délégués de l'Égypte et du Liban ont reconnu le rôle du projet EastMed dans la région. En particulier, le délégué libanais a insisté sur le fait que, sans cet appui, des activités comme celles réalisées dans le cadre du projet ne pourraient pas être entreprises dans son pays.

23. Le délégué de la Tunisie a mis en évidence le rôle important de CopeMed II et de MedSudMed. Il a évoqué la réunion MedSudMed sur la saison de fermeture de la pêche, manifestation qui inaugurerait selon lui une nouvelle phase de coopération dans le cadre du projet, avec la participation des administrations nationales. Au cours de cette réunion, une expérimentation pilote a été lancée. Elle portait sur l'harmonisation de la fermeture de la pêche en Lybie, en Tunisie, à Malte et en Italie. Le délégué tunisien a estimé qu'il serait judicieux, en s'appuyant sur l'action pilote et les projets méditerranéens, d'étendre l'initiative à l'ensemble de la Méditerranée, éventuellement par une décision de la CGPM.

24. Le délégué égyptien, quant à lui, a souligné l'importance du projet ArtFiMed, qui vise à encourager la pêche artisanale, et a émis le souhait que des initiatives similaires soient étendues à son pays.

25. Les délégués algérien et marocain se sont félicités des résultats obtenus dans le cadre de CopeMed II et d'ArtFiMed. Ils se sont déclarés favorables à l'approche intégrée adoptée dans le cadre de ces projets pour le développement pour la pêche aux petits métiers. Ils ont indiqué que la CGPM devrait s'appuyer sur les résultats du projet ArtFiMed pour épauler les acteurs de la pêche artisanale en Méditerranée.

26. Il a été rappelé au Comité que toutes les activités menées dans le cadre de projets étaient conformes aux principes de l'approche écosystémique des pêches (AEP) et qu'une collaboration plus étroite avec la CGPM sera recherchée pour ce qui est de la mise en œuvre de l'AEP en Méditerranée. Le représentant de l'ACCOBAMS s'est réjoui à la perspective d'une coopération régionale plus forte dans ce domaine.

27. Le délégué de l'Union européenne a pris acte des travaux réalisés dans le cadre des projets. En particulier, il a évoqué l'échange et l'analyse conjointe de données sur la pêche sous l'égide des projets de la FAO. À la lumière de ces éléments, il a appelé de ses vœux le développement des échanges de données au sein de la communauté scientifique et a proposé la création d'une base de données commune, accessible à tous les pays méditerranéens.

28. Le délégué roumain s'est félicité des résultats des projets de la FAO et a souligné combien il était important de mettre en place des initiatives analogues dans la région de la mer Noire. Il a évoqué le projet Black Sea Fish de la FAO dans cette région et insisté sur la nécessité de se coordonner avec le Groupe de travail *ad hoc* sur la mer Noire et le premier programme cadre de la CGPM.

29. Enfin, le Comité a également souligné l'importance du rôle des projets régionaux de la FAO en tant qu'appui et facilitateur des évaluations conjointes de stocks partagés, contribuant ainsi de manière significative aux travaux du SCES.

PRINCIPALES ACTIVITÉS DE RECHERCHE ENTREPRISES PAR LES ÉTATS MEMBRES

30. Mme Pilar Hernández, du Secrétariat de la CGPM, a présenté le document CGPM:CSC14/2012/Inf.9, qui dressa la synthèse des informations figurant dans les 14 rapports nationaux reçus par le Secrétariat avant la réunion (Annexe G). Elle a précisé que le nombre et la diversité des projets de recherche s'étaient accrus.

31. Le CSC a remercié le Secrétariat du mode de présentation retenu pour cette documentation pertinente, qui donnait une idée précise de la situation actuelle des pêches au niveau national. Il a également pris note de la suggestion formulée par les délégués tunisien et roumain, d'inclure dans les rapports nationaux des informations complémentaires, telles que des références bibliographiques et des liens vers des sites institutionnels jugés pertinents.

32. M. Srour a souligné l'importance des rapports nationaux. Il a fait remarquer que certains d'entre eux n'étaient parvenus au Secrétariat que peu de temps avant la réunion et que plusieurs autres étaient toujours attendus. Il a évoqué la possibilité pour les Parties non contractantes coopérantes de remettre également des rapports nationaux au CSC, en citant l'exemple de celui présenté par la Fédération de Russie à la treizième session du CSC.

FORMULATION DE CONSEILS DANS LE DOMAINE DE LA GESTION ET DE LA RECHERCHE HALIEUTIQUE

Conclusions et recommandations du Sous-Comité sur l'environnement et les écosystèmes marins (SCEEM)

33. Le Coordonnateur du Sous-Comité, M. Federico Alvarez, a présenté les conclusions et recommandations du Sous-Comité en s'appuyant sur les documents CGPM:CSC14/2012/2 et CGPM:CSC14/2012/Inf.5. Il a décrit les résultats axés sur les questions de gestion et de recherche.

34. Le Comité a examiné les quatre recommandations du Groupe de travail sur le corail rouge, émises comme suit: i) établir une taille minimum de sept mm de diamètre mesurée à moins d'un centimètre de la base avec une tolérance de cinq pour cent du poids total de la prise journalière; ii) établir un système de quotas fondé sur le nombre de licences délivrées; iii) instaurer un formulaire statistique pour faciliter la transmission des données requises par la Recommandation 35/2011/2 et iv) mettre en place un plan de gestion régional évolutif relatif au corail rouge.

35. Il a été rappelé au Comité que le but principal de l'adoption de ces mesures était d'assurer que le corail rouge *Corallium rubrum* soit rationnellement exploité selon les critères de conservation partagés parmi les pays concernés.

36. Les délégués de l'Algérie, du Maroc et de la Tunisie ont fait remarquer que la proposition d'adopter une taille minimum pour l'exploitation du corail était difficile à appliquer en pratique et ont exprimé leur désaccord quant au calendrier de la mise en place d'un plan de gestion régional qui, selon eux, devrait s'appuyer sur des recherches et des études d'une durée d'au moins quatre ans et devrait prendre en compte les caractéristiques de chaque population.

37. Le délégué italien a signalé que le corail rouge n'atteint la taille de sept mm qu'à environ 25 ans et que la profondeur minimum de récolte devrait être fixée à 80 m. Il a cité l'expérience du plan de gestion en vigueur en Sardaigne (Italie), indiquant que les populations exploitées étaient équilibrées, et il a rappelé qu'il était important d'établir des mesures de gestion précises, comme la taille minimum du corail débarqué et la profondeur minimum de récolte.

38. Le délégué de l'UE a mis en question le seuil de tolérance de cinq pour cent pour les prises dépassant la taille minimum et a remarqué les effets négatifs indésirables de ces mesures tels qu'observés chez d'autres espèces. Aussi a-t-il proposé de ne pas fixer une telle marge.

39. A la lumière de cette discussion, le CSC a convenu de transmettre les quatre recommandations susmentionnées à la Commission pour examen et possible adoption tenant en compte les positions exprimées par certaines délégations.

40. En ce qui concerne l'atelier sur les captures accessoires, le Comité a examiné les recommandations de gestion suivantes: i) interdiction d'utiliser du matériel inoxydable pour les hameçons et du métal pour les avançons des palangres; ii) les pays membres devraient tout mettre en œuvre pour mettre fin à la pêche fantôme; iii) une augmentation de la taille des mailles des filets

maillants jusqu'à 400 mm (maille étirée) et l'utilisation de filaments de 0,5 mm (160-Rtex) d'épaisseur a été proposée pour la pêche au turbot en mer Noire.

41. Des commentaires ont été émis concernant la recommandation sur l'augmentation du maillage des filets maillants, qui a été jugée imprécise du point de vue des espèces ciblées, des pêcheries et des détails techniques. À la suite d'un long débat, les trois recommandations citées ci-dessus ont été adoptées par le Comité. De plus, en vue de faciliter la libération des cétacés pris accidentellement dans la pêche aux filets maillants de fond et victimes de la pêche fantôme, une attention particulière devrait être accordée afin d'assurer une plus large utilisation de filets maillants de fond avec une épaisseur de fil inférieure à 0,5 m.

42. Le Comité a également pris note d'autres conclusions et propositions émanant du SCEEM visant à réduire les interactions entre pêcheries et mammifères marins, à savoir: i) fermeture saisonnière pendant la période de frai de la proie de l'animal concerné et durant laquelle on observe généralement le plus fort taux de capture accidentelle de jeunes mammifères marins (Tunisie, Grèce); ii) interdiction d'utiliser des filets pour la pêche à l'aiguillat en mer Noire, car cette pratique provoque un taux élevé de capture accessoire de cétacés, et parce que la plus grande part de la capture ciblée est rejetée à la mer, cette espèce mourant très rapidement après avoir été pêchée; et iii) adaptation des engins afin de réduire la mortalité des cétacés et les pertes pour les pêcheurs: procéder à des tests pour voir si le fait d'augmenter l'épaisseur du filament des filets des sennes tournantes peut éviter aux dauphins de percer ces filets (Tunisie).

43. Le délégué de la Croatie a souligné le problème de définition de maillage et a proposé une définition telle qu'acceptée dans le règlement de l'UE (CE) No. 517/2008 et disponible en Annexe D de ce rapport.

44. Mme Marie-Christine Grillo-Compulsione, Secrétaire exécutive d'ACCOBAMS, a fait part de sa satisfaction concernant son excellente collaboration avec la CGPM et a précisé qu'elle tenait à ce que cette collaboration se poursuive et se renforce. Elle s'est dite prête à partager les données d'ACCOBAMS sur les pêches accessoires avec la communauté scientifique du CSC, rappelant combien il était important de recueillir et de soumettre des informations sur la pêche accidentelle de cétacés dans le cadre du protocole actuel de la Tâche 1. Elle a informé d'un projet proposé pour la lutte contre la pêche accidentelle de cétacés par les palangres et les filets maillants, programme qui pourrait être mis en œuvre en collaboration avec la CGPM à travers son Programme-cadre.

45. Concernant l'atelier sur les récifs artificiels, le Comité a reconnu les effets positifs de l'utilisation de ces structures, à la fois pour protéger les lieux de pêche, permettre de rechercher des solutions appropriées aux conflits entre pêcheries, et renforcer la productivité grâce à la chaîne trophique. Le Comité a néanmoins pris note de certains effets négatifs potentiels, comme la concentration d'espèces commerciales, qui pourrait faciliter leur capture par les flottes en activité.

46. À cet égard, le délégué égyptien a proposé que la mise en place de récifs artificiels soit liée à l'établissement de zones protégées où les activités de pêche devraient faire l'objet de réglementations et de contrôles très stricts.

47. Le délégué tunisien a évoqué un projet actuel sur les effets des récifs artificiels, projet pour lequel des études pilotes ont été menées avec le soutien du gouvernement japonais. Il a insisté sur le fait que les expérimentations ayant trait à l'utilisation des récifs artificiels devaient être partagées avec les pays concernés.

48. Le CSC a approuvé les propositions suivantes émanant du SCEEM et visant à: i) modifier les formulaires types de la CGPM pour les nouvelles propositions de zones de pêche à accès réglementé; ii) établir un protocole pour la collecte de données sur les espèces non indigènes; iii) recueillir des informations écologiques et biologiques sur les monts sous-marins.

49. Le Comité a également approuvé la nécessité de prodiguer, en collaboration avec le CIHEAM et les projets régionaux de la FAO, des formations pour renforcer les connaissances en matière de technologies des engins de pêche. À cet égard, le projet CopeMed s'est déclaré prêt à envisager l'organisation d'activités de ce type, en étroite coopération avec le Secrétariat de la CGPM.

50. Enfin, au sujet d'une proposition avancée lors de la première réunion du Groupe de travail ad hoc sur la mer Noire visant la publication d'un catalogue d'engins de pêche pour la mer Noire, le CSC a proposé d'élargir cette initiative à la région de la Méditerranée. Attention a été portée sur l'existence de publications similaires et donc sur le besoin d'effectuer les vérifications nécessaires afin d'éviter toute duplication.

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

51. Le Coordonnateur du Sous-Comité, M. Fabio Fiorentino, a présenté les conclusions et recommandations du SCES en s'appuyant sur les documents GFCM:SAC14/2012/2 et GFCM:SAC14/2012/Inf.8.

52. Il a également exposé les conclusions et avis émanant des réunions organisées pendant l'intersession. Il a présenté les évaluations entreprises par les deux groupes de travail, qui portent sur 16 sous-régions géographiques et 13 espèces, pour les espèces démersales, et 11 sous-régions géographiques et deux espèces, pour les petits pélagiques. Il a noté que 28 évaluations d'espèces démersales avaient été validées par le Sous-Comité (27 stocks en situation apparente de surpêche/surexploitation, et un stock durablement exploité). S'agissant des petits pélagiques, neuf évaluations avaient été acceptées (dont sept stocks ont été considérés comme pleinement exploités, deux en surexploitation, et un en situation d'épuisement).

53. Il a également informé les délégués que pendant la réunion, les deux groupes de travail s'étaient mis d'accord sur plusieurs questions qu'il conviendrait d'examiner à l'avenir. Il a notamment mentionné une proposition visant à utiliser, comme point de référence limite provisoire pour les stocks de petits pélagiques, 40 % de production durable maximale, proposant que ce point de référence soit testé par le Groupe de travail sur les petits pélagiques, à sa prochaine réunion. Une discussion s'est engagée au sujet des modifications des formulaires d'évaluation des stocks. Une nouvelle présentation a été convenue, sous la forme de fichiers texte complétés de tableaux de données et de graphiques, qui seront plus faciles à remplir par les experts, et faciliteront aussi l'exploitation de l'information pour les nouvelles analyses éventuellement jugées nécessaires.

54. Le Coordonnateur a également fait rapport sur les résultats des travaux d'intercalibration réalisés dans le cadre du projet MedSudMed en juin 2012, dans le Déroit de Sicile, avec la participation des navires et engins du Consiglio nazionale delle ricerche (Italie), du Centre de Malte pour les sciences halieutiques (MCFS), de Santanna, et le N.R. Hannibal de l'Institut national des sciences et technologies de la mer (INSTM) de Tunisie. Les chercheurs ont testé les taux de capture spécifiquement réalisés sur la crevette rose du large et le merlu, ce qui a permis de produire des séries chronologiques, des indices et des schémas d'abondance spatiale pour l'intégralité de la zone où ces stocks étaient partagés.

55. Le CSC a évoqué l'importance de ces travaux pour la comparaison de données provenant de campagnes directes réalisées en Méditerranée et en mer Noire, et a encouragé les autres institutions de recherche à entreprendre des études analogues.

56. Le Coordonnateur a ensuite présenté les principaux résultats et conclusions de l'Atelier sur l'évaluation des stocks de certaines espèces d'élasmobranches, qui s'était tenu à Bruxelles, du 12 au 16 décembre 2011, et durant lequel huit stocks d'élasmobranches avaient pu être évalués (cinq en situation de surexploitation, un faisant l'objet d'une exploitation durable, et un dont la situation était incertaine).

57. Il a également résumé les principales conclusions et recommandations de l'Atelier transversal sur l'établissement du cadre de collecte de données biologiques pour la Tâche 2 (SCES/SCSI), tenu à Rome, durant la session de janvier 2012 du SCES, ainsi que les constats et recommandations les plus pertinents de l'Atelier transversal sur la gestion spatiale de la pêche (SCES/SCMEE), tenu à Rome, du 6 au 8 février 2012.

58. Après avoir adopté divers amendements et examiné des remarques formulées dans les tableaux 1 et 2 ci-dessous, le Comité a examiné et approuvé l'évaluation et les avis connexes formulés par le SCES.

59. Les délégués de la Croatie, se référant aux discussions du groupe de travail et du SCES sur les frontières des stocks, ont rappelé que la distribution des stocks partagés de petits pélagiques dans la mer Adriatique (anchois et sardine) n'était pas uniquement limitée à l'aire géographique du GSA 17 mais qu'elle s'étendait également au GSA 18. Ainsi, a-t-il été souligné, suite aux suggestions du groupe de travail et du SCES, la nécessité dans toute évaluation future de tenir en compte de données conjointes provenant des GSA 17 et 18 ainsi que de toute information sur les captures (non limitées aux données officielles des débarquements) des pêcheries de sardines juvéniles, comme les résultats du projet SARDONE.

Tableau 1

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 01 (Mer d'Alboran Nord)	<i>Merluccius merluccius</i>	Composition, par taille, des débarquements commerciaux ajustés en fonction de l'évaluation par chalutage des ressources démersales en Méditerranée (MEDITS) et de la CPUE (capture par unité d'effort) de la flottille commerciale.	2002-2010	APV, XSA, rapport Y/R.	Surexploité avec abondance intermédiaire F_c (1,33) supérieure à $F_{0.1}$ (0,20).	Il est conseillé de réduire les captures de 80 % pour atteindre $F_{0.1}$; Améliorer le mode de pêche des flottilles de chalutiers. Notamment, surveillance de l'utilisation de culs de chalut d'un maillage carré de 40/50 mm.	Le groupe de travail a approuvé l'évaluation et les recommandations.	De l'avis du Sous-Comité, la faible contribution des palangriers et des trémailleurs à la pêche n'implique pas nécessairement l'absence de risques de surexploitation des recrues. Approuvé.	Pas d'autres observations. Approuvé.
Sous-région 05 (Îles Baléares)	<i>Merluccius merluccius</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage.	Structure par taille des captures commerciales au chalut et débarquements officiels (1980-2010), CPUE de la flottille commerciale (2000-2010) et relevés au chalut en profondeur (2001-2010).	Analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité; pression de pêche actuelle (1,21) supérieure à $F_{0.1}$ (0,16) et F_{max} (0,24).	Réduire la mortalité par pêche en limitant les opérations de pêche et en améliorant le mode de sélection de la pêche. L'utilisation de données provenant du système de surveillance des navires aidera à améliorer les connaissances sur la distribution géographique de l'effort de pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 05 (Îles Baléares)	<i>Mullus surmuletus</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage	Structure par taille des débarquements commerciaux des chalutiers et des pêcheries artisanales (2000-2010), CPUE des flottilles commerciales de chalutiers (2000-2010) et des campagnes de chalutage en eau profonde (2001-2010).	Analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité; pression de pêche actuelle (0,55) supérieure à F0.1 (0,55) et inférieure à Fmax (1,10).	Réduire la mortalité par pêche en limitant les opérations de pêche et en améliorant les modes de sélection de la pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.
	<i>Aristeus antennatus</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage.	Structure par taille des débarquements commerciaux des chalutiers (1992-2010) CPUE des chalutiers commerciaux (1978-2010).	Analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité; pression de pêche F (0,59) supérieure à F0.1 (0,15) et inférieure à Fmax (0,23).	Il serait possible de réduire la pression de pêche en recourant à des mesures de gestion complémentaires comme la réduction du temps de pêche pendant certaines périodes, par exemple au début de la période de reproduction ou de frai et durant la période de recrutement au début de l'automne.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 06 (Nord de l'Espagne)	<i>Mullus barbatus</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage.	Structure par taille des débarquements commerciaux des chalutiers (1995-2010) CPUE des chalutiers commerciaux et campagne MEDITS.	Analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité; pression de pêche F (0,72) supérieure à F0.1 (0,20) et à Fmax (0,35).	Réduire la mortalité par pêche d'environ 70 %. Renforcer l'efficacité des contrôles sur les plateaux de plus de 50 m de fond pour réduire les prises d'individus de taille inférieure à la taille minimum de capture autorisée. L'utilisation de culs de chalut d'un maillage carré de 40 mm devrait améliorer les modes d'exploitation au chalut et le rapport Y/R de 24 %, mais il faut veiller à la stricte application de cette mesure.	Simultanéité de l'augmentation de la biomasse du stock reproducteur et de la diminution du recrutement. Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.
	<i>Aristeus antennatus</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage.	Structure par taille des débarquements commerciaux des chalutiers (1996-2010) CPUE des chalutiers commerciaux et campagne MEDITS.	Analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité; pression de pêche actuelle (1,33) supérieure à F0.1 (0,28) et à Fmax (0,49).	Réduire la pression de pêche de 72 % en réduisant la capacité d'effort et en améliorant le mode de sélection. Appliquer la fermeture de la pêche dans les zones d'alevinage durant la période de recrutement.	Vérifier l'effet de l'emploi de paramètres biologiques dans l'évaluation non ventilée par sexe. Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 06 (Nord de l'Espagne)	<i>Parapenaeus longirostris</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage.	Structure par taille des débarquements commerciaux des chalutiers (2001-2010) CPUE des chalutiers commerciaux et campagne MEDITS.	Analyse de populations virtuelles (APV), analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité et faible niveau d'abondance; pression de pêche actuelle (1,14) supérieure à F0.1 (0,30) et inférieure à Fmax (2,73).	Réduire la surpêche du potentiel de croissance en réduisant la mortalité par pêche de 70 %.	L'oscillation observée pour cette espèce est semblable à celle relevée dans d'autres parties de la Méditerranée. On suppose que des facteurs environnementaux et écologiques (par exemple, température de l'eau, effet des lâchers de prédateurs) peuvent influencer le stock, outre la mortalité par pêche, et rendre difficile l'évaluation du stock. Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 07 (Golfe du Lion)	<i>Merluccius merluccius</i>	Captures, effort, fréquence des longueurs, campagnes de chalutage.	Structure par taille des débarquements commerciaux (Données de capture des chalutiers, trémailleurs et palangriers français et espagnols) 1998-2010 CPUE des chalutiers commerciaux et de la campagne MEDITS.	Analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité et faible abondance; pression de pêche actuelle (1,43) supérieure à F0.1 (0,19) et à Fmax (0,29).	Réduire la surpêche du potentiel de croissance en: - améliorant le mode de pêche des chalutiers afin de porter la taille minimum des captures à la valeur minimale légale pour les poissons débarqués; - interdisant la pêche dans les alevinières, au moins temporairement; - réduisant l'effort de chalutage, le temps passé en mer, le nombre d'unités de pêche, la puissance des moteurs, la puissance de traction et/ou la taille des chaluts. Pour éviter la surpêche des recrues: - Réduire l'effort des palangriers et des trémailleurs afin d'accroître (ou au moins de maintenir) la BFS; - Établir des fermetures temporaires de la pêche à la palangre et aux filets maillants durant la période de frai maximal (fin automne et début hiver, période de frai maximal)- Gel de l'effort dans la zone de pêche à accès réglementé.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 07 (Golfe du Lion)	<i>Mullus barbatus</i>	Captures, fréquence des longueurs.	Structure par taille des débarquements commerciaux (données de capture des chalutiers français et espagnols). CPUE de la campagne MEDITS.	APV, analyse étendue des survivants (XSA) et analyse du rapport Y/R.	Surexploité et abondance intermédiaire; pression de pêche (0,85) supérieure à F0.1 (0,45) et inférieure à Fmax (1,68).	Réduire la pression de pêche actuelle pour la porter à F0.1.	Le groupe a noté une augmentation de la BFS, ce qui a suscité des doutes sur les résultats de la XSA. La tendance de la campagne MEDITS était la même que celle de la BFS. Il est assez étrange qu'avec une surexploitation aussi élevée la tendance de la BFS soit à la hausse. Le groupe de travail a approuvé l'évaluation et les recommandations.		Pas d'autres observations. Approuvé.
Sous-région 09 (mer ligurienne et mer tyrrhénienne Nord)	<i>Merluccius merluccius</i>	Fréquence des longueurs, campagnes.	Structure par taille des débarquements commerciaux 2005-2010 CPUE des chalutiers commerciaux et de la campagne MEDITS 1994-2010.	XSA pour 2004-2010 Analyse de cohortes de taille – Analyse des pseudo-cohortes (VIT) rapport Y/R; modèle SURBA (1994-2010).	Surexploité; pression de pêche actuelle (1,5-2) supérieure à F0.1 (0,22) et à Fmax (0,35).	Il est recommandé de réduire la pression de pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
	<i>Mullus barbatus</i>	Captures, effort et campagnes de chalutage.	1994-2010	Modèle de production non équilibrée et analyse de cohortes de taille.	Surexploité; pression de pêche actuelle (0,54) supérieure à Fmsy (0,47) B2010/Bmsy = 0,60	Il est recommandé de réduire la pression de pêche.	Le groupe de travail a approuvé l'évaluation et les recommandations.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.
Sous-région 09 (mer ligurienne et mer tyrrhénienne Nord)	<i>Mullus surmuletus</i>	Fréquence des longueurs, campagnes.	Structure par taille des débarquements commerciaux 2009-2010.	Analyse de cohortes de taille – analyse des pseudo-cohortes (VIT) rapport Y/R;	Surexploité; pression de pêche actuelle (0,56-0,71) supérieure à F0.1 (0,35) et inférieure à Fmax (1,00).	Il est recommandé de réduire la pression de pêche.	Le groupe de travail a approuvé l'évaluation et les recommandations.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.
	<i>Galeus melastomus</i>	Fréquence des longueurs.	2009-2010	Analyse de cohortes de taille et rapport Y/R.	Surexploité – pression de pêche (0,35) inférieure à F0.1 (0,10).	Il est recommandé de réduire la pression de pêche. Réduire les captures dans les zones où des juvéniles sont concentrés.	Le groupe de travail a approuvé l'évaluation et les recommandations.	Le Sous-Comité approuve l'évaluation et les recommandations y afférentes du groupe de travail. La réduction conseillée des captures dans les zones où les juvéniles sont concentrés devrait s'appuyer sur une carte indiquant la répartition géographique des juvéniles.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
	<i>Aristeus antennatus</i>	Fréquence des longueurs.	2009-2010	Analyse de cohortes de taille et rapport Y/R.	Surexploité – pression de pêche (0,62) inférieure à F0.1 (0,32).	Il est recommandé de réduire la pression de pêche.	Le groupe de travail a approuvé l'évaluation et les recommandations.	Le SCES a approuvé l'évaluation présentée au groupe de travail. Dans le rapport du groupe de travail, dans le diagnostic de l'état du stock, il faudrait remplacer 'taux d'exploitation' par 'taux de mortalité par pêche'.	Pas d'autres observations. Approuvé.
	<i>Nephrops norvegicus</i>	Fréquence des longueurs, campagnes de chalutage.	Fréquence des longueurs 2006-2010; Fréquence des longueurs provenant des campagnes de chalutage 1994-2010.	Analyse de cohortes de taille – analyse des pseudo-cohortes (VIT) rapport Y/R; modèle SURBA.	Surexploité; pression de pêche actuelle = 0,35 supérieure à F0.1 (0,21).	Il est recommandé de réduire la pression de pêche.	Le groupe de travail a approuvé l'évaluation et les recommandations.	Le Sous-Comité a recommandé d'utiliser pour l'évaluation de l'état du stock d'espèces sédentaires une échelle spatiale moins vaste que celle de la sous-région géographique. Approuvé.	Pas d'autres observations. Approuvé.
	<i>Parapenaeus longirostris</i>	Fréquence des longueurs et campagnes de chalutage.	Fréquence des longueurs 2006-2010; fréquence des longueurs dans les campagnes de chalutage 1994-2010.	XSA, analyse de cohortes de taille, analyse des pseudo-cohortes (VIT) rapport Y/R; modèle SURBA.	Sous-exploité; pression de pêche actuelle = 0,40 en 2009 et 0,29 en 2010 inférieure à F0.1 (0,78).	La pression de pêche actuelle est jugée faible et semble assurer de bons rendements et une situation sûre. Dans tous les cas, il est conseillé, en vertu du principe de précaution, de maintenir la pression de pêche sur ce stock au niveau actuel.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Le Sous-Comité recommande de remplacer, dans l'état du stock, l'expression « sous-exploité » par « exploitation durable ».	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 12/13 (Nord et Est de la Tunisie)	<i>Shpyraean sphyraena</i>	Fréquence des longueurs.	Fréquence des longueurs 2006-2008.	Analyse de cohortes de taille et rapport Y/R.	Surexploité.	Il est recommandé de réduire la pression de pêche (de 40 % au Nord et de 60 % à l'Est).	Le groupe de travail a approuvé l'évaluation et les recommandations.	Le Sous-Comité approuve l'évaluation et recommandations du groupe de travail. Toutefois, il faudrait utiliser comme point de référence F0.1 au lieu de Fmax.	Pas d'autres observations. Approuvé.
Sous-région 12/13/14/15/16 (Déroit de Sicile)	<i>Parapenaeus longirostris</i>	Fréquence des longueurs, campagnes de chalutage.	2007-2010	Analyse de cohortes de taille – Analyse des pseudo-cohortes (VIT et ANALEN) et rapport Y/R.	Surexploité; pression de pêche actuelle (1,21) supérieure à F0.1 (0,95).	Une réduction d'environ 20 % est jugée nécessaire pour revenir à F0.1. Il faut aussi améliorer le mode d'exploitation de la pêcherie. Il est conseillé de protéger les alevinières établies des bancs de l'Aventure et de Malte dans le déroit de Sicile.	Il faudra à l'avenir recourir à une approche basée sur les campagnes de chalutage pour obtenir des résultats plus solides. Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 15/16 (Déroit de Sicile)	<i>Mullus barbatus</i>	Fréquence des longueurs, BFS et indices sur le recrutement provenant des campagnes de chalutage.	Fréquence des longueurs 2006-2010; campagnes de chalutage 1994-2010.	Analyse de cohortes de taille – analyse des pseudo-cohortes (VIT) et rapport Y/R.	Surexploité; pression pêche actuelle = 0,78 (moyenne 2006-2010) supérieure à F0.1 (0,45). Tendance à la hausse de la BFS et du recrutement ces années était supérieure à celle enregistrée dans les années 1990.	Il est recommandé de réduire la pression de pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.
	<i>Pagellus erythrinus</i>	Fréquence des longueurs, BFS, et indices sur le recrutement provenant des campagnes de chalutage.	Fréquence des longueurs 2006-2010; campagnes de chalutage 1994-2010.	Analyse de cohortes de taille – analyse des pseudo-cohortes (VIT) et rapport Y/R.	Surexploité; pression de pêche actuelle = 0,60 (moyenne 2006-2010) supérieure à F0.1 (0,30) Pas de signe de baisse de la BFS et du recrutement ces dernières années.	Il est recommandé de réduire la pression de pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 15/16 (Déroit de Sicile)	<i>Aristaeomomorphaceae</i>	Fréquence des longueurs et campagnes de chalutage.	Fréquence des longueurs 2006-2010; fréquence des longueurs des campagnes de chalutage 1994-2010.	Analyse de cohortes de taille – analyse des pseudo-cohortes (VIT) rapport Y/R; modèle SURBA.	Surexploité; pression de pêche actuelle = 1,00 (valeur 2010) supérieure à F0.1 (0,40) BFS et recrutement faibles de 2002 à 2010.	Il est recommandé de réduire la pression de pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.
Sous-région 17 (Adriatique Nord)	<i>Solea solea</i>	Fréquence des longueurs et campagnes de chalutage.	2005-2010	XSA, Analyse de cohortes de taille – Analyse des pseudo-cohortes (VIT) rapport Y/R; modèle SURBA.	Surexploité; pression de pêche actuelle (1,34-1,20) supérieure à F0.1 (0,24-0,26) et Fmax (0,38-0,46).	Il est recommandé de réduire la pression de la pêche, notamment chez les chaluts de type rapido. Il est conseillé d'interdire le chalutage rapido pour deux mois sur 11 km au large des côtes italiennes après l'interdiction de la pêche pour repos biologique afin de réduire la proportion de juvéniles dans les captures.	Le groupe de travail attire l'attention sur l'utilisation de données provenant de la partie orientale du bassin. Il souligne en outre la nécessité d'élargir les campagnes de chalutage rapido à 12 milles nautiques au large des côtes de Croatie, comme cela avait été fait en 2005 et 2006.	Pas d'autres observations. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 18 (Adriatique Sud)	<i>Merluccius merluccius</i>	Fréquence des longueurs et campagnes de chalutage.		Logiciel SURBA, modèle ALADYM, logiciel VIT et procédure de routine mise au point par le groupe de travail du SGMED.	Surexploité; pression de pêche actuelle (0,87) supérieure à $F_{0.1}$ (0,21) et à F_{max} (0,27). Des simulations ALADYM montrent qu'après une diminution des captures à court terme, la tendance de la productivité est à la hausse et atteint des niveaux plus élevés que les valeurs du début de la série chronologique avec une amélioration de la productivité du stock et de la biomasse féconde du stock.	Réduire la mortalité par pêche en limitant les opérations de pêche et si possible en réduisant la capacité de pêche. La pression est essentiellement due aux chalutiers d'eau profonde italiens, qui représentent environ 85 % de la pression de pêche totale dans la sous-région, et aux palangriers italiens, qui comptent pour environ 7-8 % de la pression de pêche (au total 92-93 %). Les chalutiers du Monténégro représentent environ 1 % de la pression de pêche et les chalutiers albanais quelque 6,5 %.	L'évaluation fournit une vaste gamme d'analyses utiles aux gestionnaires dans le processus décisionnel. Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Étant donné que les flottilles des trois pays (Albanie, Italie et Monténégro) participent à la pêche au merlu dans la sous-région 18, les avis de gestion devraient tenir compte des différentes situations des trois pays. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 25 (Chypre)	<i>Mullus barbatus</i>	Fréquence des longueurs.	2005-2010	APV séparable pour la période 2005-2010, APV - analyse des pseudo-cohortes et du rapport Y/R pour 2009 et 2010.	Surexploité; pression de pêche actuelle (0,43-0,46) supérieure à F0.1 (0,33) et inférieure à Fmax (0,51).	Le stock est surexploité, considérant que la pression de pêche actuelle devrait être réduite de 24 % (sur la base de l'analyse du rapport Y/R de 2010) ou de 28 % (sur la base de l'analyse du rapport Y/R de 2009) pour parvenir au point de référence F0.1.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.		Pas d'autres observations. Approuvé
Sous-région 25 (Chypre)	<i>Mullus surmuletus</i>	Fréquence des longueurs.	2009-2010	APV - analyse des pseudo-cohortes et du rapport Y/R pour 2009 et 2010.	Surexploité; pression de pêche actuelle (0,42-0,49) supérieure à F0.1 (0,22-0,23) et inférieure à Fmax (0,32-0,34).	Réduire la pression de pêche actuelle de 53 % (résultats de 2010) ou de 48 % (résultats de 2009) pour parvenir au point de référence F0.1.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.		Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
	<i>Spicara smaris</i>	Fréquence des longueurs.	2005-2010	APV - analyse des pseudo-cohortes et du rapport Y/R pour 2005-2007 et 2008-2010.	Pleinement exploité en 2005-2007 avec $F_{cur} = 0,19$, $F_{max} = 0,38$ et $F_{0.1} = 0,19$. Surexploité en 2008-2010 avec $F_{cur} = 0,37$, $F_{max} = 0,40$ et $F_{0.1} = 0,24$. Surexploité en 2005-2007 avec $F_{cur} = 0,57$, $F_{max} = 0,38$ et $F_{0.1} = 0,24$.	Selon l'analyse des phases de transition, une réduction d'environ 15 % (10-20 %) de la pression de pêche actuelle permettrait de revenir à $F_{0.1}$. Pour y parvenir, il faut réduire les navires de pêche de 6 à 12 m (longueur hors tout) et les chalutiers de 12 à 24m (longueur hors tout) titulaires d'une licence. Il importe aussi d'augmenter la sélectivité.	Le groupe de travail recommande d'améliorer les analyses en utilisant une approche en condition d'équilibre (APV ou XSA). Le groupe de travail a approuvé l'évaluation et les recommandations.	Le Sous-Comité approuve cette évaluation comme une évaluation provisoire compte tenu des incohérences qui figurent dans les résultats des analyses sur les deux séries de données. Il est conseillé d'effectuer une analyse VIT pour chaque année (séparément) afin de mieux évaluer la cohérence de l'hypothèse sur le stock en condition d'équilibre.	Pas d'autres observations. Approuvé.
	<i>Boops boops</i>	Fréquence des longueurs.	2005-2010	APV - analyse des pseudo-cohortes et du rapport Y/R pour 2005-2007 et 2008-2010.	Surexploité en 2008-2010 avec $F_{cur} = 0,37$, $F_{max} = 0,39$ et $F_{0.1} = 0,24$	Réduire la pression de pêche dans les pêcheries artisanales. Selon l'analyse de la transition, réduire d'environ 15 % (10-20 %) la pression de pêche actuelle permettrait de revenir à $F_{0.1}$. Pour y parvenir, il faut réduire les navires de pêche de 6 à 12 m (longueur hors tout) titulaires d'une licence et augmenter la sélectivité.	Le groupe de travail recommande d'améliorer les analyses en utilisant une approche en condition d'équilibre (APV ou XSA). Le groupe de travail a approuvé l'évaluation et les recommandations.		Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 26 (Sud du Levant)	<i>Pagellus erythrinus</i>	Fréquence des longueurs et campagnes de chalutage.	2006-2007	Z par la courbe de capture convertie en longueur et M a été estimé à l'aide de l'équation de Pauly. Modèle Y/R de Beverton et Holt et analyse relative du rapport Y/R (sélection en lame de couteau).	Surexploité; pression de pêche actuelle (0,55-0,72) supérieure à F0.1 (0,27-0,30) et Fmax (0,54-0,57)	Réduire la mortalité par pêche de 45 % (toute la côte égyptienne) et de 60 % (zone de Port Saïd). Améliorer le mode d'exploitation.	Le groupe de travail a approuvé l'évaluation et les recommandations.	Le Sous-Comité recommande de renforcer la collecte de données afin d'améliorer la qualité de l'évaluation. Le Coordonnateur du projet EastMed a souligné que l'évaluation actuelle avait été pilotée par le personnel du projet et bien que les données concernent les années précédentes, elles ont été utilisées au mieux.	Pas d'autres observations. Approuvé

Tableau 2

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 03 (Mer d'Alboran Sud)	<i>Sardina pilchardus</i>	Captures, effort, fréquence des longueurs.	2003-2010	Analyse des pseudo-cohortes (analyse de cohortes de taille, VIT), rapport Y/R)	Taux d'exploitation: modéré à l'Est, élevé à l'Ouest; niveau de la biomasse: plus faible que l'année précédente; pleinement exploité.	- Maintenir l'effort de pêche actuel; - Réduire la mortalité par pêche des poissons en période de frai - Introduire des fermetures saisonnières en janvier, la plus importante période de frai;	Le groupe de travail approuve l'évaluation et les recommandations y afférentes.	Pas d'autres observations. Approuvé.	Le délégué du Maroc fait observer qu'il faudrait indiquer des options de gestion de caractère général, en évitant d'être trop spécifiques quant à la définition de la mesure de gestion.
Sous-région 06 (Nord de l'Espagne)	<i>Engraulis encrasicolus</i>	Captures, effort, fréquence des longueurs, campagnes d'écho-sondage.	2002-2009	Analyse étendue des survivants (XSA), ajustée par méthode acoustique.	L'abondance du stock est jugée faible tandis que le taux d'exploitation est incertain. Pleinement exploité.	Ne pas intensifier l'effort de pêche. Bien que la pression de pêche semble assez stable, on relève des fluctuations dans la biomasse.	Le groupe de travail approuve l'avis et la recommandation pour ce stock. Il encourage à améliorer la qualité des données utilisées pour l'analyse en ce qui concerne la longueur des séries chronologiques et les données biologiques utilisées (clés d'identification âge-longueur).	Le Sous-Comité approuve la recommandation du groupe de travail visant à résoudre les problèmes de vieillissement en obtenant des clés d'identification âge-longueur plus fiables dans la zone. Le Sous-Comité a débattu du manque de point de référence à l'appui du diagnostic de l'état du stock (pleinement exploité).	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 06 (Nord de l'Espagne)	<i>Sardina pilchardus</i>	Captures, effort, fréquence des longueurs, campagnes d'écho-sondage.	2002-2009	Analyse étendue des survivants (XSA), ajustée par méthode acoustique.	Taux d'exploitation: élevé; niveau de la biomasse: la valeur la plus faible dans les séries chronologiques; surexploité.	Réduire l'effort de pêche jusqu'à ce que le recrutement augmente.	Le groupe de travail a détecté un danger de surexploitation des recrues compte tenu de la tendance à la baisse du recrutement et des niveaux très faibles du stock reproducteur. Il recommande aussi qu'une série de tests soient effectués pour l'examen futur de la fiabilité de l'évaluation. Le groupe de travail a approuvé l'évaluation et les recommandations y afférentes.	Le Sous-Comité a noté la tendance à la baisse des débarquements, de la BFS et du recrutement reconnaissant le risque d'un épuisement du stock. L'avis ne reflétait pas les résultats des évaluations ni le diagnostic du stock (surexploité) qui indiquaient clairement la nécessité de réduire la mortalité par pêche à la valeur la plus faible possible.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 07 (Golfe du Lion)	<i>Engraulis encrasicolus</i>	Campagnes d'écho-sondage et captures.	1998-2010	Rapport entre biomasse en mer et prélèvements (prises/ biomasse).	Taux d'exploitation: modéré; niveau de la biomasse: faible; pleinement exploité.	Ne pas intensifier l'effort de pêche.	Le groupe de travail approuve l'évaluation et les recommandations y afférentes. Il reconnaît également que les changements dans l'écosystème pélagique de cette zone sont étayés et suggère d'effectuer d'autres études écologiques afin de clarifier l'état de l'écosystème.	Le Sous-Comité a approuvé l'évaluation mais propose de remplacer, dans l'état du stock, l'expression «en phase de reprise», par «pleinement exploité».	La structure démographique des anchois est très déséquilibrée depuis 2009 avec très faible abondance d'individus plus gros correspondant à l'âge 2+ dans les débarquements. Le groupe d'âge 1 représente plus de 60 % de la biomasse totale estimée. L'analyse de différents types d'indicateurs biologiques a indiqué une baisse des longueurs moyennes par classe d'âge, distorsion du rapport des sexes et diminution de l'indice de condition et taux de croissance ainsi qu'une taille inférieure à la première taille de maturité par rapport aux valeurs observées précédemment (formulaire d'évaluation du stock). Ce stock devrait être considéré comme pleinement exploité et non pas en phase de reprise.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 07 (Golfe du Lion)	<i>Sardina pilchardus</i>	Campagnes d'écho-sondages et captures.	1998-2010	Rapport entre biomasse en mer et prélèvements (prises/biomasse).	Taux d'exploitation: très faible; niveau de la biomasse: très faible avec tendance à la baisse. Quasi épuisé; pleinement exploité.	Ne pas intensifier l'effort de pêche jusqu'à ce que le système se stabilise ou montre des signes de reprise.	Le groupe de travail a approuvé l'évaluation et les recommandations. Il reconnaît également que les changements dans l'écosystème pélagique de cette zone sont étayés et suggère d'effectuer d'autres études écologiques afin de clarifier l'état de l'écosystème.	Le Sous-Comité a approuvé l'évaluation, recommandant de changer l'état du stock de 'pleinement exploité' à 'épuisé' comme en témoigne la réduction drastique des captures et de la biomasse et donc de l'activité de pêche.	Pas d'autres observations. Approuvé.
Sous-région 16 (Déroit de Sicile)	<i>Engraulis encrasicolus</i>	Campagnes d'écho-sondages et captures.	1998-2010	Production excédentaire incluant un rapport entre anomalies environnementales et prélèvements (prises/biomasse).	Taux d'exploitation élevé (rapport entre le volume total des débarquements et les estimations de la biomasse): forte mortalité par pêche. FCur/Fmsy = 1,76 Abondance du stock (estimation de la biomasse par sondage acoustique): abondance intermédiaire BCur/Bmsy = 0,85 Surexploité.	Ne pas autoriser l'augmentation de l'effort de pêche et déterminer les prises conformes. Empêcher un retour de l'effort de pêche des anchois aux sardines.	Le groupe de travail approuve l'avis et la recommandation donnés pour ce stock. Aucune limite spécifique ou point de référence de précaution n'a été approuvé pour les espèces de petits pélagiques dans le cadre de la CGPM. L'ajustement de la production excédentaire est faible.	Le Sous-Comité approuve l'évaluation et les recommandations y afférents du groupe de travail, et propose de modifier la dernière phrase qui contient une contradiction évidente dans l'avis donné dans le rapport d'évaluation du groupe de travail, le terme « anchois » doit être compris comme «sardines».	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
	<i>Sardina pilchardus</i>	Campagnes d'écho-sondages et captures	1998-2010	Modèle de production excédentaire incluant un rapport entre anomalies environnementales et prélèvements (prises/biomasse)	Taux d'exploitation (rapport entre le volume total des débarquements et estimations de la biomasse): Mortalité par pêche modérée. $F_c/F_{msy}(2010) = 0,22$. Abondance du stock (estimation de la biomasse par sondage acoustique): abondance intermédiaire $B_c/B_{msy}(2010) = 0,48$. Pleinement exploité.	Ne pas autoriser l'augmentation de l'effort de pêche et déterminer les prises conformes. Empêcher un nouveau transfert de l'effort de pêche des anchois vers les sardines.	Le groupe de travail approuve l'avis et la recommandation. Le groupe de travail a apprécié l'utilisation du modèle de production excédentaire avec inclusion du facteur environnemental qui améliore l'ajustement du modèle de production. Il recommande que l'on essaie d'estimer un point de référence B-Lim car cela aidera à formuler un avis en ce qui concerne l'état actuel du stock.	Le Sous-Comité a approuvé l'évaluation et les recommandations y afférentes. Il a aussi examiné l'utilisation d'un Bmsy (point de repère limite provisoire) de 40 % comme point de référence limite technique pour les stocks de petits pélagiques, recommandant que ce repère soit testé par le groupe de travail sur les petits pélagiques à sa prochaine réunion.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 17 (Adriatique Nord)	<i>Sardina pilchardus</i>	Captures, effort, fréquence des longueurs, ALK, campagnes d'écho-sondages.	1975-2010 (données de capture) 2004-2010 (campagnes d'écho-sondages).	APV avec la méthode Laurec-Shepherd; Analyse intégrée des captures (ICA).	Taux d'exploitation (rapport entre le volume total des débarquements et estimations de la biomasse): modéré Abondance du stock (APV et estimation de la biomasse par sondage acoustique): abondance faible. Pleinement exploité.	Ne pas intensifier l'effort de pêche. Tenir compte des interactions avec les pêcheries d'anchois.	Le groupe de travail approuve l'avis et la recommandation. Il suggère que les évaluations futures tiennent compte des données combinées des sous-régions 17 et 18. Il suggère également de continuer à évaluer les rapports entre le recrutement et l'environnement.	Le Sous-Comité approuve l'évaluation et les recommandations y afférentes du groupe de travail. L'avis devrait se rapporter à la mortalité par pêche et non pas directement à l'effort de pêche, autrement il faudrait mentionner tant l'effort de pêche que les captures. Approuvé.	Pas d'autres observations. Approuvé.
Sous-région 17 (Adriatique Nord)	<i>Engraulis encrasicolus</i>	Captures, effort, LFD, ALK, campagnes d'écho-sondages.	1975-2010 (Données de captures) 2004-2010 (campagnes d'écho-sondage).	APV ajustée par la méthode de Laurec-Shepherd; analyse intégrée des captures (ICA).	Taux d'exploitation (rapport entre le volume total des débarquements et les estimations de la biomasse): modéré - Abondance du stock (APV et estimation de la biomasse par sondage acoustique): abondance intermédiaire. Pleinement exploité.	Ne pas intensifier l'effort de pêche. Tenir compte des interactions avec les pêcheries de sardines.	Le groupe de travail approuve l'avis et la recommandation. Il suggère que les évaluations futures tiennent compte des données combinées des sous-régions 17 et 18. Il suggère également de continuer à évaluer les rapports entre le recrutement et l'environnement.	Le Sous-Comité approuve l'évaluation et les recommandations y afférentes du groupe de travail. L'avis devrait se rapporter à la mortalité par pêche et non pas directement à l'effort de pêche, autrement il faudrait mentionner tant l'effort de pêche que les captures. Approuvé.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 18 (Adriatique Sud)	<i>Engraulis encrasicolus</i>	Campagnes d'écho-sondages et DEPM.	Partie occidentale 1987-2010 (données de capture) 1987-2010 (campagnes d'écho-sondage) Partie orientale 2002, 2004, 2005, 2008, 2010) (campagnes d'écho-sondage) DEPM (2005, 2008, 2010).	Estimations de la biomasse et des captures.	Taux exploitation (rapport entre le volume total des débarquements et les estimations de la biomasse): modéré Abondance du stock (DEPM et estimation de la biomasse par sondage acoustique): modérément exploité avec incertitude concernant le taux exploitation.	Ne pas intensifier l'effort de pêche dans la partie occidentale - faible abondance.	Le groupe de travail approuve les conclusions et les recommandations. Il faut améliorer la collecte de données sur les captures. Il recommande de continuer les deux évaluations directes de la biomasse des anchois, en contrôlant la fiabilité de la fréquence du frai obtenue par les enquêtes sur les œufs et les larves et en effectuant une comparaison croisée des estimations finales des deux méthodes. Le groupe de travail recommande également de se procurer des estimations annuelles du taux de prélèvement.	Le SC a estimé l'identification du stock dans la sous-région 18 pas claire. Les participants sont convenus de la nécessité de fournir des estimations de la BFS sur la base des stocks et pas au niveau des pays. Le SC a mis en relief l'incertitude de l'évaluation et l'insuffisance des connaissances sur l'état du stock et a considéré l'évaluation préliminaire. En tout état de cause, en vertu du principe de précaution, l'avis devrait être: ne pas augmenter la mortalité par pêche. Le SC a souligné nécessité de fusionner sous-régions 17 et 18.	Pas d'autres observations. Approuvé.

Sous-région géographique	Espèce	Type de données	Années	Méthodologie appliquée	État du stock	Avis de gestion	Observations du groupe de travail	Observations du Sous-Comité	Observations du Comité scientifique consultatif
Sous-région 18 (Adriatique Sud)	<i>Sardina pilchardus</i>	Campagnes d'écho-sondages et DEPM.	Partie occidentale 1987-2010 (données de capture) 1987-2010 (campagnes d'écho-sondage) Partie orientale 2002-2010, (campagnes d'écho-sondage).	Estimations de la biomasse et des captures.	Taux exploitation (rapport entre le volume total des débarquements et les estimations de la biomasse): modéré Abondance du stock (DEPM et estimation de la biomasse par sondage acoustique): modérément exploité avec incertitude concernant le taux exploitation.	Ne pas intensifier l'effort de pêche dans la partie occidentale.	Le groupe de travail approuve les conclusions et les recommandations. Cependant, l'évaluation est considérée incertaine, étant donné qu'il est difficile d'évaluer la relation entre les stocks récents et les captures dans la zone concernée. Il faut améliorer la qualité et disponibilité de données de capture des débarquements. Le taux d'exploitation devrait être calculé chaque année sur la base des campagnes et des données des débarquements. Le groupe de travail suggère que les évaluations futures prennent en considération les données combinées des sous-régions 17 et 18.	Le SC a estimé l'identification du stock dans la sous-région 18 pas claire. Les participants sont convenus de la nécessité de fournir des estimations de la BFS sur la base des stocks et pas au niveau des pays. Le SC a mis en relief l'incertitude de l'évaluation et l'insuffisance des connaissances sur l'état du stock et a considéré l'évaluation préliminaire. En tout état de cause, en vertu du principe de précaution, l'avis devrait être: ne pas augmenter la mortalité par pêche. Le SC a souligné nécessité de fusionner sous-régions 17 et 18.	Pas d'autres observations. Approuvé.

60. M. Farrugio a indiqué que les stocks d'espèces démersales étaient en situation de surexploitation, tandis que les petits pélagiques faisaient l'objet d'une exploitation plus viable. Il a également souligné qu'il était important d'inclure des données biologiques et socio-économiques dans les modèles bioéconomiques, afin d'évaluer différents scénarios de gestion.

61. Certaines délégations se sont déclarées favorables à la possibilité d'envisager, en plus du contrôle de l'effort, des mesures de gestion telles que les clôtures saisonnières, l'amélioration de la sélectivité, y compris la possibilité de limiter les captures dans le cas spécifique de certaines espèces comme les petits pélagiques, sans jamais omettre de tenir compte des effets socio-économiques de leur éventuelle application.

62. Une proposition a été présentée quant à la nécessité de fixer des limites de capture pour les stocks de petits pélagiques, pour tenir compte du taux approprié d'exploitation ou de prélèvement, quand il s'avère souhaitable de réduire la mortalité par pêche. À l'issue d'un débat nourri, le CSC a recommandé l'examen de différents scénarios de gestion, dont ceux fondés sur la production halieutique (par exemple la limitation des captures), et ceux reposant sur les intrants (par exemple l'effort de pêche, les mesures techniques).

63. Mme Gabriella Bianchi, de la FAO, a rappelé une étude réalisée par la FAO, en collaboration avec la Banque mondiale, sur les pertes économiques résultant de différentes mesures de gestion ayant une incidence négative sur les pêches à l'échelle mondiale. Elle a suggéré que des études analogues soient effectuées à l'avenir pour analyser les effets positifs potentiels d'une gestion avisée et durable des pêches.

64. Les recommandations de l'Atelier sur l'évaluation des stocks de certaines espèces d'élastomobranches ont été approuvées, et sont reproduites ci-dessous.

Résumé des évaluations présentées et/ou effectuées durant l'atelier sur l'évaluation des stocks d'éla smobranches

Stock	Sous-région géographique	Données	Méthode et logiciel	Point de référence	État du stock	Avis et recommandation
<i>Raja asterias</i> °	9 Mer ligurienne et mer tyrrhénienne Nord	Indices d'abondance d'après 28 ans de campagnes de chalutage et 20 ans de captures commerciales. Structure par âge des captures commerciales sur 2 ans. Paramètres biologiques. Croissance, mortalité naturelle, fécondité par âge.	$F_{rm=0}$ avec matrice de Leslie, Z avec courbe de captures, et $F_{0.1}$ avec rapport Y/R Logiciels: poptools et YPR NOAA.		Surexploité.	Réduire la pression de pêche.
<i>Raja clavata</i> °	9 Mer ligurienne et mer tyrrhénienne Nord	Composition par taille d'après des campagnes de chalutage et indices d'abondance d'après 20 ans de captures commerciales. Paramètres biologiques. Croissance, mortalité naturelle, fécondité par âge.	$F_{rm=0}$ avec matrice de Leslie, Z avec SEINE et $F_{0.1}$ avec rapport Y/R Logiciels: poptools et YPR NOAA.	$F_{rm} = 0$ $F_{30\%BFS}$ et $F_{0.1}$	Surexploité.	Réduire la pression de pêche.
<i>Scyliorhinus canicula</i> °	9 Mer ligurienne et mer tyrrhénienne Nord	Composition par taille d'après des campagnes de chalutage et 2 ans de captures commerciales. Paramètres biologiques. Croissance, mortalité naturelle, fécondité par âge.	$F_{rm=0}$ avec matrice de Leslie, Z avec SEINE et $F_{0.1}$ avec rapport Y/R Logiciels: poptools et YPR NOAA.	$F_{rm} = 0$ $F_{30\%BFS}$ et $F_{0.1}$	Surexploité.	Réduire la pression de pêche.
<i>Galeus melastomus</i> °	9 Mer ligurienne et mer tyrrhénienne Nord	Composition par taille d'après des campagnes de chalutage et 2 ans de captures commerciales. Paramètres biologiques. Croissance, mortalité naturelle, fécondité par âge.	$F_{rm=0}$ avec matrice de Leslie, Z avec SEINE et $F_{0.1}$ avec rapport Y/R Logiciels: poptools et YPR NOAA.	$F_{rm} = 0$ $F_{30\%BFS}$ et $F_{0.1}$	Surexploité.	Réduire la pression de pêche.
<i>Raja clavata</i> °	15, 16 Malte et Sud de la Sicile	Distribution par taille et abondance selon campagnes de chalutage. Paramètres biologiques. Courbe de croissance, L/W, M.	Courbe de captures et analyse du rapport Y/R Logiciel: LFDA et productivité selon CEFAS-FAO.	F_{max} , $F_{0.1}$, $F_{30\%BFS}$	Surexploité.	Réduire la pression de pêche.
<i>Scyliorhinus canicula</i> *	4 Algérie	Distribution par taille et abondance d'après des campagnes de chalutage. Paramètres biologiques. Courbe de croissance, L/W, M.	Courbe de captures et analyse du rapport Y/R Logiciel: LFDA et YPR NOAA.	F_{max} , $F_{0.1}$, $F_{30\%BFS}$	Surexploité.	Réduire la pression de pêche.
<i>Glaucostegus cemiculus</i> *	14 Golfe de Gabès	Distribution par taille/âge, captures commerciales, campagnes de chalutage, paramètres biologiques. Courbe de croissance, L/W, M, fécondité.	Courbe de captures et analyse du rapport Y/R Logiciels: VIT et YPR NOAA.	F_{max} , $F_{0.1}$, $F_{30\%BFS}$	Sous-exploité.	Pas de recommandations.
<i>Squalus acanthias</i> *	29 Mer Noire	Distribution par taille/âge, captures commerciales, campagnes de chalutage, paramètres biologiques. Courbe de croissance, L/W, M.	Courbe de captures et analyse du rapport Y/R Logiciels: VIT et YPR NOAA.	F_{max} , $F_{0.1}$, $F_{30\%BFS}$	Incertain compte tenu de la mortalité naturelle très variable dans les séries chronologiques.	Renforcer les connaissances sur l'influence des interactions environnement-espèces sur l'abondance et la survie.

65. À cet égard, et en tenant compte de la nécessité d'assurer meilleure connaissance et suivi des captures et de la pêche des élasmobranches, ainsi que de la nécessité d'agir de manière cohérente avec les objectifs de conservation soulignés par l'inscription de la plupart des espèces dans les annexes II et III du Protocole ASP/BD, le délégué de l'UE a souligné l'importance que ces espèces sont conservées à bord et débarquées de manière à faciliter l'identification des espèces. Dans ce cadre, une attention particulière devrait être accordée afin d'éviter la manipulation de l'animal pris, comme par exemple le dépouillement, l'enlèvement des nageoires et des goulottes, qui rendent alors difficile, voire impossible, l'identification des individus débarqués.

66. Le Comité a passé en revue les recommandations et conclusions de l'Atelier transversal sur la gestion spatiale de la pêche et a discuté de leur portée.

67. L'utilisation des données des SSN en vue des recherches sur la répartition spatiale de l'effort de pêche a été reconnue comme un outil précieux, et fortement recommandée.

68. Certains délégués ont fait valoir qu'en dépit du caractère sensible des données des SSN, le CSC devrait y avoir accès à des fins scientifiques. À cet égard, d'aucuns ont rappelé la Recommandation CGPM/33/2009/7, selon laquelle les données des SSN devaient être transmises au CSC sous forme résumée en vue de ses réunions, y compris celles des sous-comités, aux fins de l'estimation de l'effort de pêche, et à toute autre fin scientifique jugée importante pour son travail. La manière dont ces données devaient être transmises est encore à l'étude, étant donné que plusieurs ateliers et consultations sont en cours d'organisation par la CGPM.

69. Le CSC a pris note de la recommandation formulée par l'Atelier sur la gestion spatiale de l'effort de pêche, visant à protéger au moins 10 pour cent des lieux de pêche profonde des effets des arts trainants, afin de contribuer à la réalisation de l'Objectif 11 du Plan stratégique pour la diversité biologique (2011-2020) de la Convention sur la diversité biologique¹. Sans procéder à une adoption formelle, le CSC a fait valoir que cette question devrait être réexaminée dans le cadre des protocoles d'accord prévus avec les organisations partenaires.

70. Le CSC s'est penché sur la question des propositions de zones de pêche à accès réglementé qu'il n'avait pas validées en raison du manque d'informations pertinentes (comme celle présentée l'an dernier par rapport aux monts sous-marins des Baléares). À cet égard, il a rappelé que les informations sur l'éventuelle évolution des analyses complémentaires devraient lui parvenir par l'entremise de ses groupes de travail et Sous-Comités compétents, plutôt qu'au moyen des rapports nationaux, comme il avait été proposé durant l'Atelier sur la gestion spatiale de la pêche. Sur ce point, le délégué espagnol a informé les participants que le gouvernement espagnol, en collaboration avec l'Institut espagnol d'océanographie (IEO), avait bien progressé dans l'analyse des données procurées par OCEANA et dans l'évaluation des activités de pêche pratiquées dans la zone afin d'améliorer l'état actuel des connaissances comme l'avait suggéré le CSC à sa treizième session.

¹ "D'ici à 2020, au moins 17 pour cent des zones terrestres et d'eaux intérieures et 10 pour cent des zones marines et côtières, y compris les zones qui sont particulièrement importantes pour la diversité biologique et les services fournis par les écosystèmes, sont conservées au moyen de réseaux écologiquement représentatifs et bien reliés d'aires protégées gérées efficacement et équitablement et d'autres mesures de conservation effectives par zone, et intégrées dans l'ensemble du paysage terrestre et marin".

(Convention sur la diversité biologique. Objectif 11: www.cbd.int/sp/targets/).

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

71. Le Coordonnateur du Sous-Comité, M. Vahdet Ünal, a présenté les conclusions et recommandations du Sous-Comité, ainsi que les principaux résultats de l'atelier transversal sur le traitement et l'analyse des données de la Tâche 1.3, en s'appuyant sur les documents GFCM: SAC14/2012/2 et GFCM:SAC14/2012/Inf.7.

72. Le CSC a relevé que même si le taux de participation aux activités du SCSES était en augmentation par rapport aux sessions antérieures, seul un nombre limité de présentations (uniquement axées sur la pêche de loisir) avaient été effectuées, ce qui a nui à l'efficacité des travaux du Sous-Comité. Le Coordonnateur du SCSES a déploré le manque de données (par exemple pour la Tâche 1.3) et souligné qu'il était urgent d'en accroître la disponibilité.

73. En ce qui concerne les conclusions et recommandations générales du SCSES, le CSC a noté que malgré les progrès réalisés par le Sous-Comité, il était nécessaire de déployer de nouveaux efforts pour formuler des avis intégrés incorporant les mesures de contrôle d'exploitation et les aspects économiques. À cet égard, il a été souligné que ses activités devraient être mieux intégrées avec celles des autres Sous-Comités du CSC, ce qui suppose une révision approfondie de ses objectifs et de son fonctionnement.

74. Le Comité s'est félicité de cette initiative et a rappelé l'importance cruciale des sciences socioéconomiques pour la gestion des pêches, notamment compte tenu de leur caractère transversal. Il a réitéré le besoin de renforcer les compétences techniques dans le secteur de compétence de la CGPM et de soutenir plus avant les activités qui y sont liées, en synergie avec d'autres projets, notamment grâce au Programme-cadre de la CGPM à l'appui des activités du Groupe de travail pour la modernisation de la CGPM.

75. Souscrivant à ces commentaires, le CSC a réaffirmé combien il était important d'évaluer les effets socio-économiques des mesures de gestion, notamment en utilisant des modèles bioéconomiques. Toutefois, afin que les travaux du SCSES puissent être plus efficaces au cours des prochaines années, il a été décidé que le Sous-Comité concentrerait uniquement son attention sur un nombre restreint de stocks pour lesquels les données nécessaires sont disponibles et suffisantes, permettant ainsi aux économistes et biologistes d'effectuer des analyses bioéconomiques dans le cadre d'objectifs de gestion bien définis. À ce sujet, le Comité a noté le besoin d'identifier les stocks prioritaires devant faire l'objet de cette modélisation bioéconomique.

76. Concernant la proposition du SCSES de mettre en place un Groupe de travail chargé d'analyser plus en détail les questions juridiques de gestion des pêches, il a été convenu que le projet LaMed pourrait actuellement jouer ce rôle, car il a été conçu pour collecter toutes les informations pertinentes liées à la législation de la pêche afin d'identifier de nouveaux secteurs d'harmonisation potentielle dans la zone de compétence de la CGPM. À ce sujet, il a été rappelé que des tableaux résumant toutes les informations fournies jusqu'à présent au Secrétariat de la CGPM seraient bientôt communiqués aux experts nationaux, afin que le projet soit mené à bien de façon satisfaisante.

77. En ce qui concerne l'utilisation de modèles bioéconomiques, le Comité est convenu de lancer un programme de renforcement des capacités adapté aux besoins et priorités spécifiques des membres, avec l'éventuel appui de projets et programmes régionaux.

78. Concernant les conclusions du SCSES sur les pêches récréatives, le Comité a rappelé qu'il importait de disposer de directives techniques adaptées aux particularités régionales, en tenant compte notamment des *Directives techniques de la FAO pour une pêche de loisirs responsable*, récemment adoptées et bientôt disponibles à la diffusion. Le Comité a souligné une nouvelle fois qu'il était urgent et important de mettre en place un système d'autorisation ou de licence afin de garantir un meilleur suivi des activités de pêche de loisir.

79. Le Comité a reconnu l'importance des retombées économiques de l'écolabellisation des captures et a convenu de faire figurer cette question dans le futur plan de travail du SCSES, avec une attention particulière aux travaux effectués par la FAO à ce sujet.

80. De l'avis général, la priorité devrait être accordée à la pêche artisanale, en raison de l'importance de ce segment dans le secteur des pêches. Toutefois, des questions ont été soulevées quant à la définition à utiliser avant d'entreprendre toute analyse socio-économique du secteur.

81. Pour conclure sur cette question, le Comité est convenu de soumettre l'analyse socioéconomique de la pêche artisanale proposée par le SCSES, sur la base de la définition déjà fournie dans la Tâche 1, qui distingue le segment artisanal en fonction de la longueur du navire (< 12 mètres).

82. En ce qui concerne le projet PESCAMED (*Renforcement de la coopération dans le secteur de la pêche en Méditerranée: le monde du travail, les organisations de producteurs, les associations de consommateurs et la formation*) financé par le Ministère italien de l'agriculture, de l'alimentation et des forêts et mené par le Centre international de hautes études agronomiques méditerranéennes (CIHEAM), le Comité a reconnu l'importance de ces questions et est convenu d'élargir la portée de cette étude à d'autres pays.

83. Pour finir, le Comité a reconnu que les questions relatives au fonctionnement du SCSES devraient être traitées plus en détail dans le cadre des activités du Groupe de travail mis en place pour moderniser l'Accord juridique et institutionnel de la CGPM.

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

84. Le Coordonnateur du Sous-Comité, M. Joël Vigneau, a présenté les conclusions et les recommandations du SCSI en s'appuyant sur les documents GFCM:SAC14/2012/2 et GFCM:SAC14/2012/Inf.6. Il a observé de façon favorable les suites données par la Commission à ses recommandations de l'an dernier. Il a également souligné que la forte participation d'experts au SCSI constituait un élément clé de l'avancée de ses travaux.

85. Le Coordonnateur a informé le Comité des progrès concernant les systèmes de surveillance des navires (SSN), après l'atelier tenu en novembre 2011. Il a brièvement présenté le programme de travail proposé dans ce domaine, qui consistait à identifier diverses activités visant à définir les difficultés et les besoins potentiels d'assistance technique des États Membres, à mettre au point et exécuter le plan de travail et enfin, à réviser ce plan en vue d'interventions futures. Le Secrétariat de la CGPM a fait savoir que de nouveaux documents techniques sur les SSN seraient disponibles à la prochaine réunion de la Commission. Le Comité a souhaité insister sur l'importance d'une normalisation régionale du format de transmission des données des SSN. Il s'est déclaré d'accord avec le SCSI qui a estimé nécessaire de i) mettre au point des méthodes supplémentaires de géocodage des activités des navires de pêche, et de ii) préciser le rôle qui serait attribué à la CGPM en matière de traitement et de gestion des données des SSN, notamment du point de vue de l'aide à fournir aux pays qui ne souhaitaient pas investir dans les équipements nécessaires, compte tenu du petit nombre de navires de fort tonnage dans leur flotte de pêche nationale.

86. Le délégué de l'Égypte a demandé qu'un support économique et technique soit fourni dans le cadre du lancement d'un projet pilote pour l'établissement de SSN au niveau national. Il a expliqué que le lancement d'un tel projet aiderait considérablement son pays dans la mise en œuvre de la Recommandation CGPM/33/2007/7. Le Comité a pris note de la demande et il a été décidé qu'une réunion se tiendra en Égypte avant la trente-sixième session de la Commission afin d'examiner tous les détails techniques et administratifs nécessaires pour la réalisation du projet en question.

87. S'agissant du Plan d'action régional pour la gestion de la capacité de pêche (PAR-Capacité) dans la zone de compétence de la CGPM, le Comité s'est dit favorable à l'idée d'une amélioration du projet de plan d'action, déjà élaboré par l'Atelier sur la capacité de pêche, tenu à Rome en septembre 2010 (Appendice C du document GFCM:SAC13/2011/Inf.15). Le Secrétariat de la CGPM, sera chargé d'accomplir cette tâche avec le concours d'experts. Le Comité a décidé que cette version consolidée du Plan d'action serait examinée à la prochaine réunion de coordination, pour être ensuite soumise à l'examen de la Commission lors de sa trente-sixième session. Il a également souligné qu'il convenait de couvrir l'intégralité du champ d'application de ce Plan d'action régional, et que la CGPM devrait engager les travaux nécessaires à l'établissement d'un plan d'action régional portant, de manière générale, sur la gestion des pêches.

88. Le Comité s'est déclaré favorable à la proposition du SCSI visant à continuer d'utiliser le formulaire STATLANT 37A pour la communication des données de capture, tant que la Tâche 1 ne serait pas pleinement opérationnelle, et en mesure de le remplacer.

89. Le Comité a été informé des conclusions de l'Atelier sur les données de la Tâche 1.3. Il a par ailleurs rappelé que l'analyse des atouts, faiblesses, opportunités et menaces (AFOM) avait été entreprise pour identifier les problèmes et solutions dans le cadre de la collecte des données de la Tâche 1 (voir l'Annexe C du rapport du SCSI). Il a présenté une proposition visant à réviser le cadre et le champ d'application de la Tâche 1 et, éventuellement, de la Tâche 2 (informations biologiques), à la lumière de l'analyse susvisée et des demandes formulées par d'autres Sous-Comités en vue de l'inclusion d'informations supplémentaires. Le mandat des consultants, tel qu'approuvé par le Comité, fait l'objet du plan de travail du SCSI de ce rapport.

90. Le Comité a pris note des difficultés d'application concernant la communication des données de la Tâche 1 et des données sur les flottilles. Sur la base du tableau de transmission de données présenté par le Coordonnateur du SCSI (Annexe E), les délégués ont été invités à donner leur avis sur les points de blocage et/ou sur les initiatives en cours pour une meilleure application des dispositions de la CGPM en matière de communication de données. D'aucuns ont fait valoir que les pays avaient parfois des difficultés à recueillir des données. Dans d'autres pays, des problèmes de communication interne entre les autorités ont été mis en évidence. Sur ce point, le Comité a réitéré une demande déjà formulée en 2011, en vue de la nomination officielle de points focaux nationaux chargés de la communication des données de la Tâche 1. Le Comité a noté un assentiment général à la présentation des informations manquantes, afin d'honorer les dispositions susvisées de la CGPM. Le délégué de l'UE a précisé que la non-communication des données de la Tâche 1 par les États Membres de l'UE constituait une violation de la réglementation européenne sur la collecte de données qui, depuis 2009, pouvait faire l'objet de réductions des contributions financières. Il a également indiqué que les tableaux susmentionnés seraient adressés à la Direction européenne compétente, pour suite à donner.

91. Les participants du SCSI se sont dits préoccupés par le volume croissant de données qui devaient être transmises et traitées par le Secrétariat de la CGPM, notamment au regard des besoins exprimés par certains États Membres qui comptaient sur l'expertise du Secrétariat pour les aider à s'acquitter de leurs obligations de communication de données. Le Comité s'est déclaré favorable à la demande de renforcement des moyens humains du Secrétariat de la CGPM, qu'il a jugée pertinente.

92. Suite à la recommandation CGPM/35/2011/2 relative à la politique et aux procédures de confidentialité des données, le SCSI a demandé au Secrétariat de la CGPM de présenter sur le site Internet de la Commission les informations relatives aux navires, en les accompagnant d'une interface intuitive et d'une fonction dynamique de création de tableaux, et de commencer à formuler des indicateurs de base sur la capacité, en vue du suivi des tendances historiques.

93. Après cet examen des recommandations émanant des quatre Sous-Comités, le CSC a fait écho aux conclusions du rapport de l'évaluation des performances de la CGPM qui ont mis en évidence une claire défaillance au niveau du mécanisme décisionnel de la Commission. Il a ainsi déploré le fait que les avis formulés en matière de gestion des pêches restent sans suite au niveau de la Commission, ce

qui compromet les efforts du CSC et de la Commission pour une gestion durable des pêcheries de la région.

94. Le Comité a par la suite convenu de convoquer une réunion avant la prochaine session annuelle à laquelle prendra part le Bureau du Comité, les coordinateurs des quatre Sous-Comités et des experts invités en matière de gestion de pêche ainsi que le Secrétariat de la CGPM. Cette réunion aura pour objectifs de:

- Finaliser le projet de plan régional de gestion de la capacité de pêche tel que proposé par l'atelier transversal sur la gestion de la capacité de pêche (Rome, septembre 2010) et amélioré par le Secrétariat avec le soutien de la FAO;
- À partir des avis de gestion des pêches adoptés durant la quatorzième session du CSC, identifier un nombre de stocks limités (au maximum de trois) pour lesquels suffisamment de données sont disponibles en vue de les proposer comme cas d'application de la modélisation bio-économique en 2013;
- Examiner les avis de gestion des pêches émanant des quatre Sous-Comités et mener un travail visant à mieux les intégrer, consolider leurs dispositions, et améliorer leur format de présentation pour ainsi faciliter leur examen par la Commission au moment d'aborder les aspects relatifs à la gestion des pêches;
- Passer en revue les activités proposées par le Comité et définir des priorités pour 2012-2013.

95. Les conclusions découlant de ces quatre actions seront intégrées dans le document de travail préparé habituellement par le Secrétariat et qui sera soumis à la considération de la Commission lors de sa trente-sixième session en mai 2012.

Questions relatives aux conseils de gestion de la CICTA et du SCRS

96. M. Farrugio a informé le Comité des faits les plus récents concernant la coopération entre la CGPM et la CICTA. Plus précisément, il a résumé les débats de la réunion conjointe du Groupe de travail de la CICTA sur les espèces de thon rouge, tenue en 2011, qui portait notamment sur les statistiques de capture et l'évaluation des stocks. Il a ensuite rappelé qu'une étude régionale sur les petits thonidés en Méditerranée et en mer Noire avait été réalisée en 2009 par la CGPM et avait fait objet d'une publication de la série Études et Revues No. 85, ayant contribué à l'amélioration des connaissances sur la biologie, exploitation, écologie, socio-économie et autres aspects concernant les petits thonidés. Il a également fait référence à la réunion conjointe CGPM-CICTA sur les petits thonidés qui s'est tenue en 2008 et qui a recommandé l'organisation en 2010 d'une réunion conjointe pour l'évaluation de stocks de certaines espèces. Cette réunion a été programmée et par la suite reportée.

97. Mme Pilar Pallarés, secrétaire exécutif adjoint de la CICTA, a fourni des informations additionnelles concernant un programme de recherche de deux années sur les petits thonidés avec pour objectifs de constituer les données historiques et d'améliorer l'échantillonnage biologique de ces espèces. Elle a suggéré la tenue d'une réunion conjointe CGPM-CICTA à la fin de ce programme de recherche, probablement en 2014. Mme Pallarés a également souligné que les questions relatives aux prises accessoires pourraient constituer un autre domaine potentiel de collaboration. À ce sujet elle a informé le Comité qu'une mesure de gestion adoptée par la CICTA en 2011 (Rec.[11-09]), visant à réduire les prises accidentelles des oiseaux de mer dans les pêcheries à la palangre, disposait d'une provision encourageant la CICTA et la CGPM à travailler ensemble sur ce thème au niveau de la région Méditerranéenne.

98. Le Comité a conclu qu'il était nécessaire de renforcer le cadre de coopération entre ces deux organisations afin de déterminer des domaines d'intervention conjointe et de garantir une certaine efficacité. À cet effet, le Comité a considéré que la formalisation de la coopération actuelle entre la CGPM et la CICTA aiderait les experts de leurs comités scientifiques respectifs à travailler plus efficacement ensemble sur des sujets d'intérêt commun.

EXAMEN DES ACTIONS RELEVANT DU CSC EN CE QUI CONCERNE LE GROUPE DE TRAVAIL CHARGÉ DE L'AMÉLIORATION ET DE LA MODERNISATION DE LA CGPM, Y COMPRIS L'INITIATIVE DU PROGRAMME-CADRE

99. M. Nicola Ferri, du Secrétariat de la CGPM, a présenté un exposé sur les travaux du Groupe de travail chargé de l'amélioration et de la modernisation de la CGPM et sur l'élaboration du premier Programme-cadre de la Commission à l'appui des activités dudit Groupe de travail. Après avoir rappelé les résultats de l'évaluation des performances de la CGPM, il a indiqué quelle en avait été l'incidence sur la mise en place du Groupe de travail. M. Ferri a également expliqué que le Groupe de travail avait déjà commencé à aborder les problèmes liés à la situation actuelle des pêches et de l'aquaculture en Méditerranée et dans la mer Noire. Ces travaux consistent notamment en l'élaboration d'un questionnaire précisant davantage le mandat du Groupe de travail, actuellement disponible sur le site du Forum de discussion de la CGPM, et la tenue d'une réunion d'experts pour le Comité et le Comité de l'aquaculture (15-16 décembre 2011, Rome) et de la première réunion sous-régionale du Groupe de travail (13-14 février 2012, Rabat). À cet égard, M. Ferri a précisé que les travaux du Groupe de travail visaient à promouvoir une approche participative ascendante faisant intervenir l'ensemble des acteurs concernés, à savoir les Membres, les comités, les sous-régions de la CGPM et les projets régionaux de la FAO, en vue de recenser les domaines de l'Accord portant création de la CGPM qui pourraient amener la Commission, à sa trente-sixième session, à décider de modifier son cadre juridique.

100. Au sujet du Programme-cadre, M. Ferri a indiqué qu'il s'agissait de la première initiative à moyen terme lancée par la CGPM pour promouvoir le développement durable et la coopération en Méditerranée et dans la mer Noire, sachant que par le passé, la Commission se concentrait principalement sur la mise en œuvre de projets à court terme. Il a ensuite précisé que le lien existant entre le Groupe de travail et le Programme-cadre devait être considéré comme le moyen qui permettrait à la Commission de s'acquitter efficacement de ses activités toujours croissantes dans le cadre d'un ensemble de programmes de travail préalablement identifiés. Ces programmes de travail ont été présentés par M. Ferri qui a déclaré qu'une note conceptuelle sur le Programme-cadre était en cours d'achèvement et serait présentée par le Secrétariat de la CGPM à la Commission, à sa trente-sixième session.

101. Dans le cadre des débats qui ont suivi, il a été reconnu, de l'avis général, que le Groupe de travail et le Programme-cadre étaient l'un et l'autre importants pour rendre la CGPM plus fonctionnelle. S'agissant en particulier du Programme-cadre, le Comité a reconnu que les programmes de travail préalablement identifiés semblaient être en harmonie avec les priorités et les besoins des Membres de la CGPM, ainsi qu'avec les politiques de la FAO, et s'inscrire dans la lignée de l'évolution récente de la situation au niveau international quant au développement durable, des programmes actuels de la CGPM et des programmes régionaux de la FAO. Répondant à certaines questions concernant les éléments qui pourraient être inscrits dans le Programme-cadre, M. Srouf a indiqué que son élaboration en était encore à un stade préliminaire et que le Secrétariat de la CGPM avait jusqu'à présent évité de définir des activités spécifiques. Il s'y emploierait, en collaboration avec les Membres et avec le soutien des projets régionaux de la FAO, lorsque le Programme-cadre aurait été présenté à la Commission, à sa trente-sixième session. Le Comité a été d'avis que le Programme-cadre devrait renforcer la coopération entre la CGPM, les programmes régionaux de la FAO et les organisations partenaires, mais qu'il faudrait éviter les duplications et assurer une utilisation optimale des ressources. Après avoir signalé que certains Membres de la CGPM avaient déjà été informés de cette initiative, M. Srouf a encouragé les délégués à envisager d'apporter un soutien financier au Programme-cadre.

102. M. Farrugio a indiqué que le processus de modernisation de la CGPM offrait au CSC de renforcer son rôle. À cet égard, il a rappelé les débats qui avaient eu lieu dans le cadre de la réunion d'experts du Comité en décembre 2011 (Rome, Italie). Après un débat approfondi, le Comité a soumis les propositions suivantes, à l'examen du Groupe de travail: i) bien qu'il soit clairement nécessaire de

faire en sorte que les avis scientifiques du CSC parviennent à la Commission sous une forme plus élaborée et consolidée de manière à faciliter leur possible adoption comme mesures de gestion, il n'est pas pour autant souhaitable de doter le Comité d'un pouvoir d'adoption de recommandations, un mécanisme devrait être plutôt mis en place, faisant intervenir aussi bien des délégués nationaux que des experts en matière de conservation et de gestion ou d'autres domaines (sciences sociales et économiques, par exemple) afin d'aider la Commission à élaborer des mesures de gestion fondées sur les avis scientifiques du CSC; ii) la structure du CSC pourrait être révisée dans la mesure où les Sous-Comités se réuniraient juste avant la session annuelle; et iii) l'interprétation (anglais-français) devrait être assurée lors des réunions des Sous-Comités afin de permettre une meilleure participation des scientifiques, dans la mesure des fonds disponibles et en envisageant d'autres solutions (par exemple, celle de ramener la durée des réunions du CSC à quatre jours afin de pouvoir allouer une partie du budget à l'interprétation simultanée).

EXAMEN DES ACTIVITÉS CONCERNANT LA MER NOIRE, Y COMPRIS LES CONCLUSIONS DE LA PREMIÈRE RÉUNION DU GROUPE DE TRAVAIL AD HOC SUR LA MER NOIRE

103. M. Farrugio a présenté les principales activités réalisées sur la mer Noire, en particulier les conclusions de la première réunion du Groupe de travail *ad hoc* consacrée à la région (Constanza, Roumanie, 16-18 janvier 2012). Après avoir proposé une vue d'ensemble des particularités de la mer Noire et de sa pêche, il a attiré l'attention des participants sur les lacunes et les besoins les plus importants de la région. Il a mis l'accent sur les grandes actions prioritaires, planifiées dans le cadre d'un programme de la CGPM à court et moyen termes. Il s'agirait essentiellement d'améliorer les connaissances scientifiques et d'appréhender la pêche illicite, non déclarée et non réglementée afin de permettre le développement durable de la pêche et de l'aquaculture dans la région.

104. Le Comité a fait part de sa profonde satisfaction au vu des conclusions de cette première réunion ainsi que du niveau de participation et d'expertise qui a pu être atteint. Le Comité a, en outre, félicité M. Simion Nicolaev (Roumanie) et M. Violin Raykov (Bulgarie) pour leurs nominations respectives en tant que coordonnateur et vice-coordonnateur du Groupe de travail dans la région. Le Comité s'est également réjoui de la nomination des points focaux suivants pour chaque pays: Konstantin Petrov (Bulgarie), Vakhtang Gogaladze (Géorgie), Gheorghe Radu (Roumanie), Mikhail Kumantsov (Fédération de Russie), Attila Özdemir (Turquie), Vladyslav Shlyakov (Ukraine).

105. En ce qui concerne l'évaluation sous-régionale des stocks de petits pélagiques et d'espèces démersales, le Comité s'est félicité d'avance de la réunion qui doit être organisée en octobre 2012 en collaboration avec le Comité scientifique, technique et économique de la pêche de l'UE (CSTEP) afin d'éviter toute duplication inutile. Par ailleurs, le Comité a suggéré d'étendre ce type de collaboration aux évaluations qui doivent être réalisées en Méditerranée.

106. Pour ce qui est des initiatives et projets en cours qui ont trait à la mer Noire, le Comité a été informé que la FAO deviendrait bientôt un agent d'exécution et de réalisation du Fonds pour l'Environnement Mondial (FEM) dans le cadre du Partenariat stratégique pour le grand écosystème marin de la Méditerranée, mis en œuvre par le Programme des Nations Unies pour l'Environnement (PNUE). Le représentant de la FAO a fait part de sa volonté de donner forme à cette initiative avec la CGPM, tout en tenant compte des autres initiatives pertinentes qui existent déjà, en vue d'optimiser la coordination et la synergie.

107. Le délégué de la Roumanie a rappelé qu'un protocole d'accord entre la CGPM et la Commission de la mer Noire était en cours de rédaction. Le Secrétaire exécutif a fait part de sa satisfaction quant aux progrès déjà réalisés et a exprimé son espoir de voir ce document adopté à la prochaine session annuelle de la CGPM.

EXAMEN DU PLAN DE TRAVAIL PRÉLIMINAIRE DU CSC 2012-2013

108. Ce point de l'agenda a été introduit sur la base des suggestions émises par les Sous-Comités, tel que reflété dans le document CGPM:SAC14/2012/2, ainsi que dans les rapports des Sous-Comités (CGPM:SAC14/2012/Inf.5, Inf.6, Inf.7 and Inf.8).

109. Plusieurs délégués ont suggéré de mener un cours de formation sur l'analyse de modèles bioéconomiques avant l'organisation de l'atelier de travail prévu. En soutien à cette proposition, le projet CopeMed a expliqué que des informations sur les cours déjà entrepris pouvaient être trouvées sur le site web du projet.

110. Le CSC a pris note des difficultés techniques et administratives rencontrées dans la conduite des études sur l'impact socio-économique de l'utilisation de la maille carrée de 40 mm. À cet égard, certaines délégations ont suggéré de reporter le délai fixé par la Recommandation CGPM/33/2009/2 relative au maillage minimum des culs de chaluts de pêche. Parmi les moyens de surmonter lesdites difficultés, il a été proposé de conduire une étude bibliographique basée sur la compilation d'analyses biologiques dont les résultats sur la structure de capture pourraient être liés aux informations économiques disponibles. Cet exercice permettrait de compenser partiellement le manque de données sur des essais expérimentaux. L'importance de mener au niveau sous-régional des études pilotes socio-économiques sur l'impact de la mise en œuvre de la maille carrée de 40 mm a été reconnue par le Comité. Le Projet CopeMed II a réitéré sa disponibilité à supporter de telles activités. A cet effet, le Secrétaire Exécutif de la CGPM a invité les pays Membres à soumettre si nécessaire toute requête d'assistance pour la conduite de telles études, et ce d'ici les deux prochains mois.

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

Sous-comité de l'environnement et des écosystèmes marins (SCEEM)

Le SCEEM a présenté une vue d'ensemble des activités de recherche et développement à mener pendant la période intersessions 2012, comme indiqué ci-après.

- Sur les récifs artificiels:
 - développement et/ou mise en place des bases de données existantes (par exemple, www.habitatartificiali.it) sous l'égide de la CGPM.
- Sur la sélectivité des engins de pêche:
 - achèvement de la base de données distincte du réseau TECHNOMED et réactivation de son site Internet en y consacrant les moyens appropriés.
 - élaboration d'un catalogue des engins de pêche dans la zone de la CGPM.
- Sur la mise en œuvre du programme à moyen terme sur les **élasmobranches**:
 - production de fiches de renseignements destinées à faciliter l'identification des espèces terrestres les plus courantes.
 - publication de la version actualisée du projet d'ouvrage de la CGPM sur l'état des élasmobranches en Méditerranée et en mer Noire.
 - organisation d'un cours de formation sur les méthodes de détermination de l'âge des élasmobranches (Turquie, juin 2012).
- Élaboration du Plan régional de gestion pour le **corail rouge**, en tenant compte du cadre de référence suivant:
 - collecte et organisation de toute la documentation scientifique sur le corail rouge en Méditerranée ayant trait aux points II et III de l'Annexe E du rapport du deuxième Atelier transversal sur le corail rouge, tenu à Ajaccio en octobre 2011.
 - collecte d'informations permettant d'opérer une distinction entre l'utilisation des véhicules télécommandés pour la prospection et la sécurité d'une part, et à des fins scientifiques d'autre part, et concernant les programmes de recherche actuels qui portent sur l'utilisation des véhicules télécommandés conformément à la Recommandation GFCM/35/2011/2.

- collecte d'informations sur les aspects socioéconomiques de la récolte du corail rouge, aussi bien auprès des pêcheurs que du secteur artisanal.
- formulation d'avis pour de possibles mesures de gestion.

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

- Lancement d'une phase de consultation pour l'examen du cadre de communication des données de la Tâche 1, avec les objectifs suivants:
 - procéder à une analyse comparative des systèmes de collecte de données d'autres organisations régionales de gestion des pêches.
 - analyser les rapports pertinents du Sous-Comité et du CSC, l'Évaluation des performances de la CGPM, les documents et travaux réalisés dans le cadre des projets sous-régionaux de la FAO concernant la collecte de données et leur communication au titre de la Tâche 1.
 - revoir l'objectif de la Tâche 1 et envisager son extension possible à une Tâche 2, y compris la nécessité de normaliser les méthodologies de collecte et de présentation des données.
 - prendre en compte: i) l'analyse des atouts, faiblesses, menaces et possibilités des SCSI et SCSES, ii) la réflexion des SCSI et SCSES sur une éventuelle Tâche 2, iii) le potentiel de chaque pays, iv) la nécessité de conserver la trace des données déjà communiquées et v) la nécessité de construire un système rentable, de définir la structure d'une Tâche 1 affinée et d'une éventuelle Tâche 2 en vue de conserver l'ensemble des informations.
- Organisation d'un atelier visant à finaliser le nouveau cadre de communication des données pour les Tâches 1 et 2, et à définir un plan d'action pour améliorer la capacité des États Membres à collecter et à communiquer des données pertinentes. Le cadre de référence proposé figure à l'Annexe E du présent document.
- Il serait souhaitable que le Secrétariat de la CGPM présente sur le site Internet de la Commission, les informations relatives aux navires en ligne, , en les accompagnant d'une interface intuitive et d'une fonction dynamique de création de tableaux, et commence à formuler des indicateurs de base sur la capacité, en vue du suivi des tendances historiques.

Sous-Comité des sciences économiques et sociales (SCSES)

- Constitution d'un groupe de travail sur les modèles d'analyse bioéconomique utilisés dans la zone relevant de la CGPM en vue:
 - d'examiner des études et/ou modèles bioéconomiques existants dans la région.
 - de simuler des effets potentiels des mesures de gestion.
- Promotion des études de cas régionales concernant l'analyse socioéconomique:
 - de la pêche de loisir.
 - de la pêche artisanale.
- Organisation d'un groupe de travail spécifique en parallèle de la prochaine réunion du SCSES sur l'examen de la liste de variables de la Tâche 1.3 et leurs définitions respectives.

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

- Organisation de deux groupes de travail, sur les espèces démersales et sur les petits pélagiques, y compris certaines espèces d'élastombranches à Split (Croatie) du 22 au 26 octobre 2012.
- Consultation d'experts destinée à élaborer la forme et le contenu du module de la Tâche 2.
- Groupe de travail conjoint CIEM/CECPAI/CGPM sur l'anguille européenne.
- Réunion du Groupe de travail permanent sur les méthodologies d'évaluation des stocks consacrée aux *analyses de séries chronologiques*. Le Groupe de travail devra être orienté

vers la formation et les résultats des études de cas réalisées par les participants, et qui seront traités par le Groupe de travail lors de sessions pratiques, devront être publiés.

Groupe de Travail *ad hoc* sur la mer Noire

- Organisation d'un atelier sur la collecte de données et les systèmes d'information sur la pêche en mer Noire en vue:
 - d'évaluer les données et systèmes d'information existants sur les pêches.
 - de dresser un inventaire des outils et méthodes existants de collecte et d'analyse des données.
 - de formuler des critères standard pour l'établissement d'un système harmonisé de collecte de données dans la région, en tenant compte des besoins des différents utilisateurs (CGPM, UE, Commission de la mer Noire, etc.).
- Organisation d'une session de formation sur les méthodologies d'évaluation directe et indirecte des stocks.
- Organisation d'évaluations des stocks sous-régionaux des espèces démersales et des petits pélagiques, éventuellement en collaboration avec le Comité scientifique, technique et économique de la pêche de l'UE (CSTEP).
- Organisation d'un atelier visant à évaluer la pêche illicite, non déclarée et non réglementée et son impact dans la région.
- Compilation de toutes les informations pertinentes sur la pêche et l'aquaculture concernant la législation en vigueur dans la région, en vue de créer une base de données régionale.
- Création, par l'intermédiaire du site Internet de la CGPM, d'une base de données commune à toute la région et alimentée par des experts et des institutions de recherche travaillant sur la mer Noire.
- Élaboration d'une publication actualisée sur l'état de la pêche et de l'aquaculture en s'appuyant sur la collaboration entre le Secrétariat de la CGPM et les experts nationaux de tous les pays côtiers.
- Élaboration d'une publication technique sur la typologie des principaux engins et flottes de pêche.
- Revitalisation du Groupe de travail CGPM/CECPAI sur l'esturgeon.
- Organisation d'un atelier sur les nouvelles espèces aquacoles qui doivent être développées dans la région.
- Organisation d'une formation sur les procédures de sélection des sites, les zones attribuées à l'aquaculture et le suivi des activités aquacoles.
- Inventaire des données sur les fermes et centres de production d'aquaculture marine et en eaux saumâtres.

Réunions

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

Réunion	Lieu/Date
GFCM/ICES/EIFAAC Groupe de travail sur l'anguille	Rome? juin 2012
Atelier sur les récifs artificiels (3 jours)	Maroc Date à déterminer
Groupe de travail sur la sélectivité et technologies des pêches	à déterminer
Réunion du Groupe de travail permanent sur les méthodologies d'évaluation des stocks : analyse des séries chronologiques	À déterminer
Groupe de travail sur la révision de la liste des variables de la Tâche 1.3 (en parallèle à la session du SCESS)	Égypte Février 2013
Groupe de travail sur les modèles d'analyse bio-économique utilisés dans la zone de la CGPM (SCESS)	Tunisie Date à déterminer
Atelier pour la finalisation de la nouvelle Tâche 1 et 2 pour la soumission des données (SCSI)	À déterminer
Atelier pour évaluer la pêche INN et son impact	À déterminer
Atelier sur la collecte de données et systèmes d'informations sur les pêcheries en mer Noire	À déterminer Septembre 2012
Formation sur les méthodes directes et indirectes d'évaluation des stocks (éventuellement en collaboration avec STECF)	À déterminer Octobre 2012
Évaluations sous-régionales des stocks sur les stocks de petits pélagiques et espèces démersales (éventuellement en collaboration avec STECF)	Bucarest, Roumanie Octobre 2012
Groupe de travail sur l'évaluation des stocks des espèces démersales et des élasmobranches (5 jours)	Split, Croatie, 22-26 octobre 2012
Groupe de travail sur l'évaluation des stocks de petits pélagiques (5 jours)	Split, Croatie, 22-26 octobre 2012
14 ^{ème} Session du SCES (2 jours)	Égypte Février 2013
13 ^{ème} Session du SCEEM (2 jours)	Égypte Février 2013
13 ^{ème} Session du SCSI (2 jours)	Égypte Février 2013
13 ^{ème} Session du SCSES (2 jours)	Égypte Février 2013
Quinzième session du CSC (4 jours)	Égypte Février 2013

112. Le Comité a pris note de l'offre faite par certaines délégations d'accueillir des réunions, sujette à confirmation par les autorités nationales compétentes.

ÉLECTION DU BUREAU DU CSC ET CONFIRMATION DE LA NOMINATION DES COORDONNATEURS DES SOUS-COMITÉS

113. Après s'être félicité du travail accompli par le CSC sous la direction du Bureau actuel, et en prenant en compte le processus d'amélioration et de modernisation de la CGPM en cours, le Comité est convenu de reporter les élections à l'année prochaine.

114. Le Comité est également convenu que M. Alvarez Prado, M. Fiorentino, M. Ünal et M. Vigneau continueraient de faire office de coordonnateurs du SCEEM, du SCES, du SCSES et du SCSI, respectivement, pendant une année supplémentaire.

DATE ET LIEU DE LA PROCHAINE SESSION

115. Le Comité a pris note de l'invitation du délégué égyptien proposant d'accueillir la quinzième session du CSC, sous réserve de confirmation par les autorités compétentes de son pays. La date et le lieu exacts seront communiqués ultérieurement.

116. À cet égard, Mme Karlou-Riga a fait savoir que le projet régional EastMed de la FAO était disposé à apporter son assistance à l'Égypte pour l'organisation de la quinzième session du CSC.

QUESTIONS DIVERSES

117. Le Comité s'est déclaré très heureux de la participation active de plusieurs de ses partenaires. Il a tout particulièrement apprécié les nombreuses contributions d'observateurs des pays de la mer Noire, à savoir la Géorgie, la Fédération de Russie et l'Ukraine, et a souhaité que l'étroite collaboration avec ces pays soit maintenue à l'avenir. Le Comité s'est réjoui de la possibilité de voir ces pays adhérer à la CGPM.

118. Le Comité a une nouvelle fois remercié le Gouvernement bulgare d'avoir accueilli la session et de lui avoir offert sa généreuse hospitalité. Il a en particulier tenu à remercier chaleureusement la NAFA pour son dévouement et son excellente collaboration qui ont permis d'organiser cette réunion et ont favorisé son succès. L'ensemble des délégués a grandement apprécié les conditions de travail exceptionnelles offertes par la Bulgarie.

ADOPTION DU RAPPORT

119. Le rapport, y compris ses annexes, a été adopté le vendredi 24 février 2012.

Agenda

1. Opening and arrangements for the Session
2. Adoption of the agenda
3. Intersessional activities
 - Review of the recommendations of the Thirty-fifth Session of GFCM concerning the management of fisheries
 - Overview of SAC achievements
4. Major activities of the FAO regional projects and initiatives
5. Formulation of advice in the field of fishery management and research
6. Issues related to management advices from ICCAT/SCRS
7. Review of the relevant SAC actions with regards to the Task Force on the improvement and modernization of GFCM, including the Framework Programme initiative
8. Review of the activities on the Black Sea including the outcome from the first meeting of the Working Group on Black Sea
9. Review of SAC preliminary Workplan for 2012–2013
10. Election of SAC Bureau and confirmation of the nominations of Sub-Committees Coordinators
11. Any other matters
12. Date and place of the next session
13. Adoption of the report

Ordre du jour

1. Ouverture et organisation de la session
2. Adoption de l'ordre du jour
3. Activités intersessions
 - Examen des recommandations formulées par la Commission générale des pêches pour la Méditerranée (CGPM) à sa trente-cinquième session au sujet de la gestion des pêches
 - Présentation des résultats du Comité scientifique consultatif (CSC) pendant la période intersessions
4. Principales activités et initiatives dans le cadre des projets régionaux
5. Formulation de conseils dans le domaine de la gestion et de la recherche halieutiques
6. Questions relatives à l'avis de gestion formulé par le Comité permanent pour la recherche et les statistiques de la Commission internationale pour la conservation des thonidés de l'Atlantique (SCRS/ CICTA)
7. Examen des actions relevant du CSC en ce qui concerne le Groupe de travail chargé de l'amélioration et de la modernisation de la CGPM, y compris l'initiative du Programme Cadre de la CGPM (Framework Programme)
8. Examen des activités relatives à la mer Noire, et notamment les résultats de la première réunion du Groupe de travail sur la mer Noire
9. Examen du plan de travail préliminaire du CSC 2012-2013
10. Élection du Bureau du CSC et confirmation de la nomination des coordinateurs des sous-comités
11. Questions diverses
12. Date et lieu de la prochaine session
13. Adoption du rapport

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List of documents

GFCM:SAC14/2012/1	Agenda and Timetable
GFCM:SAC14/2012/2	Executive Report for the SAC intersessional activities
GFCM:SAC14/2012/Inf.1	List of documents
GFCM:SAC14/2012/Inf.2	List of participants
GFCM:SAC14/2012/Inf.3	Report of the thirty-fifth Session of the General Fisheries Commission for the Mediterranean (GFCM) (FAO HQs, 9–14 May 2011)
GFCM:SAC14/2012/Inf.4	Report of the thirteenth session of the Scientific Advisory Committee (SAC) (France, 7–11 February 2011) (bilingual)
GFCM:SAC14/2012/Inf.5	Report of the twelfth session of the Sub-Committee on Marine Environment and Ecosystems (SCMEE) (FAO HQs, 23–26 January 2011) (Available only in English)
GFCM:SAC14/2012/Inf.6	Report of the twelfth session of the Sub-Committee on Statistics and Information (SCSI) (FAO HQs, 23–26 January 2011) (Available only in English)
GFCM:SAC14/2012/Inf.7	Report of the twelfth session of the Sub-Committee on Economic and Social Sciences (CESS) (FAO HQs, 23–26 January 2011) (Available only in English)
GFCM:SAC14/2012/Inf.8	Report of the thirteenth session of the Sub-Committee on Stock Assessment (SCSA) (FAO HQs, 23–26 January 2011) (Available only in English)
GFCM:SAC14/2012/Inf.9	Salient research activities in Member Countries
GFCM:SAC14/2012/Inf.10	Report of the Second Transversal Workshop on Red Coral (France, 5–7 October 2011) (Available only in English)
GFCM:SAC14/2012/Inf.11	Report of the Expert Meeting on Fisheries legislation in the Mediterranean and Black Sea (Lebanon, 26–28 October 2011) (Available only in English)
GFCM:SAC14/2012/Inf.12	Report of the SCSA Working Group on Stock Assessment of Demersal Species (Greece, 24–29 October 2011) (Available only in English)
GFCM:SAC14/2012/Inf.13	Report of the SCSA Working Group on Stock Assessment of Small Pelagic Species (Greece, 24–29 October 2011) (Available only in English)
GFCM:SAC14/2012/Inf.14	Report of the Workshop on the establishment of a Vessel Monitoring System (VMS) in the Mediterranean and the Black Sea (Croatia, 28–30 November 2011) (Available only in English)
GFCM:SAC14/2012/Inf.15	Report of the second meeting of the Working group on by-catch (In collaboration with ACCOBAMS) (Turkey, 7-9 December 2011)
GFCM:SAC14/2012/Inf.16	Report of the Working Group on Stock Assessment of selected species of Elasmobranchs in the Mediterranean and Black Sea (Belgium, 12–16 December 2011) (Available only in English)
GFCM:SAC14/2012/Inf.17	Report of the first ad hoc Working Group on the Black Sea (Romania, 16–18 January 2012) (Available only in English)

- GFCM:SAC14/2012/Inf.18 Report of the Expert Meeting on SAC related issues, within the framework of the Task Force (GFCM HQ, 15–16 December 2011) (Available only in English)
- GFCM:SAC14/2012/Inf.19 Major activities of the FAO regional projects (Available only in English)
- GFCM:SAC14/2012/Inf.20 First GFCM Framework Programme (2013-2018) in support of the Task Force for the promotion of Sustainable Development and Cooperation in the Mediterranean and the Black Sea - Improving Rational Exploitation of Marine Capture Fisheries and Sustainable Aquaculture (FWP) (Available only in English)
- GFCM:SAC14/2012/Dma.1 Fisheries legislation of GFCM Mediterranean and Black Sea Members (by T. Scovazzi, C. Samier) (Draft GFCM Publication)
- GFCM:SAC14/2012/Dma.2 Guidelines for a VMS technical cooperation programme in the GFCM area (by R. Gallagher) (Draft)
- GFCM:SAC14/2012/Dma.3 Specifications of datasets and protocols for the data submission to the GFCM VMS database (by R. Gallagher) (Draft)
- GFCM:SAC14/2012/Dma.4 Roadmap for the implementation of VMS in the GFCM Area (by R. Gallagher) (Draft)
- GFCM:SAC14/2012/Dma.5 Review of the Black Sea Fisheries (by F. Colloca, R. Coppola) (Draft GFCM Publication)
- GFCM:SAC14/2012/Dma.6 Review of existing knowledge on fisheries by-catches and discards in the GFCM area (by V. Vassilopoulou) (Draft)
- GFCM:SAC14/2012/Dma.7 Review on marine mammals' by-catch issue in Mediterranean and Black Sea (by J. Sacchi) (Draft)
- GFCM:SAC14/2012/Dma.8 Review of the available methods for stock assessment of elasmobranchs, especially in data shortage situations (by A. Abella) (Draft)
- GFCM:SAC14/2012/Dma.9 Jellyfish blooms in the Mediterranean and the Black Seas (GFCM Studies and Reviews No 92) (Draft GFCM Publication)
- GFCM:SAC14/2012/Dma.10 Task 1 Statistical Bulletin (reference year 2008) (by the GFCM Secretariat)

Liste des documents

CGPM:CSC14/2012/1	Ordre du jour et calendrier
CGPM:CSC14/2012/2	Rapport executif du Comité Scientifique Consultatif (CSC) durant la période inter-sessions
CGPM:CSC14/2012/Inf.1	Liste des documents
CGPM:CSC14/2012/Inf.2	Liste des participants
CGPM:CSC14/2012/Inf.3	Rapport de la trente-cinquième session de la Commission générale des pêches pour la Méditerranée (CGPM) (siège FAO, 9-14 mai 2011)
CGPM:CSC14/2012/Inf.4	Rapport de la treizième session du Comité scientifique consultatif (CSC) (France, 7-11 février 2011) (bilingue)
CGPM:CSC14/2012/Inf.5	Rapport de la douzième session du Sous-Comité de l'environnement et des écosystèmes marins (SCMEE) (siège FAO, 23-26 janvier 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.6	Rapport de la douzième session du Sous-Comité des statistiques et de l'information (SCSI) (siège FAO, 23-26 janvier 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.7	Rapport de la douzième session du Sous-Comité des sciences économiques et sociales (SCESS) (siège FAO, 23-26 janvier 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.8	Rapport de la treizième session du Sous-Comité de l'évaluation des stocks (SCSA) (siège FAO, 23-26 janvier 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.9	Principales activités de recherche des États Membres
CGPM:CSC14/2012/Inf.10	Rapport de la deuxième réunion du groupe de travail sur le corail rouge (Corse, 5-7 octobre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.11	Rapport de la réunion d'experts sur les législations en matière de pêche en Méditerranée et Mer Noire (Liban, 26-28 octobre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.12	Rapport du groupe de travail sur l'évaluation des stocks d'espèces démersales (Grèce, 24-29 octobre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.13	Rapport du groupe de travail sur l'évaluation des stocks de petits pélagiques (Grèce, 24-29 octobre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.14	Rapport de l'atelier sur l'établissement d'un système satellitaire de surveillance des unités de pêche en Méditerranée (Croatie, 28-30 novembre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.15	Rapport de la réunion du Groupe de travail sur les captures accessoires – en collaboration avec ACCOBAMS (Turquie, 7-9 décembre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.16	Rapport du groupe de travail sur l'évaluation des stocks de certaines espèces d'élasmobranches (Belgique, 12-16 décembre 2011) (en anglais uniquement)
CGPM:CSC14/2012/Inf.17	Rapport de la première réunion du Groupe de travail <i>ad hoc</i> sur la Mer Noire (Roumanie, 16-18 janvier 2011) (en anglais uniquement)

- CGPM:CSC14/2012/Inf.18 Rapport de la réunion d'experts du CSC, dans le cadre du Groupe de travail pour la modernisation de la CGPM (siège de la CGPM, 15-16 décembre 2011) (en anglais uniquement)
- CGPM:CSC14/2012/Inf.19 Principales activités des projets régionaux de la FAO
- CGPM:CSC14/2012/Inf.20 Premier programme cadre de la CGPM (2013-2018) à l'appui du Groupe de travail pour la promotion du développement durable et de la coopération en Méditerranée et mer Noire –Framework Programme (FWP) (version préliminaire) (en anglais uniquement)
- CGPM:CSC14/2012/Dma.1 Législations des pêches des pays membres en Méditerranée et mer Noire (T. Scovazzi, C. Samier)
(Publication de la CGPM - version préliminaire)
- CGPM:CSC14/2012/Dma.2 Directives pour un programme de coopération technique au niveau régional pour l'établissement d'un système satellitaire de surveillance (R. Gallagher) (Publication de la CGPM - version préliminaire)
- CGPM:CSC14/2012/Dma.3 Spécifications des ensembles de données et protocoles pour la soumission de données à la base de données SSN de la CGPM (R. Gallagher) (version préliminaire)
- CGPM:CSC14/2012/Dma.4 Plan d'action pour la mise en œuvre du SSN dans l'aire de compétence de la CGPM (R. Gallagher) (version préliminaire)
- CGPM:CSC14/2012/Dma.5 Revue des pêcheries de la Mer Noire (R. Coppola, F. Colloca)
(Publication de la CGPM - version préliminaire)
- CGPM:CSC14/2012/Dma.6 Revue des connaissances actuelles en matière de pêche sur les prises accessoires et les rejets dans la zone de la CGPM (V. Vassilopoulou)
(version préliminaire)
- CGPM:CSC14/2012/Dma.7 Revue des prises accessoires des mammifères marins en Méditerranée et Mer Noire (J. Sacchi) (version préliminaire)
- CGPM:CSC14/2012/Dma.8 Revue des méthodes disponibles pour l'évaluation des stocks d'éla-smobran-ches, en particulier dans les situations de pénurie de données (A. Abella) (version préliminaire)
- CGPM:CSC14/2012/Dma.9 Étude des proliférations de méduses en Mer Méditerranée et en mer Noire (GFCM Studies & Reviews No 92) (version préliminaire)
- CGPM:CSC14/2012/Dma.10 Bulletin statistique de la Tâche 1 (année de référence 2008)
(par le Secrétariat de la CGPM)

Definition of mesh size¹**Article 2 Definitions**

“Mesh size” means:

- (i) for knotted netting: the longest distance between two opposite knots in the same mesh when fully extended as shown in Annex I;
- (ii) for knotless netting: the inside distance between the opposite joints in the same mesh when fully extended along its longest possible axis.

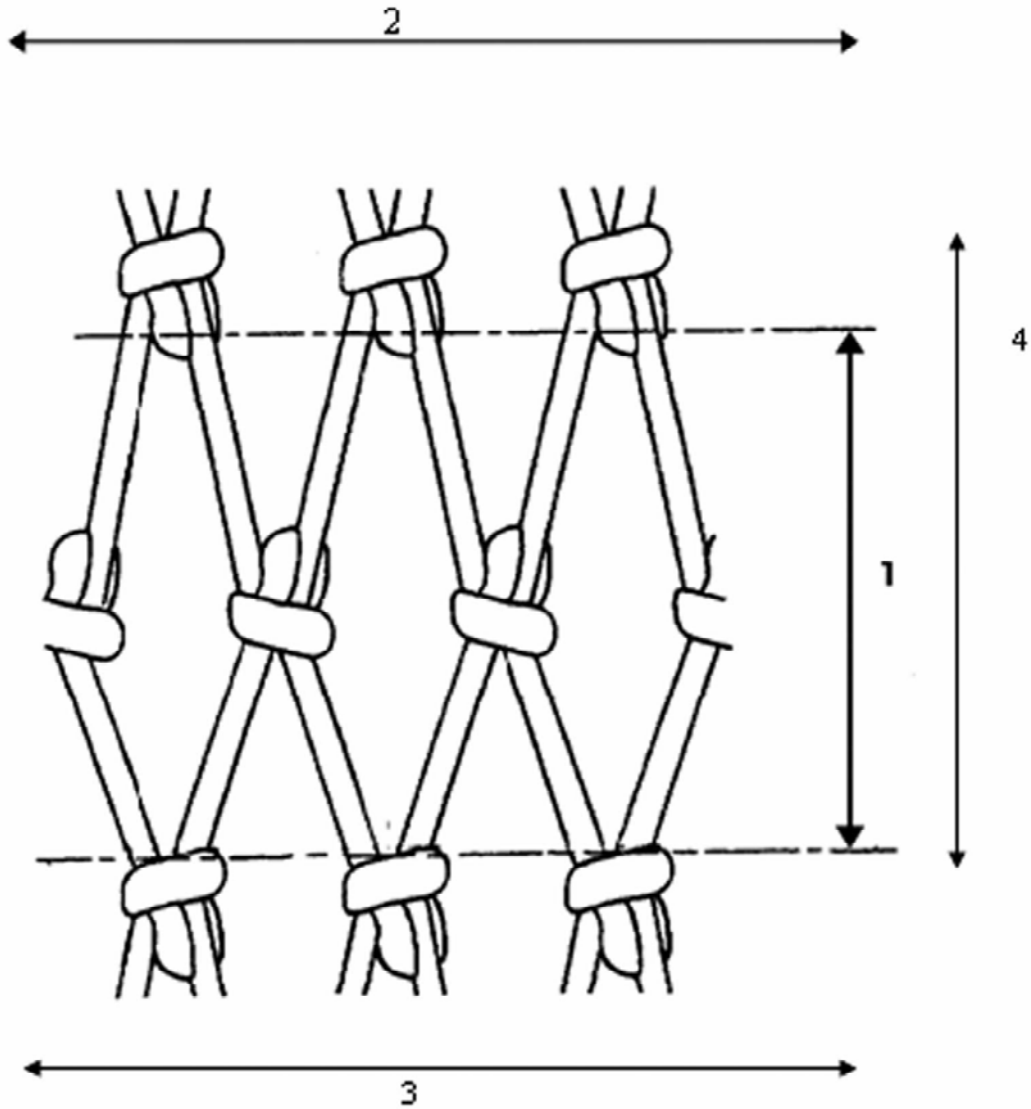
“Diamond mesh” means a mesh as shown in figure 1 of Annex II, composed of four bars of the same length where the two diagonals of the mesh are perpendicular and one diagonal is parallel to the longitudinal axis of the net as shown in figure 2 of Annex II.

“Square mesh” means a quadrilateral mesh composed of two sets of parallel bars of the same length, where one set is parallel to, and the other is at right angles to the longitudinal axis of the net.

¹ Extract of the COMMISSION REGULATION (EC) No 517/2008 of 10 June 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 850/98 as regards the determination of the mesh size and assessing the thickness of twine of fishing nets.

Mesh size and N-direction and T-direction of netting twine

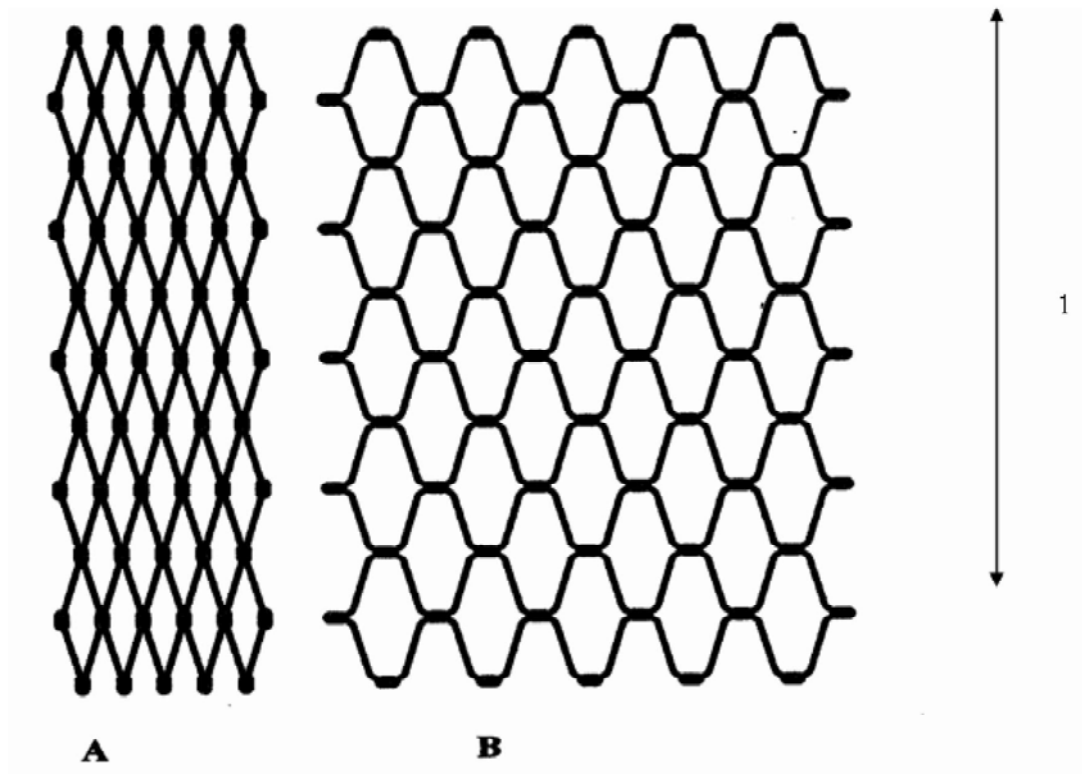
Figure



- 1: Size of mesh
- 2: T-direction.
- 3: General course of the netting.
- 4: N-direction

Diamond knotted netting and T90 netting*Figure 1*

The direction of run of the netting twine in a standard diamond knotted net (A) and in a net turned 90° (B) is shown below.



A: Standard diamond mesh netting.

B: T90 mesh netting.

1: longitudinal axis of the net.

Définition de maillage¹

Article 2 Définitions

Aux fins du présent règlement, on entend par:

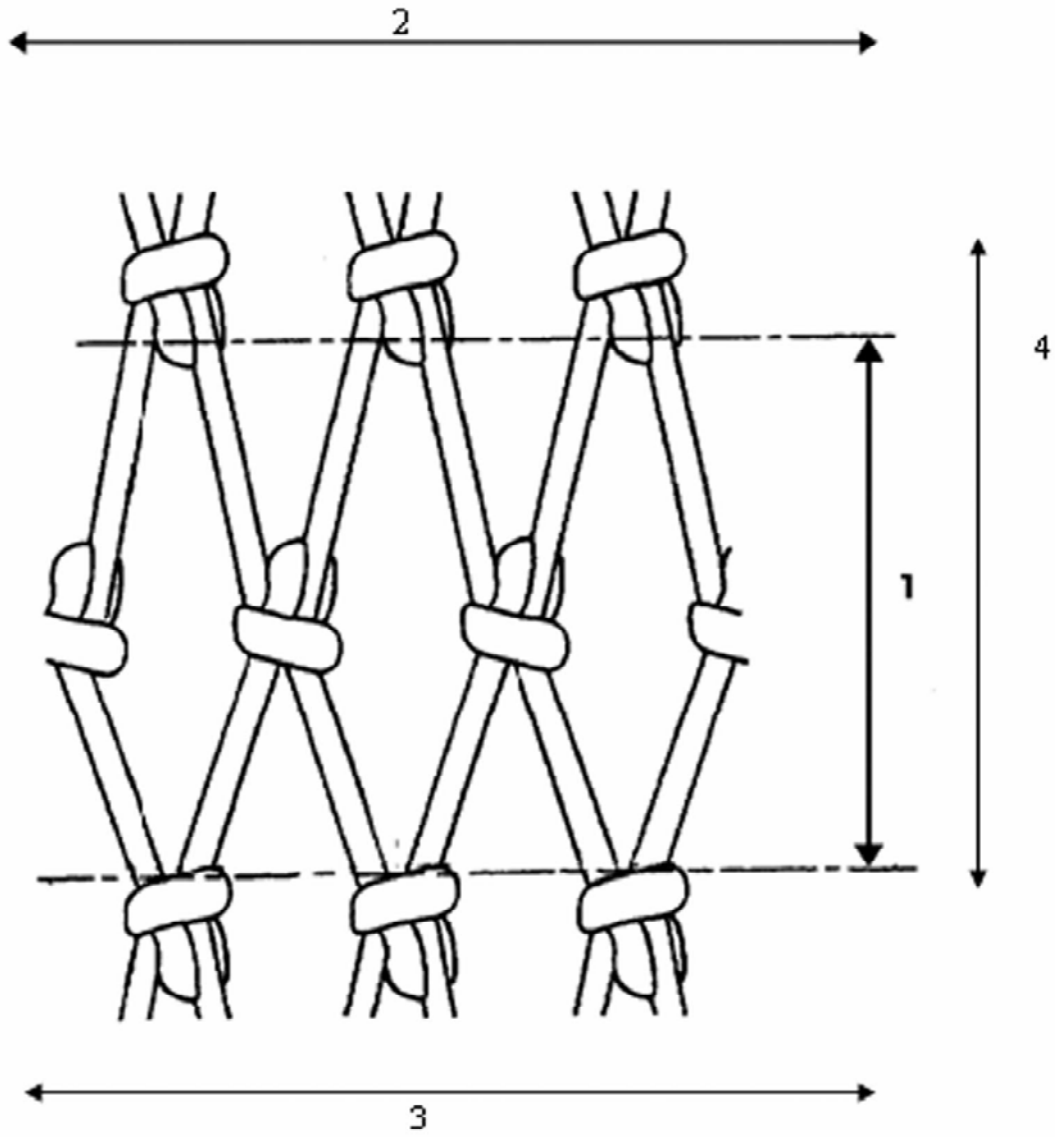
"maillage":

- i) en ce qui concerne les nappes de filet nouées: la distance la plus longue entre deux nœuds opposés de la même maille, lorsque celle-ci est étirée, comme indiqué à l'annexe I;
- ii) en ce qui concerne les nappes de filet sans nœuds: l'écartement intérieur entre les jointures opposées de la même maille, lorsque celle-ci est étirée, le long de son axe le plus long possible.

"maille losange": une maille telle que celle qui est représentée à la figure 1 de l'annexe II, composée de quatre côtés de même longueur, les deux diagonales de la maille étant perpendiculaires et une diagonale, parallèle à l'axe longitudinal du filet, comme indiqué à la figure 2 de l'annexe II.

"maille carrée": une maille quadrilatérale, composée de deux ensembles de côtés parallèles de même longueur, dont l'un est parallèle et l'autre, perpendiculaire à l'axe longitudinal du filet.

¹ Extrait du Règlement (CE) no 517/2008 de la Commission du 10 juin 2008 portant modalités d'application du règlement (CE) no 850/98 du Conseil en ce qui concerne la détermination du maillage et l'évaluation de l'épaisseur de fil des filets de pêche.

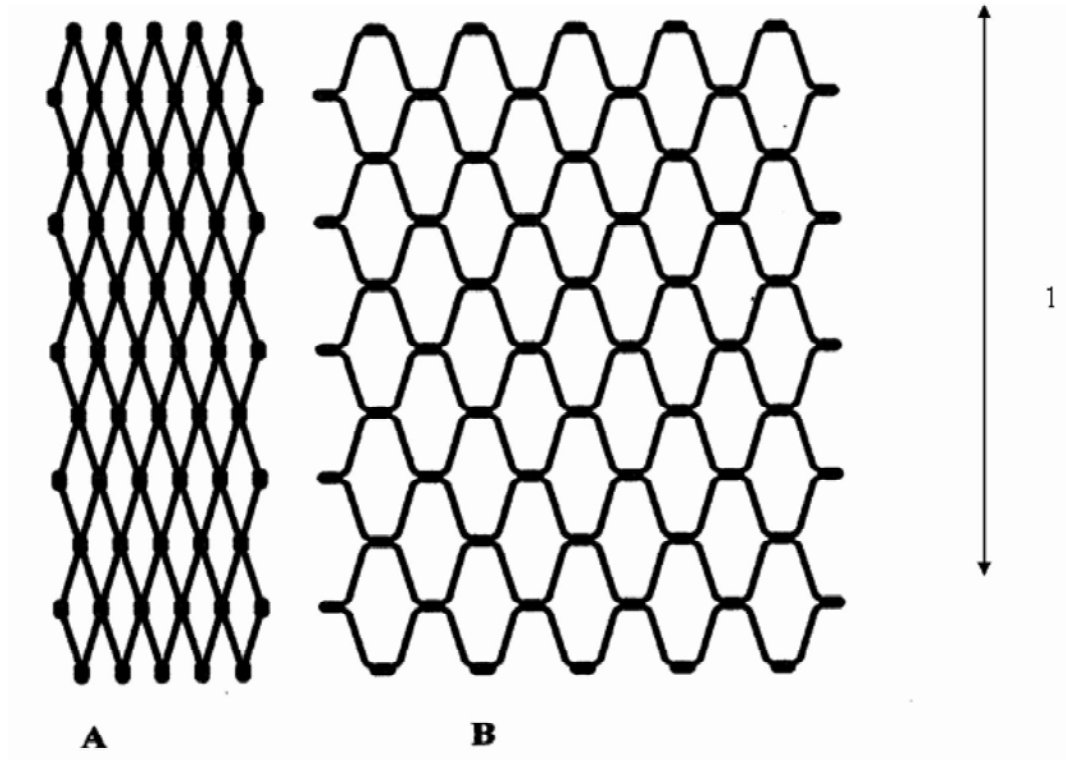
Maillage, sens N et sens T des fils des filets*Figure*

- 1: Dimension de la maille.
- 2: Sens T.
- 3: Orientation générale du filet.
- 4: Sens N.

Filets à mailles losanges noués et filets T 90

Figure 1

L'orientation d'ensemble du fil des nappes d'un filet classique à mailles losanges (A) et celle d'un filet ayant subi une rotation de 90° (B) sont représentées ci-dessous:



A: Filet classique à mailles losanges.

B: Filet à mailles T 90.

1: Axe longitudinal du filet.

Appendix E/Annexe E

Data transmission table - Task 1 (Rec. GFCM/33/2009/3)

Members	Format compliance	Reference year 2008					Format compliance	Reference year 2009					Format compliance	Reference year 2010					
		1.1	1.2	1.3	1.4	1.5		1.1	1.2	1.3	1.4	1.5		1.1	1.2	1.3	1.4	1.5	
Albania	Low	C	C	-	-	-	-	-	-	-	-	-	-	High	C	C	C	C	P
Algeria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	Low	C	C	P	C	-	High	C	C	P	C	-	High	C	C	P	P	-	
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cyprus	High	C	C	P	C	-	-	-	-	-	-	-	-	-	-	-	-	-	
Egypt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
France	High	C	P	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	
Greece	Low	P	C	-	P	-	High	C	C	-	-	-	-	-	-	-	-	-	
Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Italy	High	C	P	-	P	-	High	C	C	C	P	P	-	-	-	-	-	-	
Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lebanon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Libya	Low	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malta	High	C	C	C	C	P	High	C	C	C	C	P	-	-	-	-	-	-	
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Morocco	Low	C	C	P	P	P	-	-	-	-	-	-	-	-	-	-	-	-	
Romania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Slovenia	High	C	C	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	
Spain	High	C	P	-	P	-	High	C	C	P	P	C	-	-	-	-	-	-	
Syrian Arab Republic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tunisia	-	-	-	-	-	-	NC	-	-	-	-	-	-	-	-	-	-	-	
Turkey	High	C	P	C	P	-	NC	-	-	-	-	-	-	-	-	-	-	-	

"C" = Complete, "P" = Partial, "-" = Not submitted, "NC" = Not Compliant

Data transmission table - Fleet

Members	Vessel Records* Res. GFCM/35/2011/1	Regional Fleet Register (RFR) Rec. GFCM/33/2009/5	Authorized Vessel List (AVL) Rec. GFCM/33/2009/6	Minimum Mesh Size (MMS) Rec. GFCM/33/2009/2	Fisheries Restricted Area (FRA) Rec. GFCM/33/2009/1
Albania	-	27 December 2011	27 December 2011	-	-
Algeria	-	-	28 January 2008	-	-
Bulgaria	-	14 April 2011	27 January 2011	-	-
Croatia	-	-	22 October 2007	-	-
Cyprus	-	-	22 October 2008	-	-
Egypt	-	-	08 April 2008	-	-
France	-	-	01 January 2010	-	12 April 2010
Greece	-	20 April 2011	13 April 2011	-	-
Israel	-	-	-	-	-
Italy	-	-	01 January 2010	-	-
Japan	-	-	12 January 2012	-	-
Lebanon	-	-	20 May 2008	-	-
Libya	-	-	16 January 2007	-	-
Malta	-	14 April 2011	13 August 2009	-	-
Monaco	-	-	02 September 2008	-	-
Montenegro	-	-	-	-	-
Morocco	-	-	09 February 2011	-	-
Romania	-	14 April 2011	-	-	-
Slovenia	-	17 August 2011	22 October 2008	-	-
Spain	-	02 May 2011	01 April 2009	-	12 April 2010
Syrian Arab Republic	-	-	02 November 2008	-	-
Tunisia	-	-	04 May 2011	-	-
Turkey	-	01 May 2011	23 September 2009	01 December 2009	-

*RFR, AVL, MMS and FRA data submitted as a single dataset

Draft terms of reference of selected meetings

1. (SCSI/SCSA/SCSS) Transversal Workshop on the new Task 1 and 2 data submission framework to define a Plan of Action to improve member countries' capacity to collect and submit relevant data.

- Review the work done by the consultants and agree upon the final structure and definitions of Task 1 and 2;
- Propose actions to address, if needed, the remaining work to be done in order to have all variables included in Task 1 and 2 fully described and relevant agreed protocols for data collection and submission;
- Propose actions within the GFCM Framework Programme to address the gaps and deficiencies in national fisheries information systems, together with FAO regional projects.

2. Working Group on the review of the variables list of Task 1.3 and their relevant definitions (back-to-back with the SCSS Session)

- Review the economic components variables of the Task 1. 3;
- Enrich, revise and/or fine tune the definitions provided for each of these variables.

3. GFCM/ICES/EIFAAC Workshop on EEL

Previous to the meeting, a consultant should be identified to chair the meeting and to do the needed preparatory work which includes *inter alia*:

- Consideration of data requirements for the assessment of the local stocks, and identification of data and knowledge gaps, focusing on the data reporting requirements of the EU and CITES
- Launch of a data call for the participants ensuring that the objectives of the meeting can be achieved. (i.e. eel production, yield and escapement, including physical habitat data (e.g. wetted area, productivity);

ToRs of the Workshop on EEL:

- Identification of available data, summary of published documentation, creation of a data inventory, analysis of gaps and identification of any management plans implemented;
- Assessment of local stocks;
- Estimation of aquaculture production in the GFCM area;
- Assessment of the anthropogenic impacts on the stock and its relation to the targets/limits of the (national) Eel Management Plans (if present) and the (international) EU Recovery Plan and the need for non-detriment findings under CITES.

4. 3rd Meeting of the SCSA Working Group on Assessment Methodology WGAM on: Time Series Analysis as proposed by the SCSA:

- (ToRs to be defined) A training style approach should be implemented and practical sessions to develop case studies with data provided by participants should be included. The outcomes may be published in a handbook as a special issue of GFCM Studies and Reviews.

Projet de termes de référence de certaines réunions

1. Atelier transversal SCSI/SCES/SCSES sur le nouveau cadre de communication des données des Tâches 1 et 2, visant à définir un plan d'action pour améliorer la capacité des États membres à collecter et communiquer des données pertinentes:

- examen des travaux effectués par les consultants et détermination de la structure finale et des définitions des Tâches 1 et 2;
- proposition d'actions pour réaliser, si nécessaire, les activités restantes afin que toutes les variables incluses dans les Tâches 1 et 2 soient décrites dans leur intégralité et que des protocoles pertinents pour la collecte et la communication de données soient convenus;
- suggestion, au sein du Programme-cadre de la CGPM, d'actions visant à pallier les lacunes et les défaillances des systèmes nationaux d'information sur la pêche, en collaboration avec les projets régionaux de la FAO.

2. Groupe de travail chargé d'examiner la liste de variables de la Tâche 1.3 et leurs définitions correspondantes:

- passage en revue des variables de composantes économiques de la Tâche 1.3;
- enrichissement, révision et/ou affinement des définitions fournies pour chacune de ces variables.

3. Atelier CGPM/CIEM/CECPAI sur l'anguille

Il convient de désigner au préalable un consultant qui sera chargé de présider la réunion et d'effectuer les travaux préparatoires nécessaires, notamment:

- réflexion sur les besoins de données pour l'évaluation des stocks locaux et recensement des lacunes en matière de données et de connaissances, en se fondant sur les conditions de présentation des données formulées par l'UE et la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction (CITES);
- appel à la fourniture de données par les participants afin que les objectifs de la réunion puissent être atteints (production, rendement et échappement des anguilles, y compris données sur l'habitat physique comme la surface mouillée et la productivité).

Objectifs de l'atelier sur l'anguille:

- recensement des données disponibles, résumé de la documentation publiée, mise en place d'un inventaire des données, analyse des lacunes et recensement de tous les plans de gestion mis en œuvre;
- évaluation des stocks locaux;
- estimation de la production aquacole dans la zone relevant de la CGPM;
- évaluation des impacts anthropogéniques sur le stock et mise en relation avec les cibles/limites des plans (nationaux) de gestion de l'anguille (lorsqu'ils existent) et du Plan de reconstitution de l'Union européenne (international), ainsi que de la nécessité d'établir des constatations de non-préjudice dans le cadre de la CITES.

4. Troisième réunion du Groupe de travail permanent du SCES sur les méthodologies d'évaluation des stocks (PWGAM), consacrée à l'analyse de séries chronologiques (sur proposition du SCES):

- (objectifs à définir) des formations doivent être mises en place et des sessions pratiques doivent être organisées en vue de réaliser des études de cas à partir des données fournies par les participants; les conclusions pourraient être publiées sous la forme d'un manuel, dans le cadre d'une édition spéciale des *Études et revues* de la CGPM.

**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 to be considered by SAC
Albania	NO DATA PROVIDED FOR 2011							
Algeria	<ul style="list-style-type: none"> ▪ Fleet: 4 191 vessels; ▪ Production (2010): 95 167 tonnes. 	<ul style="list-style-type: none"> ▪ Optimal rate of exploitation for sardine and round sardinella. 	<ul style="list-style-type: none"> ▪ 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. ▪ In cooperation with FAO, a project is undergoing in support of the national statistical plan. 	<ul style="list-style-type: none"> ▪ Main research objectives focus on: <ul style="list-style-type: none"> - biological studies of living aquatic resources - assessment and conservation of marine resources - monitoring of fishing effort - improvement and development of aquaculture production systems. ▪ 10 projects under the National Research Plan have been recently accepted and will be carried out shortly. 		<ul style="list-style-type: none"> ▪ Among the 10 projects under the National Research Plan that have been recently accepted and will be carried out shortly there is one on the control of coastal pollution and one on a new the Electro-Fenton treatment. 	<ul style="list-style-type: none"> ▪ Regulations published in 2010-2011: <ul style="list-style-type: none"> - 3 fisheries regulations (décret exécutives) on fishing activities - 3 fisheries regulations (décret exécutives) on aquaculture - 1 fisheries regulation (décret exécutif) on marine scientific research. 	

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Bulgaria	<ul style="list-style-type: none"> ▪ Activities in GSA 29 ▪ Production (2011): 8 130.23 tonnes ▪ Fleet: 2 336 	<ul style="list-style-type: none"> ▪ Under DCR EC 199/2008 surveys of turbot and sprat biomass not yet finalized. 	<ul style="list-style-type: none"> ▪ The Bulgarian Executive Agency of Fishery and Aquaculture is responsible for the registers of: Licenses for commercial fishery; Tickets for the recreational fishery; Physical persons involved in aquaculture activities; Fishing fleet; First sale centers; Registered buyers; Organizations of fish producers and branch organizations, producing, trade or processing fish and other aquatic organisms; Fishing licenses aiming scientific investigations; ▪ NAFA issues commercial fishery licenses of the physical persons, willing to fish with commercial purposes. 	<ul style="list-style-type: none"> ▪ EC FP7 UBSS, continuation of the BS SCENE project (2006-2008). ▪ EC FP7 EnviroGRIDS ▪ EC FP7 PEGASO ▪ EC FP7 Know Seas ▪ EC FP7 PERSEUS ▪ EC FP7 CREAM. 	<ul style="list-style-type: none"> ▪ A study to analyse different scenarios for testing different fisheries management measures. 	<ul style="list-style-type: none"> ▪ Environmental research of the area of interest of territorial waters (fish, zoo, phytoplankton, macrozoobenthos, macroalgae, ichthyoplankton, geology, chemistry and physics of the area of interest) under contract of IO-BAS and Moscow Governmental University; ▪ Monitoring of the coastal marine waters (1 mile zone) under the Directive 2000/60/EC, WFD. Biological quality elements investigated in 2011 were phytoplankton, macrozoobenthos and macroalgae; ▪ Natura 2000 in Bulgarian marine zone. 	<ul style="list-style-type: none"> ▪ Council regulation (EU) No 5/2012 from 12/2012: Fixing for 2012 fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Black Sea; ▪ Commission implementing regulation (EU) No.404/2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy. 	

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Croatia	<ul style="list-style-type: none"> ▪Activities in GSAs 17 and 18 ▪Fleet: 4 091 units; ▪Production (2010): 51 438 tonnes. 	<ul style="list-style-type: none"> ▪Outputs of these VPA assessment demonstrated that anchovy and sardine stocks in GSA 17 can be considered as fully exploited (biomass levels in 2010). ▪<i>Solea solea</i> stock in GSA 17 is overfished. ▪Long-term trends in biomass index in Croatian fishing sea shows high fluctuation with negative changes in last 2–3 years for the most important stocks as hake, Norway lobster and selachians. 	<ul style="list-style-type: none"> ▪Croatian Fishing Fleet Register is electronically-kept, 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. ▪In 2011, Croatia has embarked on installation of electronic logbooks on all its vessels over 15 m in length (since 01/01/2012 system operational on all vessels over 18 m LoA). Process continuing. e-Logbook enables the DoF to promptly collect data from fishing activities and cross-check with the relevant VMS data. 	<ul style="list-style-type: none"> ▪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 “PRIMO” monitors coastal fisheries and includes fisheries biological sampling on most important fishing gears. ▪Project “SOLEMON” Evaluation of stock of Common Sole (<i>Solea solea</i>) and other flatfish in the Adriatic sea ▪Project “DEEP SEA” ▪Project “UWTV Survey”. 	<ul style="list-style-type: none"> ▪Social and economical studies are currently being developed within the definition of the national data collection program fully in line with the EU DCF rules. 	<ul style="list-style-type: none"> ▪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. 	<ul style="list-style-type: none"> ▪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. 	<ul style="list-style-type: none"> ▪Consideration should be given to international monitoring of demersal resources in Jabuka Pit. It is considered highly important to intensify research and monitoring activities. ▪To organize permanent international monitoring of the status of the stocks and fishing effort in this area. ▪Continue with the activities in the framework of Adriamed.

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Cyprus	<ul style="list-style-type: none"> ▪ Fleet (2010): 542 vessels; ▪ Production of the most significant species (2010): 866 tonnes ▪ Total working days (2010): 68 515 ▪ Fleet operates in GSAs 25 and International waters Central and Eastern Mediterranean 	<ul style="list-style-type: none"> ▪ Monitoring of demersal and large pelagic species in GSA 25, under the EU Data Collection Framework. ▪ <i>B. boops</i>, <i>M. barbatus</i> and <i>M. surmuletus</i> were evaluated as “in overfishing state” ▪ The stock of <i>S. smaris</i> was also evaluated as in overfishing state (2008-2010). The assessment was endorsed as preliminary by the 2012 SCSA. 	<ul style="list-style-type: none"> ▪ The data collected by the fishery statistical system is used to: i) serve as guide for management purposes, ii) provide statistical information to other bodies, iii) be analysed for scientific purposes ▪ The National Database for data collection and storage in the fisheries sector is comprised of: i) Data Collection Network System (Data Transmission) ii) Central database and iii) 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. 	<ul style="list-style-type: none"> ▪ National Fisheries Data Collection Programme: biological sampling for the evaluation of length and age composition of landings, estimation of biological parameters (growth, maturity) for a number of species; discards sampling for the evaluation of the discard rates from the different fisheries ▪ The National Programme includes implementation of the International Bottom Trawl Survey in the Mediterranean (MEDITS) around Cyprus waters (GSA 25) ▪ Research in Aquaculture is being done in the Department’s experimental stations. The aquaculture research projects include reproduction, development of brood stock populations and good quality and quantity of eggs and larvae of species cultured. 	<ul style="list-style-type: none"> ▪ Socio-economic surveys carried out by Department of Fisheries and Marine Research (DFMR) through: Inshore Fishery Production Reports, Logbooks, the Fishing Licences and the Sales Notes, interviews. 	<ul style="list-style-type: none"> ▪ Research on marine ecology with a particular emphasis on marine biodiversity. ▪ Studies on effects on marine ecosystem from various anthropogenic activities. ▪ Monitoring studies on appearance and expansion of invasive alien species in Cyprus marine environment ▪ 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 (<i>C. mydas</i> and <i>C. caretta</i>), monk seal (<i>M. monachus</i>), <i>Posidonia oceanica</i> seagrass meadows. ▪ 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 Lamaca Salt Lake complex and Akrotiri wetlands. ▪ Implementation of the Habitats Directive (92/43/EEC) as regards to coastal waters. ▪ Implementation of Marine Framework Strategy Directive (2008/56/EC). 	<ul style="list-style-type: none"> ▪ The National and EC legislation provides for a number of management measures for the regulation of the Cyprus fisheries. ▪ DFMR formulated and implements a Fisheries Management Plan for 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. 	<ul style="list-style-type: none"> ▪ No proposals.

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Egypt	<ul style="list-style-type: none"> ▪ Fleet: 4633 motorised – 3 092 vessels; sail – 1 541 vessels ▪ Production (2010): 77 388 tonnes. 	<ul style="list-style-type: none"> ▪ <i>Pagellus erythrinus</i> is in overfishing. current F higher than F_{0.1} and F_{max}. ▪ <i>Euthynnus alletteratus</i> is overexploited ▪ The round sardinella stock in the Eastern Mediterranean Sea, North Sinai coast was in balanced position. 	<ul style="list-style-type: none"> ▪ Pilot survey on Catch and Effort data started in Egypt with support of EastMed project (GFCM). ▪ GAFRD-owned catch/effort system SAMAC has been operating since June 2011 for handling basic functions of the sample-based catch/effort programme. ▪ The statistics collection procedures have recently been upgraded and monitoring, control and surveillance activities have been improved. 	<ul style="list-style-type: none"> ▪ Pilot survey on biological sampling started in Egypt with support of EastMed project (GFCM). Includes guidelines on sampling frequencies and number of samples to be collected ▪ 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. 	<ul style="list-style-type: none"> ▪ Workshop on Socio-economic Assessment of Egyptian Fisheries (2011) ▪ A study the impact of some variables on rational fishing behavior of motorized boats skippers in 2 ports along the Egyptian Mediterranean Sea Coast was conducted. ▪ A preliminary Fisheries Socio-Economic Survey in Egypt intended to start a sampling frame for collection of socio-economic data. 	<ul style="list-style-type: none"> ▪ The Gulf of Sallum (a nursing ground for many fish and crustacean species on the western coast of Egyptian Mediterranean Sea) was declared in 2010 as the first marine Egyptian protected area in the Mediterranean for the purpose of fisheries and biodiversity conservation. 	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Fishing harbour facilities need to be improved at strategic sites. ▪ There is increasing need for management of small-scale fisheries within territorial waters. ▪ Enlarge and modernize offshore fishing in the Egyptian EEZ.

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France	<ul style="list-style-type: none"> ▪ Activities in two GSAs: GSA 07 and GSA 08 ▪ 1348 vessels (GSA 07); 218 vessels (GSA 08) ▪ Production: 19147 tonnes (GSA 07); 10 most important species not including bluefin tuna) 	<ul style="list-style-type: none"> ▪ <i>Merluccius merluccius</i> (GSA 07) growth overexploitation with a risk of recruitment overexploitation. ▪ <i>Mullus barbatus</i> (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. 	<ul style="list-style-type: none"> ▪ The “Système d’Information Halieutique (SIH)” managed by IFREMER is carried out within the framework of the Data Collection framework of the EU. ▪ Catch and effort surveys and biological sampling carried out for small scale fisheries <12 m LOA. ▪ On board observers for trawlers, for marine mammals by-catch and aircraft observers for bluefin tuna ▪ MEDITS and PELMED surveys annually. 	<ul style="list-style-type: none"> ▪ AMPED project: Marine Protected Areas for highly migratory species ▪ HACOUSMED Harmonisation des données ACOUSTIQUES en MEDiterranée ▪ Bluefin tuna research ▪ IPEP Project: impact of fisheries on protected species ▪ Research on Mediterranean sharks and on sea turtles. 	<ul style="list-style-type: none"> ▪ RP3E National project to assess revenues by reducing fuel consumption and reducing environmental impact. 		Implementation of EC regulation 1967/2006 by French fisheries.	

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Greece	<ul style="list-style-type: none"> ▪Fleet: 17 164 vessels; ▪production (2010) 71 633 tonnes 	<ul style="list-style-type: none"> ▪GSA 22: Anchovy stock is fully exploited with no expected room for expansion. ▪The exploitation rate of sardine was found to produce high fishing mortality and the stock abundance was estimated as intermediate. 	<ul style="list-style-type: none"> ▪Fishery statistical data are collected by Administration under various Ministries (EL.STAT is the only administrative body gathering fisheries data from vessels having overall length more than 10 m). 	<ul style="list-style-type: none"> ▪Structure of Fish Populations and Traceability of Fish and Fish Products (FishPopTrace) ▪Harmonisation of the Mediterranean acoustic data 2002-2006 (AcousMed) ▪Rapid assessment of alien marine species in the Albanian and Montenegrin coast (ALBAMONTE) ▪Estimating maximum net length of trammel nets, gillnets and combined bottom set nets by using volume or mass of the net (ARCHIMEDS) ▪Bycatch and discards: management indicators, trends and location (BADMINTON) ▪Bio-Economic Modelling TOOLS (BEMTOOL) ▪Developing fisheries management indicators and targets (DEFILNET MARIFISH) ▪Management and monitoring of deep-sea Fisheries and Stocks (DEEPFISHMAN) ▪Judgment and knowledge in fisheries involving stakeholders (JAKFISH) ▪Mediterranean network of sustainable small-scale fishing communities (FISHINMED) ▪Mediterranean halieutic 		<ul style="list-style-type: none"> ▪Architecture and roadmap to manage multiple pressures on lagoons (ARCHITECTURE) ▪Concrete Conservation Actions for the Mediterranean Shag and Audouin's Gull in Greece, including the Inventory of Relevant Marine IBAs (ConShagAudMIBAGR) ▪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) ▪Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas (CREAM) ▪The identification and mapping of Essential Fish Habitats using Geographic Information Systems (EFH-GIS) ▪Collection of environmental, ecological, oceanographic and fishery data for the Argolikos gulf (KOUAPONIA) ▪Mitigating adverse ecological impacts of open ocean fisheries (MADE) ▪Mediterranean Sensitive Habitats (MEDISEH) ▪Maximising yield of fisheries while balancing ecosystem, economic and social concerns (MYFISH) ▪Planning a network of marine protected areas for the Mediterranean Sea (NETMED) 	<p>In addition to EC fisheries management measures (Reg.1967/2006), Greece has adopted several national measures for managing fishing effort: 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</p> <ul style="list-style-type: none"> ▪Regarding large pelagics, all recommendations on BFT and swordfish in the Mediterranean sea as adopted by ICCAT and GFCM were fully implemented during the intersessional period. <i>Thunnus thynnus</i>, <i>Thunnus alalunga</i> and 	No proposals.

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				<ul style="list-style-type: none"> Resources Evaluation and Advice - horizontal services (MAREA) ▪Monitoring and evaluation of spatially managed areas (MESMA) ▪Métiers in Small Scale Fisheries ▪Updating the inventory of Marine Invasive Alien Species across European Seas (MIAS) ▪Assessing the causes and developing measures to prevent the escape of fish from sea-cage aquaculture (PREVENT ESCAPE) ▪Socio economic effects of management measures of the future CFP (SOCIOEC) ▪Surfacing System for Ship Recovery (SuSY) ▪Management plan for demersal trawl fisheries in Greek seas (TRAWLPLAN) 		<ul style="list-style-type: none"> ▪Options for Delivering Ecosystem-based marine management (ODEMM) ▪People for ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast (PEGASO) ▪Contribution in the elaboration of the Strategic Study of Environmental Impact of aquaculture within the frame of the National Cadastral Design and Sustainable Development plan for aquaculture (SMPE) ▪Water body in Europe: integrative system to assess ecological status and recovery (WISER). 	<p><i>Xiphias gladius</i>, fishery is regulating by issuing special permits valid for one year.</p> <ul style="list-style-type: none"> ▪Seasonal closure for swordfish from October to January. 	
Israel	NO DATA PROVIDED FOR 2011							

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Italy	<ul style="list-style-type: none"> ▪ Fleet (2010): 13 301 ▪ Production (2010): 223 000 tonnes 	<ul style="list-style-type: none"> ▪ Hake stocks are heavily overfished. ▪ Red mullet is also overfished, but with less intensity than hake. ▪ Several other species are overfished or overexploited in the 7 GSAs relevant for Italy: <i>Solea vulgaris</i>, <i>Pagellus erythrinus</i>, <i>Mullus surmuletus</i>, <i>Parapenaeus longirostris</i>, <i>Nephrops norvegicus</i>, <i>Aristaeomorpha foliacea</i>, <i>Engraulis encrasicolus</i>, <i>Sardina pilchardus</i>. 	<ul style="list-style-type: none"> ▪ 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. ▪ Within the European Regulation on Data Collection (EU reg. n. 199/2008) a centralized database has been developed to store fishery statistics (capacity, effort and landings data), economic data of the fleet, economic data of the aquaculture sector, economic data of the processing industries, biological data (parameters of the population by species and surveys data), and ecosystem indicators. 	<ul style="list-style-type: none"> ▪ Fisheries data have been collected in the framework of the Italian National Data Collection Program 2010, 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. ▪ Strategies for the commercial exploitation of the Adriatic bluefish. Networks and relations with the territory; ▪ Bio-economic models ▪ Nutritional and safety aspects of fish species from fishery and aquaculture ▪ Assessment of <i>Anguilla anguilla</i> in the framework of UE Reg. 1100/2007 ▪ Pilot project for the development of stereoscopic video images to estimate size of bluefin tuna. 	<ul style="list-style-type: none"> ▪ Cooperation development in the Mediterranean fishery sector – the labour context, the producers associations, training. 	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Technical measures adopted in order to ensure exploitation and conservation of living aquatic resources or the protection of marine ecosystems. ▪ Fishing activities (<i>i.e.</i> trawlers) temporarily banned. ▪ Biological stop changed among regions in order to improve the marine environment and to avoid to the depletion of certain stocks. ▪ In 2010 - Adjustment plans of Fishing Effort in order to achieve a sustainable balance between capacity and resources were implemented within the framework of the Fisheries Operational Programme. 	<ul style="list-style-type: none"> ▪ International interest on shared trans-boundary stocks' data. ▪ Suggestions: population dynamics and genetics, EAF, data collection methods, oceanography – fisheries interactions, revising 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, EAFM indicators.

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Japan	NO DATA PROVIDED FOR 2011							
Lebanon	<ul style="list-style-type: none"> ▪ Fleet (in GSA 27): 2 662 vessels ▪ Production: n/a 	▪ n/a	<ul style="list-style-type: none"> ▪ 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 - structured into three distinct but interrelated components. 	<ul style="list-style-type: none"> ▪ First record of <i>Diadema setosum</i> (Leske, 1778) (Echinodermata, Echinoidea, Diadematidae) from Lebanon, Eastern Mediterranean. ▪ Biological Study and Stock Assessment of Boops boops, <i>Diplodus sargus sargus</i>, and <i>Lagocephalus scleratus</i> off the Coast of North Lebanon (M. Sc. Thesis). ▪ Puffer fish: <i>Lagocephalus scleratus</i>, a Review Report. ▪ Historical Catch Reconstruction for fisheries in Lebanon. ▪ Juvenile fish assemblages in the pelagic waters of the eastern Mediterranean. ▪ Reproduction of the Lessepsian invader <i>Fistularia commersonii</i> in the eastern Mediterranean. ▪ Biology of shore crabs along the Lebanese coast. ▪ The marine fishes of Lebanon. ▪ First record of the blacktip grouper <i>Epinephelus fasciatus</i>. ▪ First record of the cube boxfish <i>Ostracion cubicus</i> (Ostraciidae) and additional records of <i>Champsodon</i> 	▪ n/a	<ul style="list-style-type: none"> ▪ Overview of the conservation status of the marine fishes of the Mediterranean Sea. ▪ Marine Reserve Network for the Lebanese Waters ▪ 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) ▪ Environmental Resources Monitoring Project-UNEP ▪ Evaluating coastal risk on the Chekka El Heri beach through the assessment of the physical oceanographic parameters. 	<ul style="list-style-type: none"> ▪ Minister Decision 676/1 on 27/7/2011 regarding ban on fishing, transporting, selling, and consuming certain kinds of fish (puffer fish). 	<ul style="list-style-type: none"> ▪ Promote and integrate fisheries research as part of the Ecosystem Based Management. ▪ Developing an "information system" for artisanal fisheries. ▪ Monitoring of invasive species in the Lebanese waters and their population dynamics. ▪ Assess stocks commercial fish species in Lebanon. ▪ Research the impact of invasive species on commercial stock in particular and the coastal marine

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				<p><i>vorax</i> (Champsodontidae) from the Mediterranean.</p> <ul style="list-style-type: none"> ▪ CANA Project by Lebanese National Council for Scientific Research (CNRS) ▪ Status of the social sciences studies in progress or achieved during the intersessional period (economy, relevant legislation, sociology, etc.). 				<p>ecosystem in general.</p> <ul style="list-style-type: none"> ▪ Update on a yearly basis of the fish biodiversity richness in the Lebanese territorial waters. ▪ Monitoring of marine macro-algae in the perspective of climate change.
Libya	NO DATA PROVIDED FOR 2011							
Malta	<ul style="list-style-type: none"> ▪ Fleet: 3 039 vessels ▪ Total production of main species: 1 835 tonnes 	<ul style="list-style-type: none"> ▪ GSA 15 (reference year = 2010) ▪ <i>P. longirostris</i> – overexploited ▪ <i>M. merluccius</i> – overexploited ▪ <i>A. foliacea</i> – overexploited ▪ <i>M. barbatus</i> – overexploited ▪ <i>P. erythrinus</i> – overexploited 	<ul style="list-style-type: none"> ▪ Malta collects data on catch and effort for each segment by species, by quarter and by geographical origin. ▪ Catch and effort figures are based on exhaustive data reported in logbooks (for vessels over 10 m LOA), by sampling the small scale fishery (for vessels less than 10 m LOA) through an 	<ul style="list-style-type: none"> ▪ Stock status of commercially important demersal species ▪ Determination of growth parameters for <i>Coryphaena hippurus</i> ▪ Confirming the taxonomic status of the <i>Squalus blainvillei</i> and subsequent determination of population dynamics, aspects of the ecology and analysis of stock status for the Central Mediterranean ▪ A detailed analysis of ecology and stock status of commercially important cephalopod species with particular reference to 	<ul style="list-style-type: none"> ▪ Socio-economic data is 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 annually. 	<ul style="list-style-type: none"> ▪ 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. ▪ Researching gear alternatives for the artisanal prawn (<i>Palaemon</i> and <i>Processa</i> spp.) beam trawl traditionally used on <i>Posidonia oceanica</i> meadows. ▪ Researching the biology of prawns (<i>Palaemon</i> and <i>Processa</i> spp.) targeted by artisanal beam trawls traditionally used on <i>Posidonia oceanica</i> meadows. 	<ul style="list-style-type: none"> ▪ Malta implemented the management measures in line with EU regulations, and according to the recommendations by ICCAT and GFCM. ▪ In 2011 Malta submitted its updated Fisheries Management Plan in line with EC 1967/2006 to the EC. 	<ul style="list-style-type: none"> ▪ Further promoting the regional identification of critical habitats (nursery and spawning areas) as well as stock structure for commercially important species throughout the Mediterranean

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		<ul style="list-style-type: none"> Maltese scientists in collaboration with Italian scientists in Sicily carried out assessments in GSAs 15 and 16 combined for the species: <i>Raja clavata</i>, <i>Aristaeomorph a foliacea</i>, <i>Mullus barbatus</i> and <i>Pagellus erythrinus</i>. 	<p>exhaustive sampling survey questionnaire, on sales notes from the official fish market and from direct sales data. The data collected is in line with the EU Data Collection Framework (DCF) EC 199/2008, EC 949/2008, EC 93/2010.</p> <ul style="list-style-type: none"> In 2011 Malta submitted data collected within the framework of the DCF to several international bodies / for use by several projects. Malta is at present developing a new Fisheries Information System (FIS) 	<p><i>Octopus vulgaris</i></p> <ul style="list-style-type: none"> Genetic analysis of <i>Octopus vulgaris</i> tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12-16) Genetic analysis of <i>Engraulis encrasicolus</i> (anchovy) tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12–16) Monitoring and evaluating spatially managed marine areas (EU FP7 project MESMA) Ecosystem Approach to Fisheries (EAF) management (EU FP7 project CREAM) Bridging the GAP between fisheries scientists and fishers (EU FP7 project GAP) 	<ul style="list-style-type: none"> Data is collected by means of postal questionnaires or questionnaires completed during direct interviews. Malta annually submits the report on efforts to achieve a sustainable balance between fishing capacity and fishing opportunities in accordance with Commission Regulation (EC) 1013/2010. Amongst other sections, the report presents a set of technical, biological, economic and social indicators. 		<ul style="list-style-type: none"> The plan outlines fisheries management measures for the fleet segments bottom otter trawlers, tartarun, lampara, dolphinfish purse seiners and gangmu in 2011–2015. 	
Monaco	NO DATA PROVIDED FOR 2011							

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 to be considered by SAC
Montenegro	<ul style="list-style-type: none"> ▪ Fleet: 218 vessels operating in GSA 18 ▪ As from 2010, 10 more trawlers and 20 purse seiners. 	<ul style="list-style-type: none"> ▪ Results of the stock assessments on <i>Merluccius merluccius</i> in GSA 18 showed that Montenegrin trawlers account for about 1% of F, considering that also Albania and Italy are involved in hake fishery in GSA 18 most of F is derived from Italian fleet (92–93%). ▪ Biomass assessment of small pelagic fish species were performed in all GSA 18 in the framework of the AdriaMed project. 	<ul style="list-style-type: none"> ▪ Monitoring and initial activities on setting up of a database on the statistical and information (Vessel register, logbooks, VMS, etc.) framework has begun in Montenegro. The expectations are that, by the end of 2012 a fully operated Fishery Information System (FIS) will be in place with fully operational VMS on vessels over 10m LOA. Also laws and legislations are expected to be totally harmonized with Common Fisheries Policy CFP-EU and with GFCM Recommendations. 	<ul style="list-style-type: none"> ▪ Activities within the framework of ADRIAMED. ▪ Pilot study on biological samples continued in 2011-2012. Samples of 18 commercially important species were taken on a monthly basis from all vessels in three fishing ports. ▪ Population parameters for juvenile anchovy and sardine from small scale fisheries in Boka Kotorska Bay will be shortly published in a PhD Thesis. ▪ In 2009, in Bakakotorska Bay, experimental farming of oysters started in order to develop mariculture and introduce new, native species in farming process. 	<ul style="list-style-type: none"> ▪ 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. ▪ In 2011, a pilot project on collecting socio-economic data in marine fishery has not developed. Further elaboration and continuation of this project is expected in the next period. 	<ul style="list-style-type: none"> ▪ Under the RAC SPA activities in Montenegro, a preliminary analysis of the establishment of the MAP of Katić (Budva Municipality) is underway. It is expected that by 2015, Katić MPA will be set up and it will be the operational model for the development of a national system of MPAs in Montenegro. ▪ Documents on Coastal Area management Programme (CAMP) and Special Plan for the Coastal Area of Montenegro (PPPOP), under development as well by same scientists involved in creation of the new MPA. 	<ul style="list-style-type: none"> ▪ The Parliament of Montenegro adopted the Law on Marine Fisheries and Mariculture (August 2009), which lays down objectives and principles for sustainable management of living marine resources and governs general fishery policy. ▪ The National program of Fisheries Development (NFP) 2009-2013, adopted in February 2009, indicates middle-short terms aims of fishery development and the necessary measures, programs, financial support for the implementation of fishery policy. ▪ A 2-years EU funded IPA project on Sustainable management of marine fisheries (September 2010). 	<ul style="list-style-type: none"> ▪ No proposals.

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 to be considered by SAC
Morocco	NO DATA PROVIDED FOR 2011 in time for regional synthesis							
Romania	<ul style="list-style-type: none"> ▪ Fleet in 2010 (in GSA 29): 430 vessels (206 active). ▪ Production in 2010: 258 tonnes 	<ul style="list-style-type: none"> ▪ Sprat, turbot, whiting and dogfish are the most important species. ▪ Production declined dramatically in the last ten years (from 2 476 tonnes in 2000 to 258 tonnes in 2010). 	<ul style="list-style-type: none"> ▪ Fisheries data obtained by NIMRD projects. Data are transmitted to Romanian NAFA in the frame of National Data Collection Program. Fisheries data are also uploaded in JRC data base. ▪ In parallel way, National Fisheries Report transmitted annually to the Black Sea Commission. ▪ With the help of the NAFA statistics/collecting data system are performed crosscheck verifications between the logbooks, declarations of origin and (first) sales notes of fish and other aquatic organisms and reports. 	<ul style="list-style-type: none"> ▪ National Fisheries Data Collection Program/ NAFA-DG Mare. ▪ Service of fish species inventory. ▪ CE/CBC - Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries – (SRCSSMBSF). ▪ FP7/KBBE Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas (CREAM); Policy-oriented marine Environmental Research for the Southern European Seas (PERSEUS). ▪ FP7: OCEAN: A COast to COast NETWORK of protected areas: from the shore to the deep sea. 	<ul style="list-style-type: none"> ▪ Not provided. 	<ul style="list-style-type: none"> ▪ National monitoring programme of coastal and marine waters (permanent). ▪ NATO: Bio-optical characterization of the Black sea for remote sensing applications. ▪ ESA: Ocean color-Application for the Western Black Sea. ▪ Meris Validation data. ▪ CE/PC7 European Marine Observation and Data Network (EMODNET). ▪ UE/CBS: Industrial Symbiosis Network for Environment Protection and Sustainable Development in the Black Sea Basin. ▪ EU/FP7: Pan - European infrastructure for Ocean&Marine Data Management (SEADATANET II); Options for delivering ecosystem-based marine management (ODEMM); Development and pre-operational validation of upgraded GMES Marine Care Services and capabilities (MyOcean). ▪ NP II – ERA NET Radiation background of Black Sea coastal environment (RACE); Molecular approaches for rapid and quantitative detection of cyanobacteria and their toxins from the coastal Black Sea (MARCY). 	<ul style="list-style-type: none"> ▪ Law No. 82/20.11.1993, on the Constitution of the Biosphere Reserve “Danube Delta” ▪ Law No. 137/1995, on Environmental Protection ▪ Law No. 23/2008, on Fishing Fund, Fishery and Aquaculture ▪ Order No.179/1 2001, regarding the Registering and transmission of the data related with the marine fishing activity; ▪ Order No.262/16 2001, regarding the Preparation of the Directory of Vessels and Fishing boats; 	<ul style="list-style-type: none"> ▪ Research regarding distribution and abundance of the two main species in the Black Sea: turbot and dogfish.

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 to be considered by SAC
							<ul style="list-style-type: none"> ▪ Order no. 422/30/2001 for development of the commercial fishing activities in the Black Sea waters; ▪ Annual Order on the Fishing Prohibition (753/2008); ▪ Order no. 344/2008 for the operational and functional manner of fishing vessel and boats file; ▪ Order no. 342/2008 on minimal size of the aquatic living resources; ▪ Order no. 449/2008 on technical characteristics and practice conditions for fishing gears used in the commercial fishing. 	

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 to be considered by SAC
Slovenia	<ul style="list-style-type: none"> ▪ Fleet (in GSA 17): 186 vessels ▪ 2011 Production: 719 tonnes 	<ul style="list-style-type: none"> ▪ Sardine (<i>Sardina pilchardus</i>): Fully exploited ▪ Anchovy (<i>Engraulis encrasicolus</i>): Fully exploited 	<ul style="list-style-type: none"> ▪ Information system InfoRib contains several modules. The modules are stored in a centralized database in the Ministry of Agriculture, Forestry and Food. ▪ Preparation of the national plan for the implementation of the validation system in line with the Council Regulation (EC) No 1224/2009 ▪ The year 2012 will be greatly marked by the building of the Electronic Logbook Module. 	<ul style="list-style-type: none"> ▪ Slovenia is performing two research surveys at sea: MEDITS and MEDIAS. ▪ SOLEMON project (Evaluation of the stock of <i>Solea vulgaris</i> in the Central and Northern Adriatic and estimation of the impact of different gear) in the frame of AdriaMed. 	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ In October 2010 a 3-year survey started, determining biological and ecological characteristics and seasonal dynamics of five commercially important fish species in the Portorož Fisheries Reserve. 	<ul style="list-style-type: none"> ▪ Management measures in the Slovenian seas follow the Council Regulation (EC) No 1976/2006 which contains principles and rules relating to the conservation and management of the living resources of the seas. ▪ The Regulation on monitoring of catches and selling of fisheries products (from 2008) is being revised in line with the new EC Control Regulation. 	<ul style="list-style-type: none"> ▪ No proposals.

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 to be considered by SAC
Spain	<ul style="list-style-type: none"> ▪Fleet: Operates mainly in 4 GSAs ▪Fleet (2010): 3 219 vessels; ▪Production of main species: 46 071 tonnes 	<ul style="list-style-type: none"> ▪GSA 01 – <i>Merluccius merluccius</i> overfishing status, biomass in intermediate level of abundance ▪GSA 05 - <i>Aristeus antennatus</i> overexploited - <i>Merluccius merluccius</i> overexploited - <i>Mullus surmuletus</i> overexploited ▪GSA 06 - <i>Mullus barbatus</i> overexploited, low level of abundance - <i>Parapenaeus longirostris</i> overexploited <i>Engraulis encrasicolus</i> fully exploited, low abundance - <i>Sardina pilchardus</i> overexploited 	<ul style="list-style-type: none"> ▪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. 	<ul style="list-style-type: none"> ▪IEO ensures scientific monitoring of the fisheries of main commercial species at principal landing sites; ▪Studies on growth and reproduction of demersal and small pelagic objective species are routinely made. ▪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 2011. ▪IEO Mediterranean tuna research program. ▪The National Research project on BFT biology and migration patterns initiated in 2007 (MIGRATUN), has been developed along 2010. ▪ In 2010 a study on bluefin tuna was developed using tuna traps as scientific observatories. The first part of this project includes the monitoring of fishing activities, sampling of size of catches, collection of biological samples for various studies and the monitoring of releases of bluefin tuna alive when the TACs were reached. 	<ul style="list-style-type: none"> ▪Statistics since year 2008 can be found in the Ministry’s Web page. ▪Sectors are economically classified into primary sector (marine fishery and aquaculture), secondary sector (processed fish industries) and tertiary sector (exterior trade). 	<ul style="list-style-type: none"> ▪IEO quarterly surveys monitoring oceanographic conditions off Málaga (GSA 01), Murcia (GSA 06) and Mallorca (GSA 05); ▪2010-2011: research activities related to Marine Protected Areas: 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. experimental fishing and underwater visual census surveys in the Columbretes Islands Tag-recapture experiments ▪The project TROFOALBORAN continues 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 comply with commitments regarding the marine European Natura 2000 network and 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 and objectives (www.indemares.es). 	<ul style="list-style-type: none"> ▪Fishery Law 3/2001: measures on conservation of fisheries resources, protection and regeneration of fisheries resources, management measures of fishing activity, regulation of recreational fisheries and inspection and control measures. ▪Specific regulations for each fishing gear. ▪Ministerial Order ARM/143/201, establishing an Integral Management Plan for Fisheries Resources Conservation within the Mediterranean ▪Royal Decree 347/2011 for recreational fisheries, the General Secretariat for the Sea keeps on managing the seven Spanish Mediterranean Marine Reserves. 	<ul style="list-style-type: none"> ▪For the assessment of marine resources more emphasis is encouraged on studies focusing on the impact of environmental changes (climatic variability, increase of gelatinous plankton, etc.) on the variability of marine resources, as well as, on their effect on fishing 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 to be considered by SAC
		<ul style="list-style-type: none"> ▪ GSA 07 - <i>Merluccius merluccius</i> overfishing status, low abundance - <i>Mullus barbatus</i> overfishing status, intermediate level of abundance. 		<ul style="list-style-type: none"> ▪ Research activities on Albacore (<i>Thunnus alalunga</i>, 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. ▪ In 2012 <i>Sarda sarda</i> life cycle completed in captivity within the SELFDOTT/IEO project. ▪ Biological sampling and tagging of <i>Xiphas gladius</i>. 				
Syria	NO DATA PROVIDED FOR 2011							

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 to be considered by SAC
Tunisia	<ul style="list-style-type: none"> ▪ Fleet: more than 12 000 vessels ▪ Production (2010): about 102 066 t ▪ Fishing operations in GSAs 12, 13 and 14. 		<ul style="list-style-type: none"> ▪ 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 for vessels >15 m LOA and port sampling for smaller boats. ▪ DGPA with FAO/CopeMed II: pilot action for collection and improvement of artisanal fisheries statistical data in Monastir. 	<ul style="list-style-type: none"> ▪ Assessment of marine resources in Tunisian waters (1996-2002); ▪ Research programmes ESREB, ESSATEL and ERACHID (2002-2006); ▪ BIHARE, LAMPAROS and CHANCHOUL Projects: final reports transmitted to relevant Ministry ▪ 3 complementary actions in 2011: Demersals and Small Pelagics Stock Assessment and fisheries management and Improvement of gear selectivity Stock Assessment of <i>S. sphyraena</i>, <i>M. Merluccius</i>, and <i>P. longirostris</i>. The two last within the framework of MedSudMed project who also facilitated an <i>Intercalibration exercise of 2 research vessels</i> with the Italian team for standardisation of collection methods. 	<ul style="list-style-type: none"> ▪ 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 caramote prawn fishery in the Gulf of Gabes. ▪ Study on the profitability of vessels targeting small pelagic species. The study has finished and results are available. 	<ul style="list-style-type: none"> ▪ Monitoring of nesting sites of turtles. ▪ Experimenting circular hooks for turtles by-catch reduction ▪ Monitoring network for turtles and cetaceans. ▪ Genetic studies on turtles and sharks. ▪ Age and growth studies of elasmobranchs. ▪ Identification of nursery areas. ▪ Systematics of <i>Dasyatidae</i>. ▪ Interaction of cetaceans with <i>entangling</i> nets, an experiment to test pingers to deter cetaceans from purse seines. 	<ul style="list-style-type: none"> ▪ Trawling ban in GSA 14 between 1st July 2011 and 30th September 2011. 	
Turkey	NO DATA PROVIDED FOR 2011 in time for regional synthesis							

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
- ❖ Malta/Malte
- ❖ Montenegro/Monténégro
- ❖ Morocco/Maroc
- ❖ Romania/Roumanie
- ❖ Slovenia/Slovénie
- ❖ Spain/Espagne
- ❖ Tunisia/Tunisie
- ❖ Turkey/Turquie

ALGERIA/ALGÉRIE

La production nationale des produits de la pêche et de l'aquaculture en Algérie enregistre un total de **95167,55 tonnes** pour l'année **2010**, soit une baisse de **27%** par rapport à l'année **2009** et **35%** par rapport à l'année **2008**. Cette production est répartie comme suit:

- ❖ Poissons démersaux : **7801,5 tonnes**, soit **8,2%** par rapport à la production totale;
- ❖ Poissons pélagiques : **73 084,12 tonnes**, soit **76%** par rapport à la production totale;
- ❖ Crustacées : **1943 tonnes**, soit **2%** par rapport à la production totale;
- ❖ Mollusques : **1225,39 tonnes**, soit **1,3%** par rapport à la production totale.
- ❖ Autres produits (productions aquacole et plaisancière) : **11113,54 tonnes**, soit **11,68%** par rapport à la production totale.

La flottille de pêche enregistrée en **2010** est de **4191 unités** tous types confondus. Il faut noter, que ce chiffre est le résultat d'un assainissement du fichier de la flottille lancé depuis l'année 2009. Nous avons ainsi, fait ressortir toutes les unités n'ayant exercé aucune activité de pêche depuis minimum 10 ans.

Par conséquent, la flottille de pêche algérienne passe de plus de **4500** en **2009** à **4191** unités en **2010**. Elle est caractérisée par âge moyen de **13 ans**, une longueur comprise entre **4,80 m** et **32 m**, une puissance motrice qui varie entre **3** et **1800 CV** et une jauge brute allant de **0,3** à **324 TJB**. Notons, que la puissance totale de la flotte algérienne est de **471 494,33 KW**.

1. ÉTAT DES STOCKS DES ESPÈCES PRIORITAIRES

A partir des données issues des prises débarquées par les professionnels de la pêche, une première évaluation des ressources démersales et pélagiques à intérêt commercial a été réalisée au niveau du Centre National de Recherche et de Développement de la Pêche et de l'aquaculture). Cette étude concerne : la sardine (*Sardina pilchardus*), l'allache (*Sardinella aurita*), la crevette rouge (*Aristeus antennatus*) et la crevette rose (*Paracentrotus longirostris*). Les résultats de cette analyse par application des modèles analytiques révèlent un taux d'exploitation optimal pour une production de 149 000 tonnes pour la sardine et plus de 130 000 tonnes pour l'allache.

Ces résultats doivent être confirmés par un suivi de la ressources dans le cadre des campagnes d'évaluation des ressources halieutiques démersales et pélagiques dont une première campagne d'essai a été déjà réalisée en 2011.

Autres résultats sont attendus dans le cadre des projets de recherches dont les évaluations sont basées sur des données biologiques.

2. ÉTAT DU SYSTÈME D'INFORMATION ET STATISTIQUE

Le dispositif de collecte de l'information statistique relatif à la pêche maritime a enregistré une amélioration sur le plan de la mise en place d'antennes de pêche au niveau de chaque port de pêche et de nombreux abris de pêche ce qui permet une présence permanente de l'administration des pêches au niveau de ces sites de débarquement.

Les quantités du produit débarqué sont enregistrées quotidiennement par des agents collecteurs dont le nombre reste encore insuffisant pour contrôler la totalité des produits débarqués au niveau des plages d'échouages et autres sites non accessibles.

Il est à noter, que le suivi et la mise à jour du fichier de la flottille (essentiellement pour les chalutiers et les sardiniers) initialement obtenu par l'autorité maritime au niveau locale et du Service national des Gardes côtes (SNCG) se fait de façon permanente grâce au système de licences de pêche annuelles délivrées par l'administration locale des pêches au niveau de chaque wilaya maritime.

Concernant les informations relatives à la pêche aquacole et continentale, ces dernières 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 informations statistiques récoltées au niveau local, sont transmises à l'administration centrale et plus précisément au niveau du service statistique par Outlook (réseau intranet) où ces informations sont introduites dans une base de données nationale.

Le système d'information statistique est également renforcé par le projet d'assistance pour la mise en place d'un Observatoire Socio-économique et Statistique National des Pêches (TCP / 3301 ALG) en coopération avec la FAO dont un projet pilote de collecte des informations statistiques (Production / Effort de pêche) qui est en cours d'exécution.

3. ÉTAT DE LA RECHERCHE

Dans le cadre des activités scientifiques et techniques du centre, certains projets de recherche sont en phase de finalisation notamment celui de la Biologie et estimation des biomasses exploitables de la sardine (*Sardina pilchardus*) et de la sardinelle (*Sardinella aurita*) de la côte algérienne. Les autres projets sont inscrits dans une stratégie à long terme. Nous citons:

- Étude des déplacements de l'espadon (*Xiphias gladius*) le long de la côte Algérienne;
- Étude de la pêcherie du thon rouge capturé le long de la côte Algérienne;
- Étude dynamique d'espèces pêchées aux filets maillants;
- Étude de la sélectivité du chalut à mailles carrées;
- Évaluation des ressources halieutiques démersales et petits pélagiques de l'Algérie;
- Étude pilote des prises et de l'effort de pêche des chalutiers;
- Étude des indicateurs socioéconomiques des pêcheries algériennes;
- Mise en place d'un réseau d'échantillonnage biologique des espèces démersales et des petits pélagiques en Algérie;
- Etude de la pêche artisanale en Algérie;
- Actualisation de l'enquête cadre sur les activités de la pêche en Algérie;
- Maîtrise des techniques de pisciculture continentale et valorisation des ressources hydrique: sandre, carpe, etc. ;
- Essai de reproduction artificielle et élevage larvaire des espèces marines; Fabrication d'aliment artificiel pour poisson;
- Reproduction avancée des Tilapias;
- Gestion et exploitation des filières conchylicoles au niveau de la baie de bou Ismail;
- Suivi national des plans d'eau continentaux;
- Maîtrise et technique de reproduction chez le mulot;
- Maîtrise des techniques de transformation et de valorisation des produits de la pêche à faible valeur marchande;
- Commercialisation des produits de la pêche en Algérie;
- Mise au point d'un intégrateur des contaminants chimiques dans les eaux côtières: surveillance et biodégradabilité des polluants;
- Etude environnementale des écosystèmes continentaux et marins.

De plus, 10 projets de recherche dans le cadre du Plan National de Recherche ont été retenus par le Ministère de l'enseignement supérieur et la recherche scientifique. Il s'agit 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;
- 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-Ismaïl (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;
- La pêche artisanale en Algérie : potentialités et contraintes.

Par ailleurs, le personnel scientifique du secteur de la pêche a participé à des séminaires et des journées d'études organisés à l'échelle nationale et internationale. Les résultats des travaux de recherches ont fait objet de 25 communications nationales et 4 publications internationales.

Les résultats du programme relatif à la sélectivité du chalut à mailles carrées enregistré dans le cadre du projet de coopération Copemed II pour la période 2008-2010 accusent un retard, alors que ceux relatifs au programme d'évaluation des ressources halieutiques se résument à deux formations théoriques de 4 jours sur l'évaluation des stocks de pêche et deux formations pratiques en participant à des campagnes, l'une pour l'évaluation des ressources pélagiques et une autre pour les démersales.

4. TEXTES REGLEMENTAIRES PUBLIÉS DURANT LA PERIODE INTERSESSION 2010-2011

Les textes réglementaires publiés durant la période 2010-2011 relatifs à l'exercice de l'activité de pêche et d'aquaculture ainsi qu'à la recherche scientifiques se résument comme suite :

4.1. Concernant l'exercice de l'activité de pêche

- Décret exécutif n°03-481 du 19 Chaouel 1424 correspondant au 13 décembre 2003 fixant les conditions d'exercice de la pêche. **(JO n°78-2003)**

* 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 oeuvre. **(JO n°26-2010)**

* Arrêté du 28 Chaâbane 1431 correspondant au 9 août 2010 fixant la période de fermeture de la pêche de l'espadon dans les eaux sous juridiction nationale. **(JO n°49-2010)**

- Décret exécutif n°04-189 du 19 Joumada El Oula 1425 correspondant au 7 juillet 2004 fixant les mesures d'hygiène et de salubrité applicables aux produits de la pêche et de l'aquaculture. **(JO n°44-2004)**

* 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 n°38-2010)**

* Arrêté interministériel du 30 Moharram 1432 correspondant au 5 janvier 2011 fixant les seuils limites de présence de contaminants chimiques, microbiologiques et toxicologiques dans les produits de la pêche et de l'aquaculture. **(JO n°25-2011)**

- Décret exécutif n° 05-184 du 9 Rabie Ethani 1426 correspondant au 18 mai 2005 définissant les différents types d'établissements d'exploitation des ressources biologiques marines, les conditions de leur création et les règles de leur exploitation **(JO n° 36-2005)**.

* Arrêté du 24 Rabie El Aouel 1432 correspondant au 27 février 2011 définissant les caractéristiques techniques des établissements d'exploitation des ressources biologiques marines . **(JO n° 25-2011)**.

4.2. Concernant l'exercice de l'activité aquacole

- Décret exécutif n°07-208 du 15 Joumada Ethania 1428 correspondant au 30 mai 2007 fixant les conditions d'exercice de l'activité d'élevage et de culture aquacoles, les différents types d'établissement, les différents types d'établissements, les conditions de leur création et les règles de leur exploitation. **(JO n°43-2007)**

* Arrêté du 22 Dhou El Hidja 1431 correspondant au 28 novembre 2010 fixant le contenu et le modèle-type de l'autorisation préalable et définitive de création et d'exploitation des établissements d'aquaculture. **(JO n°19-2011)**

- Décret exécutif n° 10-93 du 28 Rabie El Aouel 1431 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)**.

- Décret exécutif n°09-17 du 14 Moharram 1430 correspondant au 11 janvier 2009 portant création d'une école de formation technique de pêche et d'aquaculture à Ghazaouet. **(JO n°03-2009)**

* Arrêté interministériel du 17 Moharram 1431 correspondant au 3 janvier 2010 fixant la classification des écoles de formation technique de pêche et d'aquaculture ainsi que les conditions d'accès aux postes supérieurs en relevant. **(JO n°22- 2010)**

* Arrêté interministériel du 17 Moharram 1431 correspondant au 3 janvier 2010 fixant la classification de l'institut de technologie des pêches et de l'aquaculture d'Oran (I.T.P.A. d'Oran) ainsi que les conditions d'accès aux postes supérieurs en relevant. **(JO n°22- 2010)**

* Arrêté interministériel du 17 Moharram 1431 correspondant au 3 janvier 2010 fixant la classification de l'institut de technologie des pêches et de l'aquaculture de Collo (I.T.P.A. de Collo) ainsi que les conditions d'accès aux postes supérieurs en relevant. **(JO n°22- 2010)**

4.3. Concernant la recherche scientifique

- Décret exécutif n°08-128 du 24 Rabie Ethani 1429 correspondant au 30 avril 2008 portant transformation du centre national d'études et de documentation pour la pêche et l'aquaculture (CNDPA) en centre national de recherche et de développement de la pêche et de l'aquaculture (CNRDPA). (**JO n°23- 2008**)

* Arrêté interministériel du 20 Dhou El Kaada 1430 correspondant au 8 novembre 2009 portant organisation interne du centre national de recherche et de développement de la pêche et de l'aquaculture(CNRDPA).(**JO n°21-2010**)

* Arrêté du 29 Rajab 1431 correspondant au 12 juillet 2010 fixant la liste nominative des membres du comité sectoriel permanent de recherche scientifique et de développement technologique du ministère de la pêche et des ressources halieutiques. (**JO n°76-2010**)

5. ÉTUDES DANS LE DOMAINE DE L'ENVIRONNEMENT MARIN

Parmi les 10 projets de recherche retenus dans le cadre du Plan national de recherche, deux études sont consacrées à l'environnement marin. Nous citons:

- Contrôle et surveillance de la pollution au niveau des eaux côtières : cas de la baie de Bou-Ismaïl (Wilaya de Tipaza);
- Contribution à la protection des eaux côtières algériennes contre la pollution chimique par application d'un nouveau procédé de traitement Electro-Fenton.

Notons la participation du Secteur de la Pêche à travers une communication orale au congrès International sur la Gestion Systémique des Ressources Halieutiques a été organisé par l'École nationale supérieure des Sciences de la mer et de l'aménagement du littoral « ENSSMAL » le 29 et 30 novembre 2010 à Alger.

La fin de l'année 2010, il y a eu lancement des préparatifs pour la participation du Secteur de la Pêche et des Ressources Halieutiques à travers son administration centrale ainsi que son Centre national de recherche pour la célébration de la journée méditerranéenne de la côte en Algérie prévue pour le 25 septembre 2011 à Alger.

Environnement marin

Durant la période 2010-2011, le Centre national de développement des ressources biologiques « CNDRB » a publié des données scientifiques sur la biodiversité biologique marine en Algérie.

Nous citons :

- **CNDRB, 2010** : bulletin des ressources biologiques : 2010, année internationale de la diversité biologique / N°2.
- **CNDRB, 2011** : Biodiversité des côtes algériennes. Numéro spécial du bulletin du CNDRB.

Ainsi, le Ministère de l'aménagement du territoire et de l'environnement à travers son centre de recherche « CNDRB » a saisi l'opportunité de l'année internationale de la diversité biologique 2010 afin d'offrir un espace aux chercheurs algériens pour communiquer leurs travaux sur la biodiversité marine en Algérie.

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), and Geographical Sub-area (GSA) 29). The opportunities of marine fishing in the country are limited by the specific characteristics of the Black Sea.

Fishing grounds

The fishing grounds of the Bulgarian sector are with small depths (up to 100-120m.) - from Cape Kartalburun (close to the Romanian border) to the river Rezovo (close to the Turkish border). The exploitation of the fish resources is limited in the shelf area (depths under 100-150 m concentrate high amounts of H₂S that limits the life).

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 thermocline (usually under 10.5 C) - under 20 m. Stationary uncovered pound nets are distributed along the coastline (on average depth of 12 m) being operational from March till November, depending on the weather conditions. The warm period (May-October) is the main fishing season along the entire Bulgarian coast.

Total landings by main targeted species

The targeted species landings are listed on table 1. The major share belong to the sprat (*Sprattus sprattus* - 3935.124 t) and Rapa whelk (*Rapana venosa* - 3128.108 t), as the quantities decreased in comparison with the previous year reported landings of both species. Turbot (*P.maxima*) together with sprat catch is under regulation and community TACs have been set for both species (TAC₂₀₁₁ = 42 t (turbot); TAC₂₀₁₁= 12.500 t (sprat) for Bulgaria and Romania. The reported landings of turbot are 38.078 t (2011). The rest of the reported landings are in the state of subordination in comparison with the sprat and Rapa whelk.

Table 1. Landings of major fish and shellfish species from Black Sea, 2011

Landings of major fish and shellfish species for the period of 01.01.2011 to 31.12.2011		
species	FAO code	Total landings, kg
<i>Atherina sp.</i>	SIL	16 474
<i>Mullus barbatus</i>	MUR	32 870
<i>Mullus sp.</i>	MUT	176 108
<i>Chamelea galina</i>	CLS	400
<i>Belone belone</i>	GAR	4 527.1
<i>Liza saliens</i>	LZS	7 448.8
<i>Alosa immaculata</i>	SHC	51 794
<i>Mugil so-iyu</i>	MYZ	460
<i>Morone morone</i>	BSS	18
<i>Pomatomus saltatrix</i>	BLU	29 316.6
<i>Dasyatis pastinaca</i>	JDP	4 479
<i>Raja clavata</i>	RJC	93 464.1
<i>Lophius sp.</i>	ANF	1 211
<i>Pegusa lascaris</i>	SOL	18.5
<i>Mugil cephalus</i>	MUF	14 507.85
<i>Sarda sarda</i>	BON	8 225.2
<i>Platichthys flesus</i>	FLE	38
<i>Liza aurata</i>	MGA	2 630.2
<i>Gobiidae</i>	GPA	85 040.96
<i>Crangon crangon</i>	CSH	30
<i>Rapana venosa</i>	RPN	3 128 108
<i>Sardina pilchardus</i>	PIL	4 155.5

<i>Trachurus mediterraneus</i>	HMM	393 052.4
<i>Engraulis encrasicolus</i>	ANE	17 945
<i>Mytilus galloprovincialis</i>	MSM	1 317
<i>Squalus acanthias</i>	DGS	80 996.8
<i>Scomber sp.</i>	MAC	400
<i>Merlangius merlangus</i>	WHG	1 378
<i>Cancer pagurus</i>	EIK	10
<i>Spicara smaris</i>	PIC	608
<i>Pseta maxima</i>	SPR	38 078.24
<i>Sprattus sprattus</i>	TUR	3 935 124
Data are up to 13th of February, 2012 and are not final		

Number of vessels

The total number of the fishing vessels up to 31.12.2011 in the fishing register was 2 336. The prevailing class was with LOA, m from 6 to 11.99 m

Table 2. Fishing fleet in Bulgaria up to 31.12.2011.

LOA, m	number	GT	kW
> 6 m	773	553.9	5 987.3
from 6 to 11.99 m	1 464	3 164.0	39 729.5
from 12 to 17.99 m	62	1 200.0	8 403.0
from 18 to 23.99 m	25	1 103.6	4 118.7
< 24 m	12	1 351.1	3 068.5
TOTAL	2 336	7 372.7	61 307.0

Status of stocks of priority species

Under DCR EC 199/2008 the bottom trawl survey for the turbot biomass and distribution in community waters of the Black Sea have been carried out in the period of June, 2011. The results is still not finalized and reported.

Under DCR EC 199/2008 the hydroacoustic survey for the sprat biomass and distribution in community waters of the Black Sea have been carried out in the period of November-December, 2011. The results is still not finalized and reported.

More relevant information regarding state of the stocks in community and in the Black Sea level could be found at: https://stecf.jrc.ec.europa.eu/c/document_library/get_file?p_l_id=53318&folderId=218009&name=DLFE-14601.pdf

Status of the statistics and information system

Data collection from fisheries branch in Bulgaria

According to the Bulgarian legislation, which is harmonized with the European, the executive agency of fishery and aquaculture is responsible for creation and support the registers of:

1. Licenses for commercial fishery;
2. Tickets for the recreational fishery;
3. Physical persons involved in aquaculture activities;
4. Fishing fleet;
5. First sale centers;
6. Registered buyers;
7. Organizations of fish producers and branch organizations, producing, trade or processing fish and other aquatic organisms;
8. Fishing licenses aiming scientific investigations;

NAFA issues commercial fishery licenses of the physical persons, willing to fish with commercial purposes. The register of the issued licenses for commercial fishery contain data about:

- Physical persons with issued license for commercial fishery;
- Certificate for the ability to conduct commercial fishery;
- Fishing vessel and gears used;

- Water body;
- Area for the commercial fishery;
- List of species with commercial fishery license.

1. In the register information for the landings of fish and other water organisms has been kept.

2. Recreational fishery is carried out by the persons whom possess ticket for recreational fishery.

3. All people's artificially breeding fish and other water organisms are included in the register. Information about the species, personal information, water body, technical characteristics and etc. has been kept. Produced and sold fish/other recourse are also having been recorded. Information about branch organizations membership is another type of information kept into the register.

4. The register of the fishing vessel contains full list of the boats operating commercial fishery with their specific parameters. The supported data cover the requirement for information collection under Regulation 26/2004, Regulation 2371/2002 and 1013/2010. In addition to the requirements', the register contains main engine data of the fishing vessel - №, brand, type of fuel, harbor, MMSI, IMO code, documents from Marine administration. The supported information allows management of the capacity of the fishing fleet and following the rule of entry-exit regime.

5-6. the registers for First sale centers of the fishery products have been kept in the NAFA. First sale of products outside the center for the first sale is fulfilled by the registered buyers. Information about species, place of catch, freshness, dedication, amount, prize etc., have been collected and stored in the register.

7. Information about organizations, economic effectiveness, number of the members etc.

8. The executive director of NAFA issues the permission for catch with scientific purposes. The register for licenses for fish and other marine living resources contains personal data of the scientist(s), aim, period, water body, species and aquatic organisms, and the used gears.

All the registers are supported through Information system with central database.

The data verification is carried out through cross-checks. In information system of NAFA a special module has been elaborated which makes the comparison with the entry data.

Four types of mistakes have been observed:

1. Late submitted document
2. Discrepancy with the data "Catch-landings"
3. Lack of opposite document – if the quantities discrepancy is bigger than 20% for the corresponding species, the system sends a signal for mistake.

After mistake detection, the system generates a message for the NAFA branch entered the document into the system. Type of the mistake; number of the mistake has been recorded.

There is an option the mistake could be changed from active to not active.

Cross checks increase the ability to collect the statistical information and to assure high data quality and confidence.

Status of research in progress

EC FP7 UBSS, Years: 2009-2012, continuation of the BS SCENE project (2006-2008), Full name: "UP-GRADE Black Sea Scientific Network", (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", (www.envirogrids.net/)

EC FP7 Know Seas, Years: 2009-2012. Full name: Knowledge-based Sustainable Management for Europe's Seas, www.knowseas.com/

EC FP7 PEGASO, Years: 2010-2014, Full name: People for Ecosystem-based Governance in Assessing Sustainable Development of Ocean and coast

EC FP7 PERSEUS www.perseus-net.eu/

EC FP7 CREAM www.cream-fp7.eu/

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;

Marine environmental studies in progress

1.Environmental research of the area of interest of territorial waters under contract of IO-BAS and Moscow Governmental University/"Peter Gaz" regarding the project "Southern stream"2011.As a result of this research the following elements of the biota (fish, zoo, phytoplankton, macrozoobenthos, macroalgae, ichthyoplankton), geology, chemistry and physics of the area of interest;

2. Monitoring of the coastal marine waters (1 mile zone) under the Directive 2000/60/EC, WFD. Biological quality elements investigated in 2011were phytoplankton, macrozoobenthos and macroalgae;

3. Natura 2000 in Bulgarian marine zone.

Management measures

New regulations in force:

1. Council regulation (EU) No 5/2012 from 19th December 2012: Fixing for 2012 fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Black Sea;

2. COMMISSION IMPLEMENTING REGULATION (EU) NO.404/2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy.

Proposals for future research programs

ECOTRAWL FP7 PROJECT SUBMITTED. KBBE.2012.1.2-09: Integrating the role of marine benthic ecosystems in fisheries management COORDINATION NTNU (The Ocean of Tomorrow)

OPEN CALL FOR TENDERS No MARE/2011/07 Studies for carrying out the Common Fisheries Policy

Lot 2 - Adverse fisheries impacts on cetacean populations in the Black Sea

CROATIA/CROATIE

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 tonnes) in 2010:

	2010
<i>Sardina pilchardus</i>	29 600,0
<i>Engraulis encrasicolus</i>	13 703,9
<i>Osteichthyes – mixed</i>	810,6
<i>Scomber japonicus</i>	729,5
<i>Mullus barbatus</i>	788,5
<i>Merluccius merluccius</i>	688,4
<i>Eledone spp</i>	461,4
<i>Trachurus spp</i>	391,5
<i>Nephrops norvegicus</i>	326,5
<i>Spicara spp</i>	179,5
<i>Octopus vulgaris</i>	139,9
<i>Solea solea</i>	237,0
<i>Boops boops</i>	146,6
<i>Loliginidae</i>	119,7
<i>Sprattus sprattus</i>	99,7
<i>Parapenaeus longirostris</i>	174,4
<i>Oblada melanura</i>	66,1
<i>Loligo spp</i>	92,6
<i>Pagellus erythrinus</i>	199,8
<i>Sarpa salpa</i>	61,8
<i>Triglidae</i>	44,7

Note: Total landings in 2010 in Croatia were 51 438,3 tonnes.

Vessels registered for commercial fishing, and registered fleet RH

number of vessels	4091	
LOA (range and average)	number	
< 12 metres	3438	
12 - 24 metres	525	
more than 24 metres	128	
Total kW + GT	44514,02 GT	321755,88 kW

Note: The data provided are preliminary, as the fleet register is still being cross-checked and verified. There are some 11 000 subsistence fishermen in Croatia in addition to the aforementioned figure. Most of them operate vessels less than 6 metres.

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 fluctuations. 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 (Ancona, 27–30 September 2011. The AdriaMed Working Group on Small Pelagic Fishery Resources in the Adriatic Sea) and presented to SCSA-WG on stock assessment of small pelagic species (Chania 24–29 October 2011) Outputs of these VPA assessments demonstrated that both stocks (anchovy and sardine) in GSA 17, in relation to their estimated biomass levels in 2010, can be considered as fully exploited. However, taking into account large annual fluctuations of anchovy and sardine stock biomass and intensity of recruitment, and considering precautionary principles, it has been advised not to increase fishing mortality on these small pelagic species. The WG suggests that future assessments take into account combined data from 17 and 18 GSAs, and, also suggests continuing to explore the relationships between recruitment and environment.

Demersal resources

Assessment of common sole (*Solea solea*) stock in GSA 17 has been performed and presented to SCSA (Rome, 23–26 January 2012). According to this assessment, as in previous year, recent state of stock is characterized as “overfished”. Management advice is similar as the previous years: reduction of fishing mortality, especially by rapido trawling along western Adriatic coast. Also, 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 SCSA-WG underlines the need to extend the rapido trawl survey inside the 12 nm from the Croatian coast, as was performed in 2005 and 2006.

According to the scientific surveys MEDITS, long-term trends in biomass index in Croatian fishing sea shows high fluctuation with negative changes in last 2–3 years for the most important stocks as hake, Norway lobster, selachians etc.. 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.

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 MoA) 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. Each license holder is obliged to submit the logbook to the MoA 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). MoA 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 are regulated as has been explained in the report for previous years.

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).

Croatia has in 2011 embarked on installation of electronic logbooks on all its vessels over 15 m in length (since 1st.January 2012 the system is operational on all vessels over 18 m LoA). The process is continuing. Electronic logbook enables the DoF to promptly collect data from fishing activities and cross-check them with the relevant VMS data.

Status of research in progress

Monitoring of small pelagic stock by acoustic survey (PELMON) is based on annual fishery independent evaluations of stocks abundance by annual acoustic surveys, combined with collection of environmental data related to pelagic ecosystem.. In addition, collection of biological and fisheries related data as needed for fishery dependent assessments (i.e. VPA) has also been undertaken through project PERIMON.

Project “DEMMON”, monitoring of demersal stocks has been continued, aiming at status evaluation of demersal resources in the Croatian fishing sea. Fisheries and biological data collection includes on board sampling and laboratory analysis, sampling on the landing ports and gathering basic socio-economic data.

Monitoring of coastal fisheries is organized through PRIMO project, and it includes fisheries biological sampling on most important fishing gears (trammel and gill nets, as well as long lines and traps).

Croatian scientists are included in project “*MEDITS*” *Mediterranean International Bottom Trawl Survey* permanently since 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 under framework of FAO AdriaMed. The aim of the project is investigation of distribution and status of biological resources in deep south Adriatic.)

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 2010 together with scientists from Ancona.

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

Data collection is undertaken in the framework of monitoring programs and using national methodology not fully complying with the EU DCF rules. Social and economical studies are currently being developed within the definition of the national data collection program fully in line with the EU DCF rules.

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” which includes monitoring of biotic and abiotic parameters relevant to the marine environmental and renewable resources. Environmental data related to the marine ecosystems are also gathered in the framework of monitoring programs for fishery resources.

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.

Research suggestions for consideration by SAC

Support from Regional FAO AdriaMed Project related to fisheries research and management within Adriatic Sea (GSA 17 and 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 shows 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 highly important to intensify research and monitoring activities, and to open wider discussion on these matters and propose and adjust measures related to fishing effort. Also it is important to organize permanent international monitoring of the status of the stocks and fishing effort in this area.

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 vessels with length ranging between 4 to 12 m (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 22 licensed vessels with length ranging between 12 – 26 m (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 at a lesser extent.

The bottom trawl fishery consists of vessels with length ranging between 21,4 to 26,8 m (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 2010.

Table 1: Cyprus Fishery 2010

YEAR 2011	Production metric tonnes	Effort (working days)	Number of vessels	Fleet total KW	Production working day/kg
Artisanal fishery	853	65,571	500	20,944	10
Bottom trawl fishery Cyprus waters	163	764	4	1,229	341
Bottom trawl fishery international waters	105	536	8	2421	207
Polyvalent fishery	412	1644	30	5540	251

In 2010, the most significant species landings (in weight) for Cyprus were: *Boops boops* (Boque) 256 tonnes, *Thunnus alalunga* (Albacore) 208 tonnes, *Spicara spp* (Picarel) 181 tonnes, *Mullus surmuletus* (Stripped Red mullet) 90 tonnes, *Sparisoma cretense* 52 tonnes, *Siganus rivulatus* 47 tonnes and *Xiphias gladius* (Swordfish) 32 tonnes. 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 2010/93/EU).

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* and *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 2011, the stocks of the priority species *B. boops*, *M. barbatus* and *M. surmuletus* were evaluated as “in overfishing state”, and management advice was given for reducing the current fishing mortality. The assessments and the related recommendations were endorsed by the 2011 SCSA Working Group on Demersal Species and the 2012 SCSA. The stock of *S. smaris* was also evaluated as in full exploitation (in 2005–2007) and in overfishing state (2008–2010); the assessment was endorsed by the 2011 SCSA Working Group on Demersal and as preliminary by the 2012 SCSA.

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 fulfill 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 different fisheries.

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.

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* and *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).
- Adoption of management plans for certain fisheries in territorial waters (EC Regulation 1967/2006).
- 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.

During 2011 the Management Plan for the Bottom Trawl Fishery within the territorial waters of Cyprus was adopted (in the framework of Regulation (EC) 1967/2006), following positive evaluation by the European Commission.

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.

During the intersessional period the 2011 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/ÉGYPTE

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 four lakes (Maruit, Edku, Burollus and Manzala lake) and two coastal lagoons (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, 2011), during 2010, total of 77388 MT were landed at different fishing ports of the Egyptian Mediterranean coast.

Species / group	Scientific name	Catch (MT)	%
Shrimps nei	<i>Penaeus & Metapenaeus spp</i>	10 563	13.65
Sardinellas nei	<i>Sardinella spp.</i>	8 971	11.59
Grey Mulletts nei	<i>Mugil spp. & Liza spp</i>	4 713	6.09
Blue Swimming Crab	<i>Portunus spp</i>	3 792	4.90
Red mullet	<i>Mullus spp.</i>	3 577	4.62
Marine molluscs nei	<i>Ex Mollusca</i>	3 365	4.35
Bogue	<i>Boops boops</i>	3 230	4.17
Red porgy	<i>Pagrus spp. & Pagellus spp.</i>	3 183	4.11
Cartilagenous Fish nei	<i>Chondrichthyes spp.</i>	3 056	3.95
Anchovy	<i>Engraulis encrasicolus</i>	2 988	3.86
Cuttlefish	<i>Sepia officinalis</i>	2 957	3.82
Brushtooth lizardfish	<i>Saurida undosquamis</i>	1 960	2.53
Annular Seabream	<i>Diplodus spp</i>	1 937	2.50
Largehead hairtail	<i>Trichiurus lepturus</i>	1 812	2.34
Narrow-Bared Spanish Mackerel	<i>Scomberomorus commerson</i>	1 578	2.04
Gilthead seabream	<i>Sparus aurata</i>	1 431	1.85
Grey gurnard	<i>Eutrigla gurnardus</i>	1 383	1.79
seabass	<i>Dicentrarchus labrax</i>	1 326	1.71
Little Tunny	<i>Euthynnus alletteratus</i>	1 302	1.68
Spinefeet	<i>Siganus spp.</i>	1 008	1.30
Groupers nei	<i>Epinephelus spp.</i>	985	1.27
Meagre	<i>Argyrosomus regius</i>	896	1.16
White seabream	<i>Diplodus spp</i>	875	1.13
Sole, common	<i>Solea spp.</i>	860	1.11
Med. horse mackerel	<i>Trachurus mediterraneus</i>	854	1.10
Bluefish	<i>Pomatomus saltatrix</i>	776	1.00
European Barrcudas	<i>Sphyaena spp.</i>	615	0.79
Spotted Seabass	<i>Dicentrarchus punctatus</i>	587	0.76
Others		6 513	8.42

Fleet

The fleet composed from 3 092 motorized vessels and 1 541 un-motorized sailboats.

Fishing method		Number	Length (m)	GT	HP
Gill & trammel nets	Average	526	10.3	11.2	42.4
	Range		4-25m	8-140	6-110
Long line	Average	1 199	12.3	17.7	61.3
	Range		3-20.9	1.6-74	6-150
Purse seine	Average	239	16.3	31.0	158.9
	Range		9.5-27	7.6-103	27-425
Trawl	Average	1 128	19.2	60.0	176.9
	Range		5.9-31	7.7-343	10-1 150

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 *Pagellus erythrinus* in Mediterranean Sea coast of Egypt is in overfishing; current F (0.55-0.72) higher than $F_{0.1}$ (0.27-0.30) and F_{max} (0.54-0.57) (ElHaweet *et al.*, 2011).

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 *Euthynnus alletteratus* in Eastern Coast of Alexandria, Egypt. The fisheries status is overexploited (ElHaweet *et al.*, in press).

The round sardinella stock in the Eastern Mediterranean Sea, North Sinai coast was in balanced position. The estimated values for the total mortality and the exploitation rate ($E = 0.51$) The maximum allowable limit of exploitation (E) was 0.87 and maximum economic yield was 0.71 (Salem *et al.* 2010).

Status of the statistics and information system

The statistics collection procedures have recently been upgraded and monitoring, control and surveillance activities have been improved by GAFRD. 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.

A pilot survey on Catch and Effort data has been started in Egypt with the Support of the EastMed project (GFCM). Data collection forms were drafted and field-tested and work plans were agreed upon with respect to data collection. Concerning computer operations, the GAFRD-owned catch/effort system SAMAC has been operating since June 2011 for handling the basic functions of the sample-based catch/effort programme.

Status of research in progress

A pilot survey first on biological sampling has been started in Egypt with the Support of the EastMed project (GFCM). A protocol for sampling biological data was established to assist the data collectors both in the field and in the laboratories during the pilot phase from the ports of Madiaa, Kafr-El-Sheikh, Damiette, Port Said and AlAreash. It also includes guidelines on sampling frequencies and number of samples to be collected for both catch, effort and biological data. The protocol will also serve as a basis if Egypt intends to pursue a routine data collection system for the collection of fisheries data for stock assessment purposes.

The Arab Academy for Science and Technology and Maritime Transport, started a project for improvement the bottom trawl selectivity and reduce its high percentage of 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 e.g. Some biological studies on Genus *scopraena*, family Triglidae, and common puffer fish *Lagocephalus sceleratus*.

Status of the social sciences studies achieved during the intercessional period (economy, relevant legislation, sociology, etc.)

Workshop on Socio-economic Assessment of Egyptian Fisheries at 22nd November 2011 in FAO Regional Office, Cairo.

An assessment of the socio-economic aspects of the fisheries sector, (focusing on small-scale fisheries) was undertaken in order to: understand the dynamics of the sector, reduce poverty among those employed in fisheries, increase employment in the sector, increase food security, and increase support for effective and sustainable fisheries management through incorporating the needs of those who depend on fisheries for their livelihoods.

A study the impact of some variables on rational fishing behavior of motorized boats skippers in Damietta and El-Maadeya ports along the Egyptian Mediterranean Sea Coast was conducted. Results indicate that the problems of fishing activities have important impact on the skipper's behavior in fishing operations, e.g. High fuel prices and fishing supplies and Infrastructure in the fishing ports (ALShamy, 2011).

A preliminary Fisheries Socio-Economic Survey in Egypt is intended to start a sampling frame for the collection of socio-economic data. A sampling plan could be implemented in order to achieve the estimation of all the socio-economic variables for fleet segments according to the GFCM Task I fleet segmentation. Socio-economic indicators would be calculated and compared with values of other similar sectors (e.g. agriculture). The evaluation of these indicators will also be used to give management advice to the Ministry in order to improve the economic conditions of people involved in fisheries.

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 boats 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

- Fishing harbour facilities need to be improved at strategic sites.
- There is increasing need for management of small-scale fisheries within territorial waters.
- Enlarge and modernize offshore fishing in the Egyptian EEZ.

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FRANCE

Description des pêcheries

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 à l'ouest 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 large plateau continental (15 000 km²) et l'importance de ses lagunes (49 734 ha) sur le littoral, 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 poissons 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 provençales ⁽¹⁾

Flottilles	Nombre	LHT moy (m)	Puissance totale (kW)	Jauge totale (UMS)
Chalutiers	90	23.3	28 191	8 837
Senneurs à thon rouge	29	35.8	19 897	7 103
Senneurs (hors thon rouge)	33	12.7	5 612	525
Petits métiers	1 196	7.3	85 713	3 635
Total	1 348			

⁽¹⁾ Source SIH/IFREMER : Synthèse des flottilles de pêche 2009, Façade Méditerranée (hors Corse)

Production des 10 principales espèces vendues hors thon rouge-GSA07 ⁽²⁾

	Tonnages (t)	%
Sardine	700	3.7%
Anchois	2 306	12.0%
Merlu	1 983	10.4%
Poulpe	1 068	5.6%
Bar	133	0.7%
Sole	135	0.7%
Dorade royale	303	1.6%
Maquereau	381	2.0%
Baudroies	517	2.7%
Calmars	95	0.5%
Autres	11 526	60.2%
TOTAL	19 147	

⁽²⁾ Constitué des ventes en criée de 2010 (essentiellement captures des chalutiers), sauf pour merlu (données françaises et espagnoles) et sardine, anchois (données OP)

GSA 08 (Corse)

L'activité de pêche en Corse est répartie sur l'ensemble de son littoral (1 043 km) avec 50% des unités de pêche regroupés dans le golfe d'Ajaccio. La flottille est composée de 205 unités artisanales réparties entre 184 petits métiers côtiers (principalement des navires de 6 à 10 mètres), 4 fileyeurs palangriers, 9 chalutiers de fond, et 8 armements de plongeurs-corailleurs. Les fileyeurs ciblent surtout la langouste (mars à septembre), mais aussi rouget barbet, daurades et homard. Les quelques chalutiers pêchent sur le petit plateau continental et les accores de la côte Est de l'île, et ciblent rouget barbet, St-Pierre et langoustines.

État des stocks des principales espèces**Évaluation du stock partagé franco-espagnol de merlu (*Merluccius merluccius*) du golfe du Lion (GSA 07)**

Principales conclusions de l'évaluation du merlu: surexploitation de croissance avec un risque de surexploitation du recrutement. Les exceptionnels forts recrutements sont observés périodiquement (1998, 2002 et 2008) semblent participer au maintien de l'exploitation. La tendance des biomasse totale et de reproducteurs ne semble pas montrer de risque d'effondrement. Les recrutements des futures années seront importants pour assurer le maintien du stock. Une analyse prospective a montré pour le point de référence ($F_{0.1}$) une valeur de 0.19, avec un F actuel de 1.43 ce qui correspondrait à une réduction de plus de 80% du taux de mortalité par pêche actuel et permettrait d'augmenter le Y/R de 44%.

Évaluation du stock partagé franco-espagnol de rouget (*M. barbatus*) du golfe du Lion (GSA 07)

Concernant l'évaluation du rouget de vase, la principale conclusion est une faible surexploitation du stock. Le F actuel (0.85) doit être réduit de 40 % pour atteindre le point de référence F0.1 (0.45).

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

Les biomasses d'anchois et sardine sont évaluées à partir des campagnes acoustiques PELMED. Sardine : (1) baisse de la biomasse totale entre 2009 et 2011 : 58 300 tonnes, 41 100 tonnes et 26 800 tonnes respectivement, (2) fort recrutement en 2008 (3) biomasse de juvéniles en augmentation (4) chute de la production : 3 620 tonnes en 2009 et 700 tonnes en 2010. Anchois: (1) biomasse totale plus stable: 31 700 tonnes, 25 000 tonnes, 36 300 tonnes de 2009 à 2011, (2) production : 2500 tonnes en 2009 et 2300 tonnes en 2010. Les structures démographiques de ces 2 espèces indiquent un rajeunissement des populations depuis 2008. Indices de condition, taux de croissance et taille de première maturité sexuelle diminuent sensiblement ces 4 dernières années. Recommandation de réduire l'effort de pêche sur ces deux espèces tel que déjà appliqué par la pêcherie française depuis 2010 et de respecter la réglementation européenne sur la taille minimale de prise, > 9 cm pour l'anchois et 11 cm pour la sardine (UE 1976/2006) pour préserver les âges 1+ . Une forte abondance de sprat est observée.

Information sur les pêcheries thon rouge

Les captures françaises de thon rouge en Méditerranée s'élèvent en 2010 à 1 745 tonnes, 3 087 tonnes en 2009, 2 922 tonnes en 2008 et 10 157 tonnes en 2007. Cette très forte diminution depuis 2007 résulte de plusieurs facteurs liés au plan de reconstitution du thon rouge (CICTA): restriction de la saison de pêche à la senne et fermeture avancée (15 juin), remboursement du dépassement de quota 2007, renforcement des contrôles, mise en place de quotas individuels pour les senneurs. En Méditerranée, le thon rouge est pêché principalement par des senneurs depuis les années 1970. Leurs captures sont en partie déterminées par des facteurs environnementaux influençant la disponibilité du thon vis-à-vis de l'engin de pêche. La pêche aux Baléares et en Libye (mi-mai à mi-juin) se focalise sur des prises entre 180 et 250 cm (140 à 250 kg). Le développement du commerce avec le Japon mi 1990, puis de l'embouche, est à l'origine de cette pêche ciblée sur les gros. Ces prises sont surtout destinées aux cages d'engraissement et ne sont pas débarquées. Les autres saisons de pêche (mars-avril, août-octobre) étaient auparavant axées sur des poissons de 10-30kg (âge 2 et 3), surtout sur les côtes franco-catalanes, et secondairement au large des côtes d'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 (canne ou palangre) a un quota de 120 à 200 tonnes qu'elle pêche de mai à octobre le long des côtes françaises méditerranéennes.

Etat des statistiques et système d'information

Le Système d'Information Halieutique (SIH) de l'Ifremer constitue le réseau 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, les restitutions internes et externes. Il élabore des indicateurs intégrés sur les pêcheries et réalise des synthèses à destination des acteurs de la filière pêche et du grand public. Le SIH s'appuie sur l'échantillonnage des captures commerciales, les campagnes à la mer, les statistiques de pêche et les enquêtes économiques. Ces données sont intégrées dans la base HARMONIE et les protocoles sont disponibles sur un site web dédié (www.ifremer.fr/sih). La collecte des données de Méditerranée sur les ressources exploitées par la pêche professionnelle est réalisée dans le cadre de la DCF (Data Collection Framework). Elle repose sur différents programmes détaillés ci-dessous.

Programme d'échantillonnage biologique

Les tailles des principales espèces débarquées dans le golfe du Lion (GSA 7) par les principaux métiers (chaluts et filets à divers démersaux, chaluts à petits pélagiques) sont échantillonnées. Depuis 2010, ces échantillonnages couvrent les navires <12 m (240 sorties/an). Les métiers identifiés ciblent préférentiellement daurade, loup, sole, merlu, poulpe de roche et anguille. Des otolithes sont prélevés sur daurade, merlu, rouget de vase, anchois et sardine mais leur lecture exclu ceux du merlu liés à une trop forte incertitude. Maturité et condition sont suivis pour anchois et sardine. Depuis de 2011, des échantillonnages en taille sont réalisés en Corse (GSA 8) sur les espèces débarquées par les principaux métiers : trémails à langouste (*Palinurus elephas*), chaluts à poissons démersaux ciblant langoustine et rouget barbet, palangres à espadon.

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

Des enquêtes mensuelles sont conduites pour estimer effort de pêche et production des navires < 12 m en mer et lagune, de la frontière italienne à la frontière espagnole (GSA 7). En Corse (GSA 8), l'activité des navires est recensée par enquête chaque année. Le croisement entre enquêtes et données déclaratives permet d'estimer les débarquements par espèce et l'effort de pêche, tels que définit dans l'annexe 2 de la recommandation Task 1 (GFCM/33/2009/3).

Programme ObsMer d'observation des captures en mer

Le programme national prévoit pour la façade méditerranéenne (GSA 7), des observations sur les captures des chalutiers (fond et pélagique). Débarquements d'espèces commercialisées, prises accessoires, rejets, et caractéristiques techniques de chaque trait sont collectés. En 2011, 44 marées de chalutier ont été échantillonnées. En Corse (GSA 8) en 2011, 144 marées étaient prévues en mer, et 124 ont été réalisées, dont 113 sur les fileyeurs, 9 sur les palangriers et 2 sur les 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 OBSMER.

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

Depuis 2009, l'Ifremer conduit des prospections aériennes du thon rouge dans le golfe du Lion (même protocole qu'en 2000-2003) : 25 survols en 2009, 17 en 2010 et 13 en 2011 entre juin et octobre. Les positions GPS des bancs repérés en surface ainsi que les tailles estimées des bancs et des individus sont relevées. Les densités observées sur la période 2009-2011 sont environ deux fois supérieures à celles observées en 2000-2003, probablement en réponse au plan de reconstitution du thon rouge (mise en place d'une taille minimale de 30 kg depuis 2007). Ces résultats sont cohérents avec les observations aériennes de 2009 des scientifiques espagnols en Méditerranée Nord Occidentale. Ces campagnes confirment l'intérêt des survols pour suivre l'abondance des juvéniles sur ces aires de nutrition, mais pour améliorer le diagnostic scientifique, des opérations similaires devront être conduites sur plusieurs années et étendues en Méditerranée centrale et orientale.

Programme MEDITS-France (GSA 07 et 08)

La campagne française de chalutage annuelle d'évaluation des ressources démersales (MEDITS) se déroule sur la façade Est Corse (66 traits) et dans le golfe du Lion (24 traits), en fin de printemps. Elle a lieu à la même période en France, Espagne, Italie, Slovénie, Croatie, Montenegro, Albanie, Malte, Grèce et Chypre. Le programme Medits, lancé en 1993 a standardisé les modalités pratiques (période, échantillonnage biologique, engin de capture...) et constitué une base de connaissances commune sur les ressources démersales exploitées. L'ensemble des espèces pêchées sont dénombrées, pesées, et sur 38 d'entre elles commercialement intéressantes (poissons, céphalopodes et crustacés), des mensurations sont réalisées par sexe et stade de maturité.

Programme PELMED (GSA 07)

Campagne annuelle estivale d'évaluation de stocks de petits pélagiques par prospections acoustiques et chalutages d'identification. Depuis 1993, ces campagnes (PELMED) couvrent l'ensemble du golfe du Lion en appliquant un protocole identique. Depuis 2008, elles couvrent également le nord de la mer Catalane. Les biomasses des principales espèces de petits pélagiques sont estimées mais seules celles des anchois et sardine font l'objet d'une fiche d'évaluation. Depuis la mise en place de l'harmonisation des campagnes acoustiques en Méditerranée à travers le protocole MEDIAS, ces campagnes ont été classées en priorité internationale par l'UE.

État des recherches en cours

Projet ANR-AMPED (Aires marines protégées) (2009-2012)

Projet en collaboration Ird et Ifremer avec pour objectif d'estimer les bénéfices potentiels d'aires marines protégées sur des espèces qui se déplacent (merlu, petits pélagiques, thon rouge) dans le golfe du Lion. Les études portent sur (1) la répartition spatio-temporelle des stades de maturité du merlu notamment les reproducteurs, (2) une modélisation des réseaux trophiques (modèle Ecopath et Osmose) (3) sur la dynamique spatio-temporelle des espèces de poissons exploités (Thèse).

Projet UE HACOUSMED (2002-2012)

Harmonisation des données ACOUSTIQUES en MEDITERRANÉE (2002-2006) et optimisation des méthodes acoustiques utilisées lors des campagnes d'évaluation des stocks d'anchois et de sardine (2010-2012). Partenaires: HCMR, IEO, CNR – ISMAR, CNR – IAMC, IFREMER. L'optimisation porte sur (1) géostatistiques des séries pour définir les inter-radiales les plus appropriées (2) mesure de TS *in situ* pour mieux caractériser anchois et sardine (3) comparaison des chalutages de jour et nuit (4) standardisation du format des données (5) mise en place d'une base de données commune.

Recherche sur le thon rouge

L'Ifremer mène des recherches sur le thon rouge depuis 20ans : (1) reproduction et croissance (2) collecte et analyse de données historiques de pêcheries (3) distribution spatiale (4) impact des structures océaniques sur sa dynamique (5) modélisation sur la dynamique de population (6) modélisation en appui à l'évaluation de stock. Depuis 2009, thèse sur le développement d'un modèle de biomasse dynamique bayésien et sur l'analyse de données VMS des senneurs français afin d'estimer un indice d'abondance de l'espèce en Méditerranée. Depuis 2006, les travaux de marquage électronique et conventionnel tendent à montrer un fort taux de résidence en Méditerranée des jeunes adultes et met en évidence une zone d'hivernage en Méditerranée Nord Occidentale inconnue jusqu'à lors. En 2011, démarrage d'une étude sur l'écologie trophique dans le golfe du lion (Mermex) dont l'un des objectifs est d'évaluer l'impact de la prédation du thon rouge sur les petits pélagiques. Participation en 2011 et 2012 à l'échantillonnage biologique et génétique du thon rouge (CICTA).

Projet national RP3E

Ce projet (fin en 2012) vise à estimer l'amélioration de la rentabilité d'entreprises de pêche par la réduction de leur consommation en carburant et à réduire l'impact sur le milieu : (1) développer un nouveau train de pêche ciblant le poisson pélagique (2) technique de pêche alternative au chalutage ciblant la langoustine. Des essais avec un chalut en Dyneema (fibre synthétique de très haute résistance et faible densité) à la place du Polyamide, ont mis en évidence une diminution de la consommation carburant de 10%. Des essais aux casiers pour la langoustine sont en cours.

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

Sélaciens: étude sur le comportement des requins pélagiques dans le Golfe du Lion : requin peau bleue (*Prionace glauca*) et requin renard commun (*Alopias vulpinus*). L'étude prévoyait des expérimentations de marquages acoustiques couplées avec des marques satellites afin de définir leurs zones d'habitat, les temps de résidence, les déplacements horizontaux et verticaux. Une meilleure connaissance de de la biologie de ces espèces permettrait d'élaborer des mesures de gestion.

Tortues marines : (1) identifier les périodes sensibles où les pratiques de pêche ont un fort impact (2) procéder à des recherches pilotes pour tester les modifications des pratiques ou adaptations des engins (3) sensibiliser la profession : techniques de libération des tortues et identification des espèces (4) élaborer des supports d'information (5) recueil des données de capture en méditerranée française.

Mesures de gestion

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 par région des plans de gestion (PG) au niveau national ou communautaire, avec adoption de règles complémentaires au règlement cadre ou des mesures techniques spécifiques (Chap.VII).

En 2011, le CSTEP/SGMED puis le CSTEP ont réalisé pour la CE une évaluation des documents de référence produit par l'Ifremer et l'AAMP, et du document de définition réglementaire et de mise en œuvre produit par le ministère français des pêches. Des points faibles ont été identifiés dans la caractérisation scientifique de ces pêcheries et de leurs impacts sur le milieu. Fin 2011, la proposition des PG français sur les chaluts, sennes tournantes, dragues, arts trainants sur herbiers (ganguis) et sennes de plages n'a pas obtenu d'avis sur sa conformité au (CE)1967/2006 de la part de la CE. 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 mesurer l'effort de pêche des navires <12 m en zone côtière, et estimer leurs impacts sur l'environnement. Un projet pilote a été réalisé par l'Ifremer (projet RECOPECA) en 2011 sur 10 navires (<12 m).

GREECE/GRÈCE

1. DESCRIPTION OF FISHERIES

The National fisheries production is presented on Table 1 as follows.

Table 1. Provisional landing data for 2010 and final data for 2009.

BFT data include both landings and transfers to fishfarms

	Common name	Scientific name	Landings '10 (tonnes) *	Landings '09 (tonnes) *
	Sole	<i>Solea vulgaris</i>	600	654
	Other		50	91
Flatfish			650	745
	Hake	<i>Merluccius merluccius</i>	4 500	5 230
	Other		11 000	12 844
Demershal			15 500	18 074
	Horse mackerel	<i>Trachurus spp</i>	2 900	3 164
	Mackerel	<i>Scomber scombrus</i>	220	292
	Sardine	<i>Sardina pilchardus</i>	8 500	10 071
	Anchovy	<i>Engraulis encrasicolus</i>	13 000	14 538
	Other pelagics		9 100	10 357
Pelagics			33 720	38 422
	Bluefin tuna	<i>Thunnus thynnus</i>	223.7	373
	Albacore	<i>Thunnus alalunga</i>	125.0	116
	Other tuna		1 141.0	1 130
	Swordfish	<i>Xiphias gladius</i>	1 494.0	1 132
Tunas			2 983.7	2 751
Other fish			9200	9 806
Total fish			62 053.7	69 798
	Lobster	<i>Palinurus elephas</i>	110	149
	Norway lobster	<i>Nephrops norvegicus</i>	420	491
	Shrimp	<i>Parapenaeus longirostris</i>	2 800	3 098
	Other crustaceans		40	76
Total crustaceans			3 370	3 814
	Oyster	<i>Ostrea edulis</i>	10	21
	Mussel	<i>Mytilus galloprovincialis</i>	450	708
	Scallop	<i>Pecten opercularis</i>	0	3
	Other shellfish		850	1 467
	Squid	<i>Loligo vulgaris</i>	650	725
	Cuttlefish	<i>Sepia officinalis</i>	1 350	1 494
	Octopus	<i>Octopus vulgaris</i>	1 400	1 580
	Other mollusks		1 500	1 920

Total mollusks			6210	7918
Grand total			71633.7	81530

*Landings from vessels with engine power over 19HP

The Greek marine fishery includes more than 96% of small scale inshore fishing vessels. A small percentage of the Greek fishing fleet comprises of vessels that operate trawling and purse seine fishing gear.

The following Table 2 shows the main fishing characteristics of the Greek fishing fleet.

LOA (m)	No of vessels	Capacity (GT)	Engine power (KW)
0-9,99	15 422	27 298,54	262 721,95
10-14,99	1 086	11 669,48	83 870,11
15-23,99	429	17 630,49	85 610,24
24-49,99	227	31 505,69	74 328,69
TOTAL	17 164	88 104,20	506 530,99
Range of LOA:	Min = 2.56	Max = 48.95	
Average LOA:	7.47		

2. STATUS OF STOCKS OF PRIORITY SPECIES

The information given below and presented to the National Report of last year remain unchanged since the fishing pressure in these stocks has not changed significantly during the intersessional period

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 tonnes 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

No significant changes of the pattern of marine collective fisheries data have taken place during the last years. In anticipation of the full implementation of Electronic Reporting System (ERS) concerning the fishing activity according to Reg. (EC) 1224/2009 and 404/2011 the Hellenic Statistical Authority (EL.STAT) remains the main and the only administrative body gathering fisheries data from vessels having overall length more than 10m. At the moment, there is a slight time lag for finalizing the statistical data.

The General Directorate of Fisheries is supervised by the General Secretary of Shipping in the Ministry of Development, Competitiveness and Shipping and collects various data concerning among others the following:

- a) fish landing data for specific species (bluefin tuna, swordfish and albacore) are collected daily under the provisions of Reg. (EC) 302/2009 and validated by the local port authorities. Moreover, in case of bluefin tuna, the BCD (Bluefin Catch Document) is also collected daily including details about each individual fish caught.
- b) statistical trade data concerning imports, exports and re-exports of swordfish and bigeyed tuna are collected, using the statistical documents referred to Reg. (EC) 1984/2003.
- c) statistical data concerning imports of fishery products from third countries are collected according to the provisions of Reg. 1005/2008.
- d) fish landing data from vessels that land their catches to any other than the designated ports in the national territory.

The Ministry of Development, Competitiveness and Shipping / 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.

4. STATUS OF RESEARCH IN PROGRESS

In Greece, the Mediterranean fisheries research is carried out primarily by the Hellenic Centre for Marine Research and the Fisheries Research Institute that belongs to the Hellenic Agricultural Organisation (DEMETRA). In addition to these two research institutes there are other departments in universities that carry out similar research work in fisheries. The following research projects are part of the ongoing research work.

- **The structure of fish populations and traceability of fish and fish products (FishPopTrace)**

FishPopTrace, an EU 7FP project, had as primary aim to develop genetic and biochemical tools with potential applications to monitoring, control, surveillance (MCS) and enforcement in the fisheries sector. This has been achieved through population structure analysis and fish (product) traceability focusing 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 explored the potential of otolith microchemistry and shape, fatty acid analysis, proteomics, gene expression, and microarrays. The FishPopTrace consortium consisted 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.

Although the outputs of the project are far from being completed, the first publications, listed below, indicate the population discriminatory power of most of the tools developed and thus their potential applications to MCS issues of interest to the EU and the EU CFP.

Further information on the project is available in the project's web site: www.fishpoptrace.jrc.ec.europa.eu/

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.

Rapid assessment of alien marine species in the Albanian and Montenegrin coast (ALBAMONTE)

In the proposed study, the distributional patterns of a selected number of invasive alien marine species along the coasts of Albania and Montenegro will be investigated. Presence/absence surveys of the target species will be conducted at a large number of sites (~30 sites) in the study area. The present study will provide valuable insight on the invasion patterns of alien marine species in the area (North Ionian – South Adriatic Sea), it will reveal the hotspots of the distribution of alien species in the area, and will form the baseline for monitoring trends in the establishment of alien marine species and invasion rates. Distribution maps will be produced for each of the studied species, by integrating the developed occupancy models with a GIS application. An inventory of the marine alien species of Albania and Montenegro will be created, based on the results of the field survey and of a questionnaire-based survey targeting fishermen, divers, scientists, tourists, and the wider public.

Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using the volume or the mass of the net (ARCHIMEDES)

The project objective is to create an algorithm based on the technical characteristics of the gill nets, trammel nets and bottom nets suitable to enable the Fisheries Inspectors to estimate the length of the net using its volume or weight.

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.

Bio-Economic Modelling TOOLS (BEMTOOL)

Development of an integrated bio-economic modeling tool to develop and support multi-objective approaches for fisheries management. Identification of the main species and fleet segments/métier covering an adequate proportion of total catches/landings and total revenues of the main métier involved in multispecies multiple gears demersal fisheries in different Mediterranean sub-regions.

The Directorate-General for Maritime Affairs and Fisheries (DG MARE) has requested the development of an integrated bio-economic modeling tool to develop and support multi-objective approaches for fisheries management. The modeling tool should evaluate the biological and economic effects of different harvesting strategies directed at extracting the long-term maximum sustainable production while avoiding the risk of recruitment overfishing and modification in the ecological structure and functions of the exploited fish community. This approach should allow identifying the optimal level of fishing effort and/or catches per each main segment/métier of the fishing fleet in line with previously defined conservation goals while allowing the possibility to extract the maximum long-term economic value.

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 maximizing yield, the project integrates knowledge from a range of areas, each of which affects the sustainability of the exploitation of the ecosystem.

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

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.

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.

Mediterranean Network of sustainable small-scale fishing communities (FISHINMED)

Creating a Mediterranean Network linking public and private institutions to support the social-economic local development of small-scale fishing communities thus favouring the diversification of fishing activities and the socio-economic relations for an integrated valorisation of the coastal area.

Mediterranean hAlieutic Resources Evaluation and Advice –HORIZONTAL SERVICES (MAREA)

The project aims to organize a consortium of European research Institutes and Centre with expertise in fisheries research and which will be readily available to offer scientific advice on fisheries issues which are currently required or will be required by the commission. DG MARE has asked for scientific advice for 7 different issues from which 3 have received a top priority status. The scientific subject of the first 3 tasks is:

1. Collection and mapping (GIS) of information for essential fish habitats
2. Development of a bio-economic modeling tool to develop and support multi-objective approaches for fisheries management. Identification of the main species and fleet segments/métier covering an adequate proportion of total catches/landings and total revenues of the main métier involved in multispecies multiple gears demersal fisheries in different Mediterranean sub-regions
3. Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using the volume of the mass of the net

The budget of each project will be agreed when each project will be approved by DG MARE and then, the proposal will be submitted for evaluation and approval from the Board of Directors of the Hellenic Centre for Marine Research separately and individually.

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.

Métiers in Small Scale Fisheries (Met-Sma-Fish)

The main aim of this project was to identify the métiers that exist in the islands of the prefecture of Lesvos (NE Aegean) and to collect landings and effort data of each métier. In order to obtain a good knowledge of the characteristics of small-scale fisheries, data were collected on métier-based and the special features of each métier were taken into account. The study has been financed by the European Commission under the Service Contract No 254114 (Invitation to Tender No IPSC/2008/04/01INC of 18/07/2008).

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 be analyzed, validated (via expert workshops organized 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.

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.

Socio economic effects of management measures of the future CFP (SOCIOEC)

SOCIOEC is an interdisciplinary, European wide project bringing together scientists from several fisheries sciences with industry partners and other key stakeholders to work in an integrated manner on solutions for future fisheries management that can be implemented at a regional level. The central concept is to provide a mechanism for developing measures that are consistent with the overarching sustainability objectives of the EU, and that can provide consensus across all stakeholders. The first step will be to develop a coherent and consistent set of management objectives, which will address ecological; economic and social sustainability targets. The objectives should be consistent with the aims of the CFP, MSFD and other EU directives, but they should also be understandable by the wider stakeholder community and engage their support. This will then lead to the proposal of a number of potential management measures, based on existing or new approaches. The second step will be to analyze the incentives for compliance provided by these measures. In particular, we will examine fisher's responses and perceptions of these measures, based on historical analysis as well as direct consultation and interviews. This project part will also examine how the governance can be changed to facilitate self- and co-management to ensure fisher buy-in to promising management measures. In particular, the project will focus on the interpretation of overarching (i.e. EU) objectives in local and regional contexts. Finally, the project will examine the impacts of the management measures that emerge from this process, particularly in terms of their economic and social impacts. The IA analysis will be integrated by evaluating the proposed measures against the criteria of effectiveness, efficiency and coherence. Special attention will be paid in evaluating the proposed management measures' performance in terms of their ability to achieve the general and specific ecological objectives.

Surfacing System for Ship Recovery (SuSY)

The proposed research is for engineering development for a salvage system to refloat sinking or sunken ships. HCMR is involved in the engineering review, feasibility studies, concept definition and sea trials of a prototype system.

Propagation of spillages is one of the largest environmental problems following a ship disaster. Instead of cleaning dirty areas, the SUSY system will avoid spillages by stabilizing vessels immediately after an accident. The main goal of the project is the development of well known submarine rescue technology into system usable for merchant ships in emergency situations. The systems for submarines are based on satellite booster technology with liquid or solid fuel to blow water out of the ballast tanks in a very short time to provide additional buoyancy to stop, for example, an uncontrolled diving process. Combining this technology with air pressure systems and balloon technology to create a multi-purpose modular system for ship rescue purposes is the SUSY project target. Therefore booster technology combined with pressure air technologies has to be adapted to salvage procedure requirements. In combination with new balloon textiles a secure vessel stabilisation process, as well as the salvage process, will be supported.

Different application scenarios/concepts can be envisaged: 1) preventative installation of rescue systems on ships with hazardous cargo, 2) equipment for coast guard and rescue squads to quickly stabilise capsized ships and 3) equipment for teams to lift sunken ships.

The technical challenges for SUSY where research is needed to develop the envisaged system are (1) developing a hydro-dynamical and a thermo-dynamical model as basis for a controlled process for the different possible scenarios, (2) developing a safety and secure buoyancy generating system based on liquid and solid fuel and air pressure, (3) find the right material to cope with the pressure, temperature and dynamic loads of the rescue scenario, (4) define a life-cycle cost model to assure the design of a low cost modular system, (5) simulate the different scenarios to provide input for the design optimisation, (6) Finally SUSY will build a prototype to proof the concept in real sea tests.

Management plan for the demersal trawl fisheries in the Greek seas (TRAWLPLAN)

Development of a management plan for the demersal trawl fisheries in the Aegean and Ionian seas.

5. MARINE ENVIRONMENTAL STUDIES IN PROGRESS

Architecture and roadmap to manage multiple pressures on lagoons (ARCHITECTURE)

The project aims to the study and management of coastal marine aquatic ecosystems such as coastal wetlands. The contribution of the Institute for Marine Biological Resources is to study the coastal fisheries and the coastal resources along the front of such wetlands and the dynamics of the migration of these resources through the wetlands for reproduction and feeding purposes.

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

(1) Preparatory actions for defining marine Important Bird Areas (mIBAs), and defining of mIBAs. (2) Preparatory action for rat elimination and population control of sea gulls and realization of the respective actions in selected islets. (3) Actions for public awareness on sea bird conservation.

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.

Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas (CREAM)

The Coordinating Action (hereafter "the project") will establish an effective collaboration network among key role players in Mediterranean and Black Sea fisheries research and management. The participants in the project include national research institutes from Mediterranean and Black Sea countries with a long history and active participation in fisheries research and assessment, who provide advice to national, regional and international fisheries management organisms. The project will seek the active collaboration of regional and international fisheries management organisms as external participants in the project, in order to identify the gaps (in terms of data, knowledge, training, coordination) which hamper at present the full application of the Ecosystem Approach in the management of Mediterranean and Black Sea fisheries. The project will have a strong training and capacity building component in order to help harmonize data collection and methodologies used in fisheries assessment and management in the Mediterranean and Black Sea. The project will serve to establish the guidelines for the application of the Ecosystem Approach to Fisheries in the Mediterranean and Black Sea, both in EU member states and third countries.

The identification and mapping of Essential Fish Habitats using Geographic Information Systems (EFH-GIS)

The identification and spatiotemporal mapping of Essential Fish Habitats (EFHs) represent the fundamental scientific tasks of the spatial component of fisheries management, a component that has often been neglected in previously enforced fisheries policies. EFH-GIS deals with the mapping of EFH in the Mediterranean through a GIS database update, map ocean processes, habitat modelling, MPA designation, and knowledge dissemination.

Collection of environmental, ecological, oceanographic and fishery data for the Argolikos gulf. (KOUPONIA)

The General Secretariat of Research and Technology of Ministry of Development financed the action of national scope "(Kouponia) of Innovation for Small to medium-sized enterprises". The financing amounts are coming from the Operational Program of "Competitiveness and entrepreneurship" (EPAN-II). The total amount of funding is 8,400,000 € and is covering all the Greek regions.

A key objective of the Strategic Plan for Research, Technology and Innovation is to support the needed technology needs of the various small median enterprises (SME). The aim is to support and strengthen small enterprises through the purchase of innovative consulting and support services knowledge/experience of innovators and also the support of the public laboratories and research institutions (Universities, Technological Educational Institutions and Research Centers) which provide services of high value and intensity.

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 long liners), through appropriate knowledge on the biology and ecology of species, and of the fisheries.

Mediterranean Sensitive Habitats (MEDISEH)

The present study aims at the compilation and mapping of environmental and fisheries related information in the Mediterranean Sea by means of Geographical Information Systems (GIS): Integration and mapping of the spatial information on sensitive habitats: a) habitats protected under the Mediterranean regulation, b) nursery areas and spawning aggregations of demersal and small pelagic fish and c) areas under any form of protection within national and international legislation.

Maximising yield of fisheries while balancing ecosystem, economic and social concerns (MYFISH)

The MSY concept was included as a principle in the 2009 Green Paper on the reform of the Common Fisheries Policy (CFP) in accordance with the global imperative to manage fish stocks according to the maximum sustainable yield (MSY). This implies a commitment to direct management of fish stocks towards achieving MSY by 2015. Attaining this goal is

complicated by the lack of common agreement on the interpretation of "sustainability" and "yield" and by the effects that achieving MSY for one stock may have on other stocks and broader ecosystem, economic, or social aspects. MYFISH will provide definitions of MSY variants which maximize other measures of "yield" than biomass and which account for the fact that single species rarely exist in isolation. Further, MYFISH will redefine the term "sustainable" to signify that Good Environmental Status (MSFD) is achieved and economically and socially unacceptable situations are avoided, all with acceptable levels of risk. In short, MYFISH aims at integrating the MSY concept with the overarching principals of the CFP: the precautionary and the ecosystem approach. MYFISH will achieve this objective through addressing fisheries in all RAC areas and integrating stakeholders (the fishing industry, NGOs and managers) throughout the project. Existing ecosystem and fisheries models will be modified to perform maximization of stakeholder approved yield measures while ensuring acceptable impact levels on ecosystem, economic and social aspects. Implementation plans are proposed and social aspects addressed through active involvement of stakeholders. Finally, effects of changes in environment, economy and society on MSY variants are considered, aiming at procedures rendering the MSY approach robust to such changes. The expertise of 26 partners from relevant disciplines including fisheries, ecosystem, economic and social science are involved in all aspects of the project. Global experience is engaged from North America and the South Pacific.

Planning a network of marine protected areas for the Mediterranean Sea - NETMED

The present proposal suggests the design of an ecologically coherent network of marine protected areas for the entire Mediterranean Basin, based on the principles of systematic conservation planning; an efficient, transparent and holistic approach for marine reserves design, which informs their location, configuration and management. The aim is to protect marine biodiversity, in coastal and off-shore habitats, and preserve ecosystem services cost effectively. To accomplish this, spatial prioritization software will be used to accommodate ecological, social and economic considerations in identifying priority areas for conservation. The Mediterranean Sea offers a unique opportunity and urgent need to address this issue since: 1. especially in the western Mediterranean a large number of MPAs have already been implemented and can be used as initial framework for further implementation, 2. the knowledge about habitats and species distribution is far to be completed but some extensive mapping in several areas has been carried out and 3. the scientific community is highly sensible to the issue of Mediterranean habitats inventories as demonstrated by the effort of RAC/SPA. Given that and considering the particularities (geographical, social and political) of the study region, new conservation planning methodologies will be devised. In order to improve the proposed network and increase public support, an intense consultation process with experts on Mediterranean marine biodiversity and stakeholders will follow the initial network design. The final product of this approach will be compared with other non-systematic and national-driven approaches. Results will be of immediate use to managers of MPAs and ongoing conservation planning throughout the Mediterranean; the proposed network of MPAs will be integrated within a broader ecosystem-based strategy.

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 Tran disciplinary and Tran boundary long-term collaborations.

Contribution in the elaboration of the Strategic Study of Environmental Impact of aquaculture within the frame of the National Cadastral Design and Sustainable Development plan for aquaculture (SMPE)

Based on the EU and national legislation, the development of a production sector is required to be based on a National Cadastral and Sustainable Development Plan, major part of which is the Strategic Environmental Impact Study which includes the expected impact from the further development of aquaculture in Greece as well as set the roadmap and guidelines for this development.

Water body in Europe: integrative system to assess ecological status and recovery (WISER)

WISER, an EU 7FP project, supports the implementation of Water Framework Directive (WFD) by developing tools for the integrated assessment of the ecological status of the European surface waters. Within this framework is the developing and testing methodological tools (e.g. EEI-c) most appropriate for the classification of ecological status of the Mediterranean transitional and coastal waters, using benthic macrophytes as bioindicators.

6. MANAGEMENT MEASURES

In addition to EC fisheries management measures (Reg.1967/2006), Greece has adopted several national measures for fisheries management 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, all Recommendations on BFT and swordfish in the Mediterranean sea as adopted by ICCAT and GFCM were fully implemented during the intersessional period. *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

Description of the fisheries

In 2010, the Italian fishing fleet consisted of 13 301 registered vessels; the total fleet accounted for a combined registered tonnage of 182 000 and a total power of 1 097 000, see Table1.

The national fleet is characterized 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.

The small-scale fishery (polyvalent passive gears under 6m and 6-12m) is the most important fishery in terms of vessels' number, employment and activity. Polyvalent passive gears under 12m represents 66% of the total active fleets. The small scale fishery accounts for about a quarter of the national value of landings.

The last decade is characterized by a decrease in capacity. The reduction in the number of registered vessels (-11%) lead to a reduction of -12% in terms of gross tonnage (GT) in the period 2004-2010

The decrease in capacity in the Italian fleet over the period analysed is due to two main reasons:

- the decrease in productivity for most of the vessel especially caused by the increase in operational costs;
- the old age of the vessels (around 28 years old) and of the owners.

The decrease in productivity affected more or less all the fishing segments even though the bigger and more active vessels felt the effects of increasing costs and losses of productivity to a greater extent given their high level of capital investment.

The number of people employed in the Italian national fleet in 2010 was 28,982. The number of employee decreased by -17% in the period 2004-2010; the decrease in employment parameters has mainly been caused by the reduction of the number of vessels and by the fuel crisis that largely impacted productivity. Indeed, the reduction of fishing capacity has had a negative impact in terms of employment and income especially in those communities highly dependent on fishing.

Table 1. Capacity and economic indicators by fleet segments, 2010

	2010						
	Total fleet	Trawlers	Pelagic fleet	Dredges	Small scale fishery	Multipurpose vessels	Longlines
Capacity Indicators							
Volume of landings ('000ton)	223	78	76	22	34	8	5
Value of landings (EUR million)	1 103	555	99	63	276	66	44
Economic indicators							
Fleet - number of vessels	13 301	2 679	444	700	8795	491	192
Fleet - total GT ('000)	182	113	30	9	16	7	6
Fleet - total kW ('000)	1 097	537	132	76	244	69	39
Average days at sea	126	150	118	89	121	128	129
Employment	28 982	9 075	2 422	1 440	14 047	1 292	707

Source: MIPAAF - IREPA

In 2010, the Italian national fleet landed approximately 223 000 tonnes of seafood and generated income of around 1 103 million euros. Over the last years, the fish production has shown a steady decline. In the period 2004 to 2010, landings have decreased by 23%. The persistency of productive decline is mainly related to the reduction of activity and capacity that affected most fleet segments.

In terms of catch composition, apart from small and large pelagic species (anchovies and sardines, swordfish and tuna) and some specific fishery (shrimps and clams), fishers can only partially target species they intend to catch.

In 2010 anchovies was the most important species landed in terms of tonnage (54.1 thousand tonnes), followed by clams (striped venus, 19.75 thousand tonnes) and European pilchards (16.27 thousand tonnes). They represented, respectively, 30%, 11% and 9% of total landings while the 5 top species represented about 62% of total landings in 2010, see tab.2. In terms of the value of landings, in 2010, hake achieved the highest value of landings (90 million), followed by anchovies

(76 million) and deep-water rose shrimp (75 million). They represented, respectively, 12%, 9% and 9% of the total value of landings in 2010.

The anchovies fishery is an important Italian fishery. It is mostly represented by purse seiners and pelagic trawlers. While purse seiners mainly fish in Tyrrhenian and Sicilian waters, pelagic trawlers fish exclusively in the Adriatic waters. The other important monospecific fishery is represented by dredgers (707 vessels in 2010), almost exclusively located in the central-north Adriatic coast. This fishery is highly specialised targeting mainly clams (*Venus gallina*) whose stock consistency is subject to strong variations from one year to another. This segment is important as it is the first (and almost only) Italian example of a self-managed fishery. This fishery is based on consortia that provide rules for the associated vessels by setting weekly days at sea and daily landings quota.

Table 21. Main species harvested by quantity and value

	2010			
	Tonnes ('000)	%	EUR million	%
European Anchovy	54,10	30,10	76,0	9,77
Other fish	25,66	14,28	161,1	20,73
Striped venus	19,75	10,99	52,8	6,79
European pilchards	16,27	9,06	12,9	1,66
European Hake	11,53	6,41	90,1	11,59
Deep-water rose shrimp	10,26	5,71	75,7	9,74
Common cuttlefish	7,13	3,97	63,6	8,18
Spottail mantis squillid	6,22	3,46	34,8	4,48
Swordfish	6,03	3,36	67,4	8,67
Striped mullet	4,93	2,75	28,8	3,71
Mediterranean horse macere	4,22	2,35	7,4	0,96
Changeable nassa	3,65	2,03	14,8	1,90
Common squids	3,53	1,97	16,7	2,14
Norway Lobster (Nephrops)	3,22	1,79	61,9	7,96
Musky octopus	3,21	1,79	13,4	1,72
Total	179,72	100,00	777,19	100,00

Source: Mipaaf-IREPA

Status of stocks of priority species

The information base available and fully used in the analysis of the resources status in the Italian seas is mainly represented by historical data gathered through trawl-survey GRUND and MEDITS, by data on commercial landings and discards in particular with the acquired recent European Regulations on Data Collection (Reg EC 199/2008 and 1543/2000 as part of the Data Collection Framework-DCF).

The GSA (sub regions - in Italy are 7), represent the spatial scales of reference and assessment methods are currently based on a set of stock indicators, among which are: indicators of biomass, density, length structure, recruitment, fishing mortality and exploitation.

The species considered are the commercially most important.

Hake *Merluccius merluccius* is one of the most studied species in all GSA and all the assessed stock resulted in heavy overfishing status. Fishing mortality rates a lot higher than the optimal ones (F0.1) were found, in the Central and Southern Tyrrhenian Sea (GSA GSA 9 and 10), in the Strait of Sicily (GSA 16), and in the Southern Adriatic Sea (GSA 18).

Also the red mullet *Mullus barbatus* is one of the most studied species in all GSA. Although the species results in overfishing in most of the investigated GSA (GSA 9, 10, 16, 17, 18 and 19), the intensity of overfishing is lower than the hake one. In most of the GSA, increasing trends of the biomass of the standing stock from the late nineties were reported.

A situation of overfishing was detected for sole, *Solea vulgaris*, in the Adriatic Sea (GSA 17), common pandora, *Pagellus erythrinus*, in the Strait of Sicily (GSA 16) and striped red mullet, *Mullus surmuletus*, in the northern Tyrrhenian (GSA 9).

For the Norway lobster *Nephrops norvegicus*, most of the indicators shows negative trends, particularly in the northern Adriatic Sea (GSA 17). The indices of the survey indicate a variable pattern in abundance and biomass without a defined trend in GSA 10 (lower Tyrrhenian) and GSA 18 (Lower Adriatic). In the GSA 9 has been highlighted a situation that goes from full to over-exploitation.

Negative trends of some indicators of the stock of the curled octopus (*Eledone cirrhosa*) are observed only in the GSA 9 (upper Tyrrhenian).

The stocks of deep water rose shrimp *Parapenaeus longirostris* were in overexploitation in GSA 10 and 16, although the positive trend of the standing stock could be a sign of environmental changes that support the productivity of these stocks. Sustainable exploitation was assessed in the GSA 9.

The giant red shrimp, *Aristaeomorpha foliacea*, in the Strait of Sicily (GSA 15 and 16) was assessed in overfishing. The blue and red shrimp *Aristeus antennatus* showed decreasing trend along the coasts of Sardinia (GSA 11) and North of the Ligurian Sea and Tyrrhenian Sea (GSA 9). In GSA 9, the stock of *A. antennatus* was assessed in overfishing.

Signs of overfishing for the stock of anchovies *Engraulis encrasicolus* are highlighted in the Strait of Sicily (GSA 16), while in the Adriatic Sea (GSA 17 and GSA 18), the situation indicates the need to do not increase current levels of fishing effort.

Signs of overfishing for the stock of sardines *Sardina pilchardus* are highlighted in the Adriatic (GSA 17 and GSA 18), where estimates of biomass of the population in the sea indicate a continuous decrease. Also for the sardines, the situation in the Strait of Sicily (GSA 16) indicates the need to do not increase current levels of fishing pressure.

With reference to the biological resources of small pelagic species, anchovy and sardine, there are signs of over-fishing for both species in the GSA 9.

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 Program. 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.

Fishery statistics are transferred to GFCM (through the Task 1 tool), to the European Commission, to Eurostat and to other RFMOs (like ICCAT). They are currently used by the national administration to support political decisions and to monitor the state of the fishing sector.

Within the European Regulation on Data Collection (EU reg. n. 199/2008) a centralized database has been developed to store fishery statistics (capacity, effort and landings data), economic data of the fleet, economic data of the aquaculture sector, economic data of the processing industries, biological data (parameters of the population by species and surveys data), and ecosystem indicators.

Status of research in progress

Fisheries data have been collected in the framework of the Italian National Data Collection Program 2010, 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 (Reg. CE 199/2008; Commission Decision 93/2010/EC).

In accordance with chapter II of the annex of the Commission Decision, this national program comprises of the following modules:

1. 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

2. 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
3. Module of evaluation of the effects of the fishing sector on the marine ecosystem
4. Module for management and use of the data covered by the data collection framework

In implementing the new DCF, 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.

Other main research activities

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.

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

Strategies for the commercial exploitation of the Adriatic bluefish. Networks and relations with the territory;

Nutritional and safety aspects of fish species from fishery and aquaculture

Bio-economic models

Assessment of *Anguilla anguilla* in the framework of UE Reg. 1100/2007

Pilot project for the development of stereoscopic video images to estimate size of bluefin tuna

Status of the social sciences studies in progress

Cooperation development in the Mediterranean fishery sector – the labor context, the producers associations, training

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.

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 the depletion of certain stocks.

In 2010, 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).

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 also 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

(Only partial data for North Lebanon (40% of coastline) are available from a private University (University of Balamand).

Fleet: (according to 2004/5 Census)

- 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 and 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.

FLOUCA.Net: is a utility that reads records of estimates produced by FLOUCA 2 and automatically generates web-supported reports. It involves all monthly estimates as well as a synthesis of yearly figures. Variables reported are catch, effort, CPUE, prices, values and compound accuracy of estimation (expressed as %).

Status of research in progress

- **First record of *Diadema setosum* (Leske, 1778) (Echinodermata, Echinoidea, Diademataceae) from Lebanon, Eastern Mediterranean.** Aquatic Invasions (2011) Volume 6, Supplement 1: S23–S25. A published article about the first record in Lebanon of the Lessepsian sea urchin, *Diadema setosum*. The specimen was collected by the Lebanese army divers and was presented to the laboratories of the MRCZM at the IoE – UoB. The scientific article was published in April 2011 in the “Aquatic Invasions Journal”.
- **Biological Study and Stock Assessment of Boops boops, Diplodus sargus sargus, and Lagocephalus scleratus off the Coast of North Lebanon, a Master Thesis.** The aim of this thesis is to study the biology and growth of *Boops boops*, *Diplodus sargus sargus*, and *Lagocephalus scleratus* and to do single species length based stock assessment of the three species. The study will investigate whether the commercial species *Boops boops* and *Diplodus sargus sargus*, are being overfished and the status of the population of the Lessepsian species *Lagocephalus scleratus*, which is influencing fisheries and the surrounding ecosystem.
- **Puffer fish: *Lagocephalus scleratus*, a Review Report.** A review report on the status of the puffer fish species: *Lagocephalus scleratus* supported by the FAO-EastMed project (www.faoeastmed.org). The distribution, biology, toxicity and economic usages are being reported on a world scale with an emphasis on the Eastern Mediterranean basin. The aim is to have a clear understanding about the status of this species worldwide and to suggest possible economic usages of this fish in the Mediterranean.
- **Historical Catch Reconstruction for fisheries in Lebanon.** The MRCZM team is collaborating with the Fisheries Center of the University of British Columbia, Vancouver, Canada, in order to reconstruct the Lebanese historical catch for Lebanon since 1950 based on available historical data. The results will act baseline information for fisheries managers and is expected to be published in the 'Atlas of the World's Marine Fisheries', Fisheries Centre Research Reports (www.fisheries.ubc.ca/publications/fcrrs).
- **Juvenile fish assemblages in the pelagic waters of the eastern Mediterranean** (spatio-temporal patterns of abundance; size structure; body condition; composition and structural characteristics).
- **Reproduction of the Lessepsian invader *Fistularia commersonii* in the eastern Mediterranean** (gonad developmental stages and morphology; maturity; periodicity of reproduction; fecundity; spawning patterns).
- **Biology of shore crabs along the Lebanese coast.**
- **The marine fishes of Lebanon** (diversity, status, exotic species, threats, conservation).
- Bariche M., Heemstra, *in press*. **First record of the blacktip grouper *Epinephelus fasciatus*** (Teleostei: Serranidae) in the Mediterranean Sea. *Marine Biodiversity Records*.
- Bariche M., 2011. **First record of the cube boxfish *Ostracion cubicus* (Ostraciidae) and additional records of *Champsodon vorax* (Champsodontidae) from the Mediterranean.** *Aqua, International Journal of Ichthyology*, 17(4): 181-184. <http://db.tt/WCFyrol>
- CANA Project by Lebanese National Council for Scientific Research (CNRS):

- Sea Physical Environment
- Hydrology, Hydrobiology and Biodiversity
- Mammalian and Fishery:
 - Protection plan both for mammalian and fishery resources - ACCOBAMS.
 - Stock Assessment training
 - Aquaculture feasibility study
- Coastal 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

- Abdul Malak D., Livingstone S.R., Pollard D., Polidoro B.A., Cuttelod A., Bariche M., Bilecenoglu M., Carpenter K.E., Collette B.B., Francour P., Goren M., Kara M.H., Massuti E., Papaconstantinou C., Tunesi L., 2011. **Overview of the conservation status of the marine fishes of the Mediterranean Sea.** *IUCN, Gland, Switzerland and Malaga*, vii + 61pp. www.db.tt/6n9fEzb
- Bariche M., 2010. Marine Reserve Network for the Lebanese Waters. *Greenpeace Mediterranean, Beirut – Lebanon*, 58 pp. www.db.tt/FWYwYepm
- **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).**
- **Environmental Resources Monitoring Project-UNEP.**
- **Evaluating coastal risk on the Chekka El Heri beach through the assessment of the physical oceanographic parameters**

Management measures

- Minister Decision 676/1 on 27/7/2011 regarding ban on fishing, transporting, selling, and consuming certain kinds of fish (puffer fish).

Research suggestions for consideration by SAC

- Promote and integrate fisheries research as part of the Ecosystem Based Management
- Develop a sustainable national “information system” for artisanal fisheries in collaboration with the different research centers in the country
- Assess stocks commercial fish species in Lebanon
- Monitor invasive species in the Lebanese waters and their population dynamics
- Research the impact of invasive species on commercial stock in particular and the coastal marine ecosystem in general
- Update on a yearly basis the list of fish biodiversity richness in Lebanese territorial waters
- Monitor marine macro-algae in the perspective of climate change

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 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. According to the MaltaStat Fishing Vessels Register, the full fleet capacity of registered vessels in 2011 was 3039 of which 391 (12.9%) vessels and 694 (22.8%) vessels were commercial full-time and part-time vessels respectively. The recreational category made up of 1922 (63.2%) vessels operating with recreational fishing gear and fish caught were not commercialised. The remaining 32 (1.1%) vessels represent the work boat category.

The total gross tonnage and power of main engine for the full-time commercial vessels totalled 25595.5 t and 171668.7 kW respectively. The length of full-time and part-time registered vessels ranged between 3.45 to 86.98 m and 3.05 to 18.50 m respectively. The recreational vessels ranged between 2.43 to 22.10 m and that of the workboats ranged between 7.70 to 100.0 m. 35.7% of commercial full-time and 64.3% of commercial part-time measure less than 12m LOA.

Table 1. Number and type of Maltese fishing vessels by length class; reference year 2011.

Registration type	Number of vessels by length class				
	VL0006	VL0612	VL1224	VL2440	N ^o of vessels
Full-time commercial	120	188	69	14	391
Part-time commercial	410	280	4		694
Recreational	1635	273	14		1922
Work boats		9	14	9	32
Grand Total	2165	750	101	23	3039

Table 2. Gross tonnage by vessel registration type and length class; reference year 2011.

Registration type	Gross tonnage (GT) by vessel length class				
	VL0006	VL0612	VL1224	VL2440	Total GT
Full-time commercial	122.5	910.6	3455.6	6119.9	10608.5
Part-time commercial	425.6	945.9	92.6		1464.1
Recreational	1363.9	867.1	380.8		2611.7
Work boats		46.5	988.3	9876.1	10910.9
Grand Total	1911.9	2770.1	4917.2	15996.0	25595.3

Table 3. Power of main engine by vessel registration type / length class; reference year 2011.

Registration type	Power of main engine (kW) by vessel length class				
	VL0006	VL0612	VL1224	VL2440	Total kW
Full-time commercial	3234.7	18004.7	17650.0	9269.8	48159.2
Part-time commercial	10906.2	23390.8	538.6		34835.6
Recreational	42471.1	23604.7	3644.9		69720.7
Work boats		1096.3	4330.9	13526.1	18953.3
Grand Total	56611.9	66096.5	26164.5	22795.8	171668.7

Landings from marine capture fisheries in 2010 were dominated by dolphinfish (*Coryphaena hippurus*), swordfish (*Xiphias gladius*) and bluefin tuna (*Thunnus thynnus*) in decreasing order of importance as shown in table below. Landings of dolphinfish occur mainly between the 15 August and 31 December mostly by the Fish Aggregating Device (FAD)

fishery. Between the months of April and July the market is dominated by the landings of bluefin tuna and swordfish. Both these species are targeted by the same method that is pelagic drifting long-lines. The major fishing area is GSA15, however the long-line and trawling fleet also operates in the neighbouring GSAs.

Table 3. Ten most important marine capture fisheries landings for the Maltese fleet in 2010

Scientific name	FAO 3A Code	Weight (t)	% dist.
<i>Coryphaena hippurus</i>	DOL	529.999	28.9
<i>Xiphias gladius</i>	SWO	422.783	23.0
<i>Thunnus thynnus</i>	BFT	153.216	8.3
<i>Scomber japonicus</i>	MAS	61.100	3.3
<i>Mullus surmuletus</i>	MUR	52.973	2.9
<i>Octopus spp</i>	OCZ	51.589	2.8
<i>Alosa fallax</i>	TSD	43.483	2.4
<i>Boops boops</i>	BOG	39.101	2.1
<i>Sepia officinalis</i>	CTC	29.028	1.6
<i>Aristaeomorpha foliacea</i>	ARS	27.402	1.5
Grand Total		1835.513	100

The landings of giant red shrimps (*Aristaeomorpha foliacea*) originate exclusively from trawling which takes place throughout the year with quantities decreasing in the winter months due to unfavourable weather conditions. Landings of other demersal species originate from trawling, bottom long-lines 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

Data for the eventual analysis of stocks is derived from the Maltese sampling activities in line the EC Data Collection Framework (EC 199/08, EC 949/08, EC 93/2010). In 2011, Malta was obliged to collect biological data by the DCF for the following fishing gears;

- Bottom otter trawlers targeting mixed demersal and deep water species
- Pots and traps for demersal species
- Drifting longlines targeting large pelagic fish
- Set longlines for demersal fish
- Trammel nets targeting demersal species
- Purse seines targeting bluefin tuna (sampling at harvest)

Length data is collected for all Group 1,2 and 3 species as outlined in the EU DCF. Biological parameters were also collected for bluefin tuna, swordfish and dolphin fish since catches generally constitute more than 200 tonnes annually and for some other Group 1, 2 and 3 species when possible. Such data is gathered to be utilised for analyses, such as for stock assessments.

In 2011 the joint stock assessment for pink shrimp (*Parapenaeus longirostris*) in GSAs 12-16 (which had been carried out for the first time in 2010) was updated by Maltese, Tunisian and Italian scientists, combining data collected throughout the Central Mediterranean. This stock assessment was conducted under the auspices of the MedSudMed project, and finalised at the 2011 GFCM demersal working group workshop. In addition, a joint preliminary stock assessment was carried out for hake (*Merluccius merluccius*). Stock assessments were also carried out by Maltese scientists in collaboration with Italian scientists based at CNR-IAMC in Sicily combining GSAs 15 and 16 for the following species: thornback skate (*Raja clavata*), giant red shrimp (*Aristaeomorpha foliacea*), red mullet (*Mullus barbatus*) and common Pandora (*Pagellus erythrinus*). These assessments were done at stock assessment working groups organised by the EC. The biological reference points used were $F_{0.1}$, and F_{max} .

Table 4. Results of stock assessment conducted in 2011 (reference year = 2010)

English Name	Scientific Name	F ₂₀₁₀	F _{0.1}	Stock Status	Maltese Share of 2010 Landings (%)
Pink shrimp	<i>P. longirostris</i>	1.20	0.92	Overexploited	0.07
Hake*	<i>M. merluccius</i>	0.60	0.1	Overexploited	0.23
Giant red shrimp	<i>A. foliacea</i>	1.09	0.42	Overexploited	2.04**
Red mullet	<i>M. barbatus</i>	0.87	0.51	Overexploited	1.69**
Common Pandora	<i>P. erythrinus</i>	0.60	0.36	Overexploited	5.00**

* Preliminary assessment; ** Excluding Tunisian landings.

3. Status of the statistics and information system

Malta collects data on catch and effort for each segment by species, by quarter and by geographical origin. Catch and effort figures are based on data reported in logbooks (for vessels over 10 m LOA) and by sampling the small-scale fishery (for vessels less than 10 m LOA) through an exhaustive sampling survey questionnaire, on sales notes from the official fish market and from direct sales data. The data collected is in line with the EU Data Collection Framework (DCF) EC 199/2008, EC 949/2008, EC 93/2010.

The fisheries statistics being collected have been submitted to international organisations for stock assessment purposes and scientific analysis. In 2011 Malta submitted data collected within the framework of the DCF to several international bodies / for use by several projects:

- i) Joint Research Centre (JRC) of the European Commission
- ii) International Commission for the Conservation of Atlantic Tunas (ICCAT) through Task I and Task II forms.
- iii) General Fisheries Commission for the Mediterranean (GFCM) including dolphinfish annual reporting form and Task I statistical matrix.
- iv) FAO regional projects MedSudMed, CopeMed
- v) EU horizontal framework project MAREA

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.

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 focusing 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:

- Determination of growth parameters for *Coryphaena hippurus*
- Confirming the taxonomic status of the Longnose Spurdog *Squalus blainvillei* and subsequent determination of population dynamics, aspects of the ecology and analysis of stock status for the Central Mediterranean
- A detailed analysis of ecology and stock status of commercially important cephalopod species with particular reference to *Octopus vulgaris*
- Genetic analysis of *Octopus vulgaris* tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12-16)
- Genetic analysis of *Engraulis encrasicolus* (anchovy) tissue samples from Tunisian, Maltese and Sicilian waters (GSAs 12-16)
- Monitoring and evaluating spatially managed marine areas (EU FP7 project MESMA)
- Ecosystem Approach to Fisheries (EAF) management (EU FP7 project CREAM)
- Bridging the GAP between fisheries scientists and fishers (EU FP7 project GAP)

5. Status of the social sciences in progress or achieved during the intercessional period

Socio-economic data is collected on an annual basis to fulfil the requirements of the Data Collection Framework (DCF) in line with Council Regulation EC 199/2008, Commission Decisions 2008/949/EC and 2010/93/EU, and the GFCM Task 1.3.

Fleet socio-economic data is segmented by gear and vessel length according to Appendix III of Commission Decision 2010/93/EU and in the case of the GFCM requirements, as proposed by the 5th session of the Scientific Advisory Committee (SAC). The sampling population is based on the fishing vessel register, as well as on logbook information where data on catch and landings is recorded. The sampling frame for the fleet economic data is based on the Maltese fishing vessel register information as at 30th January of the reference years and the sampling strategy used is that of stratified random sampling. The data is collected by means of questionnaires which are completed during direct interviews with the fishers.

Fish processing activities are limited in Malta however data collection by means of a survey amongst local operators is carried out annually. The frame for the collection of economic data is based on the Maltese business directory and processed fisheries products. The technique of census is planned to be carried out annually due to the small size of the market. Data is collected by means of postal questionnaires or questionnaires completed during direct interviews.

Socio-economic data with regards to aquaculture farms is collected from all the aquaculture farms in Malta. The frame for the collection of economic data is based on the registered aquaculture operations with the Veterinary Regulations Fisheries Conservation and Control Division, Ministry for Resources and Rural Affairs as at 1 January of the particular reference years. Data is collected by means of postal questionnaires or questionnaires completed during direct interviews.

The results of this data collection are sets of variables or indicators as requested by Appendices VI, X and XII of Commission Decision 93/2010 and by task 1.3 in the case of the GFCM fleet economic data requirements. The aim of this data collection is to satisfy the European Commission's and GFCM requests as well as to monitor at a National level the socio-economic performance of the fisheries sector, fish processing industry and the aquaculture sector.

Malta annually submits the report on efforts to achieve a sustainable balance between fishing capacity and fishing opportunities in accordance with Commission Regulation (EC) 1013/2010. Amongst other sections, the report presents a set of technical, biological, economic and social indicators. Malta presented socio-economic indicators related to the years 2005 to 2009. The current revenue against break-even revenue was presented as an economic indicator while the average crew share per full-time equivalent was calculated as a social indicator.

A survey carried out in 2006, 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 focusing 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:

- 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
- Researching gear alternatives for the artisanal prawn (*Palaemon* and *Processa* spp.) beam trawl traditionally used on *Posidonia oceanica* meadows
- Researching the biology of prawns (*Palaemon* and *Processa* spp.) targeted by artisanal beam trawls traditionally used on *Posidonia oceanica* meadows

7. Management measures

Malta implemented the management measures in line with EU regulations, and according to the recommendations by ICCAT and GFCM. In 2011 Malta submitted its updated Fisheries Management Plan in line with EC 1967/2006 to the EC. The plan outlines fisheries management measures for the fleet segments bottom otter trawlers, tartarun, lampara, dolphinfish purse seiners and gangmu in 2011-2015.

8. Proposals for future research programmes

- Further promoting the regional identification of critical habitats (nursery and spawning areas) as well as stock structure for commercially important species throughout the Mediterranean

MONTENEGRO/MONTÉNÉGRO

Description of the fisheries

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 2460 km² and continental shelf 3885 km². 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 begun in recent years.

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 2010:
4 trawlers 12-24 m LOA; 6 trawlers > 24 m; 20 purse seiners 12-24 m LOA

Status of stocks of priority species

The MEDITS Trawl Survey was carried out in July 2011 at depths ranging from 10 to 800 m. All the trawl-surveys have been carried out by the vessel "Pasquale & Cristina". The duration of the hauls is fixed to half an hour on depths less than 200 meters and one hour on more important depths. The sampling design was random stratified (according to five bathymetric strata: 10-50 m; 50-100 m; 100-200 m; 200-500 m; 500-800 m). Each catch sample collected by the trawl net has been sorted; the fish, crustacean and cephalopod species have been identified, weighted and counted.

The computer software ATrIs provided by FAO/AdriaMed was used for data input and processing.

Monitoring of demersal resources was continued (by seasonal dynamics) in collaboration between researchers from the Institute of marine biology and fish company D.O.O. Vujičić (Budva) and it was founded by the Ministry for agriculture and rural development. Surveys were performed on 10 positions in 4 different stratum (10-50, 50-100, 100-200, 200-500 meters) and total surveyed area was 5 000 km². During the investigation parameters of population dynamic of commercially important species have been collected (by MEDITS Protocol). Data are still in process.

The European hake, *Merluccius merluccius* is one of the most important species in the GSA 18. Stock assessment of hake for GSA 18 was performed in 2010, and the results showed that

Montenegrin trawlers account for about 1% of the F. Considering that the fleets of three countries (Albania, Italy and Montenegro) are involved in hake fishery in GSA18 most of the F is derived from the Italian bottom trawlers and loglines (approximately about 92-93% of F).

Biomass estimation of small pelagic species by DEPM and acoustic method

An estimate of anchovy biomass in Montenegrin waters was performed for the first time in 2002 by acoustic method, and it was continued in 2004. From August 2005, anchovy biomass was estimated by two methods simultaneously: DEPM and the acoustic method. The second cruise that involves application of both methods was performed in July 2008 when survey covered entire Montenegrin and Albanian continental shelf, while in 2010 and 2011 survey was expanded to all GSA 18. Those surveys have been done in collaboration with researchers from Italy and Albania in the frame of AdriaMed project. Pilot Study on biological and economic data collection and monitoring systems on Operational Units in Montenegro included sampling of several target species in three main fishing ports in Montenegro (Herceg Novi, Budva and Bar). Those researches started in 2007, and continued through 2008, 2009, 2010 and 2011. Results will be published as AdriaMed occasional paper in near future.

Status of the statistics and information system

The legislative framework covering fisheries information system includes:

- a law on Marine Fishery and Aquaculture;
- a secondary legislation.

The main updates carried out in 2012 are an amendment on Law on marine fishery and aquaculture and secondary legislation in accordance with the latest changes the Common Fisheries Policy CFP-EU. The fisheries Information System in Montenegro (FIS): At this moment FIS is not fully operated, because the programming of the sub-systems is ongoing. FIS will have several sub-systems:

- Vessel register;
- Fisherman register;
- Logbook & landings declaration;
- Monthly report for vessels under 10m LOA;
- Licenses management sub-system;
- Common alarm system;
- VMS – Vessel Monitoring System – Vessels over 10m LOA;
- Electronic logbook;
- GFCM Task 1 report – on click make report from FIS.

The expectations are that, by the end of 2012, a fully operated Fishery Information System will be in place with fully operational VMS on vessels over 10m LOA. Also, it is expected that Law and secondary legislation are totally harmonized with Common Fisheries Policy CFP-EU and GFCM recommendations.

Status of research in progress

Activities of AdriaMed project continued. Pilot study on biological sampling data in Montenegrin coast has been continued in 2011-2012. Samples of eighteen economically important species are taken from all vessels in three fishing ports Bar, Budva, Herceg Novi by monthly dynamics.

Data collecting of population parameters for juvenile anchovy and sardine from small scale fishery in Boka Kotorska Bay are in the final phase. Those data are in proceeding and will be published as PhD Thesis.

Development of Montenegrin marine fishery, with the aquaculture as its part, represents a strategically very important issue in the programs of food production for the home market and exportation. After several decades of interruption, in 2009 experimental farming of oysters in Bokakotorksa bay started in order to develop mariculture and introduce new, native species in farming process.

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.

In 2011 the Pilot project on collecting socioeconomic data in marine fishery has not developed. Further elaboration and continuation of this project is expected in the next period.

Marine environmental studies in progress

The management plans for marine ecosystems is conducted as a pilot project in two main phases during 18 months program (July 2009 – December 2010). The first phase of the management plan was referred to characterization of the study area (environmental and socio-economic assessment) and identification of the main strategies for biodiversity conservation. The second phase was preparation of the management plan and implementation of the strategies identified in Phase 1.

The pilot area comprises the city of Petrovac which belongs to the Budva Municipality.

Proposed “KATIĆ” MPA zones in the Montenegro

Zone regulations have been proposed, according to four levels of control by MPA management, and as a result three proposed protection zones were delineated:

- Zone A – red zones (strict biodiversity protection) - 80 ha (3.46%)
- Zone B – green zone (active biodiversity protection) - 900 ha (38.88%)
- Zone C – blue zone (general environmental protection) - 1335 ha (57.66%)
- Buffer – 140 ha

Establishment of the MPA zones, along with protected land areas are of great importance for the diversity of plants, animals, and natural habitats represent an effective tool for providing permanent protection and wise use of natural resources.

By 2015, “Katić” MPA will be set up and it will be considered as an operational model for the development of a national system of MPAs in Montenegro

Also, scientists from the Institute are involved in process of development of new documents related to coastal area of Montenegro:

- Coastal Area Management Programme (**CAMP**)
- Special Plan for the Coastal Area of Montenegro (**PPPOP**)

Management measures

Description of the management measures (legislation, regulations, etc) implemented during the inter seasonal period and their (expected) effects on the fishery.

The Law on Marine Fishery and Mariculture was adopted by Parliament in August 2009. This Law lays down the objectives and the principles for sustainable management of living marine resources and marine environment through implementation of measures for protection of biodiversity and the environmental conditions as well as by laying down the procedures for development and adoption of management plans in the fishery sector. This Law also governs the general fishery policy, that is, the support to development of the fishery sector and the respective responsibilities of the administration authorities as regards its implementation. Pending the establishing of an administration authority in charge of the fishery affairs (the Fishery Administration) the administrative and related technical affairs will be carried out by the Ministry of Agriculture, Forestry and Water Management.

The document “National program of Fisheries Development (NFP) from 2009 to 2013” was adopted by the Government of Montenegro in February 2009. This document contains middle term and short term aims of fishery development, type of measures and programs, expected results and sum and sources for financial fund necessary for implementation of identified measures of fishery policy.

In September 2010 started an IPA 2009 project Sustainable management of marine fisheries, which is funded by the EU. The end of the project is June 2012, during this project have been provided strengthening of the fisheries inspection, strengthening the capacity of the fisheries sector in the Ministry of agriculture and rural development, preparing the secondary legislation for the VMS, Sales Notes, First landing ports and etc and amendments on Law in accordance with new changes of Common Fisheries Policy CFP-EU and GFCM recommendations. Also, project will provide the equipment for VMS and one scientific research vessel for Institute of Marine Biology.

Our plan is to implement VMS and electronic log books on vessels over 10 m LOA. Also, in the progress is a process of forming a National Marine Fisheries and Mari culture Council in the order to include stakeholders in the best way.

MOROCCO/MAROC

INTRODUCTION

La pêche en Méditerranée marocaine revêt une grande importance économique et sociale au Maroc. La production halieutique en Méditerranée s'élève à une moyenne d'environ 6 % de la production totale nationale en poids, avec une valeur économique moyenne de 8 % de la valeur totale des débarquements.

Les ressources halieutiques sont caractérisées par une importante biodiversité et sont composées de plus d'une vingtaine d'espèces commerciales. Elles sont exploitées par des flottilles composées de barques d'un tonnage inférieur à 2TJB (pêche artisanale) et de bateaux côtiers d'un tonnage compris entre 2 TJB et 150 TJB (pêche côtière). Ces flottilles utilisent une multitude d'engins comme la ligne à la main, les nasses, la palangre, la senne ou le chalut.

Les ressources halieutiques font l'objet d'un suivi scientifique régulier, réalisé par l'Institut National de Recherche Halieutique (INRH), à travers des campagnes de prospection en mer et un système de suivi des débarquements à terre et d'échantillonnage biologique. Ces activités de suivi scientifique en Méditerranée sont majoritairement assurées par les centres régionaux de l'INRH basés à Tanger et à Nador, visant notamment à étudier la biologie et l'écologie des espèces marines, à comprendre et modéliser les interactions des espèces exploitées avec leur environnement, à étudier la dynamique des stocks et de leur exploitation, à évaluer leur niveau d'exploitation, à étudier l'impact de la pêche sur l'environnement et l'écosystème marin et à effectuer des études socio-économiques relatives au secteur halieutique.

DESCRIPTION DES PECHERIES

La pêche en Méditerranée marocaine a réalisé en 2010 une production d'environ 34 000 tonnes d'une valeur de 460 millions de dirhams.

Les principales espèces exploitées sont la sardine, le chinchard, le maquereau, l'anchois, l'espadon, les thonidés mineurs, le merlu, le pageot acarne, le pageot commun, la bogue, le poulpe, la sole, la crevette rose, et des espèces de squales.

La flotte marocaine active en Méditerranée se distribue entre 7 ports de pêche et environ 86 sites de débarquement de la pêche artisanale. Cette flotte est composite. En 2010, elle est constituée en 2010 de 131 senneurs (pêcherie pélagique), de 335 unités côtières dites palangrières, de 141 chalutiers côtiers et de 2616 barques constituant la pêche artisanale.

A noter que la flotte dite palangrière est composée d'une importante diversité de profils de navires qui utilisent une multitude d'engins (palangre, filet, filet maillant dérivant, ligne, nasses etc...) et ayant recourt à des stratégies de pêche très diverses.

La production par groupe d'espèces est présentée ci-dessous sur la base des statistiques des pêches de 2010 établies par l'Office national des pêches (ONP, 2010) :

ESPECES	POIDS (tonnes)	Valeur (KDhs)
CEPHALOPODES	2 141	53 417
COQUILLAGE	1 142	4 021
CRUSTACES	493	39 854
POISSONS PELAGIQUES	19 533	143 556
POISSONS DEMERSAUX	8 035	92 046
THONIDES	2 584	126 586
TOTAL	33 928	459 481

La pêche en Méditerranée peut être classée en trois types de pêcheries:

Pêcherie pélagique

La pêcherie pélagique cible principalement les poissons pélagiques constitués principalement par les quatre espèces de petits pélagiques suivants:

- la sardine;

- le chinchard;
- le maquereau;
- l'anchois;

L'exploitation des petits pélagiques en Méditerranée marocaine est effectuée par des senneurs côtiers. Cette flottille est composée en 2010 de 131 senneurs, utilisant la senne tournante comme engin de pêche, avec une production d'environ 20 000 tonnes (2010) pour une valeur de 143 millions de dirhams (sans Tanger). Ces senneurs ont une puissance motrice moyenne de 312 CV, un TJB moyen de 103 tonneaux et une longueur moyenne de 19,5 m. La pêche pélagique cible essentiellement la sardine, mais des quantités non négligeables de chinchard, de maquereau, et d'anchois figurent aussi dans les débarquements de cette pêcherie. La sardine a connu une baisse très importante en poids en 2010, soit - 30 % par rapport à 2009. De même, les débarquements de maquereau ont connu cette année une diminution très importante en poids (-91%) par rapport à l'année précédente.

Pêcherie thonière

Les principales espèces exploitées de thonidés et espèces apparentées par les pêcheurs marocains en Méditerranée sont l'espadon, le thon rouge, et les thonidés mineurs (listao, bonite, melva, etc.).

En 2010, la flottille exploitant les thonidés et espèces apparentées était composée d'environ 256 palangriers côtiers et d'une centaine de barques qui ciblent l'espadon et le thon rouge dans le détroit de Gibraltar et dans la mer d'Alboran Sud.

Les palangriers et les barques ont respectivement un TJB moyen de 18 et 2 Tx. Ces unités ont une taille moyenne d'environ 12 m, une puissance motrice moyenne de 180 CV et un TJB moyen de 18 tonneaux. La palangre, le filet maillant dérivant et la ligne à main sont les principaux engins de pêche utilisés pour la pêche de ces espèces. Les thonidés mineurs sont notamment capturés par les palangriers et les senneurs côtiers. La production totale des thonidés et espèces apparentées en Méditerranée s'élève en 2010 à environ 2 450 tonnes avec une valeur totale estimée à plus 126 Millions Dhs. L'espadon constitue 66% de la production en poids, suivi par les petits thonidés et le thon rouge qui représentent respectivement 26 % et 8 % de la production totale des thonidés et espèces apparentées.

Les principales zones de pêche de l'espadon sont situées dans le Détroit de Gibraltar et ses zones d'influence. Les principaux ports de débarquements de cette espèce sont Tanger, Nador, Al-Hoceima. Cette espèce est capturée par la palangre dérivante et le filet maillant dérivant

Il est à rappeler qu'à compter du 1er janvier 2012, l'utilisation des filets maillants dérivants pour la pêche est strictement interdite.

Pêcherie démersale

L'exploitation des espèces démersales se fait au moyen de chalutiers (141 unités) ayant une puissance motrice moyenne de 375 CV et un TJB moyen de 63 Tx, par des palangriers (246 unités) et de l'ordre de 2616 barques artisanales dotées d'une puissance motrice moyenne de 15 CV et utilisant.

Les principales espèces ciblées par ces pêcheries sont le merlu, le grondin, la sole, le pageot acarné, le poulpe, la dorade, le rouget de vase, la crevette rose, la bogue, la seiche, le pageot commun et le merlan bleu.

La production en 2010 des espèces démersales composées des poissons démersaux, céphalopodes, crustacés et coquillages s'élève à environ 11 800 tonnes pour une valeur d'environ 189 millions de dirhams.

EVALUATION DES STOCKS

Espadon:

L'état du stock de l'espadon méditerranéen a été évalué en 2010 par le comité scientifique de l'ICCAT. Les résultats de cette évaluation ont montré que le stock est en état de surexploitation. Le niveau de biomasse en 2008 représentait seulement 54% du niveau optimum. La mortalité par pêche était 2 fois supérieure à l'optimum.

Thon rouge:

Le stock du thon rouge de l'Atlantique-Est et de la Méditerranée a été évalué en 2010 par l'ICCAT. Ce stock est en état de surexploitation excessive. Le niveau de biomasse en 2008 représentait à peine 35% de son niveau optimum. Quant au niveau de la mortalité par pêche, il était estimé à un niveau 3 fois supérieur à l'optimum.

Dorade rose:

En 2010, l'évaluation de la dorade rose était basée sur l'utilisation de modèles structuraux (VPA), qui font ressortir une situation de surexploitation résultante d'une pression de pêche sur le stock. En effet, l'effort de pêche exercé sur la ressource dépasse l'optimum de 18%.

Crevette rose:

Le modèle utilisé s'ajuste bien avec la série d'indices d'abondance et les résultats de cette évaluation indiquent que le stock de la crevette rose est surexploité. L'effort de pêche est 3,9 fois supérieur que celui de l'effort de précaution (F0.1) et

dépasse de 95% celui qui maintiendrait la biomasse à son niveau actuel. Ce diagnostic indique que la situation du stock s'est dégradée par rapport à l'état du stock en 2009.

Ce résultat est confirmé par l'analyse des indices d'abondance observés durant les campagnes de prospection qui indique la diminution de cette ressource.

Merlu commun:

Les résultats de l'analyse du modèle de production de Schaeffer indiquent que l'effort de pêche actuel est inférieur à l'effort de pêche soutenable qui maintiendrait la biomasse à son état actuel et que la biomasse actuelle est supérieure de 0.8% à celle correspondante à F0.1 (évaluation préliminaire).

Bogue:

En 2010, l'évaluation de la bogue était basée sur l'utilisation du modèle structural (VPA) qui fait ressortir selon le modèle une situation de surexploitation qui serait liée à un effort de pêche exercé sur la bogue dépassant l'effort l'optimum de 61%.

Rouget du vase:

En 2010, l'évaluation du rouget de vase était basée sur l'utilisation du modèle structural (VPA), qui montre une situation de surexploitation à cause d'une pression de pêche sur le stock. L'effort de pêche exercé sur la ressource du rouget de vase dépasse l'optimum de 55%.

Sardine:

En 2010, l'évaluation de l'état d'exploitation de la sardine effectuée sur la base des analyses LCA et Y/R indiquent que la mortalité par pêche actuelle dépasse l'optimum (F0.1) d'environ 57% sans toutefois une diminution importante de la biomasse des recrues. Cette évaluation indique que le stock de la sardine pourrait être considéré comme pleinement exploité.

STATISTIQUES ET SYSTEME D'INFORMATION

Le système statistique méditerranéen englobe les données collectées par l'INRH (campagnes scientifiques en mer, échantillonnage biologique des débarquements des principales espèces exploitées, enquêtes de terrain) et les données issues des pêcheries (données MAIA et données DPM relatives aux caractéristiques des navires de pêche).

La collecte de données statistiques de pêche et d'effort, se fait pratiquement d'une manière exhaustive, à travers les structures administratives des pêches (Département des Pêches et l'Office National des Pêches), implantées tout au long de la côte méditerranéenne marocaine. Un contrôle se fait également en aval par l'Office des Changes, en ce qui concerne les exportations des produits de la pêche.

Sur le plan scientifique, l'Institut national de recherche halieutique -INRH-, est chargé de la collecte de données biologiques des principales espèces méditerranéennes et des données socioéconomiques des principales activités de pêche.

Dans un futur proche, un nouveau Système d'Information Halieutique est en cours de développement par l'INRH. Ce système englobera les données collectées par l'INRH, l'ONP et DPMA (Direction de la pêche Maritime et de l'Aquaculture).

PROGRAMMES DE RECHERCHE EN COURS

Les ressources halieutiques en Méditerranée marocaine font l'objet d'un suivi scientifique par les centres régionaux de l'INRH basés à Tanger et à Nador, à travers des programmes de recherche sur :

- La biologie des espèces exploitées;
- Le suivi de leur exploitation et de l'activité de la pêche;
- Les évaluations des stocks de ces ressources;
- Les études d'impact sur l'environnement et l'écosystème marin;
- Etudes socio-économiques des pêcheries.

ÉTUDES SOCIALES ET ECONOMIQUES

Les principaux travaux scientifiques réalisés en 2010, ont concerné :

- Diagnostic du secteur de la pêche artisanale à Dikky (Projet FAO – ArtFiMed)
- Analyse des prix de la dorade rose de la région du détroit de Gibraltar ;
- Etude socio-économique de la pêcherie sardinière
- Etude socioéconomique de la pêche au thon rouge au niveau du Détroit de GibraltTar (en cours de publication)

ÉTUDES SUR L'ENVIRONNEMENT MARIN

Suivi de la qualité de l'environnement

La côte méditerranéenne marocaine s'étend sur environ 460 km et recèle une multitude d'écosystèmes écologiquement très riches et diversifiés. Cependant, cette frange littorale est soumise à la pression démographique sans cesse croissante des agglomérations urbaines et subit l'influence des différentes activités industrielles, portuaires et/ou touristiques.

Conscient de ces menaces, l'INRH a mené plusieurs programmes d'évaluation et de surveillance de l'état de pollution en mer méditerranée. Il s'agit notamment du programme continu PAM/MEDPOL, relatif à l'impact de la pollution anthropique sur le littoral, le projet Mitylos/Mitymed, relatif à l'établissement d'une photographie globale de l'état de pollution chimique en méditerranée orientale et occidentale ainsi que le projet RAF pour l'évaluation de la pollution radioactive en mer Méditerranée.

Aussi, un programme de surveillance sanitaire est réalisé en continu au niveau des zones conchylicoles afin de suivre l'état sanitaire de ces zones et protéger les consommateurs des produits de la pêche.

Suivi des échouages de mammifères marins

Dans la région ouest de la côte méditerranéenne, entre Tanger et Jebha, le recensement des échouages des cétacés et tortues marines a montré que ce phénomène touche 77% de cétacés et 23% de tortues marines.

Six espèces de cétacés ont été trouvées parmi les échouages, il s'agit du : dauphin bleu et blanc, grand dauphin, dauphin commun, globicéphale noir, rorqual et petite baleine. Le dauphin bleu et blanc reste l'espèce la plus échouée dans cette région, en raison notamment de son abondance Méditerranée.

Par contre, seules deux espèces de tortues marines y sont rencontrées ; il s'agit notamment de la tortue caouane et de la tortue-luth, avec une prédominance de cette dernière. Ce sont deux espèces protégées en raison de leur risque d'extinction.

Concernant les côtes Est de la Méditerranée marocaine entre Jebha et Saidia, l'observation des échouages montre également que les cétacés constituent les espèces les plus touchés par l'échouage avec une proportion de 91 % contre 9 % pour les tortues marines. Parmi ces échouages, on peut citer le dauphin bleu et blanc *Stenelle coeruleoalba*, le grand dauphin *Tursiops truncatus*, le dauphin commun *Delphinus delphis* et le globicéphale noir *Globicephala melaena*, la tortue luth *Dermochelyse coriacea*, le rorqual commun *Balaenopterus physalus* et enfin la baleine bécune de cuvier *Ziphius cavirotris*.

Dans ce contexte, l'INRH et l'ACCOBAMS ont défini un cadre de collaboration formalisé par une 'Convention Cadre' signée en marge de la seconde Conférence Biennale d'ACCOBAMS qui s'est tenue en octobre 2011 au Maroc (El Jadida). Au-delà des obligations des pays parties de la convention ACCOBAMS, cette convention marque la volonté de l'INRH de porter les thématiques d'intérêts communs, à savoir :

- La consolidation des réseaux de suivi des échouages de mammifères marins ;
- Les études sur les interactions entre les activités de pêche et les mammifères marins, et les moyens de minimiser les aspects négatifs qui y sont liés ;
- Une participation active dans l'élaboration et la mise en œuvre du « plan d'action national pour la conservation des cétacés ».

MESURES D'AMÉNAGEMENT DES PÊCHERIES

- Limites de la taille minimale : Interdiction de la capture des poissons sous-taille, 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 depuis 1992;
- Le contrôle des activités de pêche : un contrôle strict s'étend à l'ensemble de la filière pêche
- Mise en place de structure pour l'utilisation obligatoire, à compter du 10 octobre 2011, des systèmes de suivi et de transmission de données par satellite (VMS) à bord des navires ayant un tonnage supérieur à 2 unités de jauge brute.
- Recoupements avec les services du Ministère de l'Economie et des Finances afin de vérifier l'authenticité des quantités déclarées à l'exportation
- Mise en place du plan d'aménagement des petits pélagiques;
- Mise en place du plan d'aménagement de la pêche crevette;
- Mise en place du plan d'aménagement du thon rouge;
- Mise en place du plan d'aménagement des algues;
- mise en place du plan d'aménagement du poulpe;
- Dispositions particulières et restrictions pour la pêche au corail
- Publication de la loi 19-07 interdisant les filets maillants dérivants et ses textes d'application ;
- Nouvelle stratégie du Département de la Pêche Maritime (*HALIEUTIS*):
Cinq instruments ont été créés/ en cours de création à savoir:
 - le Comité national de la pêche;
 - une Agence nationale pour le développement de l'aquaculture (créée)
 - 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 et traçabilité des captures
- renforcement du contrôle des activités de pêche
- Conservation des requins: interdiction de ciblage de ces espèces

RECHERCHES FUTURES

Dans le cadre de la mise en place d'un réseau national d'échantillonnage des ressources halieutiques exploitées par l'INRH, il est prévu de renforcer les activités d'échantillonnage déjà réalisées par les centres régionaux de l'INRH, notamment ceux de Tanger et Nador, en vue d'augmenter le nombre d'espèces échantillonnées, ainsi que la fréquence et les sites d'échantillonnage.

Il est également prévu d'augmenter le nombre de campagnes scientifiques en Méditerranée en vue d'assurer au minimum une couverture de deux campagnes de prospection par an, aussi bien pour les ressources halieutiques que pour les ressources démersales.

Par ailleurs, Dans le cadre des programmes de recherches de l'INRH, il est prévu de mener les activités suivantes:

- Evaluation de nouvelles espèces, qui font partie de la liste prioritaire de la CGPM;
- Evaluation conjointe du stock partagé de la dorade rose du Détroit de Gibraltar;
- Impact de l'installation des récifs artificiels sur l'écosystème marin;
- Analyse socio-économique sur la mise en place de récifs artificiels;
- Analyse du marché des petits pélagiques;
- Développement du meilleur modèle économique pour une pêche responsable;
- Etude de l'impact biologique et socio-économique du changement de la maille losange par la maille carrée de 40mm de maillage au niveau des culs de cas des chaluts (financement par CGPM-COPEMED II);
- Les prospections des champs de corail rouge;

ROMANIA/ROUMANIE

DESCRIPTION OF THE FISHERIES

Description of the fishing grounds and GSA

The Romanian fishing fleet was operating in the area of competence of the Regional Fisheries Management Organisations - G.F.C.M., Area 37 - Mediterranean and Black Sea, Sub-area 37.4., Division 37.4.2, GSA 29.

The Romanian fishing area is comprised between Sulina and Vama-Veche; coastline extends for over 240km, which can be divided into two main geographical and geomorphologic sectors:

- 1/ the northern sector (about 158km in length) lies between the secondary delta of the Chilia branch and Constantza, constituted of alluvial sediments;
- 2/ the southern sector (about 85km in length) lies between Constantza and Vama-Veche characterised by promontories with active, high cliffs, separated by large zones with accumulative beaches often protecting littoral lakes.

The distance from the sea shore to the shelf limits (200m depth) varies from 100 to 200km in the northern sector and to 50 km in the southern one. The submarine slope of the shelf is very gentle in the north, while in the southern sector the slope increase very quickly (Fig 1;2).

The shallow waters up to 20m depth of the northern part are included in the Biosphere Reserve of Danube Delta (declared through the Low no. 82/1993).

The marine zone of the "Danube Delta" - Biosphere Reserve constitutes a traditional zone for spawning and feeding for transboundary species as well as a passage route for anadromous species (sturgeons, Danube shad).

In the South part of littoral is situated also the Vama Veche - 2 Mai reserve with the surface of 5,000 hectares (Fig.3).

The marine Reserve "2 Mai - Vama Veche" is an area with a high diversity of the biotopes and biocoenosis, being settled on the migration routes of the main pelagic and benthic fish and marine mammals.

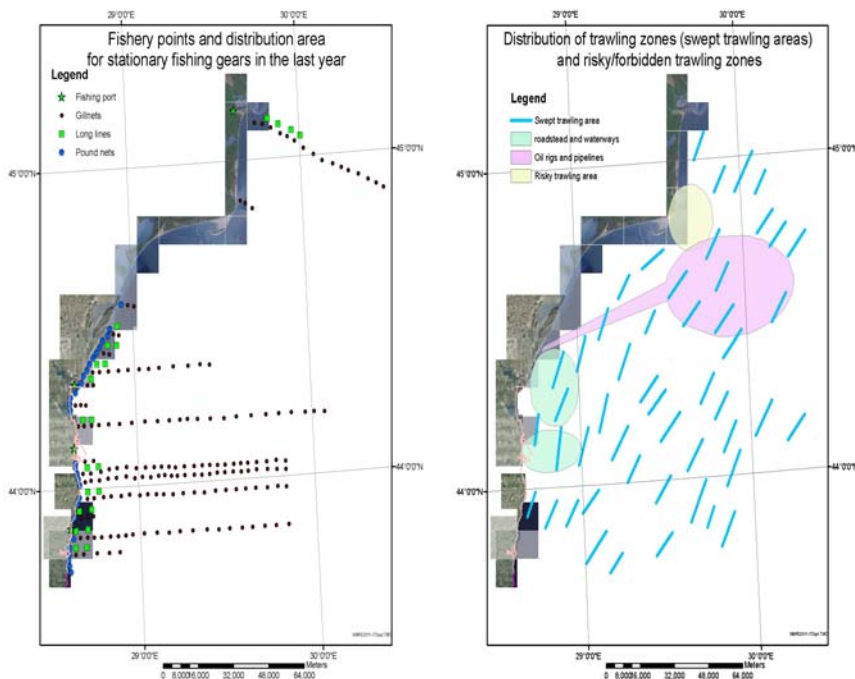


Fig. 3



Fig.1

Fig. 2

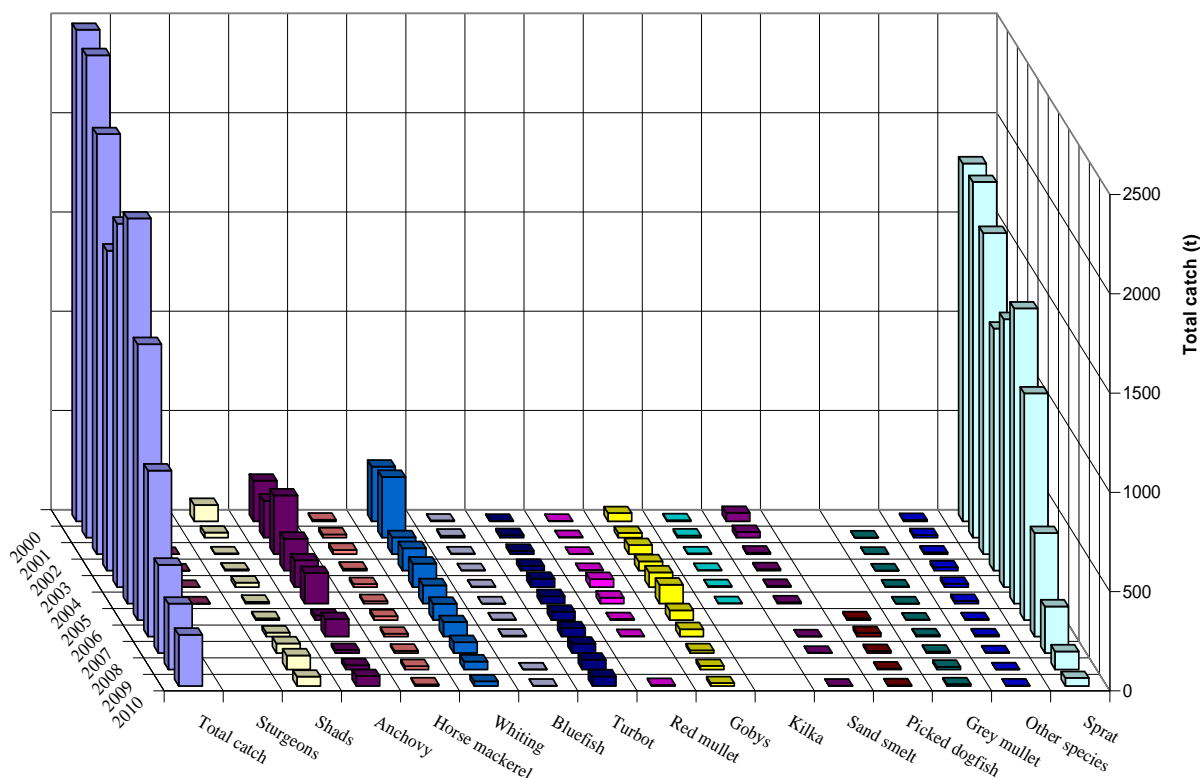
Total landings by main targeted species

In the coastal zone of the Romanian marine sector with small depth, fishing with fixed gear is characterized by the concentration of activity mainly in the first three / four months of the season (April-July), when usually the turbot migrates to the coastal area for reproduction and other species migrate for feeding. In generally, total fishing season being of about eight months. The capture level and the level of fishing productivity differs from one year to another, depending on the fishing effort (number of pound nets, number of turbot nets and effective fishing days), and also depends on the evolution of hydro climatic conditions and at last but not least, the state of fish stocks.

The structure on species of the catches mirrored only partly the composition of Black Sea ichthyofauna from the Romanian sector, because the type of gear conditions the ratio between the different fish species. As a general rule, the pelagic species, small-sized and short life cycle keep continue to be dominant in catches.

During 2000-2010 periods, the level of total catch declining from 2476 tons to 443.9 tons (2008), 330 tons (2009) and 258 tons (2010), official registered. The sprat was dominant species, with catches comprised among 91 and 1,800 tons/year. The second important species, both quantitatively and economically, was the anchovy (Fig. 4)

Fig 4: Total catches and structure on species at the Romanian littoral in the period 2000-2010



Fleet

Year after year the activity of active fishing decreased gradually to the point where, in 2010 from 20 vessels with LOA between 24-40 m registered in the last years in the Fishing Fleet Register, only one vessel was active for a very short period of time.

In 2010, the Romanian fleet capacity at the Black Sea was of 476 vessels registered in the FFR at the beginning of the year, structured on length classes as following:

54 boats smaller than 6m; 413 boats in the length class 6-12m, 3 boats in the length class 12-18m, 4 vessels in the length class of 18-24m and 2 vessels in the length class 24-40 m. Unfortunately, small part of this fleet was active (206 boats/vessels)- Table 1.

Table 1: Segmentation of the Romanian fleet in 2010

Length class LOA (m)		<6	6 – <12	12-18	18 – <24	24 – <40	>40	Total
Total vessels registered		54	413	3	4	2	-	476
Active vessels		36	169	-	-	1	-	206
Midwater otter trawl	Mixed demersal and pelagic species	-	-	-	-	1	-	1
Pound nets	Small pelagic fish	3	14	-	-	-	-	17
	Demersal fish							
Set gillnets	Demersal species	28	95			-	-	123
Artisanal fisheries (hand lines, set long lines, beach seine)	Other finfish	5	60	-	-	-	-	65

This fleet is in poor conditions and needs improvements of safety on-board, working conditions and facilities for landing. The fisheries of this small fleet are typically artisanal type as multi-species and multi-gear fisheries, fishermen switching from one gear to another several times throughout the year.

By the end of the year from Fishing Fleet Register have been removed 46 inactive boats, leaving only 224

Table 2 Romanian fleet composition and key indicators in 2010

	Vessels	Gross Tonnage (GT)	Kilowatts (kW)	Number employed	FTEs	Days at sea (1000)
INACTIVE	224	711	3,389			
VL0006	14	11	189			
VL0612	202	218	1,412			
VL1218	3	46	411			
VL1824	4	300	1,046			
VL2440	1	136	331			
PG (vessels using passive gears, vessels<12m)	198	195	1,708	408	384	6.51
VL0006	35	28	429	58	49	0.86
VL0612	163	167	1,279	350	335	5,65
PMP (vessels using passive and active gears)	7	5	19	28	14	0.01
VL0006	1	1	4	4	2	0.00
VL0612	6	4	15	24	12	0.01
TM (pelagic trawlers)	1	136	331	8	5	0.00
VL2440	1	136	331	8	5	0.00
Grand Total	430	1,047	5,447	444	403	6.52

2. Status of stocks of priority species

Assessment methods

The swept area method is used for evaluation the biomass of fishing agglomerations of sprat, whiting, turbot, dogfish based on the statistic processing of productivity data obtained in sampling trawling and industrial trawling;

Table 3- The biomass (tons) of main fish species at Romanian littoral

Year	Species			
	Sprat	Turbot	Whiting	Dogfish
2008	61916	2355	8694	883
2009	60059	1377	11846	2509
2010	59627	1148	20948	13051

3. Status of the statistics and information system

Fisheries data obtained in the different projects by NIMRD are incorporated in database of institute. Reports and data are transmitted to Romanian NAFA in the frame of National Data Collection Program. In the same Program, fisheries data are uploaded in JRC data base.

In parallel way, National Fisheries Report prepared in agreed format is prepared and transmitted annually to the Black Sea Commission.

Full information on capacity indicators is available through the FFR. Therefore only this information source has been used. So, the data have been collected in an exhaustive way by NAFA inspectors from the logbooks, for vessels and coastal logbooks, for small boats. This method ensures 100 % coverage of the population and maximum level of quality.

With the help of the NAFA statistics/collecting data system are performed crosscheck verifications between the logbooks, declarations of origin and (first) sales notes of fish and other aquatic organisms and reports. As described above mentioned, the exhaustive method used ensure the maximum quality level of collected data.

4. Status of research in progress

- Implementation of the National Fisheries Data Collection Program/ NAFA-DG Mare / Contract.no.1158/18.01.2011
Deadline:30/06/2011-05/15/2014
- Service of fish species inventory through scientific fishing, and Services for determining the population dynamics by marking and recapture in time and in accordance with agreed obligations / Contract no. 2769, Deadline:11/30/2011
- **CE/CBC** - Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries – (**SRCSSMBSF**)/ 16.11.2011-15.11.2013.
Deadline:2011-2013
- **FP7/KBBE** Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas (**CREAM**)
Deadline: 3 years
- **FP7/KBBE** Policy-oriented marine Environmental Research for the Southern European Seas (**PERSEUS**), 4 years
- **FP7: OCEAN**: A COast to COast NETwork of protected areas: from the shore to the deep sea.
Acronim: *COCONET*. 2011-2014

6. Marine environmental studies in progress

- National monitoring programme of coastal and marine waters (permanent)
- **EU/FP7**:Development and pre-operational validation of upgraded GMES Marine Care Services and capabilities (MyOcean), 01.01.2009-31.03.2012
- **NATO** : Bio-optical characterization of the Black sea for remote sensing applications, 01.11.2009-30.10.2012
- **ESA**: Ocean color – Application for the Western Black Sea, 01.10.2010-31.03.2013
- Meris Validation data from Black Sea, 2011-2012
- **CE/PC7** European Marine Observation and Data Network (**EMODNET**), 01.06.2009-30.06.2012

- **UE/CBS:**Industrial Symbiosis Network for Environment Protection and Sustainable Development in the Black Sea Basin – SymNET, 01.07.2011-30.06.2013
- **EU/FP7:** Pan - European infrastructure for Ocean&Marine Data Management (SEADATANET II), 01.10.2011-30.09.2015
- **EU/FP7:**Options for delivering ecosystem-based marine management (ODEMM), 2010-2013
- **NP II – ERA NET** Radiation background of Black Sea coastal environment – RACE, 2011-2014
- **NP II- ERA NET** Molecular approaches for rapid and quantitative detection of cyanobacteria and their toxins from the coastal Black Sea (MARCY), 2011-2014

7. Management measures

Actual national fisheries regulatory framework

For the fishing resources management the following laws were adopted:

- Law on the Constitution of the Biosphere Reserve “Danube Delta” No. 82/20.11.1993;
- Law on Environmental Protection No. 137/1995;
- Law on Fishing Fund, Fishery and Aquaculture No. 23 /2008;
- Order No. 179/1 June 2001 regarding the Registering and transmission of the data related with the marine fishing activity;
- Order No. 262/16 July 2001 regarding the Preparation of the Directory of Vessels and Fishing boats;
- Order no. 422/30 October 2001 for approval of the Regulation on the conditions for development of the commercial fishing activities in the Black Sea waters;
- Annual Order on the Fishing Prohibition (753/2008);
- Order no. 344/2008 for approval of the operational and functional manner of fishing vessel and boats file;
- Order no. 342/2008 on minimal size of the aquatic living resources;
- Order nr. 449/2008 on technical characteristics and practice conditions for fishing gears used in the commercial fishing.

Institutional framework

The overall responsibility for fisheries policy in Romania falls under authority of the National Agency for Fisheries and Aquaculture (NAFA), public institution subordinated to the Ministry of Agriculture and Rural Development.

This Agency shall draw up the strategy and legal framework for fisheries in Romania, and it shall carry out the implementation of technical measures and the control of regulations in fisheries and aquaculture.

Fishing and aquaculture entitlements are managed similar for inland and marine fisheries activities by NAFA.

The National Sanitary-Veterinary and Food Safety Authority provide the legal framework and development of the specific regulations for the activities in the veterinary and food safety field. This authority supervises and controls the implementation and observance of the sanitary-veterinary and food safety norms.

Ministry of Environment and Waters Management draws up specific legal acts regarding environment protection, waters management as well as authorization procedures for all activities, including fisheries enterprises.

Management system

- Vessel licensing
- Fishing authorisation
- Fishing Vessel Register
- Quota System

8. Research suggestions for consideration by SAC

Research regarding distribution and abundance of the two main species in the Black Sea: turbot and dogfish

SLOVENIA/SLOVÉNIE

- Description of the fisheries

Description of the fishing grounds and GSA

The Slovenian fishing vessels are carrying out fishing activities in the area GSA 17.

Total landings by main targeted species (year 2011)

Species	Landing [kg]
Sardine (<i>Sardina pilchadus</i>)	305.661
Anchovy (<i>Engraulis encrasicolus</i>)	163.197
Whiting (<i>Merlangius merlangus</i>)	55.890
Musky octopus (<i>Eledone moschata</i>)	24.961
Mulletts (<i>Mugilidae</i>)	23.977
European squid (<i>Loligo vulgaris</i>)	17.535
Golden grey mullet (<i>Liza aurata</i>)	14.151
Other	113.430
TOTAL	718.802

Fleet

Fishing vessels	Number	LOA (average) [m]	kW	GT
Minor gear without engine < 6 m	10	4,72	0,00	7,92
Minor gear with engine < 6	74	4,72	844,99	69,77
Minor gear with engine 6-12 m	67	7,53	3460,99	206,74
Trawlers 6-12 m	9	10,63	1587,80	67,53
Trawlers 12-24 m	11	14,26	1840,50	193,34
Trawlers > 24 m	2	29,13	1200,00	312,40
Purse seiners 6-12 m	1	11,30	273,42	9,67
Purse seiners 12-24 m	5	14,46	599,78	65,16
Other	7	11,00	1049,90	71,96
TOTAL	186		10857,38	1004,49

The data of the Slovenian fishing fleet is referring to the date of 1 January 2012.

- 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 for GSA 17 (Northern Adriatic Sea) is part of the GFCM Report of the Working Group on Stock Assessment of Small Pelagic Species, Chania, (Crete) Greece, 24-29 October 2011.

Stock	Stock status	WG management advice
Sardine (<i>Sardina pilchardus</i>)	Fully exploited	Not to increase the fishing effort
Anchovy (<i>Engraulis encrasicolus</i>)	Fully exploited	Not to increase the fishing effort

- **Status of the statistics and information system**

In Slovenia there are three information systems in place which will be combined together in line with the new control regulation (Council Regulation (EC) No 1224/2009). The InfoRib is and will remain the main system. It covers all the relevant fisheries data. The second is the VMS system which covers the VMS data and the third is the inspection information system Aquaspec, where all the inspection data are in place. In the future all the three information systems will have to be interconnected in order to please the international legislation and to gain better control over fisheries activities.

InfoRib is the centralized information system which contains all the relevant data on fisheries in Slovenia. In the system there are following modules: Fleet vessel register, Logbooks, Fishing Permits, Socio-economic data, Reporting, Sampling, Technical indicators, Code lists First sale, Aquaculture, Processing Industry and Meetings Module. Biological Smpling Module is permanently stored in the Fisheries Research Institute database.

In the year 2011 the InfoRib system was upgrated with following modules/functions:

1. The connection of the IS InfoRib with the database of the Slovenian Maritime Administration. The intension is the cross-heckiking of the registration of the vessels, their engine power and gross tonnage;
2. The connection of the Module Entities in the IS InfoRib with the database Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) and with the database of the Central Population Register (CRP);
3. The construction of the module for Ecosystem approach to fisheries. This module is partly built, since we still don't have enough information regarding the connection of the IS InfoRib with the VMS. This will be our task in the future;
4. The metadata module. This is in line with the Article 2 and 13 of the Council Regulation No 199/2008 and Article 8 of the Commission Regulation No 665/2008. The solution of the metadata module is in our case found via Wikipedia;
5. The upgrading of the Reporting module. This is in line with the Article 9 of the Commission Regulation No 665/2008 which says that for the purpose of Article 20 of Regulation (EC) No 199/2008 Member States shall compile in a computerized database and make available upon demand by the Commission, information concerning the data requests they have received and the responses they have provided;
6. The Meetings Module where all the meetings are in place but also all of the reports of the meetings. This enables all the Slovenian data collection team better insight into work.

In the future there remains open still a lot of fields where the upgrading will have to take place in order to meet the legislation requirements.

Currently the preparing of the new catch reports is taking place. The next step is the preparation of the national plan for the implementation of the validation system in line with the Council Regulation (EC) No 1224/2009. This will bring the urgency of the upgrading of the system in the field of the even better cross-checkings of the VMS and InfoRib system, but also of the logbooks, landing declarations and the First Sale Module. The big project will be the cross-checking of the inspection information system Aquaspec, InfoRib and VMS system.

The year 2012 will be greatly marked by the building of the Electronic Logbook Module which will also have to be connected (for the purpose of cross-checkings) with the other parts of the InfoRib.

Also the yearly maintenance of the system is taking place. This covers all the preparation work for different reports, for national and international end users.

- **Status of research in progress**

In the frame of National Program of the Republic of Slovenia for the collection and management of data, Slovenia is performing two research surveys at sea: MEDITS and MEDIAS.

MEDITS surveys have been performed from 1996 on two stations in Slovenian Sea. 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.

- **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;
3. Module of the evaluation of the economic situation of the processing industry.

Slovenia has complete data for 2009 on fishing sector, processing industry and aquaculture sector. The 2010 data for all three sectors will be available in the beginning of 2012.

- **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.

- **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.

The Regulation on monitoring of catches and selling of fisheries products (from 2008) is being revised in line with the new control regulation. It will lead to better control over first sale and on the whole chain of the fisheries and aquaculture products. It will also result in the better information of the end consumers at the sale process of the fishery and aquaculture products. In addition there are added the provisions regarding the electronic reporting.

The Regulation on the offence is also being revised. In the line with control regulation the serious infringements are re-set, but also penalty points and accompanying sanctions.

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 2010 was 3.219 (including other LLD census authorized to fish in Mediterranean), with a mean length of 19.49 m, a total GT of 81.030,99 and a total power of 287.544,85 Kw. Most of the fisheries are multispecific, especially the trawl fishery which catches a great diversity of species of fish, crustaceans and molluscs (Table 2).

GEAR		Total
Trawl	n°	743
	Total Kw	138.769,26
	Total GT	44.247,62
	Average LOA LOA Range (8,82 – 2,53)	20,41
Purse seine	n°	260
	Total Kw	43.623,94
	Total GT	9.049,02
	Average LOA LOA Range (6,15 – 7,00)	17,57
Tuna Purse seine	n°	6
	Total Kw	5.850,73
	Total GT	1.608,00
	Average LOA LOA Range (34,60-43,45)	38,68
Long line (total census LLD authorized to fish in Mediterranean waters)	n°	159
	Total Kw	30.671,89
	Total GT	18.068,25
	Average LOA LOA Range (8,8 – 37,5)	21,58
Set longlines	n°	100
	Total Kw	6.786,85
	Total GT	915,92
	Average LOA LOA Range (3,95 –22,00)	10,57
Artisanal	n°	1.951
	Total Kw	61.842,18
	Total GT	7.142,18
	Average LOA LOA Range (3,25 –27,00)	8,10
Total	n°	3.219
	Total Kw	287.544,85
	Total GT	81.030,99
	Average LOA	19,49

Table 1. Number and technical characteristics of the Spanish Mediterranean fleet by type of gear (Year 2010)

SPECIES	Tm
<i>Engraulis encrasicolus</i>	9220,00
<i>Aristeus antennatus</i>	946,35
<i>Sepia officinalis</i>	377,268
<i>Merluccius merluccius</i>	3758,40
<i>Trachurus spp</i>	5324
<i>Scomber spp</i>	2385
<i>Lophius spp</i>	830
<i>Squilla mantis</i>	579,30
<i>Mullus spp</i>	1412
<i>Nephrops norvegicus</i>	613,03
<i>Octopus vulgaris</i>	1903,91
<i>Sardina pilchardus</i>	13271,02
<i>Loligo vulgaris</i>	60,97
<i>Micromesistius poutassou</i>	2344,54
<i>Thunnus thynnus</i>	1056,39
<i>Thunnus alalunga</i>	277,237
<i>Xiphias gladius</i>	1792,085

Table 2. Total landings in 2010 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 GSA05 (Balearic Islands) is considered overexploited. Stock abundance and biomass and recruitment showed oscillations for the entire data series, without any clear trend. Since the mean size and landings appear close to the mean values for the whole time series, the monitoring of the fishery should continue carefully looking for the progress of the fishery. A decrease in F could be provided using complementary management measures like temporal fishing time reduction for some periods like at the beginning of the reproduction or spawning period and during the recruitment period at the beginning of autumn. There were no comments to this assessment and the WG endorsed the assessment and the recommendations.

Hake (*Merluccius merluccius*) exploited by the trawl fishery off Mallorca (Balearic Islands, GSA05) is considered over-exploited (1980-89: $F_{\text{current}}=1.57$, $F_{0.1}=0.157$; 2008-10: $F_{\text{current}}=1.21$, $F_{0.1}=0.157$) and it was recommended to reduce fishing mortalities by reducing the effort activity and improving the selection pattern of the fishery. Stock abundance, biomass and recruitment showed oscillations for the entire data series without any clear trend. There were no comments to this assessment and the WG endorsed the assessment and the recommendations.

Striped red mullet (*Mullus surmuletus*) exploited by the trawl and artisanal fisheries from the Balearic Islands (GSA05) is overexploited ($F_{\text{current}}=0.55$, $F_{0.1}=0.26$) and it was recommended to reduce F by reducing the effort and improving the selection pattern of the fishery. The WG suggested that a trend line should be fitted to the stock abundance and recruitment in order to evaluate the possibility of recruitment overexploitation. The WG accepted and endorsed the assessment and recommendations.

Hake, *Merluccius merluccius*, is one of the most important demersal target species of the commercial fisheries in the Gulf of Lions (GSA07). In this area, hake is exploited by French trawlers, French gillnetters, Spanish trawlers and Spanish long-liners. Stock is in overfishing status and low abundance. The stock is characterized by growth overexploitation with periodically higher recruitments (1998, 2002 and 2008) which ensure the sustainability of the stock at a low level of abundance. The WG noticed that the minimum legal landing size was smaller than the size at first maturity, a fact that is ecologically not acceptable. The Subcommittee Coordinator commented that this species is caught within a multispecies fishery (trawlers). No other comments were made on this assessment, which were endorsed by the WG.

Red mullet (*Mullus barbatus*) in the Gulf of Lions (GSA07) is exploited by both French and Spanish trawlers. The stock is in overfishing status and in intermediate level of abundance. The WG opened a discussion on the K value used for the assessment, which was rerun using fast growth parameters (GSA09) instead of slow growth parameters (GSA07). Results

did not differ between both sets of parameters. The SSB was found to increase, so there was some doubt about the XSA results. The MEDITS trend was the same with that of SSB and thus it is rather odd that with so high overexploitation the trend of SSB is increasing. Anyway, the WG endorsed the assessment and recommendations.

European hake, *Merluccius merluccius*, is one of the target demersal species of the Mediterranean fishing fleets, largely exploited in GSA01 almost exclusively by trawl (88% of landings) on the shelf and slope and by small-scale vessels using gillnets (9%) and long lines (3%). The trawling fleet in GSA01 comprised an average of 183 boats, averaging 35 GRT and 176 HP. In 2003–2010 the annual landings averaged 448 t in the whole area.

The results of the last assessment show a decreasing trend in the last year both in biomass and SSB of the stock. The Y/R analysis showed that the Fref (1.33) exceeds the Y/R F0.1 reference point (0.2 absolute value). The stock is in overfishing status and intermediate level of abundance. To reach F0.1 a reduction of 80% of the F current is advisable; Improve the fishing pattern of the trawl fleets and special surveillance in the use of 40 mm square/50 diamond mesh size in the cod end in trawl gears. The assessment was endorsed by the WG and accepted by the SC.

Striped red mullet (*Mullus barbatus*) exploited by the trawl fishery in GSA06 is in overfishing status and in low level of abundance 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 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.

Within the context of the FAO project COPEMEDII, a first attempt of analysis with the data from Morocco and Spain in Alboran Sea (GSA 03 and 01), considering the series of landings and biological samplings, was carried out. A joint comparative analysis of the length-frequency distribution of sardine landings in Morocco and Spain was performed, in order to achieve a first approximation to the pattern of exploitation of both fleets. Also a common database between the two countries was prepared, in order to perform a joint preliminary assessment based on Length Cohort Analysis (LCA). The two analyses were carried out with data from the period 2003-2010.

From this preliminary analysis it is inferred that the pattern of exploitation in both sub-areas (GSAs 01 and 03) is different but the total length-frequency distribution of sardine exploited in both GSAs appears to be similar. It was concluded and recommended the length-frequency distribution analysis of the catches from Morocco and Spain by month for the total period (2003-2010) that could provide better and accurate information on the exploitation pattern of both fleets in order to analyze possible similarities.

A joint stock assessment of sardine, based on the length-frequency distribution of landings data in both sub-areas for the period 2003-2008, applying the software VIT (Leonart and Salat, 19927) was undertaken. This assessment was considered preliminary and further work was concluded necessary to provide a final joint assessment of Alboran Sea. A number of recommendations were given to the COPEMED II, stressing the interest of performing this joint assessment and addressing the prerequisites to gather the data, create the common database and successfully applied a joint analytical assessment method. Also, a recommendation to explore the possibility of having a joint echo-survey in the area was put forward to the Spanish and Moroccan authorities. A new meeting to continue with this efforts is expected by 2012.

Anchovy (*Engraulis encrasicolus*) in GSA06 is exploited by purse seiners. The number of vessels in the fleet has declined slightly over time, but has been stable at 130 vessels since 2007. Landings in 2010 were 8399 t, showing a slight decrease from 2009 (9814 t). The time series shows a smooth increasing trend because this is the second high value from 2008 (the lowest one). There is not much variability in the fishing mortality in the last few years so it is necessary to have a longer time series to be able to do comparisons.

Recruitment in 2010 (R = 2013 millions) is similar to 2009 (2021 millions). The trend of the recruitments is important as they can affect seriously to the stock's recovery.

Both Total Biomass (37039 t) and Spawning Stock Biomass (22980 t) in 2010 show a slight decrease.

This fishery is considered as fully exploited with a low abundance compared with the extent of the area.

The assessment is based in estimated values of biomass from the survey and for fourteen years the biomass have been stable, with small fluctuations which do not seem to follow the same trend as the fishing mortality. A formal reference point is not available and the time series used in the assessment is short. However, when comparing with published data on biomass estimates for anchovy in GSA06, the biomass seem to be fairly stable, although at a low overall biomass level in relation to some high biomass estimates obtained early in the 90's. Following a precautionary approach, the final recommendation is not to increase current fishing mortality levels until a clear indication of a higher stable biomass that can sustain higher exploitation rates is observed.

The WG endorses the advice and recommendation for this stock. The WG encourages improving the quality of data used for the analysis in terms of the length of the time series and the biological data used (age – length keys). An analysis of biological variability of the parameters between areas 01 and 06 will be desirable, as well as an analysis of robustness of the model to use common assumptions for those areas. In case a common ALK or any other common assumption is taken across these areas, the WG recommends that it is based on samples that cover both areas.

Sardine (*Sardina pilchardus*) in GSA06 is exploited by purse seiners. Landings decrease in 2010, reaching up 7475 t, which represents the lowest landings of the assessed time series. Fishing mortality is at a moderate-high level ($F_{10} = 1.14$) lower to that of 2008 (2.55). Recruitment in 2010 (1268 millions) is higher to 2008 (746) the lower value of the time series, following the decreasing trend from 2003 onwards. The trend of the recruitments is as important as they can affect seriously to the stock health. Total Biomass (TB = 31689 t) is the lowest value of the time series and Spawning Stock Biomass (SSB = 16917 t) is the second lower value of the time series.

This fishery is considered overexploited. Although the exploitation rate (fishing mortality) is at a moderate high level, the stock abundance in 2010 remains at low levels, though it has increased from 2008 to the lowest value of the entire series.

It is important to point that the stock is in danger of recruitment overexploitation due to the decreasing trend in recruitment and very low levels of the spawning stock. The WG endorses the advice and recommendation given for this stock. The WG also recommend that a series of test are carried out for future assessment of the assessment robustness:

- Use a separate age – length key for each year, as well as as much disaggregated yearly biological parameters as possible (length weight relationship, maturity at age, etc.). Some of these tests were started during this year WG. The WG recommends that a full exercise of the effects of different assumptions in the final assessment is prepared for next years.
- Due to some of the residual trends in the model used and the problems in some of the age-length keys used, the WG also recommend to explore the possibility to use biomass models as an alternative to virtual population - like assessment models.

1056.4 tons (RW) of Bluefin tuna (*Thunnus thynnus*) were caught in the Mediterranean Sea during 2010, most of which (76%) 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 2010 using only surface long-lines. In 2010, 277.24 tons (RW) were landed in the Mediterranean (which represents a 36% increase from the catches taken in 2009).

Swordfish (*Xiphias gladius*) landings in 2010 were 1792 t (RW) in the Spanish Mediterranean. The main catches (99.5%) 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 2010 were 4688 t (RW) which represents an increase of 200% from the catches taken in 2009. The specific composition of these catches were: 546 t of Atlantic Bonito (*Sarda sarda*), 3812 t of bullet tuna (*Auxis rochei*), and 330 t 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 Fisheries 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 Fisheries, 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 Fisheries 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 intersessional 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 (*Lophius piscatorius*), Blue whiting (*Micromesistius poutassou*), red shrimp (*Aristeus antennatus*), Norway lobster (*Nephrops norvegicus*) *Parapenaeus longirostris* and *Octopus vulgaris*, while the target of small pelagic species are Anchovy, Sardine, Atlantic horse mackerel (*Trachurus trachurus*) and Chub macherel (*Scomber japonicus*), 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.

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 2011. 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 2010, 1885 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), finished along 2010. BFT were tagged using Pop-Up Archival tags and archival internal tags in the recreational fishery in 2010. Conventional tagging activities were also developed in collaboration with commercial and recreational fisheries.

During 2010, a study about bluefin tuna was developed using tuna traps as scientific observatories. The first part of this project includes the monitoring of fishing activities, sampling of size of catches, collection of biological samples for various studies and the monitoring of releases of bluefin tuna alive when the TACs were reached.

Research activities on Albacore (*Thunnus alalunga*, ALB) were developed on board recreational and long-line fishery vessels targeting ALB. A total of 3865 albacore were measured and 182 sets of biological samples were collected. Research on maturity and growth has been developed in 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, 90 albacore were tagged along 2010.

In July, 2011 took place the ICCAT assessment session of Mediterranean albacore. The result of this assessment shows a relatively stable pattern of the population size during the recent past.

184 Small tuna samples, mainly of Atlantic bonito (*Sarda sarda*), Atlantic little tuna (*Euthynnus alletteratus*), and bullet tuna (*Auxis rochei*) were collected to study maturity and fecundity rates, age and growth. In addition, a total of 3848 small tunas were measured in tuna traps. Within the activities related to studies in captivity (SELFDOTT Project), in May 2010, viable spawning of bonito (*Sarda sarda*) born in IEO along May 2009 were obtained. Thus the life cycle of this species in captivity has been completed.

21168 swordfish were sampled (Rw and/or length) in the Mediterranean in 2010. 200 sets of biological samples were collected along 2010 in the Spanish swordfish fisheries (mainly long-line). Swordfish were tagged using Conventional tags in 2010 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

Information on statistics of the Spanish fishery sector can be found in the following link of the Ministry's web page. It is based on requirements from National Plan for Statistics and EUROSTAT (official statistical organism of the European Union). Sectors are economically classified into primary sector (marine fishery and aquaculture), secondary sector (processed fish industries) and tertiary sector (exterior trade). Statistics since year 2008 are available.

www.magrama.es/es/estadistica/temas/estadisticas-pesqueras/default.aspx

Marine environmental studies in progress

During this intersessional period, the IEO continues carrying out the 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 2010-11 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.

During 2011 in the Mediterranean carried out experimental fishing and underwater visual census surveys in the Columbretes Islands MPA to monitor the evolution of the protected population of the spiny lobster *Palinurus elephas* showing that biomass and individual size of lobster continue to increase after 21 years without fishing. Tag-recapture experiments were also conducted to assess movement and biomass export of *P. elephas* from the MPA. In Cabrera national Park, both the grouper *Epinephelus marginatus* and the bivalve *Pinna nobilis* were studied for spatial distribution, populations structure, individual growth (*Pinna*) and ontogenetic movements and habitat use (grouper).

Furthermore, in each of the 7 Spanish Mediterranean Marine Reserves, managed by the General Secretariat for Fisheries, studies realised within the Spanish Marine Reserves Network teams, some in collaboration with the IEO and others with Universities, are carried out on fisheries enhancement and biodiversity focusing emblematic groups such as marine phanerogams, or cetaceans by opportunistic sightings as well as on invertebrate such as *Pinna nobilis*, *Dendropoma petraeum*, *Cladocora caespitosa* or gorgonians. Marine Reserves have turn out to be emblematic sites to investigate biodiversity and global change effects as within them, managers can witness effects of superficial marine waters heating on gorgonians or brain coral as well as the evolution of invasive species as the alga *Caulerpa racemosa*, among others.

The project TROFOALBORAN 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 carried out 3 surveys along the seasons of spring, summer and autumn.

The project **INDEMARES** launched in 2009 aiming to promote research, conservation and assessment of the sea and its habitats in order to comply with commitments regarding the marine European Natura 2000 network and 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 and objectives (www.indemares.es). The project is being convened by the Biodiversity Foundation (Ministry for Agriculture, Food and Environment) and nine institutions, Gubernamental Departments and NGOs are involved in the project -among which IEO, CSIC, General Secretariat for Fisheries, WWF/Adena and Oceana- in the study of 10 marine areas (Gulf of Cadiz, Galicia Bank, Avilés Canyon, Creus Canyon, Concepción Bank, Amanay and Banquete Banks, Menorca Channel, Columbretes, Seco de los Olivos Bank, Volcanic Cones around Alborán island), 5 of them within the Mediterranean. Oceanographic multidisciplinary surveys have been undertaken during 2010 and 2011 on board of a few vessels (Cornide de Saavedra, Miguel Oliver, Vizconde de Eza, Emma Bardán, and others). Several cruises are expected for 2012. Sampling methods and non intrusive prospection methods have been carried out, including photo and video surveys as well as very high resolution geophysical systems that can be found in the web site. Scientific results are published through SCI papers and international meetings. It is expected to have final results for the end of 2013 in order to provide solid scientific information on the importance of conservation and sustainable use of those marine areas for full implementation of the Natura 2000 network at sea.

Management measures

Spanish fisheries legislation sets out different management measures, without prejudice of EU or international regulations, applied to purse seine, bottom trawl, long line fisheries as well as artisanal gears. 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. The main regulations currently in force are:

- Fishery Law 3/2001, applicable to all the fishing activities practised by Spanish vessels, as well as Community or international fishing vessels in Spanish waters. It includes measures on conservation of fisheries resources, protection and regeneration of fisheries resources, management measures of fishing activity, regulation of recreational fisheries and inspection and control measures.
- Royal Decree 1440/1999: management measures for bottom trawl fisheries.
- Ministerial Order APA/37/2007: management measures for bottom set longlines fisheries and artisanal gears.
- Ministerial Order APA 2529/2011: management measures for purse seine fisheries.
- Order ARM/143/2010, that establishes an Integral Management Plan for Fisheries Resources Conservation within the Mediterranean, amended by Order ARM/2023/2010, which affects surface longliners measures.
- Regulation (CE) 302/2009 and Ministerial Order ARM/1153/2011 establish management measures for Bluefin tuna. Both EU and national rules emerge from ICCAT regulations, which for BFT it is stated by Recommendation 10/04, that establishes a Multi-annual Recovery Plan for Bluefin tuna within the East Atlantic and Mediterranean. TACs, seasonal closures, fishing gears and authorised vessels are established, among other measures.
- Regarding recreational fisheries, Royal Decree 347/2011 is the current legal framework for recreational fisheries within exterior waters. It establishes a National Register of authorised vessels, a list of authorised species, fishing modalities, limits of catches, general conditions for recreational fisheries and competitions, prohibited practices, specific authorizations for some species, catches declarations, etc. Marketing of catches is strictly prohibited.

With regard to Marine Reserves, the General Secretariat for Fisheries keeps on managing the seven Spanish Mediterranean Marine Reserves currently existing, with enforcement through guards on the spot, follow up, awareness programs, etc.

Research suggestions for consideration by SAC

For the assessment of marine resources greater considerations should be made on studies focusing on the impact of environmental changes (climatic variability, increase of gelatinous plankton, etc.) on the variability of marine resources, as well as, on their effect on fishing 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 2010 a atteint environ 102 066 tonnes dont plus de 45 000 tonnes constitués d'espèces de petits pélagiques (sardine, sardinelle, saurel, maquereaux, anchois, etc.). 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 est constituée de plus de 12 000 unités de pêche dont 6218 barques côtières non motorisées, 4834 barques côtières motorisées, 439 chalutiers, 400 sardiniers et 41 thoniers (Annuaire Statistique de la DGPA, 2010). Selon leur activité et leur zone de pêche, la longueur totale des unités de cette flottille peut varier d'environ 3 m (barque 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, etc. 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. Depuis l'année dernière, la DGPA appuyée par la FAO (Projet FAO/CopPeMedII) a lancé une opération pilote de collecte et d'amélioration des données statistiques de la pêche artisanale. Le site choisi est le port de Monastir à l'Est du pays.

3. ACTIVITÉS 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 Sciences Halieutiques (LSH) (ex : Laboratoire des Ressources Marines Vivantes (LRMV), en collaboration très étroite avec l'université tunisienne, les services du Ministère de l'agriculture des ressources hydrauliques et de la pêche 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 vivantes tunisiennes. Ce programme a été structuré selon des étapes consécutives. Au courant de l'année 2010, le LSH de l'INSTM a achevé les activités de recherche programmées dans le cadre de trois actions de recherche:

- **Action BIHARE:** Biologie et halieutique des ressources benthiques exploitables
- **Action LAMPAROS:** oeufs et larves, abondance et migration des poissons pélagiques : aménagement des ressources et optimisation socioéconomiques.
- **Action CHANCHOUL:** Chalutage pélagique sélectif, adaptation d'une nouvelle senne tournante Ciblant l'anchois, Confection de nouveaux engins côtiers adaptés au comportement des crustacés et des coquillages.

Les données ont été traitées et les rapports finaux ont été élaborés et transmis au Ministère de l'Enseignement Supérieur, de la Recherche scientifique et de la technologie. Ces travaux, ont été également évalués par le Comité national d'évaluation des activités de la recherche scientifiques (CNEARS) et ont concernés 3 actions de recherche complémentaires:

Au courant de l'année 2011, nous avons lancé trois autres actions de recherche en continuité avec celles précédentes. Ces actions sont les suivantes:

- **Projet de recherche :** Ressources benthiques exploitables des eaux tunisiennes : Evaluation des stocks et aménagement des pêcheries.
- **Projet de recherche :** Ressources pélagiques exploitables : Evaluation des stocks et aménagement des pêcheries
- **Projet de recherche 3 :** Amélioration de la sélectivité des engins de pêche.

Concernant les différents thèmes abordés par ces actions de recherche, les opérations de collecte de l'information viennent de commencer.

Cependant, il est important de noter que dans le cadre des activités de la CGPM, les équipes de recherche tunisiennes et celles italiennes, dans le cadre du projet FAO/MedSudMed ont présentés 3 travaux d'évaluation. En effet, ces évaluations qui ont concerné les stocks du merlu, de la chevette et du brochet ont été présentés, discutés et approuvés lors de la réunion du groupe de travail des Démersaux (Chania, Grèce, 23 au 29 octobre 2011). De plus, dans le cadre du même projet, la Tunisie a réalisé avec leur homologues italiens une opération d'intercalibration des deux bateaux de recherche Hannibal et St Anna dans le but de standardiser les méthodes scientifiques de collecte de l'information.

4. ÉTUDES EN SCIENCES SOCIOÉCONOMIQUES

Il faut tout d'abord rappeler que la Tunisie a réalisé un travail très intéressant sur les indicateurs socioéconomiques 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 Sous-Comité des sciences sociales et économique du SAC (Malaga, 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 et d'analyse des données ont été déjà finalisés et les résultats sont actuellement disponibles.

5. ÉTUDE DANS LE DOMAINE DE L'ENVIRONNEMENT MARIN

Dans le cadre des programmes de recherche exécutés au sein du laboratoire biodiversité et biotechnologie marines de l'INSTM, nous avons étudié le statut de plusieurs groupes d'espèces de vertébrés marins pour la plupart menacés: tortues marines, cétacés et élasmobranches ainsi que plusieurs habitats sensibles. Ces études mentionnées dans ce rapport répondent en grande partie au programme de travail intersessions du SCMEE. Les principales actions et résultats des activités de recherche sont résumés ci-après:

Tortues marines

- Monitoring du site de nidification des îles Kuriat qui a permis la détermination de plusieurs paramètres de reproduction et de survie (surtout la sex-ratio des nouveau-nés)
- Expérimentation des hameçons circulaires pour la réduction du by-catch avec le support du CAR/ASP.
- Etude de l'importance et de la répartition spatiotemporelle des échouages sur les côtes tunisiennes dans le cadre du réseau national d'échouage

Les élasmobranches

Données écobiologiques

- Détermination des paramètres de croissances de deux raies *Raja clavata* et *R. miraletus* et du squalé *squalus blainvilleii*
- Etude du régime alimentaire de quatre raies dans le golfe de Gabès (GSA 14): *Raja clavata*, *R. radula*, *R. oxyrinchus* et *R. miraletus*
- Lancement de campagnes de pêche au chalut pour l'étude des élasmobranches dans le but principalement de délimiter les zones de nurseries de certaines espèces

Systématique des requins

- Présence de deux dasyatidés en Tunisie et en Méditerranée *Dasyatis pastinaca* et *D. tortonesi* qui se ressemblent et posent des confusions. Des données morphométriques, méristiques et anatomiques ont été obtenues pour une distinction aisée. Cette étude sera poursuivie par une analyse génétique et une étude bibliographique pour savoir laquelle des deux espèces a été décrite par Linné. Les noms des spécimens déposés au muséum présentent une confusion.

Les Cétacés

- Etude des interactions grand dauphin *Tursiops truncatus* avec la senne tournante dans la région de Kélibia connue par la pêche aux petits pélagiques. Les interactions sont très fréquentes et engendrent des problèmes économiques pour les pêcheurs qui sont parfois obligés de changer de techniques de pêche.

- L'expérimentation des pingings pour éloigner les dauphins de la zone de pêche n'a pas été concluante. Des résultats positifs sont parfois enregistrés au début puis ces pingings ne seront plus efficace aussi bien pour les filets maillant que pour la senne tournante.

Couverture végétale

- Cartographie de l'herbier de posidonie au centre de la Tunisie, à Mahdia et étude de l'épiphytisme.

6. NOUVELLES MESURES D'AMENAGEMENT

Instauration d'une nouvelle réglementation de l'activité de pêche durant la période d'intersessions 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 trois mois (du 1er juillet 2009 au 30 septembre 2009). Cette mesure de gestion est appliquée pendant 3 années : 2009, 2010 et 2011.

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 et le merlu dans la région du Canal de Sicile, la pêche artisanale. Par ailleurs, dans une perspective de l'application de l'approche écosystémique en tant qu'outil d'aménagement des pêcheries méditerranéennes, la Tunisie est intégrée dans un projet européen sur cet aspect. Ce projet de recherche qui groupe de nombreux instituts de recherche méditerranéens, a été déposé, pour financement, à l'Union européenne. Du côté biodiversité marine, plusieurs projets nationaux et régionaux sont en cours d'élaboration ou de recherche de financement concernant surtout les tortues marines et les élastomobranches.

TURKEY/TURQUIE

DESCRIPTION OF THE FISHERIES

Total fish production of Turkey in 2010 (latest official) including inland fishery and aquaculture was 653.080 tones (inland catch 40.259 tones, aquaculture production 167.141 tones and marine catch 445.680 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	Tuna
		22	Swordfish
Artisanal fisheries (gillnet, trammelnet, 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 (seabass, seabream, eel, mullets)

Table 2. Total fish production (2007-2010)

Year	Capture				Aquaculture		Total
	Marine	%	Inland	%	Amount	%	
2007	589.129	76.3	43.321	6	139.873	18.1	772.323
2008	453.113	70.1	41.011	6.4	152.186	23.5	646.310
2009	425.275	68.2	39.187	6.3	158.729	25.5	623.191
2010	445.680	68.2	40.259	6,2	167.141	25,6	653.080

Table 3. Marine fish landings(tonnes)

Species/Year	2007	2008	2009	2010
Anchovy	385.000	251.675	204.699	229.023
Sprat	11.921	39.303	53.385	57.023
Horse mackerel	32.021	32.177	28.268	20.447
Sardine	20.941	17.531	30.091	27.639
Whiting	12.940	12.231	11.146	13.558
Atlantic bonito	5.965	6.448	7.036	9.401
Grey mullet	8.291	3.345	2.987	3.119
Blue fish	6.858	4.048	5.999	4.744
Turbot	769	528	383	295

FLEET STRUCTURE

There are 20.289 vessels registered in Fisheries Information System (FIS). The size range of fishing vessels is given in the Table 4. 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.

Table 4. Size range of fishing vessels

Size(m)	0-4.9	5-7.9	8-9.9	10-11.9	12-14.9	15-19.9	20-29.9	30-49.9	50+	Total
Marine	845	10.638	3.017	826	672	429	521	210	7	17.165
Inland	290	2.536	207	29	52	15	0	0	0	3.124
Total	1.135	13.174	3.234	855	724	444	521	210	7	20.289

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

Over the last years, markedly progress has been made in development of fisheries data collection system in Turkey. Fisheries Information System (FIS), an integrated Web-based database, has been developed. The FIS, which is being subject to routine updates, comprises a combination of resources organised to collect, process, transmit, and disseminate the fisheries relevant data. The system is composed of modules interacting to introduce and extract data to/from a centralized database. The integrated FIS includes registry of commercial fishing vessels, fishing licence registry, registry of recreational fishers, issue of special fishing permits to fishers, data on landings, quota (bluefin tuna), catch quota (striped venus clam and eel), collection of biologic data, monitoring of anchovy catches transshipped to cold storages or processing plants, issue of catch certificate under the scope of EU Regulation 1005/2008, inspection forms, sales notes and collection of fisheries and aquaculture statistics.

Vessels over 15 metres are under an obligation to record and keep logbook. The Ministry of Food, Agriculture and Livestock is planning to shift paper-based logbook into the electronic one due to excess workburden associated with the paper logbook. A study on development of an integrated system for electronic logbook is underway. 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. Fishing vessels over 15 metres (about 1.263 vessels) are under an obligation to have Automated Identification System (AIS).

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 the Ministry of Food, Agriculture and Livestock has been completed.

MANAGEMENT MEASURES

Regarding to the restructuring of the Ministry of Agriculture and Rural Affairs, the General Directorate of Fisheries and Aquaculture has been established.

Communique regulating fisheries has been revised for 2011-2012 fishing season. Minimum size restrictions have been enhanced for some species. Prohibitions for use of some fishing gear and for some fishing zones have been introduced. Controls are done during licence issuance, fishing operations, landings after fishing operations, transportation of products and points of sale.

The Scientific Advisory Committee (SAC) of the General Fisheries Commission for the Mediterranean (GFCM) held its fourteenth session in Sofia, Bulgaria, from 20 to 24 February 2012. The session was attended by delegates from 19 Members of the Commission as well as observers from intergovernmental organizations together with Georgia, the Russian Federation and Ukraine. The Committee reviewed the topics addressed by the 11 technical meetings and the 4 Sub-Committees sessions held in the intersessional period. These included proposals for fishery management measures, research programmes, data collection schemes, development of Management Plans as well as technical issues, in connection with the use of spatial based measures, VMS data and the management related to by-catch as well as of discards of commercial and non-commercial species. The agreed priority actions to be undertaken in the Black Sea area were also appraised. Remarkable progress was noted on the definition of a new Task 2 for gathering biological information of catches and on the proposal to revisit the frame and scope of whole Task 1. The Committee acknowledged also the progress made in undertaking joint stock assessments of selected demersal, small pelagic and elasmobranchs species and on the modification of the Stock Assessment Forms. The Committee was informed about the progress achieved by the Task Force for modernizing the GFCM legal and institutional framework and about the first GFCM Framework Program. The SAC agreed that a mechanism should be defined, to facilitate the adoption of recommendations. The Committee decided to postpone the election of its Bureau until next session and agreed upon its workplan for 2012–2013.

Le Comité Scientifique Consultatif (CSC) de la Commission générale des pêches pour la Méditerranée (CGPM) a tenu sa quatorzième session à Sofia, Bulgarie, 20 au 24 février 2012. Ont participé à cette session, les délégués de 19 membres de la Commission, des observateurs d'organisations intergouvernementales ainsi que la Géorgie, la Fédération de Russie et l'Ukraine. Le Comité a analysé les questions abordées par les 11 réunions techniques ainsi et 4 sous-comités tenus pendant la période intersessions, 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 également discuté de l'utilisation de mesures spatiales, des données SSN et de la gestion liée aux captures accessoires et des rejets d'espèces commerciales et non-commerciales ainsi que des actions prioritaires à entreprendre en mer Noire. Des progrès remarquables ont été notés quant à la définition d'une nouvelle Tâche 2 pour la collecte d'informations biologiques sur les captures ainsi qu'à la proposition de redéfinir le cadre et l'objectif de la Tâche 1. Le Comité a reconnu les progrès accomplis dans la réalisation d'évaluations conjointes des stocks de plusieurs espèces démersales, de petits pélagiques et d'élasmobranches et dans la modification des formulaires d'évaluation des stocks. Le Comité a été informé des progrès du Groupe de travail pour la modernisation du cadre légal et institutionnel de la CGPM et du premier Programme Cadre de la CGPM. Le CSC a convenu qu'un mécanisme devrait être défini afin de faciliter l'adoption de recommandations. Le Comité a décidé de reporter l'élection de son Bureau jusqu'à la prochaine session et a approuvé son plan de travail pour 2012-2013.

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