

**GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN
(GFCM)**

**WORKING GROUP ON MARINE ENVIRONMENT AND ECOSYSTEMS
Palma de Mallorca, Spain, 26 - 28 February 2001**

OPENING OF THE MEETING

1. Mr Federico Alvarez, Director of IEO Balearics, opened the Session by greeting everybody and wishing a successful working session. He introduced Amor El Abed as Chairperson of the Working Group.
2. Mr Amor El Abed thanked IEO-Balearics for hosting this Working Group meeting and all the participants for accepting the invitation to attend. He also thanked COPEMED for financing Morocco and Tunisia to attend this Working Group. He thanked Mr. Relini from Italy and Mr. Hilmi from Morocco for the important work done during the previous Working Group meeting as Chairperson and Rapporteur. Scientists from 6 member countries were present together with representatives from COPEMED and FAO (Appendix 2)

ADOPTION OF THE AGENDA AND ORGANIZATION OF THE MEETING

3. The agenda was adopted (Appendix 1) and Mr Andreina Farrugia and Mr Karim Ben Mustapha were appointed as Rapporteurs. The members presented themselves. Mr Juan Antonio Camiñas and Mr Alberto Garcia reported that they could not attend since they were sick.

REVIEW OF THE FORMS CONCERNING BIO-ENVIRONMENT

4. Mr Relini briefed the Working Group on the first meeting that was held in Madrid and said that his presence here confirms that he wishes to cooperate with this Working Group. He commented that the forms which have to be filled with great attention, are complicated and requested that somebody demonstrates how the sheets have to be filled and specifies their aims. These should be filled with great attention.
5. Mr Karim Hilmi, as rapporteur of the first Working Group meeting, read the minutes of the first meeting held in Madrid.
6. Mr Amor El Abed reported the recommendations put forward by the president of SAC, Mr Juan Antonio Camiñas during the GFCM meeting. He reported that the main objective of the Working Group meeting is to ensure the follow up of the SAC/GFCM recommendations.
7. Mr Pere Oliver from FAO explained that the work had to be done on two levels, i.e. improve, agree and work as much as possible on the forms and clarify the aims of this meeting. This Sub-Committee is new and will try to introduce in GFCM the issue of environment in relation with fishing. For many years, GFCM had focused on stock assessment, fisheries management, landings and catches which are now familiar. Other regional conventions related to environmental issues like the Barcelona Convention were mainly working with protection of species and the environment. Now these two management approaches have realized that they need to merge. The impact of fisheries on species and the environment has to be evaluated and also other issues like bycatch, incidental catch, impact of pollution and human activities on the coast have to be studied with respect to impact on fisheries.
8. Mr Amor El Abed said that he had already approached other organizations which could help in the gathering of information, i.e. RAC-SPA, CIESM, COPEMED and MedPol. RAC-SPA has already

committed itself to give all the requested information. It was suggested that he should also contact MEDAR/MEDATLAS and ICCAT for further contributions.

9. Mr Relini agreed with Mr Pere Oliver, but showed his concern regarding global climate change which could affect the Mediterranean. He also highlighted the fact that during the discussions we should keep in mind the recommendations of SAC for this Sub-Committee.

10. Mr Francisco Sarda took the floor and explained that the objective of the bio-ecological forms is to collect information about ecological characteristics of target species in order to improve their assessments. The work programme aims to:

- 1) design the forms during the year 2000.
- 2) fill the forms in 2001.
- 3) treat and summarize information collected during the year 2001.
- 4) transmit this information to stock assessment Sub-Committee.

11. The proposed action is to contact specific people who could be responsible to fill these forms. The filled information must be general but specific enough to be useful.

12. Mr Amor El Abed agreed by saying that focal points should be established from each country. He informed that he had sent the forms to more than 200 people but got only few responses.

13. Mr Pere Oliver said that the problem of focal points have to be discussed during SAC because they already exist.

14. Mr Relini indicated that in order to fill these forms a lot of time is needed. He also pointed out that in certain cases scientists from the same management unit had to come together in order to fill the forms and this continues to prolong the process.

15. Mr Amor El Abed mentioned that an information day should be organised by each main institution from each country, in order to fill these sheets as was done in INSTM Tunisia. He will send these sheets again to all directors of organisations in the Mediterranean. He also indicated that each national institution should be responsible for filling these forms.

16. Mr Francisco Sarda took the floor again and started to explain how the individual forms had to be filled and insisted that this was an ongoing process.

17. During the discussions, it was agreed to present an amended form later on (Appendix 3).

18. Mr Pere Oliver suggested that forms have to be filled for the species proposed by SAC and for other species for which information already exists. Mr Relini proposed that the name of the person who filled in the sheet should be added and references must be clearly cited and numbered.

REVIEW OF THE FORM CONCERNING THE EFFECTS OF VARIOUS ENVIRONMENTAL PARAMETERS ON THE RECRUITMENT PROCESS IN THE CASE OF SHARED STOCKS

19. The corresponding sheet was presented by Mr Federico Alvarez in place of Mr Alberto Garcia and was then discussed. Mr Karim Hilmi explained that in order to fill these forms an excellent database (meteorological/oceanographic) was needed which might be lacking in some countries like Morocco for instance. However, the representative from Tunisia explained that at this stage, there was no need to wait for the availability of excellent database to extract data to fill the forms, for instance, the Tunisian forms were filled mainly from different bibliographic references, as our main purposes was to gather information for the Working Group of the Sub-Committee on EME of SAC. Nevertheless, the forms should contain more specific data since the studied areas are so large.

20. Ms Anna Sabates commented that the focus should be put on specific management units. She also indicated that for chlorophyll for example, it should be specified from where the readings should be taken e.g. surface or bottom since then this would ease the comparison of results later on. But Mr Amor El Abed commented that at this stage this is not necessary since the first objective of this Working Group is to focus on the collection of available information. We will then have the opportunity to fill gaps if they exist.

21. Mr Francisco Sarda added that should we need to add more specific detail, this can be inserted in the blank cells or attached pages.

22. Mr Amor El Abed commented that oceanographic data can also be collected from agencies like MEDAR/MEDATLAS, MedPol or from the national meteorological offices. A simpler and corrected sheet together with guidelines will be presented as Appendix 4.

REVIEW OF THE FORMS CONCERNING EFFECTS OF FISHING GEAR ON RESOURCES AND ECOSYSTEMS

23. Ms Pilar Sanchez presented the information on three main areas, i.e. NW Adriatic, Tunisia and NW Mediterranean. Tunisia highlighted the need for this last form to develop more on marine habitats and ecosystems and not only on fish communities, as these last ones are closely linked to the whole system. After discussing the forms, it was agreed that an amended sheet would be attached as Appendix 5 (what was previously said regarding authors and references applies to all sheets).

24. Mr Relini indicated that from the work presented no conclusions can be extracted since the data collected is very different and is only valid for that particular environment, season, etc. Once again, it was agreed that at this stage the most important thing is to collect information from all the different institutions and countries. If this is well reported with all the necessary details (e.g. kind of gear, size of mesh, type of bottom), it can still be of utmost importance. Regarding these sheets, information can also be collected from Medits. He added that we could make a general recommendation to SAC to ask countries of the GFCM to collect more information during the surveys made by their marine institutions e.g. data about non-target species, biological communities, environmental parameters which could prove useful to our database.

25. It was also agreed that we should propose to the SAC to ask countries of the GFCM to pursue their efforts in data collection as there is always a need to have at their disposal historical series of data. Furthermore, it was pointed out during the discussion that cooperation project i.e. within the GFCM framework should emphasis on the standardisation of data collection.

26. Mr Francisco Sarda agreed by saying that the main aims for 2001 is to collect all the relevant information, carry out a global preliminary analysis and then later carry out a detailed analysis at different levels as would deem necessary.

27. Mr Francisco Alemany pointed out that the objectives of this Working Group had to be clearly defined in order to identify the use of the output and be in a better position to specify properly the type and level of information requested. Mr Amor El Abed replied by specifying that the main objective of this Working Group of SAC is to contribute to help FAO manage all shared resources. Consequently, Mr Kerim Hilmi read the terms of reference mentioned in the first report of the Sub-Committee's meeting.

28. The representative from Tunisia pointed out that we should also emphasis on collecting data on other migratory pelagic fish, e.g. *Coryphena*.

OTHER ITEMS

29. During the second day of the meeting, the Chairperson welcomed the newcomers and briefed them on the previous day's proceedings. The Chairperson gave the agenda for the day:

- a) Action plan for cartilaginous fishes.
- b) Vulnerable species
- c) Glossary of ecological terms
- d) International and regional organisations dealing with EME
- e) Main marine research projects related to EME

30. Mr Kerim Hilmi and Mr Bernard Liorzou gave the national sheets (bioecological) of Morocco and France to Mr Francisco Sarda.

Action Plan for Cartilaginous Fish

31. Mr Fabrizio Serena presented an update on the status of the application of the IPOA/Sharks to the Italian region and proposal of initiatives (Appendix 6). This includes all cartilaginous fish.

32. Mr Pere Oliver explained that the FAO/Shark action plan should be extended to all Mediterranean countries. Mr Relini proposed to rise this question during the next focal point meeting of RAC-SPA to be held in Valencia next April.

33. Mr Bernard Liorzou mentioned that we can also extract information about shark and related species from the ICCAT database.

34. Mr Pere Oliver presented briefly the project for the preparation of strategic action plan for the conservation of biological diversity in the Mediterranean region (SAP BIO) (Appendix 7). National focal points for this project will meet in Alicante next July. It was proposed that we should also collaborate with this project.

35. The Working Group was informed that a workshop on environmental variability and small pelagic fisheries in the Mediterranean Sea would be organised in the framework of the FAO COPEMED regional project activities. Around 20 specialists on environment and fisheries from the Mediterranean as well as from the outside have been invited in order to discuss environmental factors related to fisheries resources and their assessment. This meeting will be held next June in Palma de Mallorca (Spain). The Working Group suggested preparing a document in order to introduce the forms concerning the effect of environmental parameters on the recruitment process to try to stimulate members to participate actively in this exercise.

36. Discussions started regarding national initiatives in each country to protect sharks. Mr Jacques Sacchi indicated that no action plan for France exists to date but a study had been carried out in the Gulf of Lions. This was published by Ms Yvonne Aldebert in 1997 (Aldebert, Y. 1997 Demersal resources of the Gulf of Lions – NW Mediterranean. Impact of exploitation of fish diversity. *Vie Milieu* 47: 275 – 284). This is based on historical series (25 years of trawl surveys) and on commercial series.

37. Mr Relini presented a list of elasmobranchs in the Mediterranean (Appendix 8) and 2 papers summarizing Italian data and data obtained from the Medits survey (Bertrand, J. *et al.*, 2000 Contribution on the distribution of elasmobranchs in the Mediterranean from the MEDITS surveys. *Biol. Mar. Medit*, 7(1): 1-15 and Relini G. *et al.*, 2000 Selachians fished by otter trawl in the Italian Seas. *Biol. Mar. Medit* Vol. 7 – Fasc. 1).

38. Mr Michael Darmanin presented data available for Malta (Appendix 9). He elaborated on the status of sharks *viz a viz*. which are already protected by law, which are regulated and which are still under terms of reservation. He indicated that a common problem is that as data is obtained directly from the fish market various closely related species are recorded under the name of the predominant species.

39. In order to solve this problem the Working Group suggested to approach the FAO species identification and data programme and COPEMED to produce a fieldguide (French and English versions) of identification using the elasmobranch section of the Morocco guide. Here some species from the list proposed by Profs. Relini are missing e.g. *Carcharhinus melanopterus*, *Rhizoprionodon acutus*, *Sphyrna tudes*, *Himantura warnak*, *Taeniura grabata* and *Raja africana*. Information about these species can be taken from Regional Guide of the Mediterranean.

40. In Spain, there is no national action plan for elasmobranchs but these species may be included in the marine section of the national program on biodiversity.

41. Since in Tunisia these species are becoming more commercially important, INSTM set up a scientific program to obtain information regarding these species. Tunisia will provide a short document describing this research program shortly.

42. In Morocco, no Mediterranean plan for sharks is available but the regional centre of INRH based in Nador has begun collecting information on bycatch of the swordfish fisheries (with small driftnets), mainly concerning the catches of *Alopias vilpurnus* and *Isurus oxyrinchus*.

43. The Chairperson identified Mr Fabrizio Serena as the person to collect all national plans and prepare a short document to be presented in the second meeting of the Sub-Committee.

Vulnerable Species

44. An open discussion was held regarding Appendix 10 and 11. These are two lists of endangered/threatened species and of species whose exploitation is regulated. These are taken from the related protocol of the Barcelona Convention and edited by RAC-SPA.

45. During the discussion Mr Michael Darmanin asked Profs. Relini what specific management measures were used to achieve protection and recovery for *E. marginatus*. The latter replied that this was achieved by the setting of Marine Reserves/Protected Areas and banning of spear fishing with scuba gear. This is especially so since for this particular species the larger organisms are the males and thus since spear fishing is selective, it creates an imbalance of sex ratio.

46. In conclusion of this discussion, the group agreed to revise this list according to their country characteristics. The Chairperson will ask SPA-RAC to send the criteria of selection of threatened species to all the participants. The amended lists of non-cartilaginous species are to be sent to Ms Rachel Goni and those of cartilaginous species to Mr Relini. These will present the final list to the next meeting of the SAC (May, Rome):

47. As Tunisia asked to highlight also endangered marine habitats in order to be more coherent with the aim of this Sub-Committee, it was agreed that marine habitats will be focused later on.

Glossary of Ecological and Fishing Gear Terms

48. Mr Relini presented a draft glossary (Appendix 12) for discussion. These definitions are taken from the "Precautionary approach to Fisheries" of FAO and from "A Dictionary of Ecology, Evolution and Systematic" of Cambridge University. The references of these are found in Appendix 13.

49. This list will be sent to all participants for correction and to suggest new terms to be defined. All terms used by this Committee will be included in this glossary. It was also agreed that Mr Jacques Sacchi from IFREMER will help Mr Relini with terms related to fishing gear.

International and Regional Conventions

50. Mr Relini presented a list of regional and international conventions regarding nature and marine ecosystems (Appendix 14). He pointed out that amongst all these conventions, the Barcelona Convention is the most relevant one for the Mediterranean especially with the protocol related to marine ecosystems and biodiversity, with regard to the scope of the S/C on EME..

Main Ongoing Research Projects related to Fishing and Environment

51. The list of projects (Appendix 15) compiled during the last meeting was discussed and it was agreed to update this list with new projects and to add some keywords to each project. Mr Kerim Ben Mustapha will be in charge of this task. Mr Francisco Alemany pointed out that this information can be added to the virtual library of COPEMED for easier retrieval.

52. A synthesis of the main results of finished projects will be prepared by Mr Kerim Hilmi since this would also provide relevant information. This will be presented during the next meeting of the Working Group.

NEW PROPOSALS AND CONCLUSIONS

53. According to the point 10 of the Agenda of the last meeting (impact of marine protected areas and artificial reefs on fishing resources), a small discussion was held regarding possible research on new items such as artificial reefs and marine protected areas.

54. The Coordinator of the Sub-Committee insisted once more on the importance of carefully filling the forms.

55. The Working Group members approved the idea to contact personally specialists and directors of institutes and organisations to organise information days with their experts. A similar action will be made during the organisation of meetings (Demersal stocks in Tunis, Pelagic stock in Kavala, Pelagic fishes and environment in Palma, next national Focal points meeting of the RAC-SPA and SAP BIO).

56. The Working Group agreed to meet next year, prior to the meeting of the Sub-Committee of SAC on EME, the date and location of this meeting will be decided by the second meeting of the Sub-Committee EME of SAC of GFCM to be held between the 15 – 18th May in Rome.

57. In conclusion, Mr Amor El Abed presented a synthesis of all actions to be taken with respect to terms of reference of our Sub-Committee as explained in the next table.

58. At the end of the session, Mr Amor El Abed, Coordinator of the Sub-Committee of EME and the Working Group, thanked all participants for their scientific contribution. Special thanks were also addressed to Ms Andreina Farrugia and Mr Kerim Ben Mustapha (Rapporteurs) for their strong effort to ensure the success of this meeting.

59. He also thanked the Director of IEO Balearics, Mr Federico Alvarez and all his collaborating team for the facilities offered during the meeting. Special thanks were also addressed to COPEMED and FAO for their keen cooperation. The Working Group thanked the people responsible for the action programmes of this Sub-Committee: Messrs J. Relini, F. Sarda, A. Garcia, P. Sanchez, F. Serena, R. Goni, J. Sacchi, K. Ben Mustapha and K. Hilmi. The Coordinator invited all the members of the Working Group to participate in the second meeting of the Sub-Committee EME of SAC of GFCM to be held between the 15 – 18 May in Rome.

PROVISIONAL AGENDA

1. Opening of the session
2. Adoption of the agenda and arrangements of the session
3. Review of the forms concerning bio-environmental considerations of the space/time distribution of the nurseries
4. Review of the forms concerning the effect of the various environmental parameters on the recruitment process in the case of the shared stocks.
5. Ongoing research projects related to fishing and environment
6. Ongoing of other recommendations of SAC of CGPM concerning national and Mediterranean plans for management and protection of species , general definitions of terms of marine environment, enlargement of FAO/IPOA/Sharks plan to selaciens.
7. Other items.

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