

GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN
(GFCM)

SUBCOMMITTEE OF MARINE ECOSYSTEMS AND ENVIRONMENT
(SCMEE)

Nicosia, Cyprus, 3-6 June, 2003

SCMEE Report

1. Opening of the meeting

1. By invitation of A. Bonzon, General Secretary of GFCM, A. García was appointed as chairman for this meeting. By courtesy of A. El Abed, co-ordinator of this SC, M. Bradai was appointed as co-chairman. A. El Abed, was unfortunately absent due to unexpected changes of the dates of this meeting. S. Tudela was appointed as rapporteur for the meeting.
2. J. Lleonart, Technical Secretary of this SCMEE, welcomed the participants their attendance, giving an overview on future focus of activities.

2. Adoption of the agenda

1. It was decided that the correct spelling of point 9 in the agenda should be ‘investigation and updating of environmental impact **of** fisheries’.
2. It was decided that P. Sanchez presents the documents that were pending from the WG meeting in Tunisia on behalf of her colleagues from the ICM-Barcelona that were not able to attend. Likewise, F. Simard would inform on the on-going activities on shark population assessments according to the Red List criteria to be developed under IUCN. These presentations were made under point 5 of the agenda.
3. The agenda was subsequently adopted.

3. Review of the GFCM recommendations for the SCMEE work program: 2003-2004

4. J. Lleonart started a review of the TOR’s given to this SCMEE by the GFCM for 2003 and 2004, commenting that these had a broad sense and that any future modifications should be considered under the SCMEE
 - With regards to ‘establishing links with regional bodies’, Lleonart reported that this is an on-going issue (i.e. Black Sea meeting on fisheries, RAC/SPA, CIESM, etc.). M. Bradai informed on the forthcoming European Elasmobranch Association meeting followed by the Shark Specialist Group (SSG) who will take the opportunity of meeting for the assessment of elasmobranchs (RL criteria). These meetings are to be held in San Marino in September, 2003.

- As for the “evaluation of the impacts of human action”, J. Lleonart believes that some of them were indeed addressed at the WG (i.e. driftnets).
5. On reviewing the GFCM mandates to the SCMEET, it was considered that some of these were addressed at the WG meeting in Tunisia (i.e. driftnets, algae blooms). It was suggested to address the main issues (as the overview on driftnets or surface longline fisheries, etc.) on a sub-regional basis (i.e. western, central and eastern Mediterranean).
 6. It was suggested that for certain critical topics such as the impact of different fishing gears on endangered species, the SC assign focal points so as to review, gather and assess the SC on the relevant conclusions. After a short discussion on trying to avoid relying exclusively on information brought to the meeting by the attendees, there was consensus that relevant information on issues mandated by GFCM should be actively sought by focal points, then discussed at the WG and SC meetings. The need for funding this new approach was highlighted (financing reviews, etc.). As for algae blooms, it is reminded the good treatment given to this issue in the WG meeting in Tunisia. Regarding the last point of the GFCM mandate (i.e. description of species assemblages of interest for Ecosystem Approach to Fisheries (EAF)) it was reminded that one paper was presented in Tunisia.
 7. J. Lleonart informed on the relevance to this SCMEET of the international Congress on Quantitative Ecosystem Indicators for Fisheries Management to be held in Paris in spring 2004, organised by Scientific Committee on Oceanic Research (SCOR) and Inter-Governmental Oceanographic Commission (IOC).

4. Review of the studies and recommendations reported from the WG meeting of the Tunisia 2003 on Ecology and Environment

8. The WG’s report was read and its recommendations reviewed.
9. As for the description of coastal ecosystems in Tunisia, it was agreed that relevant information was extensively presented. M. Bradai pointed out that regarding Langar et al’s work on exotic macroalgae presented in Tunisia, that there are no other exotic macroalgae species but *Caulerpa racemosa* and *C. taxifolia*, so this should be highlighted and eventually corrected (when appropriate) in the final report of the WG.
10. The need of carrying out a workshop at the Mediterranean level to produce a catalogue of phytoplankton toxic species and a common manual of methods and protocols was stressed.
11. The rest of studies presented in Tunisia reported in the WG report were also quickly commented.

5. Review of the studies and recommendations reported from the WG meeting of the Tunisia 2003 on Anthropogenic Effects and Fishing Technology

12. The WG report was read and reviewed, and then some new presentations were made.
13. The MED LEM program (Subproject Basking Shark), already discussed at the WG meeting in Tunisia, was shortly presented by M. Bradai. This program is fully aligned with the mandate given by the GFCM to this SC on the monitoring of incidental catches of protected species.
14. On incidental catches, the SC reviewed the work presented by M. Bradai in the WG on turtle by-catch by the trawling fleet in the Gulf of Gabès. M. Bradai noted that in Tunisia some specific gears focuses exclusively on cartilaginous fish. It was reported that the Gulf of Gabes is an area especially prone to cetacean strandings.
15. The SC recommends the SAC to address the issue of the migration of marine turtles vis-à-vis the interaction with fisheries, as evidenced by the strong interactions detected in the Gulf of Gabès, an important foraging wintering ground for the concerned species.
16. Based on specific discussion at the WG on Anthropogenic Effects and Fishing Technologies, the SCMEE recommends the SAC to not consider acoustic deterrent devices (pingers and passive acoustic reflectors) as an appropriate general long-term solution to the problem of the interaction between fisheries and cetaceans.
17. In the same line, the SC recommends to carry out more studies on the effectiveness of the use of the Tunisian INSTM-developed dolphin tubes regarding the interaction between dolphins and purse seine fishery (including comparative studies involving pingers).
18. The group also reviewed the problem of illegal driftnet fishing in the region and the recommendation at this regard made by the WG.
19. The SCMEE recommends the SAC promoting the consideration of the Mediterranean as a global case study Region where to develop pilot projects on the EAF, in line with the discussions on the implementation of an EAF in the last FAO Committee on Fisheries (COFI) in Feb. 2003. There, it was agreed to implement pilot studies in selected marine regions of the world.
20. Given that the organisation of a WG on the development of the EAF in the Mediterranean was already proposed by the SCMEE in 2001 and endorsed by SAC and the GFCM, and later postponed subject to the approval of FAO guidelines (FAO Technical Guidelines for Responsible Fisheries, N° 4; Suppl., 2, 2003), it was recommended to renew the proposal of a workshop identifying approaches and tools tailored for the Mediterranean region.

21. P. Sánchez made a presentation on the impact of otter trawling on sediments and benthic communities. Taking into account that perturbations on infauna were recorded at a delay of 150 hours due to the sediment dynamics. It was recommended that multidisciplinary research should be done to ascertain the effect of trawlers on bottom communities. The response of the epifauna was more evident at shorter time scales.
22. Further studies are being developed (RESPONSE Project) to study the effect of closed season/areas on bottom communities and sediment by trawling activities, as well as the response of bottom communities to different trawling intensities.
23. On behalf of F. Sarda, P. Sánchez made a presentation on the effect of photoperiod rhythmicity at different depths on *N. norvegicus* activity. The response to photoperiod showed marked variations depending on depth. Two peaks of activity were recorded on shelf, whilst just one peak was observed at the slope. It strongly affects the catchability of the resource. As a consequence, it is recommended that in order to have reliable fisheries data information on depth and time of day be considered.
24. On behalf of F. Sarda, P. Sanchez made a presentation on the use of sorting panels to increase the selectivity of trawling gears (by allowing juveniles to escape). The findings show that this is an efficient, practical means of avoiding the capture and discarding of unwanted individuals, with escape rates of over 50 % (ranging between 50 and 90 %). A bar spacing of 20 mm yielded escape rates of L50 at 18.8 cm TL, still below the legal size of the Spanish Mediterranean (20 cm).
25. Since Mediterranean fisheries are based on multiple species, the grids are beneficial to the community as a whole, thereby helping to protect biodiversity, it was recommended to use separator grids for allowing the escape of small fish in trawl gears.
26. The results of a study from the W Mediterranean (Northern Spain) by P. Olivar on sardine showed that strong oscillations of the resource are highly affected by the survival rates at early life stages. A similar situation was observed in the Northern Alboran anchovy as reported in the WG held in Tunisia. These stock fluctuations were attributed to strong environmental changes, such as, the shift of the mesoscale hydrographic features in the case of the W Mediterranean sardine, or changes in feeding resources potential observed in the N Alborán Sea anchovy.
27. Taking in account that the dynamics of the early life stages of small pelagic species can be held accountable for some of the strong fluctuations observed in these resources, it is recommended that this field of expertise be promoted and highlighted by the SAC mandates.
28. F. Simard presented an Information Paper on the Status of Mediterranean Cartilaginous Fish. It was explained that the SSG (Shark Specialist Group) in collaboration with the IUCN Centre for Mediterranean Cooperation has established a Mediterranean Sea Regional Group of Experts. A workshop on

Red List assessment of Mediterranean elasmobranchs will be held in San Marino (see point 4). Some results of a preliminary regional Red List assessment for cartilaginous fishes were presented. The presentation also concluded that the UNEP-RAC/SPA Draft Action Plan on the conservation of cartilaginous fishes is an important contribution to the FAO International Plan of Action –IPOA- Sharks.

29. The SC endorses the following recommendations addressed to the SAC proposed by F. Simard:

- 1) To emphasize the recognition of the vulnerability of cartilaginous fishes (both sharks and rays)
- 2) To promote research on this group of fishes to provide a clear and reliable assessment of the status of their stocks, to identify stocks and species that are the most in need of conservation and management action, and hence to guide future management priorities.
- 3) To strengthen links with scientists in the IUCN SSG Mediterranean Regional Group.

6. Investigation and updating of data on fishing gear effects on incidental catches of protected species, biological communities and habitats

30) Concerned by the evidences on IUU driftnet fishing in the Mediterranean discussed at the WG on Anthropogenic Effects and Fishing Technologies, pointing to the lack of compliance by fleets from several countries (especially Morocco, Italy and France) with respect of binding GFCM Resolution 97/1 and European Regulation No 1239/98 currently in force, the Sub-Committee on Marine Environment and Ecosystems recommends to the SAC:

- a) To ask the concerned flag countries with driftnet fleets operating in the Mediterranean to submit to the SAC/SCEME next year all the information required by GFCM in its 27th Session (fishing effort, technical characteristics, by-catch, etc.).
- b) To ask the GFCM formally reminding all GFCM member states the binding nature of GFCM Resolution 97/1 banning large-scale driftnet fishing in the Mediterranean, also asking for their full compliance.
- c) To assess the possibility of recommending GFCM adopting a more restrictive binding resolution totally banning driftnet fishing in the Mediterranean, in line with EU Regulation No 1239/98 (totally banning driftnet fishing of tuna and tuna-like species), as the only realistic way to ensure compliance with international obligations in force and avoid current IUU practices.

7. Investigation and updating of data on target and incidental catches of large migratory sharks

31. On the basis of the review carried out by the SCMEP on point 5 of the agenda, in which the Mediterranean Large Elasmobranch Monitoring (MED LEM) program was presented, it was decided to recommend that more countries, especially in the Eastern basin, join the MED LEM project, given the importance of other Mediterranean areas for Basking shark.

8. Investigation and updating of data on estimates of discards by operational units, geographic sub-areas or management units and seasons.

32. A W Mediterranean project (Subarea Northern Spain) confirms that most discards are composed of small size specimens of some commercial species. This is particularly clear in the case of *Micromesistius poutassou*. A discard study from the Gulf of Gabes also showed catches of specimens well below sexual maturity, especially in the case of *Raja sp.* and *Pagrus caeruleostictis*.
33. It was recommended that size and biomass of discards be taken into account in the evaluations since fishing mortality, among other parameters, may be strongly affected by discards.

9. Investigation and updating of environmental impact of fisheries

34. The attention of the SC was raised on the relevant documents, such as national Action Plans and projects which have recently produced information on the ecosystem effects of fisheries in the Mediterranean and other subjects of different nature (i.e. exotic species, etc.) under the framework of the Strategic Action Plan for Biodiversity Project (SAP BIO).
35. P. Sanchez presented the results of the studies carried out off Subarea Northern Spain on the impact of bottom trawling on benthic communities and sediments, analysing the difference on fished and unfished areas, was more evident in mobile species, as crustaceans and fishes. The trawl marks observed on the bottom sediments were estimated at 2-3 cm deep.

10. Mapping of essential habitats

36. The Chairman of the SC recognises that the mapping of essential habitats hasn't yet been duly tackled by this SC. P. Sánchez raises the question of the need of clarifying the meaning of 'essential habitats'. A short discussion followed in defining essential habitats in relation to life cycle periods, i.e., spawning habitats, feeding habitats, etc. The group felt that there is a lack of information on this topic, and the need of redefining the essential habitats as the habitats most sensitive to specific species/populations needs. It was agreed that the use of tools such as GIS coupled to diverse sources of information should be encouraged. T. Bahri points out that activities dealing with fish habitat mapping are being conducted in the framework of the project MedSudMed (Tunisia, Malta, Libya and Italy).

11. Geographical occurrence, seasonality, extent and effects of mucilaginous algal blooms in relation to priority shared species

37. On the issue of mucilaginous algae blooms, the SC restates the need of conducting a workshop which, was recommended in the WG meeting in Tunisia. This workshop intends to produce a catalogue of toxic species, manual of methods, standardised protocols, to delimitate sensitive periods and areas for the future creation of a network of experts the workshop had already mentioned.

12. Specific actions linked with SAC and GFCM recommendations: FORMS, GLOSSARY, NATIONAL DATA BASES, SHARK PLANS, etc.

FORMS

38. The group discusses the issue of FORMS to be filled. It is raised that there is very little feed-back from scientists around the Mediterranean and, subsequently, no substantial progress has been made. In view of the very poor results achieved, the SC invites the SAC to reconsider the maintenance of these forms.

NATIONAL DATABASES

39. The initiative of MedSudMed Project of creating a Database and Information System was mentioned. The objective of this activity is the establishment of a reliable and permanent regional system to facilitate the exchange of standardized information. The system will contain several types of data (having different levels of accessibility according to their confidentiality) and will be connected to the National Databases, according to terms that are being discussed with the Project's participating countries.

GLOSSARY

40. P. Pereda briefed the SC on the status of the Glossary. This glossary can be found at <ftp://cucafera.icm.csic.es/pub/scsa>. No more specific meetings aimed at updating the glossary are envisaged.
41. Regarding the updating of the glossary, J. Camiñas reminded that one focal person should be designated at each SC to be in charge of gathering new definitions for the glossary from the concerned SC. These proposals, should be then discussed during the SC meetings, and then submitted to P. Pereda. Some examples of glossary definitions were presented.

13. FAO Expert Consultation on Ecosystem-approach of fisheries management

42. S. Tudela provided a short briefing on the different approaches on the Ecosystem Approach to Fisheries (EAF) Guidelines presented by FAO at the last COFI meeting.
43. J. Leonart on behalf of FAO presented the final version of the EAF FAO Guidelines, of which he brought copies to be distributed. They have been published as FAO Technical Guidelines 4. Suppl. 2.

14. Other items

INCORPORATION OF EXOTIC SPECIES

44. M. Bradai suggests recommending the SAC to consider the inclusion of the topic 'exotic species' into the mandate of this SC, taken into account that other organisms like RAC/SPA are already dealing with this important topic in their agenda. The SC endorsed this suggestion.

STRUCTURE AND FUNCTIONING OF THE SC

45. J Camiñas is invited to provide guidelines to the SC on how to improve its functioning, especially vis-à-vis of the co-ordinations among this SC and the other SAC SC's. J. Camiñas mentions that issues of crosscutting interest can be raised as recommendations to the SAC, so that the SAC can decide on the right way to proceed (ad hoc WG's, etc.). The idea to have common meeting of all SC's is disregarded, since it is perceived as being not operational.
46. As for the general functioning of this SC, J Camiñas perceives it is too diffuse, with regards to the transfer of its conclusions into management advice to the SAC. The SC is encouraged to address this issue.
47. The issue of keeping or not the 2 WG within the SCMEE is raised. Camiñas proposes trying to reduce as much as possible the number of meetings and scheduling together the WG and the SC meetings (this is a general comment for all SAC SC's). It is also proposed to assess the possibility to meet on a biannual basis. Also, it is suggested to set up specific workshops to deal with important issues falling under the mandate of this SC (i.e. guidelines on the EAF specific to the Mediterranean, etc.).

OTHER ISSUES

48. An update on activities conducted by MedSudMed Project was presented to the Sub-Committee. The objectives of the Project were recalled, as well as the follow-up of the 1st Coordination Committee's decisions, *e.g.* to organize four Expert Consultations on: (i) Spatial Distribution of demersal resources and the influence of environmental factors and fishery characteristics (Malta, December 2002); (ii) Small pelagic fish: stock identification and oceanographic processes influencing their abundance and distribution (Libya, TBD); (iii) Marine Protected Areas and fisheries management (Tunisia, March 2003); (iv) Data Base and Information System (Italy, TBD).
49. A summary of the two Expert Consultations that were already organized by the Project was made, recalling the objectives, expected outputs and general organization. A copy of the preliminary draft of the Expert Consultation on Demersal Resources was given to all participants. Moreover, as a follow-up of this Expert Consultation, the Project organized a regional workshop on Standardization of trawl surveys protocols in the MedSudMed area (Mazara del Vallo, May 2003). The Sub-Committee was informed on the main issues that were addressed during this workshop, the objective of which was to discuss and

draw-up a common protocol for the collection of data comparable at regional level.

50. It was recalled that the issues dealt with by the MedSudMed Expert Consultations are in line with the SAC recommendations. Achievement of the Project activities will allow obtaining results at regional level, in particular regarding mapping of essential fish habitats, and ecosystem approach to fisheries.

DELIBERATION ON THE FUTURE ORGANIZATION OF THE SC

51. The renewal of the chairmanship of the SCMEE and the need of assessing the actual state of this SC led to the discussion of its future organisation. Two main aspects of the SC were dealt with by the SC, that is, periodicity of meetings and number of WG integrated in the SC. J. Camiñas had mentioned at an earlier stage of the meeting, the need of reducing the number of meetings and joining WG and SC meetings in one, and the prolongation of inter-sessional periods. Low assistance to the WG and SC meetings has been a major handicap to the fulfilment of some major issues posed by the SAC recommendations. It was thought that extending the inter-sessional periods to 2 years, would facilitate a more successful development of the initiatives that emanate from the SAC and GFCM recommendations. However, it was stressed by the SC that any possible decision on the prolongation of the inter-sessional period should be global, in a sense that it would affect all the Sub-Committees.
52. It was stressed that the main topics to be addressed by the WG should be elaborated following the guidelines of the GFCM and SAC recommendations, so as not to disperse the wide field of topics that refer to marine environment. This would guarantee a better linkage between the SCMEE, the other SC's and the SAC. The actual structure of the SC into two WG was not considered essential, but instead, the need of experts dealing with specific topics acting as focal points was stressed. These focal points would develop overviews on specific topics, channel the efforts of different experts and organise the discussion at the WG meetings.

15. ELECTION OF THE NEW COORDINATOR

53. The SC proposed Alberto Garcia to act as co-ordinator for the next period.

ANNEX 1

List of recommendations to the SAC

- 1) The SC **recommends the SAC** to address the issue of the migration of marine turtles vis-à-vis the interaction with fisheries, as evidenced by the strong interactions detected in the Gulf of Gabès, an important foraging wintering ground for the concerned species.
- 2) Based on specific discussion at the WG on Anthropogenic Effects and Fishing Technologies, the SCMEET **recommends the SAC** not considering acoustic deterrent devices (pingers and passive acoustic reflectors) an appropriate general long-term solution to the problem of the interaction between fisheries and cetaceans.
- 3) In the same line, the SC **recommends** to carry out more studies on the effectiveness use of the so-called dolphin tubes regarding the interaction between dolphins and purse seine fishery (including comparative studies involving pingers).
- 4) The SCMEET **recommends the SAC** promoting the consideration of the Mediterranean as a global case study Region where to develop pilot projects on the EAF, in line with the discussions on the implementation of an EAF in the last FAO COFI in Feb. 2003. There, it was agreed to implement pilot studies in selected marine regions in the world.
- 5) Given that the organisation of a WG on the development of the EAF in the Mediterranean was already proposed by the SCMEET in 2001 and endorsed by SAC in the GFCM, and further postponed subject to the approval of FAO guidelines (FAO Technical Guidelines for Responsible Fisheries, N° 4; Suppl., 2, 2003), it was **recommended to SAC** to renew the proposal of a workshop identifying approaches and tools tailored for the Mediterranean region.
- 6) It was recommended that multidisciplinary research integrating hydrological, geological and biological, should be done to ascertain the effect of trawlers on bottom communities.
- 7) Since Mediterranean fisheries are based on multiple species, the grids are beneficial to the community as a whole, thereby helping to protect biodiversity, it is **recommended** the use of separator grids for escape of small fish in trawl gears in the Mediterranean.
- 8) Taking in account that the dynamics of the early life stages of small pelagic species can be held accountable for some of the strong fluctuations observed in these resources, it is **recommended to the SAC** that this field of expertise be promoted and highlighted by the SAC mandates.
- 9) Regarding the cartilaginous fish, the SC endorses the following **recommendations addressed to the SAC**:
 - i. To emphasize the recognition of the vulnerability of cartilaginous fishes (both sharks and rays)

- ii. To promote research on this group of fishes to provide a clear and reliable assessment of the status of their stocks, to identify stocks and species that are the most in need of conservation and management action, and hence to guide future management priorities.
 - iii. To strengthen links with scientists in the IUCN SSG Mediterranean Regional Group.
- 10) Concerned by the evidences on IUU driftnet fishing in the Mediterranean discussed at the WG on Anthropogenic Effects and Fishing Technologies, pointing to the lack of compliance by fleets from several countries (especially Morocco, Italy and France) with respect of binding GFCM Resolution 97/1 and European Regulation No 1239/98 currently in force, the Sub-Committee on Marine Environment and Ecosystems **recommends to the SAC**:
- a) To ask the concerned flag countries with driftnet fleets operating in the Mediterranean to submit to the SAC/SCEME next year all the information required by GFCM in its 27th Session (fishing effort, technical characteristics, by-catch, etc.).
 - b) To ask the GFCM formally reminding all GFCM member states the binding nature of GFCM Resolution 97/1 banning large-scale driftnet fishing in the Mediterranean, also asking for their full compliance.
 - c) To assess the possibility of recommending GFCM adopting a more restrictive binding resolution totally banning driftnet fishing in the Mediterranean, in line with EU Regulation No 1239/98 (totally banning driftnet fishing of tuna and tuna-like species), as the only realistic way to ensure compliance with international obligations in force and avoid current IUU practices.
- 11) On the basis of the review carried out by the SCMEE on point 5 of the agenda, in which the Mediterranean Large Elasmobranch Monitoring (MED LEM) program was presented, it was decided **to recommend** that more countries, especially in the Eastern basin, join the MED LEM project, given the importance of other Mediterranean areas for Basking shark.
- 12) It was **recommended** that size and biomass of discards be taken into account in the evaluations since fishing mortality, among other parameters, may be strongly affected by discards.
- 13) On the issue of mucilaginous algae blooms, the SC **restates** the need of conducting a workshop which was **recommended** in the WG meeting in Tunisia. This workshop intends to produce a catalogue of toxic species, manual of methods, standardised protocols, to delimitate sensitive periods and areas for the future creation of a network of experts the workshop already mentioned.

ANNEX 2

LIST OF PARTICIPANTS SCMEE OF THE SAC Nicosia 3-6 June 2003

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