

**REPORT OF THE TWENTY-SIXTH MEETING ON THE COMMISSION FOR THE
CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR)**

(Hobart, Australia, 22 October to 2 November 2007)

Graham Hosie

SCAR-CCAMLR Liaison

Introduction

1. The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is an intergovernmental organisation established by an international convention. The Commission is assisted by the Scientific Committee, which is responsible for developing measures necessary for the conservation of the marine life of the Southern Ocean surrounding Antarctica. In turn, the Scientific Committee is assisted by various working groups, sub-groups and workshops that meet intersessionally. Controlled harvesting is permitted under the convention, provided it is carried out in a rational manner while taking into account the potential effects on the marine ecosystem. Targets for fishery are mainly krill, toothfish, and icefish, and on a smaller scale, squid and crabs. For the purpose of managing target species, as well as dependent and related species, the Commission meets annually and decides upon Conservation measures and other recommendations. SCAR is an Observer to the meetings of the Commission.
2. The twenty-sixth annual meeting of the Commission was held at the CCAMLR headquarters in Hobart, Tasmania, Australia, from 22 October to 2 November 2006. The meeting was chaired by Mr. P. Amutenya (Namibia). After the opening of the meeting, the Commission typically adjourned for the first week to allow the Scientific Committee (SC) to first conduct its activities and report back to the Commission. The Scientific Committee met between 22 and 26 October and was Chaired by Dr Edith Fanta (Brazil). The meeting of the Commission resumed on 30 October.
3. The Commission was attended by all of the 25 members: Argentina, Australia, Belgium, Brazil, Chile, People's Republic of China, European Community, France, Germany, India, Italy, Japan, Republic of Korea, Namibia, New Zealand, Norway, Russian Federation, South Africa, Spain, Sweden, Ukraine, United Kingdom, United States of America and Uruguay. China was attending its first meeting of CCAMLR as a full member. Observers also attended from four of the nine acceding nations, Cook Islands, Greece, Netherlands and Vanuatu. Bulgaria, Canada, Finland, Mauritius, and Peru and did not attend. Observers attended from various non-contracting parties, and international organisations such as SCAR. Details about the Commission, its membership, committees, and working groups can be found at the www.ccamlr.org website.
4. A report on SCAR activities of relevance to CCAMLR was submitted in advance and was registered as Commission background document CCAMLR-XXVI/BG/36. This report is available under "Partnerships and Links" on the following web page: <http://www.scar.org/researchgroups/lifescience/>. An additional report (CCAMLR-XXVI/BG/37) on the "State of the Antarctic and Southern Ocean Climate System (SASOCS)" was also submitted. This report was originally submitted to the XXX Antarctic Treating Consultative Meeting, New Delhi, 30 April to 11 May 2007. It was submitted to CCAMLR for their interest. This report was requested by CCAMLR. I gave a detailed report on SCAR activities to the Scientific Committee (SC) as part of a standing item on the SC Agenda - "Cooperation with other organisations, (i) Cooperation with the Antarctic Treaty System." I reinforced key issues in a second presentation to the full Commission, again as a standing Commission Agenda Item - "Cooperation with other elements of the Antarctic Treaty System, (ii) Cooperation with SCAR".
5. This present report deals with CCAMLR activities of relevance to SCAR, plus comments, discussion and feedback on the SCAR report to CCAMLR, mentioned in (5) above, which should also be read in conjunction with this report.

EBA

6. The value of EBA programme to CCAMLR was again presented. Despite presenting this in three consecutive CCAMLR meetings, and that the fact that the co-chair of Work Package 5 Dr Edith Fanta is also the SC-CAMLR chair, there is still a perception by some that EBA is purely a terrestrial

programme with no relevance to CCAMLR. CCAMLR are well aware of the value CAML, plus SCAR-MarBIN, the SO-CPR Survey and CPRAG (see below), which also contribute to EBA. I don't think that I can present these links more strongly. We need to develop and highlight better the marine work within EBA and on its website.

Recommendation: develop and highlight the marine research component of EBA.

CAML and IPY

7. CCAMLR has taken considerable interest in SCAR's Census of Antarctic Marine Life (CAML). CCAMLR commended members for their commitment to IPY and CAML, and recognised the importance of these surveys for the future work of CCAMLR. In turn, CAML has been willing to assist CCAMLR where possible with relevant data collected during CAML, e.g. krill data from hydro-acoustics and net hauls. I participated in the CCAMLR-IPY planning meeting in Cambridge, UK 2 to 4 May 2007, to ensure appropriate protocols were in place to serve both CAML and CCAMLR.

8. During the Commission meeting, the delegations from New Zealand and Australia presented Resolution 26/XXVI promoting the value of IPY and specifically CAML for investigating the distribution and abundance of Antarctica's marine biodiversity in order to set a benchmark of current biodiversity for the benefit of humankind. CAML will prove useful for bioregionalisation and for understanding impacts of climate change. The resolution encouraged participation of members in CAML. The Commission adopted the resolution, and urged members to support and where possible contribute to IPY and CAML.

SO-CPR Survey and CPRAG

9. CCAMLR was invited to nominate a representative for the SCAR Action Group on Continuous Plankton Recorder Research (CPRAG). CCAMLR is seen as a major user of the Southern Ocean CPR (SO-CPR) data to help distinguish the effects of over harvesting from other patterns in the ecosystem. CCAMLR has also used the CPR data as part of its bioregionalisation studies. Having a member of CCAMLR on CPRAG further strengthens the links between SCAR and CCAMLR. Dr Andrew Constable (Australia) agreed to be the CCAMLR member. Dr Constable is the current convenor of CCAMLR's Working Group on Stock Assessment Methods (WG-SAM), as well as active member of CCAMLR and other working groups on ecosystem monitoring and management, and bioregionalisation. He is an expert in quantitative analysis and modelling, has a very good understanding of the SO-CPR Survey and its value to CCAMLR, and supported the use of the data in CCAMLR's Bioregionalisation Workshop. I expect he will be a valuable member to help promote and expand the CPR research.

SCAR-MarBIN and Metadata

10. The SCAR-MarBIN Scientific Steering Committee invited CCAMLR's Data Manager Dr David Ramm onto the SSC. This provided an opportunity to facilitate better collaboration and exchange of data between SCAR and CCAMLR. Dr Ramm attended the SCAR-MarBIN SSC Meeting in Poland in June 2007, and subsequently gave a detailed report to CCAMLR on the role of SCAR-MarBIN relevant to CCAMLR's work and the value of developing a metadata system for CCAMLR that could be linked to SCAR-MarBIN. SCAR had previously requested that CCAMLR submit metadata to SCAR-MarBIN. CCAMLR currently, does not have a metadata system to describe its data collections. Dr Ramm was keen to develop such a system.

11. CCAMLR agreed that it will develop metadata records for its fishery and scientific datasets held in the CCAMLR database. These will be made available in the public access section of the CCAMLR website and relevant metadata, including metadata from CCAMLR-IPY, will be submitted to SCAR-MarBIN. SCAR-MarBIN can assist by presenting its model for collating and managing metadata. CCAMLR has also provided SCAR-MarBIN with aggregated data on krill occurrences through Dr Volker Siegel (European Community).

Bioregionalisation

12. CCAMLR held a workshop on the Bioregionalisation of the Southern Ocean (Brussels, 13 to 17 August). The meeting was attended by Dr Bruno Danis representing SCAR-MarBIN and Dr Graham Hosie as SCAR-CCAMLR Liaison and representing the SO-CPR data. The SO-CPR data set was used extensively for the pelagic bioregionalisation work, as it is one of the most extensive pelagic data sets using a consistent methodology. Other data from SCAR-MarBIN was used extensively for benthic bioregionalisation.

13. A report from that workshop was table at CCAMLR XXVI and provided details of the data used, bioregionalisation methods, results and advice on the bioregionalisation process of the Southern Ocean. The report was well received and CCAMLR noted that this was good step forward towards developing marine protected areas. The contribution from SCAR was acknowledged. SCAR-MarBIN and the SO-CPR data were recognised as having particular value to the bioregionalisation process and integral to the success of the workshop. CCAMLR supported the recommendations that further bioregionalisation analyses be conducted at a finer scale, and using specific species data. This will include further use of the CPR data and SCAR-MarBIN.

SCAR Expert Groups on Birds and Seals & CCAMLR WG-EMM-STAPP

14. CCAMLR welcomed the proposed merger of our expert groups on seals and birds to form a new EG on Status and Trends on Top Predator Populations. They look forward to close and integrated cooperative efforts between CCAMLR and the new Expert Group.

Recommendation: ensure that the new EG has the appropriate experts and has the appropriate terms of reference in quantitative analysis and modelling so that we can adequately work with and advise CCAMLR. This will need to be discussed at the SSG-LS meeting at SCAR XXX.

15. CCAMLR has created a new sub group within WG-EMM, the Sub-group on Status and Trend Assessment of Predator Populations (WG-EMM-STAPP). The proposed new SCAR EG on Status and Trends on Top Predator Populations will mainly be working with WG-EMM-STAPP. This sub-group will have a workshop in Hobart at the CCAMLR headquarters between 16 to 20 June. SCAR has already been invited to send experts to the meeting. I confirmed that Drs Donna Patterson-Fraser and Bruno Danis (SCAR-MarBIN) will attend on behalf of SCAR. [Note: added after the meeting. Dr Danis can no longer attend due to family commitments, another suitable and available data expert could not be located.]

Recommendation: it might be worthwhile discussing at SSG-LS SCAR XXX the possibilities for a potential eventual merger of the proposed SCAR EG and CCAMLR groups into a single jointly sponsored group.

SASOCS Paper & Climate Change

16. The issue of climate change effects on the Antarctic marine ecosystem was mentioned a number of times during the previous CCAMLR XXV meeting in 2006, specifically how the effects of fishing might be distinguished from the effects of climate change. CCAMLR had asked its members to consider how climate change could effect the marine living resources of the region and how the impact could be measured. CCAMLR took considerable interest in the SCAR SASOCS paper. There was concern over the reported unprecedented climate change effects of ocean warming and sea-ice reduction in the last 50 years in the west of the Antarctic Peninsula and in the Weddell Sea, as well as the projections of warming of the sea-ice zone, further reduction of sea-ice extent and doubling of atmospheric CO₂ during the 21st Century.

17. Later during the Commission meeting, the Norway and UK delegations presented a joint proposal that climate change and its impact of physical and biological processes in the Antarctic marine ecosystem be placed on CCAMLR's agenda. Three were three elements to the proposal:

- i. the issue be included in future agendas of both the Scientific Committee and the Commission,
- ii. there be a scientific assessment of the impact on the Southern Ocean,
- iii. SCAR would be the "organisational nexus" for the project and should appoint a steering committee for the project. Updated information from the project should be reported annually to CCAMLR and ATCM.

18. There was considerable discussion on this point and general agreement that climate change be an agenda item. We should also add climate change should also be a standing item in the SCAR report to

CCAMLR. Some members suggested that climate change work should be coordinated between CCAMLR, CEP and SCAR to avoid duplication of effort.

19. I advised CCAMLR that SCAR would be willing to coordinate such a project, and ready to discuss the establishment of a steering committee. However, SCAR would need to find additional resources in order to undertake such a project. Norway urged members to cooperate with SCAR by making available resources and to proceed with any recommendations.

20. The Commission has asked the Scientific Committee to consider how it will address the climate change issue in relation to the conservation of Antarctic marine living resources in its agenda and how it will provide advice to the Commission.

21. I had further out of session discussions with UK and Norway. Norway has agreed to develop a proper project proposal to conduct an assessment of the effects of climate change on Southern Ocean biota. We can then properly scope the proposal to see if SCAR is in a position to manage the project as the UK-Norway originally proposed. My recommendation is that any such project should be conducted as a joint project with CCAMLR, and perhaps with CEP, in order to meet satisfactorily CCAMLR's requirements, as well as further strengthening ties; this would necessitate the sharing of all our limited resources. We should consider an appropriate leader if the project proceeds. That person may also assist with the scoping of the project.

22. I presented an update in the development of SOOS and the results of the planning meeting in Bremen in October 2008. I highlighted the value of the SOOS for identifying impacts of climate change, as well as general ecosystem patterns. Dr Fanta's report, as the SC-CAMLR Chair and observer, reinforced the value of SOOS for CCAMLR.

Recommendations:

- **Add climate change as a standing item in the SCAR report to CCAMLR**
- **continue to work with UK and Norway to properly scope the project to see if SCAR can manage this project, preferably as a jointly owned project with CCAMLR**
- **consider an appropriate person to lead, and perhaps help scope the project.**

CCAMLR-IWC Workshop

23. A joint CCAMLR-IWC Workshop is scheduled for August 2008 in Hobart, Australia, for the purpose of reviewing the information required for developing ecosystem models in order to provide management advice. The workshop will invite experts who can provide expertise in ecological and environmental matters, including marine mammals, birds, fish, squid, krill, plankton and sea-ice. The workshop is more likely to work with metadata rather than reviewing individual data sets. SCAR has not been invited specifically, but individual members may be invited to assist in the analysis or provide metadata. SCAR-MarBIN was identified as a source of metadata.

Future SCAR Meetings

24. CCAMLR was reminded about the SCAR XXX meeting and 3rd Open Science Conference scheduled for St Petersburg, July 2008. CCAMLR members were encouraged to participate, and CCAMLR posted the first circular of the SCAR XXX Meeting and 3rd OSC on the CCAMLR website. CCAMLR was advised that the Chair of the SC-CAMLR will be invited to be an observer at the SCAR XXX meetings in St Petersburg and at the Delegates meeting in Moscow. CCAMLR also asked that I act as an observer for them at the 3rd OSC, SCAR XXX and Delegates meetings. [Note added in proof: this connection becomes especially important with the unexpected demise of Dr Edith Fanta in May 2008]

25. CCAMLR was also reminded about the 10th SCAR Biology Symposium scheduled for July 2009 in Sapporo, Japan and again encouraged to participate.

Next Meetings and Collaboration with CCAMLR

26. The next meeting of the Commission CCAMLR-XXVII will be from 27 October to 7 November 2008 at the CCAMLR Headquarters in Hobart.

27. I believe we have continued to make significant progress in developing stronger collaboration with CCAMLR. The inclusion of CCAMLR as active members on the SCAR-MarBIN SSC, CPRAG and the CAML SSC, as strengthened the link, as has our participation in CCAMLR workshops such as the Bioregionalisation Workshop and the predator workshop in June 2008. We should continue to identify and develop collaborative research projects of mutual interest and ownership. This may possibly include the merger of the proposed SCAR and CCAMLR predator groups, and a joint project assessing the impact of climate change on the biota of the Southern Ocean.

30. The Commission welcomed the ongoing and growing cooperation between CCAMLR and SCAR.