

SCIENTIFIC RESEARCH EXEMPTION

8.1 Scientific research surveys notified to the Secretariat under Conservation Measure 24-01 are regularly updated on the CCAMLR website. Future surveys identified were:

- bottom trawl survey in Subarea 48.1 by Germany in November/December 2006
- bottom trawl survey of Division 58.5.1 by France in 2006/07
- bottom trawl survey in Subarea 88.3 by the USA in March 2006
- bottom trawl survey of Division 58.5.2 by Australia in 2006
- bottom trawl survey of Subarea 48.3 by the UK in January/February 2006
- a research exemption was also requested by the UK to carry out a tagging experiment in Subarea 48.4 (Annex 5, paragraphs 5.140 to 5.146). This was considered under Agenda Item 4(ii).

8.2 The Scientific Committee recognised the value of the proposed tagging experiment in Subarea 48.4 and agreed it would need to be conducted over a number of years. It also recognised that for the research objectives to be effective, steps should be taken to ensure the proposed research efforts are not compromised.

8.3 Dr M. Azzali (Italy) advised that in December 2006 and January 2007, Italy will carry out an acoustic survey in the Ross Sea (Subarea 88.1) on *E. superba*, *E. crystallorophias*, *Pleuragramma antarcticum* and their predators.

COOPERATION WITH OTHER ORGANISATIONS

9.1 The Scientific Committee was chaired during this section by Dr Barrera-Oro, Vice-Chair of the Scientific Committee.

Cooperation with the Antarctic Treaty System

CEP

9.2 The Chair of the Scientific Committee, Dr Fanta, was an observer at the VIIIth meeting of CEP to the Antarctic Treaty, from 6 to 10 June 2005, in Stockholm, Sweden (CCAMLR-XXIV/BG/20). It was chaired by Dr A. Press (Australia). Dr Fanta reported to the Scientific Committee on the deliberations of CEP:

- (i) The UK called attention to the work carried out by CCAMLR in lowering the level of IUU fishing, and to all efforts of CCAMLR to diminish the IUU fishery that should be supported by ATCM Members, as well as the importance of inviting non-parties to CCAMLR to join in and to participate in its meetings. Australia mentioned CCAMLR, and reported on the joint Chile–Australia informal intersessional meeting to discuss the future of CCAMLR.
- (ii) The increased level of human activity in the Antarctic was recognised to present a challenge to the environment. The importance of the marine ecosystems was

mentioned and the competence of CEP in respect to contamination and sea-ice melting and of CCAMLR in respect to marine debris was noted. The CCAMLR Observer noted that CCAMLR planned a Workshop on Marine Protected Areas.

- (iii) It was also noted that there is a need for databases of environmental indicators and the possibility of obtaining information from other bodies such as SCAR, CCAMLR or COMNAP.
- (iv) The CEP website will transfer to the ATS website in the four treaty languages, and include information on the status of protected area management plans, and initial/comprehensive environmental impact evaluations. This may be helpful when CCAMLR is considering protected areas that contain a significant marine area under the Treaty.
- (v) Concern was expressed about the impact of the IPY activities on the Antarctic environment. Better indicators to describe the Antarctic environment should be found. The UK recommended an expansion of the agenda, incorporating IPY, climate change, bioprospecting and outreach.
- (vi) The use of satellite images was mentioned as being useful for environmental monitoring, including the detection of cumulative impacts. This kind of monitoring would also be useful for the marine environment, mainly related to water temperature, ice extension and the presence of phytoplankton. This information could be used in CCAMLR's environmental models that deal with krill populations and distribution, for example.
- (vii) SCAR presented an analysis of criteria that are used when advising CEP on which species should remain or be designated as Specially Protected Species under the Treaty, in consultation with Parties, CCAMLR and other expert bodies, and with the assistance of IUCN. CEP requested SCAR to assist in reviewing those species which were classed as 'Vulnerable', 'Endangered' or 'Critically Endangered', 'Data Deficient' or 'Near Threatened' which occur in the Antarctic Treaty area. CEP also needs to consider how to interact both with other parts of the Antarctic Treaty System (e.g. CCAMLR, CCAS) over any proposal for designation where the jurisdiction may be shared, and with other international conventions (e.g. ACAP) which may have global responsibilities for particular groups of organisms. Of the species that breed regularly in Antarctica, the macaroni penguin and southern giant petrel are globally considered Vulnerable, and the gentoo penguin is Near Threatened. Of the species that regularly visit Antarctica, the black-browed albatross is Endangered, the rockhopper penguin, wandering albatross and grey-headed albatross are Vulnerable, and the light-mantled albatross, northern giant petrel, mottled petrel and sooty shearwater are Near Threatened. Preliminary results suggest that some species may warrant categories of higher extinction risk at the regional than global level, e.g. chinstrap penguin, southern giant petrel, and Antarctic prion, while others may warrant categories of lower extinction risk at the regional than global level, e.g. gentoo penguin and mottled petrel. The southern giant petrel is at risk of extinction as a breeding species within the Antarctic.

- (viii) SCAR also presented the suggestion for a delisting of an Antarctic Specially Protected Species, recommending that sub-Antarctic fur seal and Antarctic fur seal be removed from Appendix A of Annex II on the basis of the current population estimates and annual trend. Some Members felt that this needed more consideration.
- (ix) The Committee adopted Guidelines for CEP Consideration of Proposals for New and Revised Designations of Antarctic Specially Protected Species under Annex II of the Protocol.
- (x) The problem of introduction of new species to the Antarctic and the transfer of species between Antarctic sites was raised by Australia. France stated that the introduction of non-native species may be the main threat to biodiversity in Antarctica and COMNAP raised the question of the introduction of marine species in ballast water. It was suggested that CEP could address this issue as part of future work on biosecurity.
- (xi) ASPA No. 149, Cape Shirreff and San Telmo Island, Livingston Island, South Shetland Islands, was revised and recommended to the ATCM for approval and ASPA No. 145, the marine part of the Deception Island ASMA, was recommended to the ATCM for approval.
- (xii) Criteria to be developed for the indication of new areas for protection and nominations of areas were discussed and it was noted that CCAMLR could make available data obtained through its programs to collect marine debris data as well as other information within CEMP.
- (xiii) Progress made by the intersessional Contact Group on the State of the Antarctic Environment Reporting System (SAER) was reported. The conclusion was that the system is still under development, and that more work has to be done.
- (xiv) The next meeting of CEP will take place in Edinburgh, Scotland, UK, from 12 to 23 June 2006.

9.3 Dr Holt congratulated CEP on its considerable progress and noted that there were several areas where the expertise and interest of CEP and the CCAMLR Scientific Committee overlapped. As an example he noted that CEP had considered a proposal from SCAR to de-list Antarctic fur seals but noted that the fur seal rate of population increase at Cape Shirreff had levelled off in recent years. This and similar information should be provided to CEP.

9.4 The Scientific Committee requested that the CEP Guidelines for CEP Consideration of Proposals for New and Revised Designations of Antarctic Specially Protected Species under Annex II of the Protocol be provided to the Secretariat and made available to all Members. In respect of the revision of the SCAR paper to remove sub-Antarctic fur seals and Antarctic fur seals from Appendix A of Annex II of the Protocol, it was agreed that it was important for CEP to have input from CCAMLR.

9.5 Accordingly, the Chair of CEP was requested to forward, when available, the revised SCAR proposal to the CCAMLR Secretariat, together with an indication of the deadline for CCAMLR input. The Secretariat was requested to make the proposal available to all Members and to forward it to the Convener of WG-EMM. He was asked to:

- (i) arrange for a review by appropriate CCAMLR experts, taking account of any comments from Members;
- (ii) forward the results of the expert review for approval by WG-EMM or the Scientific Committee, either electronically or as a tabled paper, depending on the deadlines involved.

The final comments and recommendations of the Scientific Committee would then be forwarded by the Secretariat to the Chair of CEP.

9.6 Dr Press, Chair of CEP, replied that CEP acknowledged the valuable work and the competence of CCAMLR and said that there were a number of areas where CCAMLR advice will be useful for CEP. CEP has asked the Scientific Committee of CCAMLR to provide information on the proposal from SCAR to de-list fur seals.

9.7 Dr N. Gilbert noted that New Zealand had offered to hold a workshop on non-native species including marine species at the University of Canterbury, Christchurch, New Zealand, in early April 2006. He said he would make the information about the workshop available to the Secretariat should CCAMLR wish to be involved.

SCAR

9.8 Dr G. Hosie, SCAR Observer to CCAMLR, presented a report (CCAMLR-XXIV/BG/36) on SCAR:

- (i) The scientific business of SCAR is conducted by its three Standing Scientific Groups in Geosciences, Life Sciences and Physical Sciences, which represent the scientific disciplines active in Antarctic research. Each of the Standing Scientific Groups is supported by a number of subgroups.
- (ii) SCAR has recently developed a new strategic plan for 2004–2010 which describes SCAR's vision and mission statements and the objectives to achieve its mission. A copy of SCAR's strategic plan can be downloaded from www.scar.org/about/introduction/strategicplan/index.html.
- (iii) The Standing Scientific Group on Life Sciences (SSG-LS) is found on www.scar.org/researchgroups/lifescience.
- (iv) In July 2005, SCAR held the IXth SCAR International Biology Symposium in Curitiba, Brazil, organised by Dr Fanta. A record 350 people from 32 countries participated. It is intended to publish the keynote papers and a selection of related papers as a special issue of the international journal *Antarctic Science*.

- (v) Three scientists from the CCAMLR community provided keynote lectures on various aspects of the Antarctic ecosystems. These lectures underlined the close relationship between CCAMLR and SCAR.
- (vi) SCAR carries out several specific marine biological activities that are relevant in one way or another to CCAMLR, and that provide the potential for links to CCAMLR:
- The previous Evolutionary Biology of Antarctic Organisms (EVOLANTA) program has now been absorbed into the new SCAR EBA program (Evolution and Biodiversity in the Antarctic). EBA is a major program which seeks to describe the past, understand the present and predict the future (www.scar.org/researchgroups/lifescience).
- (vii) SCAR is the leading sponsor of the Census of Antarctic Marine Life (CAML), which is a Southern Ocean contribution to EBA and to the global Census of Marine Life (CoML), supported largely by the US Sloan Foundation. CAML (www.caml.aq) has begun its work and will have a data collection phase during the IPY in 2007/08. It provides much potential interest for CCAMLR, and CCAMLR's involvement is encouraged. Specifically, there is an opportunity for CCAMLR to provide CAML with data and samples, especially for species identification, collected during CCAMLR activities, and similarly CAML has the potential of providing similar information on CCAMLR's target species, e.g. krill demographics and specimens, during CAML's circum-Antarctic survey.
- (viii) As a contribution to EBA, SCAR is developing a Marine Biological Information Network (SCAR-MarBIN), which will provide CCAMLR with useful references on general ecosystem activity (see www.scarmarbin.be).
- (ix) SCAR is keen to sponsor a Southern Ocean Continuous Plankton (CPR) recorder database as a service to the Antarctic community, including CCAMLR. The data can assist in addressing CEMP's second objective of distinguishing harvesting impact from natural variability or other sources of variation in the Antarctic marine ecosystem. Access to the data is available on request.
- (x) The Ecology of the Antarctic Sea-Ice Zone (EASIZ) program was successfully terminated with a closing symposium in September 2004 in Croatia. The proceedings will be published in a special issue of *Deep-Sea Research*.
- (xi) SCAR continues with the activities of its Expert Groups on Birds and on Seals, which have collected unique databases and are regularly called upon to provide CCAMLR with information. SCAR is prepared to provide information provided that SCAR receives clear specifications as to what is required.
- (xii) The latest report from the last SCAR Expert Group on Seals meeting in Curitiba, Brazil, can be found at the EGS website (www.seals.scar.org/docs/scar.htm).

- (xiii) SCAR has an acoustics working group that has already produced two papers for the ATCM on the links between scientific acoustic devices and marine mammals. A workshop will be organised in Cadiz, Spain, in January 2006 to assess the information published over the last two years.
- (xiv) SCAR and CCAMLR share an interest in the topic of MPAs, an important current topic in marine conservation initiatives worldwide. As an international body committed to scientific conservation, SCAR suggested that it could provide advice or access to data to assist in the future development of MPAs, as SCAR has done previously with ASPAs at the ATCM. In 2006, SCAR will be providing ACAP with an information paper on the potential contribution of at-sea data to the selection of high-seas MPAs.
- (xv) SCAR has a growing involvement in studying and forecasting the ocean–ice–atmosphere system of the Southern Ocean, on short, medium and long time scales. These studies include the behaviour of the ACC. Studies and numerical models of this system provide the potential for close links with CCAMLR.
- (xvi) A new SCAR Scientific Research program, Antarctica and the Global Climate System (AGCS), will provide a study of the modern ocean–atmosphere–ice system, and develop and apply models of the way in which that system behaves. The AGCS Proposal can be downloaded from the SCAR website (www.scar.org/researchgroups/physicalscience).
- (xvii) The ASPeCT (sea-ice) Expert Group has continued to develop its database of sea-ice parameters from *in situ* ship observations. Data from 81 voyages were added over the last two years. A comprehensive database should be available by the end of 2005. ASPeCT is now part of AGCS program.
- (xviii) SCAR is involved in several of the leading research proposals for the IPY:
 - (a) EoI 83: CAML. This has subsequently been selected as a lead proposal;
 - (b) EoI 577: EBA. This was identified as the lead program for a cluster. The proposal has yet to be submitted for the second phase;
 - (c) EoI 9: SASSI (Synoptic Antarctic Shelf-Slope Interactions Study). This has subsequently been selected as a lead proposal;
 - (d) EoI 109: CASO (Climate in Antarctica and the Southern Ocean). This was identified as the lead program for a cluster. The proposal was submitted for the second phase before the 30 September deadline.
- (xix) The next SCAR Meeting and 2nd SCAR Open Science Conference will be held in Hobart, Australia, from 9 to 19 July 2006. SCAR-XXIX is being jointly held with the COMNAP-XVII meeting. The 2nd SCAR Open Science Conference will be from 12 to 14 July 2006 and the theme of the conference is ‘Antarctica in the Earth System’. Details are available at www.scarcomnap2006.org.

- (xx) SCAR continues to play a central role in the development of scientific understanding in the Antarctic region. This role will be enhanced in future by SCAR's involvement at the heart of the planning process for the IPY.
- (xxi) SCAR is keen to continue to play a major role as the scientific partner to other organisations with interests in the south polar region and the Southern Ocean, and in particular SCAR seeks to develop a strong mutual relationship with CCAMLR.

9.9 Dr H. Kawall (Brazil) noted that among the many participants to the SCAR symposium there were many graduate and undergraduate students that had received a lot of inspiration and knowledge regarding Antarctic biological science. The three keynote speakers from among the CCAMLR scientists were especially thanked for their participation.

Reports of observers from international organisations

ASOC

9.10 ASOC drew delegates' attention to the following papers: SC-CAMLR-XXIV/BG/21 for recommendations on management of the krill fishery; SC-CAMLR-XXIV/BG/20 on Antarctic marine ecosystem research in the Convention Area; CCAMLR-XXIV/BG/32 for ASOC's recommendations and priorities for this meeting.

9.11 ASOC emphasised the need for remote monitoring of the krill fishing fleet and urged the Scientific Committee to recommend 100% observer coverage on all krill fishing vessels. ASOC also called for the Scientific Committee to produce a detailed krill fishing plan. ASOC regards this to be critical as it expects an expansion in krill fishery. ASOC encouraged CCAMLR Members to endeavour to better coordinate between different krill and marine ecosystem research programs.

Reports of CCAMLR representatives at meetings of other international organisations

IWC

9.12 The IWC Observer, Dr Kock, reported on relevant elements from the meeting of the SC-IWC held in Ulsan, Republic of Korea, from 30 May to 10 June 2005 (SC-CAMLR-XXIV/BG/9).

- (i) The sea-ice workshop that preceded the SC-IWC reviewed information on sea-ice environments both in the Antarctic and the Arctic. The workshop stressed that the Integrated Analysis of Circumpolar Ecosystem Dynamics (ICCED) initiatives in Southern Ocean and the IPY afford unprecedented opportunities for collaborative research in Southern Ocean. Dr Nicol, on behalf of CCAMLR, made a significant contribution to the workshop, which was much appreciated.

- (ii) The abundance of minke whales in whaling area V was estimated, and new information was available on the number of humpback whale stocks in the Southern Ocean.
- (iii) Japan proposed an expansion of its scientific whaling program. It intends to take 850 ($\pm 10\%$) minke whales, 50 humpback whales and 50 fin whales in various areas of the Southern Ocean.

International Fisheries Observer Conference

9.13 The conference was attended by two officers of the Secretariat (SC-CAMLR-XXIV/BG/10). The following topics were of direct interest to CCAMLR: video-based electronic monitoring, observer safety and training and data collection requirements.

9.14 CCAMLR was the only organisation with the attributes of an RFMO represented at the conference. The conference took note that the CCAMLR Scheme of International Scientific Observation has proven to be an indispensable source of a wide spectrum of fishery-related data required for CCAMLR conservation and fisheries management purposes, and agreed to expand the scope of the next conference to include the consideration of observer programs in high seas in areas of responsibility of RFMOs to convene a special workshop.

First meeting of the Parties to ACAP and First Advisory Committee Meeting

9.15 The report from the first ACAP meeting of Parties held in Hobart, Australia, between 10 and 12 November 2004 and the first Advisory Committee Meeting in Hobart, Australia, between 20 and 22 July 2005 was presented by Mr W. Papworth (ACAP Secretariat) (CCAMLR-XXIV/BG/9).

9.16 These two meetings offered unique opportunities for CCAMLR to showcase its successes in managing the problem of incidental mortality of seabirds in the Convention Area during fishing. It also provided the first interchange of information between the two bodies. Such exchanges are likely to expand in the future with ACAP being invited to attend CCAMLR-XXIV as an observer.

9.17 ACAP is likely to become the repository for petrel and albatross population status/trend information providing that such information remains freely available to CCAMLR Members.

ICES

9.18 Dr P. Trathan (UK) presented the report from the 2005 ICES Annual Science Conference in Aberdeen, UK, held from 20 to 25 September 2005 (SC-CAMLR-XXIV/BG/23).

9.19 ICES is the organisation that coordinates and promotes marine research in the North Atlantic. This includes adjacent seas such as the Baltic Sea and North Sea. ICES also gives advice to international organisations on fisheries management and pollution:

- (i) The opening address on the Ecosystem Approach to Fisheries Management by Dr K. Sainsbury was followed by a full-day theme session entitled the 'Ecosystem Approach to Fisheries Management: Worked Examples'. The European Commissioner for Fisheries and Maritime Affairs addressed a plenary session of the meeting on the morning of day three and outlined the development of the EU's Common Fisheries Policy.
- (ii) The other theme sessions included many papers of interest to the CCAMLR community, notably in the acoustics session, the marine mammal by-catch section and connecting physical-biological interactions to recruitment variability, ecosystem dynamics and the management of exploited stocks.

The 11th session of CWP

9.20 The Data Manager, Dr Ramm, reported on the session of CWP (SC-CAMLR-XXIV/BG/8), which was attended by representatives from CCAMLR, EUROSAT, FAO, IATTC, ICCAT, ICES, IWC, NAFO, OEDC and SEAFDEC.

9.21 CWP noted that CCAMLR had undertaken further developments in fishery statistics since the 20th Session of CWP in 2003. This work included:

- (i) the adoption of a resolution seeking further collaboration with RFMOs to reduce the incidental mortality of seabirds arising from fishing;
- (ii) the further development of the CDS;
- (iii) the implementation of a C-VMS;
- (iv) a revision of the Rules for Access and Use of CCAMLR Data.

9.22 The benefits of CCAMLR's involvement in CWP will include participation in the:

- (i) promotion of CCAMLR's work amongst CWP members;
- (ii) greater collaboration with RFMOs, including the development and implementation of standard protocols for the exchange of fishery statistics, including catches, landings and trade;
- (iii) development of global initiatives for improving the quality of fishery statistics.

9.23 Prof. Croxall enquired what progress CWP was making with the development and implementation of mechanisms for the collection, analysis and dissemination of data on by-catch, especially incidental mortality of seabirds, noting particularly the importance attached to this topic by the Commission in Resolution 22/XXIII.

9.24 Dr Ramm reported that the mandate of many CWP Members was limited to matters related to target species, such as tunas, and did not extend to the collection of by-catch data. However, some CWP Members were making progress on this topic and a number of small-scale projects had been implemented to collect regional information on by-catch.

The 3rd IUCN World Conservation Congress

9.25 The report from the 3rd IUCN World Conservation Congress held in Bangkok, Thailand, from 17 to 25 November 2004, was available as CCAMLR-XXIV/BG/34. Three resolutions and one recommendation of particular relevance to CCAMLR were adopted. Issues of relevance to the Scientific Committee include:

- (i) Resolution 3.036 on Antarctica and the Southern Ocean – a need to develop a comprehensive network of protected areas with special urgency being given to marine habitats and diversity and to further strengthen the precautionary management regime for krill fisheries;
- (ii) Recommendation 3.099 and Resolution 3.066 on the protection of seamounts, deep-sea corals and other vulnerable deep-sea habitats from destructive fishing practices, including bottom trawling, on the high seas – a need to develop conservation and management measures to protect the deep-sea environment;
- (iii) Resolution 3.064 on the conservation and sustainable management of high-seas biodiversity – a need to support marine scientific research on high-seas biological diversity, ecological processes and productivity and to ensure the sustainability of human activities.

Other meetings

9.26 Dr Naganobu drew the attention of the Scientific Committee to the 3rd International Conference on the Oceanography of the Ross Sea, Antarctica, recently held in Venice, Italy, from 10 to 14 October 2005. He underlined the importance of the Ross Sea area as one of the key regions in the Southern Ocean and noted that many of the topics at the conference were of relevance to the Scientific Committee's work. The conference highlighted the evidence for long-term changes, *inter alia*, in the characteristics of Antarctic bottom water in that region. Members hoped that the results of the conference would be available soon as a publication.

9.27 Dr Azzali reported that during the meeting 'Underwater Acoustic Measurement', held in Crete, Greece, from 1 to 10 July 2005, a target strength model for krill, alternative to the SDWBA model, was presented and discussed.

Future cooperation

9.28 The Scientific Committee noted a number of international meetings of relevance to its work and nominated the following observers:

- 6th Meeting of CCSBT-ERSWG, 20 to 23 February 2006, Kaohsiung, Taiwan – New Zealand;
- CWP intersessional meeting, February 2006, Madrid, Spain – Data Manager;
- Second meeting of the ACAP Advisory Committee (AC2), date and location to be confirmed – Brazil;
- 58th Annual Meeting of the SC-IWC, 26 May to 6 June 2006, St Kitts and Nevis – Dr Kock;
- CEP-IX – Antarctic Treaty, 12 to 16 June 2006, Edinburgh, Scotland, UK – Chair, Scientific Committee;
- XXIXth meeting of SCAR, 8 to 20 July 2006, Hobart, Australia – Australia;
- XVIIIth meeting of COMNAP working groups and committees, 9 to 14 July 2006, Hobart, Australia – Australia;
- ICES Annual Science Conference, 19 to 23 September 2006, Maastricht, Netherlands – UK;
- SCOR 2006 General Meeting (dates yet to be determined), Concepción, Chile (to be confirmed) – Chile.