11.1 In 1993 the Scientific Committee requested a document detailing the scope of cooperation CCAMLR has with organisations with interests in Antarctic issues. This document was presented as SC-CAMLR-XIV/BG/4. The Scientific Committee thanked Dr Sabourenkov for completing this useful work, which for the first time documents the complexity of CCAMLR's interaction with other organisations, and drew it to the Commission's attention.

## IUCN

11.2 The IUCN Observer (Mr A. Graham) noted that the IUCN General Assembly in 1994 had adopted a resolution commending CCAMLR's approach to resource management.

11.3 IUCN regards the incidental mortality of birds and mammals as a result of fishing operations as a matter of grave concern to the wider community. An example of this concern is given by the Australian Government which has listed the Macquarie Island subspecies of the wandering albatross as threatened under national legislation and longline fishing as a threatening process requiring mitigation. The IUCN urged CCAMLR to consider setting by-catch limits for affected species which would allow fisheries to be closed if incidental mortality could not be reduced to acceptable levels and strategies to achieve zero targets could not be devised.

11.4 Finally, the IUCN urged Scientific Committee Members to assist with the implementation of a number of international agreements: the Convention on Biological Diversity; the Convention on Migratory Species (the Bonn Convention); the Convention on International Trade in Endangered Species (CITES); and the new UNCLOS Agreement<sup>6</sup>. The Scientific Committee delegates were urged to recommend to their governments that the last agreement be ratified as soon as possible.

### FAO

11.5 The Observer from FAO (Dr R. Shotton) informed the Scientific Committee that FAO considered CCAMLR to be a leading example of the practical implementation of a precautionary approach in fisheries management, which was discussed at a meeting in Lysekil (Sweden) in June 1995 (paragraphs 6.1 and 6.2; Annex 5, section 10). Nevertheless, he noted that while uncertainty

<sup>&</sup>lt;sup>6</sup> Draft agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks.

was currently being taken into account by CCAMLR in its management approaches, other aspects of a precautionary approach such as determination of attitude to risk and future discounting were not yet being addressed. Associated with these concepts is the need to assist decision makers in articulating coherent objectives, a difficult and technical activity in multi-objective situations where conflicting goals are sought to be achieved.

11.6 The Scientific Committee was reminded that FAO had played a large part in drafting the UNCLOS Agreement which was now open for ratification.

11.7 FAO is interested in a joint case-study with CCAMLR on the management of fisheries, and will approach CCAMLR soon with a formal proposal for that study.

11.8 Finally, Dr Shotton drew the attention of the Scientific Committee to a forthcoming FAO-sponsored publication on Euphausiid fisheries, which is being authored by Drs S. Nicol (Australia) and Y. Endo (Japan). Delegates were notified that the authors might be contacting relevant scientists with requests for information in the near future.

#### SCAR

11.9 The SCAR Observer to the Scientific Committee (Dr Miller) informed the Scientific Committee that various SCAR groups will meet in conjunction with the XXIVth meeting of SCAR in Cambridge during late July-early August 1996. Meetings of groups of interest to the Scientific Committee will include the Steering Committee for CS-EASIZ (coastal shelf sector of the ecology of the Antarctic sea-ice zone), the SCAR Group of Specialists on Southern Ocean Ecology, the SCAR Group of Specialists on Seals, the SCAR Bird Biology Subcommittee and the Working Group on Biology.

11.10 Dr Miller also noted that the Scientific Committee's interaction with SCAR was increasing. In this regard, the Scientific Committee agreed that in order to improve the flow of information between CCAMLR and SCAR's Group of Specialists on Environmental Affairs and Conservation (GOSEAC), Dr E. Fanta (Brazil) should serve as a liaison officer between the Scientific Committee and GOSEAC. The Scientific Committee noted that it had already considered cooperation with SCAR under other agenda items, namely the APIS Program, (paragraphs 3.64 to 3.67), for which Dr Boyd would act as liaison, and various items on data management (paragraphs 10.1 and 10.2) for which the Data Manager would act as liaison.

11.11 Dr M. Fukuchi (CCAMLR Observer to CS-EASIZ) reported that SCAR'S CS-EASIZ Program is now under way and has been incorporated into GLOCHANT (SCAR's major initiative related to Global

Change in the Antarctic). There will be close coordination between CS-EASIZ and GLOCHANT. In this connection, a new program ASPECT (Antarctic Sea-Ice Processes, Ecosystems and Climate) has now been prepared, and a joint EASIZ-GLOCHANT meeting was held at the National Institute of Polar Research (NIPR), Tokyo, in March 1995.

11.12 The first meeting of the CS-EASIZ Steering Committee was held at BAS (British Antarctic Survey), Cambridge, UK, 25 August 1995, and was very successful. CS-EASIZ fieldwork will commence with a cruise by RV *Polarstern* in the 1995/96 season. The first edition of the EASIZ newsletter and a brochure describing the CS-EASIZ Program will appear later this year and will be forwarded to CCAMLR.

### SCOR

11.13 The Observer from SCOR, Dr Everson, introduced the SCOR initiative JGOFS and the SCOR Working Group 86 (Ecology of Sea Ice). Both have components dealing with ecology and production in the ice zone which are of interest to WG-EMM. Of greater significance is SO-GLOBEC which is a program covering many of the components of Southern Ocean ecology that are of interest to WG-EMM. The approaches taken by GLOBEC are likely to cover a greater species diversity than those currently included in CEMP. Dr Everson submitted documentation on each of these programs to the Secretariat and encouraged Members who might wish to extend collaboration on these programs to make contact through the SCOR Secretariat.

## IWC

11.14 The Observer from IWC (Mr J. Bannister) drew attention to a number of items arising out of matters raised last year on behalf of the IWC Scientific Committee by Dr Reilly. The IWC's interest in these issues was also reported to the Scientific Committee by the CCAMLR Observer to the SC-IWC, Dr de la Mare, in SC-CAMLR-XIV/BG/34.

11.15 The IWC Steering Group on Research Related to the Conservation of Large Baleen Whales in the Southern Ocean held a meeting in Japan in March 1995. Dr Everson represented CCAMLR, as a krill specialist, and the Scientific Committee noted that his report on the meeting had been presented to WG-EMM (WG-EMM-95/31). As a result of that meeting, and of deliberations by the IWC Scientific Committee at its annual meeting in Dublin in May, a four-week cruise to study blue whales is to take place off Australia, between Fremantle and Hobart and down to 45°S, in December/January 1995/96, supported jointly by Japan and IWC. The major aim is to provide scientifically-based criteria for distinguishing 'true' from 'pygmy' blue whales in the field which will allow more accurate estimates of 'true' blue whale numbers on future surveys. Passive acoustics, photo-identification, photogrammetry and tissue biopsy will be employed. Secondary target species will be southern right whales and humpback whales.

11.16 A symposium/workshop on the effects of climate change on cetaceans is to be held in Hawaii at the end of March 1996, and its provisional agenda has already been circulated to some Scientific Committee Members for comment. It was confirmed that Dr Marín would represent the Scientific Committee at the meeting, and the proposal of WG-EMM was endorsed that CCAMLR scientists could contribute on two topics:

- (i) biological changes in the marine environment which may affect the distribution and availability of krill; and
- (ii) CCAMLR approach to strategic modelling a tool to develop management advice in the context of a changing environment (Annex 4, paragraph 9.14).

11.17 It was agreed that Dr de la Mare and Mr Ichii should prepare a paper for presentation at the workshop outlining the CCAMLR approach to those topics (Annex 4, paragraph 9.15).

11.18 Dr de la Mare informed the Scientific Committee that a copy of the IWC's report on the effects of chemical pollutants on cetaceans had been forwarded to the Secretariat.

11.19 Last year the Scientific Committee discussed the possibility of adding a whale sightings survey component to cruises in studies in CCAMLR ISRs (SC-CAMLR-XIII, paragraph 14.24). The Scientific Committee agreed that this topic was still of importance, and should be included in the agenda of the next meeting of WG-EMM.

11.20 In order to progress with this subject, the Scientific Committee invited the IWC to provide a document for evaluation at WG-EMM outlining the minimum effort required to carry out statistically reliable whale observations on platforms of opportunity in the Antarctic, and the availability of trained observers for this work.

11.21 A related concern is the effect of active acoustics (used in surveying krill) on whale behaviour and the influence this might have on the results from, or design of, combined sightings and acoustic surveys. The Scientific Committee requested the IWC for any technical advice on this matter.

11.22 The Scientific Committee noted that priority in the IWC's comprehensive assessment of southern hemisphere baleen whales was being given to humpback whales. Several stocks, including those wintering off the east and west coasts of Australia and the east coast of South Africa, were showing strong signs of recovery. The 'Australian' populations were both increasing at 10% per year, and numbers were up to around 2 000 and 4 000 on the east and west coasts respectively. A revision of estimates for southern hemisphere 'true' blue whales gave much the same figure as reported last year, i.e. around 500 animals, with a CV of 0.36. Detailed information on the most recent southern hemisphere whale estimates is to be sought formally from IWC (paragraph 3.70).

11.23 In response to the Scientific Committee's request for advice from IWC on cetacean-fisheries interactions (C-CAMLR-XIII, paragraphs 9.42 and 9.43) Dr R. Gambell (Secretary to the IWC), wrote to the Executive Secretary including a paper on 'Developments on Issues Relating to the Incidental Catches of Cetaceans since 1992 and the UNCED Conference' (*Rep. Int. Whal. Commn* (Special Issue 15), 1994: 609-613). The Scientific Committee welcomed this information. However it noted that interactions between cetaceans and fisheries continue to be reported by scientific observers in the CCAMLR area (see for example Annex 5, paragraph 3.13) and agreed that information on this matter should continue to be exchanged with the IWC.

CWP (Coordinated Working Party on Fishery Statistics)

11.24 CCAMLR-XIV/7 reported on the Sixteenth Meeting of the CWP (Madrid, Spain, March 1995). The primary business of this meeting was the reconsideration of new statutes and rules of procedure for the CWP. The report recommended that CCAMLR endorse the new statutes and become a member of the new CWP.

11.25 The Scientific Committee endorsed this suggestion and recommended that the Secretariat continue to participate in meetings of the CWP.

### NAFO and ICES

11.26 Dr Øritsland presented a report on the NAFO/ICES symposium on the role of marine mammals in the ecosystem (SC-CAMLR-XIV/BG/28). Of interest to CCAMLR were addresses on 'Environmental, spatial and temporal influences on life history', 'Foraging strategies and energetic considerations' and 'Theoretical considerations on the role of apex predators in multispecies models'. While these topics were of general interest to CCAMLR, there was only one address under,

'Marine mammal - fisheries interactions', by the prodigious Prof. Butterworth, which discussed Antarctic situations and CCAMLR's ecosystem approach to management.

11.27 Dr Everson participated in the ICES Symposium on Fisheries Acoustics held at Aberdeen, 12 to 16 June 1995. He and several participants subsequently participated in the WG-EMM meeting in Siena, Italy, contributing to the Working Group's discussions on acoustic estimation of krill. Dr Everson also drew the Scientific Committee's attention to activities taking place within two ICES Working Groups. The ICES Fisheries Acoustics Science and Technology Working Group is currently preparing a cooperative research report on acoustic target strength and the ICES Fishing Technology and Fish Behaviour Working Group has a Study Group on Unaccounted Mortality and a Subgroup on Selectivity Methods; copies of these reports had been sent to the Secretariat.

# **Future Cooperation**

11.28 The following observers were nominated to represent CCAMLR at intersessional meetings:

- Canadian Krill Fisheries Workshop, November 1995, Vancouver, Canada Dr Agnew (Data Manager);
- SCAR-COMNAP Second Environment Workshop, March 1996, Texas, USA -Dr Agnew (Data Manager);
- IWC Workshop on Effects of Climate Change on Cetaceans, March 1996, Oahu, Hawaii, USA - Dr Marín;
- IWC Scientific Committee Meeting, June 1996, Aberdeen, UK Dr Kock (Chairman, Scientific Committee);
- XXIV SCAR meetings, August 1996, Cambridge, UK Dr Croxall (birds), Dr Miller (GOSSOE) and Dr J. Bengtson (USA) (seals);
- APIS, August 1996, Cambridge, UK Dr Boyd;
- CS-EASIZ, August 1996, Cambridge, UK Dr Fukuchi;
- IOC First Southern Ocean Forum, September 1996, Bremerhaven, Germany Dr Kock (Chairman, Scientific Committee);

- Third International Penguin Conference, September 1996, Cape Town, South Africa -Dr Kerry;
- CCSBT ERS<sup>7</sup> Group Australia.

Proposals for ASMAs and ASPAs Submitted for Consideration by Antarctic Treaty Consultative Parties

11.29 The proposal by Brazil and Poland (CCAMLR-XIV/BG/27) did not arrive in time for the Scientific Committee to give it full consideration, and as a consequence this matter was referred to the Commission.

<sup>&</sup>lt;sup>7</sup> Commission for the Conservation of Southern Bluefin Tuna Ecosystem and Related Species