DEPENDENT SPECIES

Species Monitored in the CCAMLR Ecosystem Monitoring Program

3.1 Dr Everson introduced the report of the first meeting of WG-EMM (Annex 4). The report covers all topics within the terms of reference for this Working Group agreed at the Thirteenth Meeting of the Scientific Committee (SC-CAMLR-XIII, paragraph 7.41). Sections of the report dealing with dependent species and with species specifically studied under the CCAMLR Ecosystem Monitoring Program (CEMP) were considered under this agenda item.

3.2 Recent and current CEMP-related activities are summarised in Annex 4, Appendix E. Reports on the initiation of CEMP research at new sites and on changes in CEMP research at existing sites are provided in Annex 4, paragraphs 5.2 to 5.13.

3.3 The Working Group welcomed the provision of information on CEMP-related programs from New Zealand for the first time. The Working Group regretted the continuing failure of France and Germany to send scientists and data from their active CEMP-related research programs on dependent species.

Scope of CEMP Activities

3.4 Data from CEMP sites have been submitted to the CEMP database by Argentina, Australia, Brazil, Chile, Italy, UK and USA. The Scientific Committee noted with pleasure that a joint Italian/Australian biological research program on Adélie penguins (*Pygoscelis adeliae*) had commenced during the 1993/94 season (Annex 4, paragraph 5.3). In addition, the USA informed WG-EMM of relevant long-term data from Anvers Island and Admiralty Bay, King George Island, and was requested to submit these as soon as possible.

3.5 New Zealand also has a long-term data set on the same species in the Ross Sea (Annex 4, paragraph 5.4), which it was requested to submit as soon as possible.

3.6 The Scientific Committee noted the recent work undertaken by Norwegian scientists on Antarctic petrels (*Thalassoica antarctica*) at Svarthamaren. WG-EMM noted the significance of this work and indicated that it would be happy to consider Norwegian proposals as to which data might be suitable for submission to CEMP.

3.7 Dr Fukuchi indicated that relevant data on Adélie penguins at several rookeries near Syowa station had been collected over a 20-year period and would be processed for submission to the CEMP database.

3.8 The Scientific Committee looked forward to receiving data from all these programs into the CCAMLR database in the near future.

3.9 Norway is planning to start CEMP research on chinstrap and macaroni penguins and fur seals at Bouvet Island in 1996/97. CEMP-related research on Antarctic petrels is expected to be continued on an ad hoc basis.

3.10 Dr Shust explained that Russian seal and ornithological research at Bellingshausen Station (King George Island) (see CCAMLR-XIV/MA/4) was still in progress and the field workers would not be returning to Russia until May or June 1996 and therefore might not be able to submit data for some time after that. In the meantime he was requested to provide for consideration at the next meeting of WG-EMM, information on the nature of the research, and the extent to which elements of such research fall within CEMP and follow standard methods.

Methods

3.11 Revision of the protocols for the standard methods was completed following the meeting of WG-EMM. The relevant documents were translated and recently distributed to Members.

3.12 Text for new CEMP methods on fur seal (*Arctocephalus gazella*) (demography, diet and condition) and petrels (breeding success, annual survival, recruitment and diet) was to be provided for intersessional comment. Methods for crabeater seals (*Lobodon carcinophagus*) (arising from the Antarctic Pack Ice Seals (APIS) Program) (SC-CAMLR-XIV/BG/11) would be very useful (see also paragraph 3.67).

3.13 Methods were to be developed at a workshop on at-sea behaviour of predators. This had been scheduled for 1996, but several key members of the ad hoc organising subgroup were unable to attend the meeting of WG-EMM. Therefore WG-EMM agreed that the workshop would have to be delayed for a year. The Scientific Committee regretted that more progress had not been made on this important topic and agreed to carry forward the appropriate financial provisions from the 1996 to the 1997 budget. Dr Boyd had agreed to act as Convener of the Workshop.

3.14 The Working Group reviewed CEMP monitoring methods and agreed that research involving their use has progressed to the point where detailed revision of all methods should be considered. This would determine whether they are yielding the precise information required by WG-EMM and whether their usefulness could be improved by modification or whether new methods needed to be developed.

3.15 WG-EMM established a Subgroup on Monitoring Methods to:

- (i) circulate the existing proposals for changes to current methods and proposals for new ones, to all Members and to the SCAR Group of Specialists on Seals and the Bird Biology Subcommittee for comment and suggestions for improvement;
- (ii) invite all Members and the SCAR Group of Specialists on Seals and the Bird Biology Subcommittee to suggest new methods relevant to CEMP objectives;
- (iii) arrange a meeting to review the responses to (i) and (ii); and
- (iv) consider developing plans for a comprehensive review of methods.

3.16 Drs K. Kerry (Australia) and Agnew (Co-conveners) prepared an outline plan (SC-CAMLR-XIV/BG/7) which was adopted by the Scientific Committee (paragraph 13.4).

Data Analysis

3.17 In January 1995 the Subgroup on Statistics met in Cambridge, UK, to address problems in the interpretation of the CEMP indices, which had in the past prevented WG-CEMP from making the transition from a qualitative to a quantitative assessment of indices and trends. WG-EMM considered that further development of this work was essential intersessionally particularly involving linkages between the environment, harvested and dependent species.

3.18 Progress in this field has been improving the Working Group's ability to interpret trends in the data. The Working Group indicated that further work involving statistical analyses would be required to understand interactions involving dependent species and this was considered further by the Scientific Committee in paragraphs 5.17 to 5.20.

Proposals for CEMP Site Protection

3.19 No specific proposals for CEMP site protection were tabled at the meeting. However, information was brought forward regarding the status of various monitoring sites.

3.20 Dr Øritsland stated that Norway intended to nominate Bouvet Island as a CEMP monitoring site (see paragraph 3.9).

3.21 Dr R. Holt (USA) informed the Scientific Committee that US shore-based operations at Seal Island were being discontinued because the site of the field station was unsafe. A new site is being sought in the Antarctic Peninsula so that land-based work can continue. The series of krill surveys and other at-sea activities would be continued in the vicinity of Elephant Island.

3.22 A report on South African research activities indicated that various CEMP methods continued to be utilised in studies of gentoo and rockhopper penguins (*Pygoscelis papua* and *Eudyptes chrysocome*) at Marion Island. Furthermore, the land to the high-tide mark of Marion and Prince Edward Islands is in the process of being proclaimed as a Special Nature Reserve under South African law. This development will heighten the conservation status of the islands and will require the continued collection of data likely to be of interest to CEMP. The management plan for the reserve will been sent to the Secretariat and a summary circulated to Members in advance of the next meeting of WG-EMM.

Advice to the Commission

3.23 The Scientific Committee repeated its request to Members collecting CEMP data to supply these to the Secretariat for incorporation into the CEMP database as soon as possible. These data are required to fill known gaps in the database as well as to provide the most up-to-date information for WG-EMM to use as a basis for its assessments.

3.24 The Scientific Committee noted the very great increase in the amount of data being supplied to the CEMP database, the time required for validation of the data and the more sophisticated analyses that are now being undertaken by the Secretariat Data Management team. This has been a major step forward. The Scientific Committee will inform the Commission that this increased workload is likely to result in calls for increased expenditure on computing equipment and for additions to staff in the near future.

3.25 The attention of the Commission is drawn to a change in the emphasis of WG-EMM to move from qualitative to quantitative assessments. In the longer term, this should improve the quality of advice being provided by the Scientific Committee.

Assessment of Incidental Mortality

Incidental Mortality in Longline Fisheries

3.26 The Scientific Committee noted with appreciation the substantial intersessional work on this topic (Annex 5, paragraphs 8.1 to 8.18) and thanked the ad hoc WG-IMALF, its Convener, Dr Moreno and the Secretariat for their contributions.

3.27 The Scientific Committee had insufficient information on responses to CCAMLR from organisations contacted intersessionally (as listed in Annex 5, paragraphs 8.5 and 8.7) to evaluate these responses and advise on appropriate further action. This evaluation would, therefore, need to be undertaken during the consideration of incidental mortality by the Commission. However the Scientific Committee re-emphasised the importance of working internationally to tackle the problem of incidental mortality of seabirds from the Convention Area (Annex 5, paragraph 8.89).

3.28 The Scientific Committee endorsed the recommendations by WG-FSA that:

- Members be requested to inform CCAMLR of the steps they have taken or are planning to take to address the topic of incidental mortality of seabirds associated with fisheries, especially longline fishing, in waters under their jurisdiction adjacent to the Convention Area and in other regions where seabirds from the Convention Area might be affected (Annex 5, paragraph 8.21);
- (ii) the proposed handbook entitled 'Catching fish not birds: a guide to improving longline fishing efficiency' should be produced as soon as possible during the intersessional period (Annex 5, paragraph 8.22);
- (iii) New Zealand be encouraged to complete production of its seabird identification manual for scientific observers on longline vessels (Annex 5, paragraph 8.23). It was emphasised, however, that this handbook would help reduce but not eliminate difficulties with identification of seabirds by observers and in no way reduced the need for retention of specimens of all birds killed;

- (iv) Members (especially Chile, New Zealand and South Africa) able to initiate and/or continue long-term demographic studies of albatrosses, additional to those already extensively documented, be encouraged to do so (Annex 5, paragraph 8.28(i));
- Members be encouraged to collaborate on larger scale banding of albatrosses, particularly to help determine the provenance of birds caught at sea (Annex 5, paragraph 8.28(ii));
- (vi) Members be asked again to provide the Scientific Committee, via the ad hoc WG-IMALF, with information on their existing and proposed monitoring studies of albatrosses, giant petrels and white-chinned petrels (the species in the Convention Area of greatest vulnerability to longline fishing) (Annex 5, paragraphs 8.32 and 8.33); and
- (vii) the new guidelines and data forms for observers of incidental mortality of seabirds and marine mammals be published in logbook format and also appended to the revised edition of the *Scientific Observers Manual* (Annex 5, paragraphs 8.75 and 8.82).

3.29 The Scientific Committee noted the detailed information available from scientific observers on longline vessels which had enabled WG-FSA to undertake the first systematic analyses of such data and reports (Annex 5, paragraphs 8.35 to 8.58). Summaries of these analyses are presented in Annex 5, Tables 27 and 28.

3.30 The Scientific Committee noted that the estimates of seabird by-catch in Annex 5, paragraph 8.41 and Table 27 (which are nominally expressed as birds per thousand hooks set), are minimum estimates because:

- (i) few reports recorded the actual observer coverage (in terms of the proportion of hooks observed) achieved (Annex 5, paragraph 8.38). Without this information, the overall by-catch of seabirds can not be estimated; and
- (ii) even where observer coverage is known:
 - a proportion of hooks remain unbaited; this can be substantial (c. 30%) when using autolining techniques; and
 - a proportion (c. 30% in studies outside the Convention Area) of birds caught during the set are not retrieved during the haul.

3.31 Comments by scientific observers in situations where streamer lines of designs different from that specified in Conservation Measure 29/XIII were used indicate that such lines had not been particularly effective (Annex 5, paragraphs 8.36 and 8.39). The Scientific Committee reiterated its advice of last year of the need to adhere strictly to the principles of streamer line construction and deployment described in WG-IMALF-94/19¹. Streamer lines of other designs and deployment should be used, and evaluated, only in addition to lines of CCAMLR specification and under the supervision of scientific observers.

3.32 The Scientific Committee:

- (i) recommended that Members indicate how many specimens (and of what species) have been collected by the scientific observers, where these are deposited and who is responsible for checking identifications and retaining appropriate material (e.g., for genetic studies to investigate provenance); and
- (ii) recognised that research into ways of reducing the by-catch of white-chinned petrels at night was urgently needed and should include further work on relationships between hook size and the level of by-catch of petrels.

3.33 The Scientific Committee noted that the problems referred to in paragraph 3.30, together with additional uncertainties and errors in reported data which require clarification (see especially Annex 5, paragraph 8.55), meant that the estimates of seabird mortality provided by WG-FSA must be regarded as provisional.

3.34 Nevertheless, the Scientific Committee endorsed the conclusions of WG-FSA (Annex 5, paragraphs 8.50 and 8.87) that:

- (i) the revised mitigating measures adopted last year in Conservation Measure 29/XIII had significantly reduced the overall incidental mortality of seabirds;
- (ii) in particular, the restriction of setting longlines only at night had significantly reduced the by-catch of albatrosses; greater compliance with this part of Conservation Measure 29/XIII would virtually have eliminated mortality of these birds; and

¹ Brothers, N. 1994. Principles of birdline construction and use to reduce bait loss and bird deaths during longline setting. Document *WG-IMALF-94/19*. CCAMLR, Hobart, Australia.

(iii) night-time setting was associated with increased mortality of white-chinned petrels and research into ways of reducing this is urgently needed.

3.35 The Scientific Committee also shared the concerns of WG-FSA that failure to comply with Conservation Measure 29/XIII had caused significant mortality of seabirds and reduced fishing efficiency (Annex 5, paragraph 8.88); in particular:

- (i) the discharge of offal when hauling takes place on the same side of the vessel as lines are hauled contributed very substantially to the observed incidental mortality of seabirds;
- (ii) daytime sets caught disproportionate numbers of albatrosses; and
- (iii) failure to use streamer lines was associated with higher catch rates of birds.

3.36 The Scientific Committee noted that the acquisition of data to undertake the appropriate analyses had only been possible through comprehensive observer coverage. Furthermore, sufficiently comprehensive data on incidental mortality had only been obtained when two scientific observers were deployed. The Scientific Committee congratulated Argentina and Chile for arranging this on a number of vessels fishing in Subarea 48.3.

3.37 The Scientific Committee repeated its recommendation that, wherever possible, two scientific observers should be used to collect the data on fish and incidental mortality necessary for appropriate assessments by CCAMLR. It further noted that, where only one scientific observer was available, helpful prioritisation of tasks had been undertaken (Annex 5, paragraph 8.79) or was in progress (Annex 5, paragraphs 8.80 and 8.81).

3.38 The Scientific Committee noted that without detailed reports from scientific observers it would have been impossible to detect and correct substantial errors in data reported from the commercial fishery (Annex 5, paragraph 8.55).

3.39 The Scientific Committee endorsed the need for further intersessional analysis of data on incidental mortality of seabirds and interactions with marine mammals (Annex 5, paragraphs 8.53, 8.55 and 8.56). The ad hoc WG-IMALF should liaise with the Secretariat to specify and prioritise the necessary work.

3.40 The Scientific Committee emphasised that further reductions in incidental mortality were likely to be possible only through educating the captains, fishing masters and crews of fishing vessels.

It is important to explain to them that not only is compliance with Conservation Measure 29/XIII a requirement, but that there are advantages, in terms of catching more fish, of reducing bird by-catch by complying with the various elements of this measure (particularly using CCAMLR streamer lines, setting at night and discharging offal only on the side of the vessel opposite to that where hauling takes place). Scientific observers should also be able to assist them in the practical aspects of complying with the conservation measure.

3.41 A valuable part of this education process will be the provision of the handbook on improving fishing efficiency (paragraph 3.28(ii)). In addition, there is a need to provide scientific observers with training in the use and deployment of streamer lines of CCAMLR specification and to ensure they are able to explain the aims and advantages of all CCAMLR mitigating measures to the captains and crews of vessels. Such advice and education was particularly needed for fisheries operating in waters adjacent to the Convention Area; this topic was discussed at the recent International Albatross Conference which had recommended the formation of a task group to address the matter.

3.42 The Scientific Committee appreciated the provision of data from Argentina and South Africa on incidental mortality of seabirds from the Convention Area in fisheries operating in adjacent waters (Annex 5, paragraphs 8.59 to 8.63). The high levels of estimated mortality, particularly of albatrosses and petrels, were noted with concern.

3.43 The Scientific Committee also noted the intentions of some Members to expand their longline fishing operations, especially in waters adjacent to the Convention Area (paragraphs 2.23 and 2.24). It therefore endorsed the recommendation (Annex 5, paragraphs 8.61, 8.63 and 8.89) that Members fishing in these waters be encouraged to implement appropriate mitigating measures as a matter of priority.

3.44 Dr D. Robertson (New Zealand) indicated that New Zealand was continuing to monitor incidental mortality associated with the southern bluefin tuna fishery in that country's waters. In 1995, 329 (15%) of 2 127 sets were observed and 111 birds reported killed at a catch rate of 0.12 birds per thousand hooks. Of birds identified according to species, 72% were albatrosses and 27% white-chinned petrels (*Procellaria aequinoctialis*). He also reported that New Zealand was conducting three other investigations of interest to CCAMLR. The first two of these will be funded by a fishing industry levy and will include research on the implementation of mitigation measures to minimise seabird by-catch and the monitoring of seabird populations affected by fishing. Species to be monitored include wandering albatross (*Diomedea exulans*), light-mantled sooty albatross (*Phoebetria palpebrata*) and black petrel (*Procellaria parkinsoni*). A third study will assess two populations of the southern Buller's albatross (*Diomedea bulleri*) and its interactions with fisheries.

3.45 The Scientific Committee particularly welcomed the detailed review of the Spanish method of longline fishing (Annex 5, paragraphs 8.65 to 8.68) on a vessel fishing in Falklands/Malvinas waters (but which had been designated to fish in Subarea 48.3). The report (WG-FSA-95/58) illustrated what could be achieved by using scientists specialised in relevant seabird research as observers on longline vessels. The Scientific Committee noted and endorsed the Working Group's assessments of the implication of this study for CCAMLR in general and specifically in terms of Conservation Measure 29/XIII (see also Annex 5, paragraph 8.73).

3.46 The potential of longline systems which release baited lines under water was highlighted (Annex 5, paragraph 8.68). Members using such techniques were requested to undertake detailed observations of their effectiveness in terms of reducing or eliminating seabird by-catch and to report the results to the Scientific Committee.

3.47 The Scientific Committee noted that detailed research by Members on the effectiveness of measures for reducing seabird by-catch should be undertaken independently of their actual commercial fishing and in a manner consistent with the spirit of Conservation Measure 64/XII.

3.48 The Scientific Committee noted the discussion relating to the timing of the *D. eleginoides* fishery in relation to albatross by-catch in Subarea 48.3 (Annex 5, paragraphs 8.70 to 8.72). The Scientific Committee noted that any delay in the opening of the fishery in order to reduce albatross by-catch had the risk of overlapping the fishery and the spawning season of *D. eleginoides*. It noted, therefore, the need for better data on catch rates and reproductive status in the period from July to October in order to assess the significance of this possibility.

3.49 The Scientific Committee reviewed the various suggestions and recommendations relating to Conservation Measure 29/XIII (Annex 5, paragraphs 8.64, 8.67, 8.73 and 8.74). It recommended to the Commission that:

- Conservation Measure 29/XIII, paragraph 3, be revised to prohibit the discharge of offal during setting or hauling on the side of the vessel on which longlines are set or hauled;
- (ii) a footnote be added to paragraph 2 stating that, in setting longlines after dark, the period of three hours in advance of dawn should be avoided whenever possible (in order to try to reduce by-catch of white-chinned petrels see Annex 5, paragraph 8.64);

- (iii) a footnote be added to paragraph 1 recommending that weights be released before line tension occurs and, where possible, that weights of 6 kg mass spaced at 20 m intervals be used (in order to achieve maximum sinking rate of the line to minimise the risk of catching birds during the set - see Annex 5, paragraph 8.67); and
- (iv) Members be encouraged to undertake research into the improvement of existing measures and the development of new ones for further reducing, even eliminating, by-catch of seabirds in longline fisheries.

Incidental Mortality in Trawl Fisheries

3.50 The Scientific Committee noted that this topic was reviewed in Annex 5, paragraphs 9.1 to 9.6. It endorsed the advice to the Commission (Annex 5, paragraph 9.7) that the French authorities be encouraged to extend the provisions of Conservation Measure 30/X to the Crozet and Kerguelen area. Prof. G. Duhamel (France) advised that a prohibition on the use of net-sonde cables within the Kerguelen EEZ will be introduced at the beginning of the 1995/96 season.

Marine Debris

3.51 Dr Miller presented SC-CAMLR-XIV/BG/17, summarising observations of seals seen entangled at Marion Island from 1991 to 1995. The records involve 28 different animals, comprising 21 (75%) sub-Antarctic fur seals, 6 (21%) Antarctic fur seals (*Arctocephalus gazella*) and 1 (4%) southern elephant seal (*Mirounga leonina*). The overall incidence of entanglement of fur seals was estimated as being between 0.014% and 0.016% of the population. Entangling materials are mainly packaging straps (48%), synthetic string/rope (26%) and fishing net (19%).

3.52 Dr Miller also introduced SC-CAMLR-XIV/BG/18 which reported similar data for seabirds, totalling six individuals of six different species, covering the period from 1985 to 1993. There will be continued monitoring of interactions between marine debris and seabirds and marine mammals at Marion Island.

3.53 Dr Croxall introduced SC-CAMLR-XIV/BG/8, summarising observations in 1995 of Antarctic fur seals entangled in marine debris at South Georgia, the fifth successive winter and seventh successive summer of the study. In both 1995 seasons, the incidence of entanglement was the lowest yet recorded, as was the proportion of the entanglement in packaging bands. This is most encouraging, but as yet does not provide unequivocal evidence of commensurate improvement in the

disposal of debris at sea because fishing effort in Subarea 48.3 was also very low in 1994 and 1995. Furthermore, entanglement rates of seals were highest in March 1995, coinciding with the start of longline fishing around South Georgia.

3.54 Dr Croxall also presented SC-CAMLR-XIV/BG/9, reporting that the incidence of fishing hooks and related debris associated with seabirds at their colonies on Bird Island, South Georgia, was reduced from the high levels in 1994 (but was higher than in 1993). This is also encouraging, but most observations were in March 1995, coinciding with the start of the longline fishery in the area.

3.55 From Members' reports of assessment and avoidance of incidental mortality in the Convention Area, there was a record by Chile of entanglement of two adult female Antarctic fur seals at Cape Shirreff (CCAMLR-XIV/BG/24).

Advice to the Commission

3.56 Members should be requested to inform CCAMLR of the steps they have taken or are planning to take to address the topic of incidental mortality of seabirds associated with fisheries, especially longline fishing, in waters under their jurisdiction adjacent to the Convention Area and in other regions where seabirds from the Convention Area might be affected (paragraph 3.28(i)).

3.57 Members should be encouraged to initiate and/or continue demographic studies of albatrosses, including larger-scale banding operations (paragraph 3.28(iv) and (v)).

3.58 The Commission should note the successful expansion of the Scheme of International Scientific Observation in terms of recording and analysing data on incidental mortality of seabirds and the value of the data collected thereby (paragraphs 3.29 and 3.38), the emphasis on the need for two scientific observers to collect full appropriate data (paragraph 3.36) and the proposed improvements, especially in terms of reporting (paragraph 3.28(vii)).

3.59 The Commission is advised of the success of Conservation Measure 29/XIII in reducing incidental mortality of seabirds, especially albatrosses, but should note the need for further research to reduce the mortality of white-chinned petrels (paragraph 3.34).

3.60 The Commission is advised of deficiencies in compliance with some of the provisions in Conversation Measure 29/XIII, especially in relation to the discharge of offal, daytime setting and the use of streamer lines, and is requested to ask Members to ensure compliance with all aspects of the

conservation measure, thereby achieving further reduction in seabird by-catch and considerably more cost-effective fishing (paragraph 3.35 above and Annex 5, paragraph 8.88).

3.61 The Commission should note the advice that further reduction in by-catch of seabirds will require greater effort to educate fishermen as to the benefits accruing to them by complying with Conservation Measure 29/XIII (paragraph 3.40); it should note the Scientific Committee's suggestions in this regard (paragraph 3.41), including the importance of producing the handbook 'Catching fish not birds: a guide to improving longline fishing efficiency' (paragraph 3.28(ii)).

3.62 The Commission should note that:

- data provided from Members on their fisheries in waters adjacent to the Convention Area support the conclusion of the ad hoc WG-IMALF and Scientific Committee last year that the greater part of seabird mortality relating to birds breeding in the Convention Area arises from fisheries outside the Convention Area (SC-CAMLR-XIII, paragraph 9.56; Annex 5, paragraph 8.89);
- (ii) accordingly, the Scientific Committee endorsed the advice of WG-FSA (Annex 5, paragraph 8.89) to request that the Commission encourage Members to be active in:
 - drawing CCAMLR's concerns to the attention of appropriate national authorities and organisations;
 - implementing appropriate mitigating measures to reduce incidental mortality of seabirds in fisheries in waters under these bodies' control outside the Convention Area as a matter of priority (paragraph 3.43); and
- (iii) the Scientific Committee also re-emphasised the need to work internationally to tackle the problem of incidental mortality of seabirds from the Convention Area (paragraph 3.27).

3.63 The Commission should note the forthcoming prohibition on the use of net-sonde cables in the Kerguelen EEZ (paragraph 3.50), which will extend the provisions of Conservation Measure 30/X to the whole Convention Area.

Marine Mammal and Bird Populations

Status of Marine Mammal Populations

3.64 Last year the Scientific Committee agreed on close coordination and effective communication with SCAR'S APIS Program (SC-CAMLR-XIII, paragraphs 8.3, 8.4 and 8.7).

3.65 The Scientific Committee welcomed the report of the 1995 APIS Program planning meeting (Seattle, USA, 7 to 9 June 1995) which was partly funded by CCAMLR (SC-CAMLR-XIII, paragraph 8.5).

3.66 The APIS Program aims to promote cooperative international studies on the status of Antarctic pack-ice seal populations and their role in the Antarctic marine ecosystem. In particular, the proposed research on crabeater seals, a CEMP species selected for monitoring, will cover topics of direct relevance to CCAMLR (Annex 4, paragraphs 5.34 to 5.37).

3.67 APIS intends to produce recommended standard methods for crabeater seals. The Chairman was asked to write to the Convener of the SCAR Group of Specialists on Seals requesting the group to consider the collection and analysis of data relevant to the aims of CCAMLR and the CEMP program in particular. The Scientific Committee should continue its close liaison with SCAR in the planning and implementation of the APIS Program.

3.68 As decided in 1987 (SC-CAMLR-VI, paragraph 8.7) and as was done in 1988 and 1992, the Chairman was requested to write to the Convener of the SCAR Group of Specialists on Seals and ask for reports on the status of Antarctic seals for review at the 1996 meeting of the Scientific Committee.

3.69 The Scientific Committee decided that the Chairman should also write to the Scientific Committee of the IWC to request reports on the status of Antarctic whales for review at the 1996 meeting of the Scientific Committee.

Status of Marine Bird Populations

3.70 As decided in 1987 (SC-CAMLR-VI, paragraph 8.7) and as was done in 1988 and 1992, the Chairman was requested to write to the Chairman of the SCAR Bird Biology Subcommittee and ask for reports on the status of Antarctic birds.