

SCIENTIFIC COMMITTEE

4.1 Decisions of the Commission relating to conservation measures arising from recommendations of the Scientific Committee are reported in section 8 of this report. The Commission received the recommendations, advice, data requirements and research plans of the Scientific Committee.

Fishery Status and Trends

4.2 The Commission noted that the total reported catch of krill in 1995/96 (95 053 tonnes) was 20% less than the 1994/95 figure (118 714 tonnes). The catch was taken mainly by Japan, Poland and Ukraine with a small amount taken by Panama (which is not a CCAMLR Member). The level of krill fishing is likely to remain the same in the 1996/97 season (SC-CAMLR-XV, paragraphs 2.1 to 2.7).

4.3 The total reported catch of finfish in the Convention Area in 1995/96 was 8 826 tonnes, of which *Dissostichus eleginoides* comprised 99%. The catch was less than that reported that in 1994/95 and was taken mainly by Chile and France in Subarea 48.3 and Division 58.5.1 respectively. Catches of other fish were minimal although fisheries of several other species were open in 1995/96 (SC-CAMLR-XV, paragraph 2.8 and Table 5).

4.4 The Commission noted the considerable interest expressed by fishing companies from various Member countries in fishing for *D. eleginoides* in the Convention Area (SC-CAMLR-XV, paragraphs 2.12 to 2.14).

4.5 The Commission noted that the Scientific Committee had advised SCOI on the apparent high level of unreported catches from previously unfished Subareas 58.6 and 58.7 (SC-CAMLR-XV, paragraph 2.9).

4.6 The Commission noted that the US company involved in the crab fishery in Subarea 48.3 caught 497 tonnes of crabs in 1995/96 but decided not to continue fishing in 1996/97. Some other companies, however, still have an interest in this fishery (SC-CAMLR-XV, paragraphs 2.16 and 2.17).

4.7 The first significant catch of squid, *Martialia hyadesi*, in the Convention Area was taken by a Korean vessel during experimental fishing in Subarea 48.3 (total catch of 52 tonnes). The notification of a new fishery for *M. hyadesi* in Subarea 48.3, submitted jointly by the Republic of Korea and the UK, is considered below in section 6 of this report.

Dependent Species

CCAMLR Ecosystem Monitoring Program

4.8 The Commission noted an important step made by the Scientific Committee and WG-EMM towards a more quantitative presentation of trends in predator indices monitored in accordance with CEMP (SC-CAMLR-XV, paragraphs 3.10 to 3.14, 5.26 and 5.27).

4.9 It further noted that the Scientific Committee had approved a number of new standard methods which relate to the attachment of instruments, data collection using time-depth recorders (TDRs), and monitoring methods for cape and Antarctic petrels, and recommended that they be published in *CEMP Standard Methods* (SC-CAMLR-XV, paragraph 3.5).

4.10 The Commission also noted the initiative of the Scientific Committee on the development of other new monitoring methods for a number of species and also on the maintenance of close links with the SCAR Antarctic Pack-Ice Seals Program (APIS) (SC-CAMLR-XV, paragraph 3.6)

4.11 It was noted that there were no new proposals for CEMP site protection, the incorporation of new species into CEMP or the extension of the scope of CEMP (SC-CAMLR-XV, paragraphs 3.3, 3.18 and 3.19). It was also noted that Norway will be establishing a CEMP monitoring site at Bouvet Island during the forthcoming season (SC-CAMLR-XV, paragraph 3.20).

4.12 The Commission endorsed a request made by the Scientific Committee that all appropriate data currently held by Members, and which have not yet been submitted, be compiled in the required format and submitted to CCAMLR (SC-CAMLR-XV, paragraph 3.21).

Marine Mammal and Bird Populations

4.13 The Commission noted the advice received by the Scientific Committee from IWC and SCAR with regard to the current status and trends in populations of whales and birds in the Convention Area. Information provided on the status of whale populations shows that minke whales are the most abundant whale species in the Southern Ocean, with estimated numbers exceeding 700 000 animals. Population estimates of blue whales remained low while some populations of humpback whales have apparently started to recover (SC-CAMLR-XV, paragraphs 3.66 and 3.67). For all sub-Antarctic species of albatrosses, there is evidence of decreases, with incidental mortality recognised as the main cause of this decline (SC-CAMLR-XV, paragraphs 3.74 to 3.76). The Commission joined the Scientific Committee in expressing its

appreciation to IWC and in particular to SCAR for the substantial amount of work involved in the preparation of these reports.

Ecosystem Monitoring and Management

By-catch of Fish in the Krill Fishery

4.14 A number of new data on the by-catch of juvenile fish in krill fisheries had been submitted to the Scientific Committee, including historical Russian data from krill surveys and data from commercial fisheries undertaken in the past by Chile, Russia and Ukraine. It was noted that a comprehensive review of fish by-catches is currently being undertaken by a correspondence group under the coordination of the Science Officer (SC-CAMLR-XV, paragraph 5.6).

Ecosystem Assessment and Strategic Modelling

4.15 The work of the Scientific Committee on the conceptual model of ecosystem monitoring and management has been focussed on improving the understanding of processes and linkages between harvested species, dependent species, the environment and fisheries. The ultimate aim of this work is to develop an effective mechanism for management of the ecosystem as envisaged in the CCAMLR Convention.

4.16 The Commission noted a discussion which took place in the Scientific Committee with regard to recent available estimates of krill consumption by fur seals and penguins in Subarea 48.3 and the comparison of these estimates with previous calculations of krill biomass (SC-CAMLR-XV, paragraphs 5.33 to 5.35).

4.17 The Commission concurred with the Scientific Committee in expressing appreciation of the former Data Manager of the CCAMLR Secretariat, Dr D. Agnew, for his major contribution to the work of WG-EMM, and also in thanking Norway for hosting the meeting of WG-EMM in 1996 (SC-CAMLR-XV, paragraph 5.39).

Future Work and Data Requirements

4.18 The Commission noted that a number of tasks in developing ecosystem monitoring and management were accomplished by the Scientific Committee and WG-EMM, that some previously identified tasks needed further work and that several additional tasks were also identified (SC-CAMLR-XV, paragraphs 5.37 and 5.38).

Scientific Research Exemption

4.19 The Commission received the advice of the Scientific Committee that because levels of scientific research catches for krill are currently at levels which are unlikely to compromise the intent of the requirement set out in paragraph 3 of Conservation Measure 64/XII, the current 50-tonne catch limit for scientific research exemption should be maintained (SC-CAMLR-XV, paragraphs 7.1 to 7.3).

4.20 The Commission endorsed this advice and decided that should the current situation change, the matter will be revisited and the Scientific Committee requested for advice accordingly.

CCAMLR Data Management

4.21 The Commission noted that several problems were identified with the CCAMLR database (SC-CAMLR-XV, paragraph 10.2):

- (i) a number of errors and omissions due to problems with validation of the data before and/or after being entered into the database;
- (ii) access difficulties due to a lack of understanding of the structure of the database and absence of guidelines for its handling; and
- (iii) lack of data essential to the analyses.

4.22 The Commission agreed with the Scientific Committee that the database should be reviewed in order to identify and correct possible errors and also to determine which datasets were incomplete and which data were missing. To facilitate the understanding and operation of the database, the development of an inventory of information contained in the database and a user's guide were considered important. The Commission also agreed with the recommendation that the new Data Manager should undertake these tasks as a matter of priority (SC-CAMLR-XV, paragraphs 10.3 and 10.4).

4.23 It was noted that the tasks mentioned in paragraph 4.21 above could not be handled by the Secretariat under current circumstances, primarily because the position of Data Manager was vacant and would take some time to be filled (SC-CAMLR-XV, paragraph 10.5).

4.24 The Commission took into account that data requirements and analyses requested by the Working Groups had grown considerably, and consequently increased the workload of the data management section. It endorsed the priorities in data management work set by the Scientific Committee and its working groups (SC-CAMLR-XV, paragraphs 10.5 to 10.10).

4.25 The Scientific Committee recognised that continuous updating and validation of the information contained in the database is vital to maintaining the quality of the analyses performed by WG-EMM and WG-FSA and in developing the Scientific Committee's advice to the Commission. The problems referred to in paragraphs 10.2 and 10.5 of the Scientific Committee's report (SC-CAMLR-XV) may become worse in the near future due to the proliferation of new fisheries. The Commission took note of these views of the Scientific Committee.

Publications

4.26 The Scientific Committee recommended that the Commission extend the trial period for *CCAMLR Science* for another three years. The Commission joined the Scientific Committee in commending the Science Officer for his excellent work in producing a journal of such high quality. It was also noted that it would not have been possible to achieve this without the assistance of the Secretariat's entire publication team and especially of its Publications Administrator (SC-CAMLR-XV, paragraphs 12.1 to 12.5).

4.27 The Scientific Committee recommended the continued publication of *CCAMLR Scientific Abstracts* (SC-CAMLR-XV, paragraph 12.8).

4.28 In respect to other publications, the Scientific Committee recommended publication of the revised version of the *Statistical Bulletin*, the *Scientific Observers Manual* and the new edition of *CEMP Standard Methods*. Work on the *Guide to Understanding CCAMLR's Approach to Management* will be continued during the intersessional period (SC-CAMLR-XV, paragraphs 12.9 and 12.10).

Activities of the Scientific Committee during the 1996/97 Intersessional Period

4.29 The Commission noted the intersessional activities to be undertaken by the Scientific Committee during 1996/97 (SC-CAMLR-XV, paragraphs 13.1 to 13.4 and 13.9).

4.30 The Commission noted that a second joint research program in the Antarctic Peninsula

area is planned for the period from December 1996 to February 1997, providing another excellent example of fruitful cooperation between members of the CCAMLR community. Brazil, Germany, the Republic of Korea and the USA plan to take part in this joint program. Coordination of research effort in the Indian Ocean sector is also being considered (SC-CAMLR-XV, paragraphs 13.5 to 13.8). The Commission welcomed these developments in cooperation between CCAMLR Members.

Election of Chairman of the Scientific Committee

4.31 The Commission congratulated Dr D. Miller (South Africa) on his election as the new Chairman of the Scientific Committee. The Commission expressed its deep appreciation to Dr K.-H. Kock for his hard work as Chairman of the Scientific Committee for the past four years.

4.32 In concluding the presentation of his report, Dr Kock expressed his gratitude to the Commission for its confidence in his work and the work of the Scientific Committee during his four years in office. In response, the Executive Secretary thanked Dr Kock, on behalf of the Commission and the Secretariat, for his devotion to the cause of CCAMLR and for his hard work and support of the Secretariat.