

SCIENTIFIC COMMITTEE

4.1 The Chairman of the Scientific Committee, Dr D. Miller (South Africa) reported on the meeting of the Scientific Committee. The Commission noted the general recommendations, advice, research and data requirements of the Scientific Committee. Substantive matters arising from the deliberations of the Scientific Committee were discussed under other parts of the agenda: illegal, unregulated and unreported (IUU) fishing (section 5); incidental mortality and marine debris (section 6); new and exploratory fisheries (section 7); CCAMLR Scheme of International Scientific Observation (section 8); and management under uncertainty (section 10). The Commission thanked Dr Miller for a comprehensive report.

Intersessional Activities

4.2 Three scientific meetings were held during the 1998/99 intersessional period:

- (i) the planning meeting for the CCAMLR 2000 Krill Synoptic Survey of Area 48 (Cambridge, UK, 8 to 12 March 1999);
- (ii) the meeting of WG-EMM (Santa Cruz de Tenerife, Spain, 19 to 29 July 1999); and
- (iii) the meeting of WG-FSA, including ad hoc WG-IMALF (Hobart, Australia, 11 to 21 October 1999).

Fishery Status and Trends

4.3 The total reported catch of krill during the 1998/99 split-year (1 July 1998 to 30 June 1999) was 103 318 tonnes, and this was taken in Area 48 by Argentina (6 524 tonnes), Japan (71 318 tonnes), Poland (18 554 tonnes), Republic of Korea (1 228 tonnes) and Ukraine (5 694 tonnes). This represents an increase of 23 000 tonnes compared to the catch reported in the previous split-year.

4.4 The Commission noted that Japan, Poland, the Republic of Korea and Uruguay planned to fish for krill during the 1999/2000 season at levels similar those of the last season. Argentina (one vessel), Germany (possibly one vessel), Russia (possibly one vessel), Ukraine (three to four vessels) and the USA (two vessels) may also fish during this season. In addition, Canada may also fish for krill in 1999/2000.

4.5 The total catch of finfish reported from the Convention Area during the 1998/99 split-year was 18 006 tonnes (SC-CAMLR-XVIII, paragraph 2.9), of which *Dissostichus eleginoides* accounted for 17 435 tonnes. This species was reported from Subareas 48.3 (4 567 tonnes) and 58.6 (1 938 tonnes) and Divisions 58.5.1 (5 399 tonnes) and 58.5.2 (5 531 tonnes). In comparison, the total reported catch of finfish was 11 419 tonnes in 1997/98.

4.6 There had been no reported fishing for crab or squid during the 1998/99 split-year, and limited fishing for crab (4 tonnes) was conducted in Subarea 48.3 in September 1999.

Dependent Species

4.7 The Commission noted that there were no proposals for new CEMP sites. However, Conservation Measure 82/XIII, which affords protection to the Cape Shirreff CEMP site, was due for review under the five-year cycle defined in Conservation Measure 18/XIII. The Commission agreed that continued protection of the Cape Shirreff CEMP site is necessary, and endorsed a review of the plan for Cape Shirreff (section 9).

4.8 It was noted that the Subgroup on Designation and Protection of CEMP Sites had been

tasked with minor technical revision of the management plans for both Cape Shirreff and Seal Islands (SC-CAMLR-XVIII, paragraphs 4.21 to 4.24).

4.9 The Scientific Committee's comments in relation to the proposal for the Balleny Islands Specially Protected Area (SPA) Management Plan (CCAMLR-XVIII/24) were noted (SC-CAMLR-XVIII, paragraphs 4.26 to 4.31). The Commission endorsed the recommendation that the details of the proposal be referred to the Subgroup on Designation and Protection of CEMP Sites, and that this subgroup should consider further development of a methodology for the assessment of proposals for marine protected areas forwarded in accordance with Annex V of the Protocol (see also section 11).

Harvested Species

Krill Resources

4.10 Plans for the CCAMLR 2000 Krill Synoptic Survey of Area 48 (hereinafter referred to as the CCAMLR-2000 Survey) were well advanced. The survey will be conducted in January–February 2000 by four vessels, one each from Japan, Russia, UK and USA. The survey will provide a new estimate of krill biomass (B_0) in Area 48 for use in setting precautionary catch limits in the krill fishery. A two-week workshop scheduled in La Jolla, USA, during May–June 2000 will analyse data from the survey and estimate B_0 . This estimate will be examined at the meeting of WG-EMM in July 2000 and the results of the survey will be used to subdivide the precautionary catch limit for Area 48 into smaller areas.

4.11 The Commission noted that knowledge about krill fisheries remains limited. It endorsed the request for information on conversion factors (CFs), the economics of the fishery and the breakdown of catches by product type (SC-CAMLR-XVIII, paragraphs 2.6 to 2.8). The Commission urged Members involved in these fisheries to submit this information. It was agreed that market information was sought for a general understanding of the economic factors underpinning the fisheries, and that proprietary information was not required.

4.12 The Commission noted that data collected by Japanese scientists and national observers aboard krill trawlers are regularly analysed and reported to WG-EMM.

Finfish Resources

4.13 The Commission noted that differences between the CFs calculated by observers and those used by the fishing vessels to report their catches suggest that there might be errors in reported catches of *Dissostichus* spp. Catches from some fisheries, particularly in Subarea 48.3, may be underestimated because inappropriate CFs are being used by most vessels when reporting their catches (SC-CAMLR-XVIII, paragraphs 5.41 to 5.51).

4.14 The Commission endorsed the recommendation that the procedure set out in the *Scientific Observers Manual* be adopted as a standard method for measuring CFs, not only by observers, but also by vessel masters (see section 9). Vessel masters and observers were encouraged to cooperate in the establishment of CFs to avoid duplication of work and possible inconsistencies in results.

Conversion Factors

4.15 The Commission noted the Scientific Committee's concern expressed in paragraphs 5.41 to 5.51 of its report (SC-CAMLR-XVIII) that the CFs from product weight to whole weight of *D. eleginoides* used by vessels in reporting their catch can differ by as much as 15% from those established by scientific observers.

4.16 The Commission endorsed the Scientific Committee's recommendation that the procedure set out in the *Scientific Observers Manual* be adopted as a standard method for

measuring CFs, not only by observers but also by vessel masters (Annex 9). Accordingly, the Commission requested the Secretariat to circulate details of the standard method to Members in the form of a Commission Circular as guidelines for vessel masters and observers to cooperate in the establishment of CFs to avoid duplication of work and possible inconsistencies in results.

Ecosystem Monitoring and Management

4.17 The Commission noted developments in the assessment of the Antarctic marine ecosystem (SC-CAMLR-XVIII, section 6), including: the development of composite standard indices to underpin ecosystem analysis; the documentation and archiving of the krill yield model; the need for comparable estimates of predator abundance; the need to evaluate the generalised yield model; and the need to simulate precautionary approaches to management.

4.18 The Commission endorsed the need to deploy scientific observers (either international or national) aboard commercial krill vessels during the CCAMLR-2000 Survey, and encouraged Members to implement this requirement. The information provided would be important to the interpretation of survey results in relation to fishing operations taking place at the same time as the survey and over various spatial scales.

4.19 The Commission joined the Scientific Committee in thanking Dr I. Everson (UK) for his role as convener of WG-EMM from 1995 to 1999 and his significant contribution for laying solid foundations for the integration of the Working Group on Krill (WG-Krill) and the Working Group for the CCAMLR Ecosystem Monitoring Program (WG-CEMP). The Commission noted that Dr R. Hewitt (USA) had been appointed as the next Convener of WG-EMM.

Research Exemption

4.20 The Commission noted the notifications under Conservation Measure 64/XII of scientific research surveys planned for the 1999/2000 intersessional period (SC-CAMLR-XVIII, section 8). With the exception of the experimental pot fishing for *D. eleginoides* planned by the UK in Subarea 48.3, the total catch of finfish and krill in each of the surveys notified for 1999/2000 was expected to be less than 50 tonnes.

4.21 The Commission agreed that the catch of *D. eleginoides* taken in pots would be deducted from the catch limit for that species in Subarea 48.3 in the 1999/2000 season in accordance with the provisions of Conservation Measure 64/XII (see section 9).

CCAMLR Data Management

4.22 The Commission noted the ever-increasing number of tasks allocated by the Scientific Committee and its working groups to the Data Management group of the Secretariat (SC-CAMLR-XVIII, section 10). In spite of increasing efficiencies in data management, the increased amount of work continued to place increasing demands on the Secretariat's resources.

Publications

4.23 The Commission noted the following publications for 1998/99:

- (i) *Schedule of Conservation Measures in Force, 1998/99*;
- (ii) annual reports;
- (iii) *CCAMLR Scientific Abstracts* covering papers presented in 1998;
- (iv) revised sections of the *Scientific Observers Manual*;
- (v) revised sections of the *CCAMLR Inspectors Manual*;
- (vi) revised sections of the *CEMP Standard Methods*;
- (vii) *Statistical Bulletin*, Volume 11; and
- (viii) *CCAMLR Science*, Volume 6.

4.24 The Commission endorsed the recommendation of the Scientific Committee to continue publishing *CCAMLR Science* (SC-CAMLR-XVIII, paragraph 12.3). The Commission noted the pending publication of the document *Understanding CCAMLR's Approach to Management* and its synopsis (SC-CAMLR-XVIII, paragraphs 12.7 and 12.8).

Activities of the Scientific Committee during the 1999/2000 Intersessional Period

4.25 The Commission endorsed the following activities of the Scientific Committee planned for the 1999/2000 intersessional period:

- (i) CCAMLR-2000 Survey (January–February 2000);
- (ii) B₀ Workshop (two-week period, May–June 2000);
- (iii) meeting of WG-EMM (17 to 28 July 2000); and
- (iv) meeting of WG-FSA (9 to 19 October 2000).

4.26 It was noted that the workshop on the management of *C. gunnari* had been deferred until a time after 2000.

Scientific Committee Budget

4.27 The Commission noted the budget of the Scientific Committee for 2000, and the forecast budget for 2001 (SC-CAMLR-XVIII, section 14 and Table 8). This budget included participation of the Data Manager at the B₀ Workshop, and one other staff of the Secretariat to provide secretarial support.

4.28 The Commission noted other expenditures associated with:

- (i) participation by the Chairman of the Scientific Committee in the proposed 2000 meeting of the Committee on Environmental Protection (CEP);
- (ii) additional data processing arising from the likely submissions of observer data from krill fisheries; and
- (iii) development of web-based news groups in support of the work of the Scientific Committee and its working groups.

Vice-Chairpersons

4.29 The Commission congratulated Drs E. Fanta (Brazil) and S. Nicol (Australia) on their appointments as vice-chairpersons of the Scientific Committee during 2000 and 2001, and thanked the outgoing vice-chairmen Drs V. Siegel (European Community) and K. Shust (Russia).