

REPORT OF THE SCIENTIFIC COMMITTEE

4.1 The Chairman of the Scientific Committee, Dr K.-H. Kock (Germany), introduced the report of the Scientific Committee.

4.2 In his introduction he noted that there had been meetings of all three Working Groups of the Scientific Committee and a workshop on management of the crab fishery in the intersessional period. In addition, the Scientific Committee had been represented as an observer at the meetings of a number of international organisations.

4.3 Decisions of the Commission relating to Conservation Measures arising out of recommendations from the Scientific Committee are reported in Sections 8 and 9 of this report. The Commission endorsed the recommendations, advice and interim research plans of the Scientific Committee unless otherwise indicated here.

Krill Resources

4.4 Dr Kock drew the Commission's attention to the fact that although the annual krill catch in the Convention Area over recent years had been about 300 000 tonnes, in the 1992/93 season the catch was reduced to only about 87 000 tonnes. The main reason for this was the reduction of the Russian and Ukrainian fishing effort on krill.

4.5 The Commission endorsed the advice of the Scientific Committee that it continues to be important for Members to inform CCAMLR of their intended fishing plans, especially as the fishery is in a particularly volatile state at the moment (SC-CAMLR-XII, paragraph 2.9).

4.6 In this context, the Commission took note of India's reported interest in participating in the krill fishery and the Commission welcomed further information.

4.7 The Commission was pleased to note that most krill fishing nations had made considerable effort to provide CCAMLR with fine-scale and 10 x 10 n miles data. Analyses of these data, along with haul-by-haul data had considerably assisted the deliberations of the Scientific Committee.

4.8 The Commission endorsed the Scientific Committee's observations on the importance of observers on commercial vessels for the collection of data from the fishery, and encouraged Members to develop such observer programs. It noted that this comment had been common to the discussions of a number of the Scientific Committee's Working Groups (e.g., SC-CAMLR-XII, paragraph 2.23).

4.9 Japan reiterated its advice given in 1992 (CCAMLR-XI, paragraph 4.13) that it had difficulties with submission of haul-by-haul data because of domestic legal restrictions, but that it had complied with all other data submission requirements of CCAMLR. It further stated its opinion that CPUE data are insensitive to krill abundance, and that synoptic surveys would be more effective for monitoring krill abundance.

4.10 The Commission welcomed the joint Chile/US initiative to address the problem of deriving a Composite Index of Krill Abundance (SC-CAMLR-XII, paragraph 2.26), noting that this was the first practical attempt to apply the index developed as part of the Krill CPUE Simulation Study (SC-CAMLR-VIII, paragraphs 2.13 to 2.21).

4.11 The Commission accepted the Scientific Committee's reanalysis of data from the FIBEX cruises, and agreed that this analysis had progressed as far as is practicable. It noted the results of this process (SC-CAMLR-XII, Annex 4, Table 4) which indicated the following estimates of krill biomass in Statistical Area 48:

Subarea 48.1 - 13.6 million tonnes;
Subarea 48.2 - 15.6 million tonnes;
Subarea 48.3 - 1.5 million tonnes;
Subarea 48.6 - 4.6 million tonnes;

and noted that the new estimate for Subareas 48.1, 48.2 and 48.3 combined was 30.8 million tonnes. This is 9 million tonnes greater than the estimates presented in 1992 (SC-CAMLR-XI, Annex 4, Table 4).

4.12 The Commission noted that a fishery for krill had been proceeding in Division 58.4.1, an area which was not covered by a precautionary catch limit. The Commission further noted that the Scientific Committee had accorded high priority to a krill biomass survey in Division 58.4.1 which would provide the data necessary to set a precautionary catch limit.

4.13 In this regard, the Commission encouraged Australia's intention to conduct a biomass survey of part of Division 58.4.1 in February 1996 and encouraged other Members to collaborate in this venture so that a precautionary catch limit could be calculated for all of this division.

4.14 In response to a question from the Scientific Committee on the frequency and magnitude by which krill catch limits may be adjusted in the light of changing scientific information, the Commission agreed that it did not consider that any adjustment to its accepted procedure for the consideration of advice from the Scientific Committee was required at this moment. It advised that the Scientific Committee should continue to develop appropriate advice as scientific information became available. As has been accepted practice, decisions about changes to existing management measures would be considered by the Commission in the light of the best scientific advice from the Scientific Committee and would take into account other advice as appropriate.

4.15 The Scientific Committee had asked the Commission to consider the allocation of responsibility for reporting data to CCAMLR in the case of joint venture operations (SC-CAMLR-XII, paragraph 2.10). The Commission agreed that:

in the case of joint ventures where all parties are Members of CCAMLR, responsibility for reporting data to CCAMLR should rest with the flag state of the vessel(s) concerned, as pointed out at the meeting of the Scientific Committee by the Observer from FAO (SC-CAMLR-XII, paragraph 2.11); and

in the case of joint ventures where one party is not a Member of CCAMLR, the party which is a Member of CCAMLR would be expected to assume responsibility for reporting data and ensuring compliance with Conservation Measures.

4.16 It was further stressed that CCAMLR Members should encourage non-CCAMLR Members wishing to fish in the Convention Area in joint ventures to become Members of CCAMLR. It was pointed out that Article XXII of the Convention provides for obligations by Contracting Parties in relation to activities by non-Contracting Parties which may be contrary to the objectives of the Convention.

Finfish Resources

4.17 The only reported catches of finfish species in the Convention Area in the 1992/93 season were of Patagonian toothfish, *Dissostichus eleginoides* (5 771 tonnes taken in Subarea 48.3 and Division 58.5.1 combined).

4.18 This year, once again, the Secretariat received STATLANT catch and effort reports from only a few Members by the reporting deadline of 30 September. The Commission endorsed the advice of the Scientific Committee that the deadline for reporting STATLANT data to CCAMLR should be changed from 30 September to 31 August.

4.19 The Commission noted studies reviewed by the Scientific Committee regarding the numbers of juveniles of *Champscephalus gunnari* and other species that were being taken in krill trawls. The Commission endorsed the recommendation of the Scientific Committee that more studies on this important matter be undertaken as a high priority (SC-CAMLR-XII, paragraph 3.80) (see paragraphs 8.12 to 8.17).

4.20 The Commission endorsed the advice of the Scientific Committee in respect of Divisions 58.4.1, 58.4.2 and 58.4.4 (SC-CAMLR-XII, paragraphs 3.69 and 3.71).

4.21 The Commission endorsed the advice of the Scientific Committee concerning Division 58.5.1 (SC-CAMLR-XII, paragraphs 3.61, 3.64 and 3.66). The catch of *D. eleginoides* for the western trawling grounds should not exceed 1 400 tonnes. The prohibition of directed fishing on *Notothenia rossii* and *Notothenia squamifrons* should be retained. Fishing for *C. gunnari* on the Kerguelen Shelf should be delayed until the 1994/95 season and only restricted fishing on the 3+ age group that is expected to form the fishery in that season should be allowed. If any fishing for *C. gunnari* occurs in the 1993/94 season the catch should be as low as possible.

4.22 The Commission noted the evidence in the Scientific Committee report that *D. eleginoides* in the South Atlantic is a species occurring both in the Convention Area (Subareas 48.3 and 48.4) and along the Patagonian Slope and associated banks inside and outside Chilean and Argentinian jurisdictional waters, and that some other species occurring in the Convention Area were also associated stocks within and outside the Convention Area.

4.23 The Commission noted the concerns of WG-FSA and the Scientific Committee that there had been substantial exploitation of *D. eleginoides* both within and outside the Convention Area, possibly from a single stock, and recognised the urgent need for the Parties to address this problem.

4.24 Accordingly, the Commission adopted Resolution 10/XII.

RESOLUTION 10/XII
Resolution on Harvesting of Stocks Occurring
Both Within and Outside the Convention Area

The Commission,

Recalling the principles of conservation in Article II of the Convention and in particular that of the maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources,

Recalling the requirement under Article XI of the Convention for the Commission to seek to cooperate with Contracting Parties which may exercise jurisdiction in marine areas adjacent to the area to which the Convention applies in respect of the conservation of any stock or stocks of associated species which occur both within those areas and the area to which the Convention applies, with a view to harmonising the Conservation Measures adopted in respect of such stocks,

Emphasising the importance of further research on any stock or stocks of species which occur both within the area of the Convention and within adjacent areas,

Noting the concerns expressed by the Scientific Committee on the substantial exploitation of such stocks inside and outside the Convention Area, reaffirmed that Members should ensure that their flag vessels conduct harvesting of such stocks in areas adjacent to the Convention Area responsibly and with due respect for the Conservation Measures it has adopted under the Convention.

Crab Resources

4.25 The Commission noted the results of the Scientific Committee's deliberations on this matter. Further discussion is given in paragraphs 8.32 to 8.38.

Management under Conditions of Uncertainty Concerning Stock Size and Sustainable Yield

4.26 The Commission noted that it had identified as a topic of high priority, the principles to be applied when setting TACs when there is no or insufficient advice from the Scientific Committee due to uncertainty about stock size and sustainable yield (see CCAMLR-XI, paragraph 9.23). It welcomed the Scientific Committee's deliberations on this matter and in particular endorsed the conclusions that:

under conditions of increasingly poor data availability, management measures would most appropriately start to follow options from a choice of precautionary bw catch levels as specific advice on TACs from traditional assessments became less reliable; and

the Scientific Committee and its Working Groups should undertake more work on this topic.

4.27 Additional comments made by the Commission on this matter may be found in paragraphs 8.18 to 8.21.

4.28 The Delegation of Sweden requested that the matter of management under conditions of uncertainty be addressed as an agenda item by the Commission at its 1994 meeting and this was agreed.

4.29 It was agreed that CCAMLR should be represented at a forthcoming *ad hoc* meeting of Regional Fisheries Agencies, organised by FAO to consider the role of these agencies in relation to High Seas Fishery Statistics (SC-CAMLR-XII, paragraph 3.75).

Ecosystem Monitoring

4.30 The Commission noted with approval the advances made by the Scientific Committee in its Ecosystem Monitoring Program, and was pleased by the increased

participation by Members at the meeting of WG-CEMP. However, it noted with concern that scientists from New Zealand, France and Brazil, all of whom have active programs of research in the Convention Area of relevance to the work of CEMP, had been absent from the Working Group meeting. The Commission urged Members who could contribute to the work of CEMP to facilitate the active participation of their scientists at future meetings of WG-CEMP.

4.31 The Commission echoed the Scientific Committee's concern, that only three Members (Australia, UK and USA) had submitted data for the 1992/93 season. It noted that the success of the CEMP program is dependent on submission of data in a timely fashion in accordance with CEMP Standard Methods, and urged Members to renew their efforts to submit relevant recent and past data.

4.32 The Commission noted the intention of WG-CEMP to discuss the topic of expanding its work beyond the exclusive focus of the krill-based ecosystem at its next meeting.

4.33 The Commission congratulated the Scientific Committee on the considerable progress made in its consideration of the potential impacts of localised krill fishing, particularly as a result of papers tabled by Japan and the Secretariat, and encouraged further work by the Scientific Committee on this important topic.

4.34 In regard to this topic, the Commission endorsed the Scientific Committee's approach which drew a clear distinction between discussions of the options of types of potential precautionary measures and the need to implement specific measures, and agreed that the current discussion should focus on identifying potential options for precautionary measures.

Cape Shirreff CEMP Protected Area

4.35 A draft management plan for protection of the Cape Shirreff and San Telmo Islands as a CEMP site (SC-CAMLR-XII/9) was reviewed by WG-CEMP and the Scientific Committee, which recommended that the Commission should adopt the management plan and take appropriate action to implement its observance (SC-CAMLR-XII, paragraph 8.4).

4.36 Aside from some suggestions for minor revisions, the Commission endorsed the Draft Management Plan. To clarify the appropriate access points to this CEMP site, it was agreed that the following sentence should be inserted at the beginning of paragraph A.1.e (access points): “Access to the site is prohibited except by permit; the following paragraph describes the location of appropriate points of access”.

4.37 Although it was acknowledged that CCAMLR’s review of its procedures for protecting areas might result in modifying these protocols in the future, it was agreed that while that review was progressing as described above, the process of protecting Cape Shirreff and the San Telmo Islands should proceed.

4.38 Therefore, the Commission endorsed the Scientific Committee’s approval of the management plan, and agreed that it was appropriate to accord the desired protection to Cape Shirreff and the San Telmo Islands as the “Cape Shirreff CEMP Protected Area”.

4.39 The Commission therefore adopted Resolution 11/XII.

RESOLUTION 11/XII

Cape Shirreff CEMP Protected Area

1. The Commission noted that a program of longterm studies is being undertaken and is planned at Cape Shirreff and the San Telmo Islands, Livingston Island, South Shetland Islands, as part of the CCAMLR Ecosystem Monitoring Program (CEMP). Recognising that these studies may be vulnerable to accidental or wilful interference, the Commission expressed its concern that this CEMP site, the scientific investigations, and the Antarctic marine living resources therein be protected.
2. Therefore, the Commission considers it appropriate to accord protection to Cape Shirreff and the San Telmo Islands by establishing the “Cape Shirreff CEMP Protected Area”.
3. Members are requested to comply, on a voluntary basis, with the provisions of the management plan for the Cape Shirreff CEMP Protected Area, pending the

conclusion of consultations with SCAR, the Antarctic Treaty Consultative Parties and, if appropriate, the Contracting Parties to other components of the Antarctic Treaty System.

4. It was agreed that, in accordance with Article X, the Commission would draw this Resolution to the attention of any State that is not a Party to the Convention and whose nationals or vessels are present in the Convention Area.

Marine Mammals and Birds

4.40 The Commission endorsed the discussions and recommendations of the Scientific Committee regarding SCAR's new research initiative, the Antarctic Pack-Ice Seals (APIS) Program. The Commission agreed that close coordination and effective communication should be developed and maintained between CCAMLR and the APIS Program, and it encouraged Members to support this important program. Undertaking cooperative research activities in key areas of this program over the next five years will allow CCAMLR to benefit by incorporating new information into its management considerations.

Incidental Mortality

4.41 The Commission noted the large amount of work considered by the Scientific Committee on this topic, in particular with respect to incidental mortality of seabirds in longline fisheries. The UK noted the important contributions which Australia and New Zealand had made to understanding interactions between albatrosses and fishing activities.

4.42 The Commission noted with concern that there continues to be problems in giving effect to measures designed to reduce incidental mortality of seabirds in longline fishing operations, in particular the lack of compliance with reporting requirements agreed in CCAMLR-IX, paragraph 5.4 and possible non-compliance with Conservation Measure 29/XI. To improve reporting, it was agreed to revise the form (C2) used in reporting of haul-by-haul data in the longline fishery (SC-CAMLR-XII, paragraph 10.33 and Conservation Measure 71/XII).

4.43 It endorsed the advice of the Scientific Committee that the acquisition of statistically robust and reliable data on incidental mortality may require the presence of

Scientific Observers on board fishing vessels (SC-CAMLR-XII, paragraph 10.32). It urged Members to place as many Scientific Observers on fishing vessels as possible to obtain good estimates of the level of incidental mortality in the Convention Area. The UK informed the Commission that, following the first use of the International Observer Scheme in an agreement between the UK and Chile in 1992/93 (SC-CAMLR-XII, paragraph 11.1), it was willing to move ahead with further cooperation to place observers on Member's fishing vessels.

4.44 The Commission welcomed the Scientific Committee's initiative to convene an *ad hoc* Working Group to consider incidental mortality (SC-CAMLR-XII, paragraph 10.19).

Other Matters

4.45 The Commission welcomed the initiative of the Scientific Committee to consider ways to efficiently organise its future work (SC-CAMLR-XII, paragraph 15.16). It noted that the greater efficiency and possible cost savings that may result from this exercise would be most welcome.

4.46 The Commission noted the recommendations of the Scientific Committee that the *Selected Scientific Papers* be upgraded to a peer-reviewed journal to be called "*CCAMLR Science*" (SC-CAMLR-XII, paragraph 14.8). Further discussion is given in paragraph 3.13.

4.47 It further endorsed the suggestions that the Scientific Committee and Secretariat should pursue the publication of a digest of CCAMLR business in a journal specialising in polar science (SC-CAMLR-XII, paragraphs 14.9 to 14.12).

4.48 The Commission noted with approval the initiatives taken by the Republic of Korea to convene informal talks to coordinate Members' research cruises in the Antarctic Peninsula region in the 1994/95 season. The UK suggested that it would be extremely helpful to Members if the results of these discussions could be circulated to all Members.