

SCIENTIFIC COMMITTEE

4.1 The Chair of the Scientific Committee, Dr E. Fanta (Brazil) presented the report of the Scientific Committee (SC-CAMLR-XXIV). The Commission thanked Dr Fanta for her comprehensive report (CCAMLR-XXIV/BG/48).

4.2 The Commission noted the Scientific Committee's general recommendations, advice, research and data requirements. The Commission also discussed substantive matters arising from the Committee's deliberations under other parts of the former's agenda, including assessment and avoidance of incidental mortality (section 5); IUU fishing (section 8); Scheme of International Scientific Observation (section 9); new and exploratory fisheries (section 10); fisheries management and conservation under conditions of uncertainty (section 12); data access and security (section 13); and cooperation with other international organisations (section 14).

Intersessional activities

4.3 The Commission noted the extensive activities of the Scientific Committee and its various working groups in 2005 (SC-CAMLR-XXIV, paragraph 1.7). It joined the Scientific Committee in thanking the conveners of the working groups, subgroups and workshops for their contributions to the work of CCAMLR.

CCAMLR Scheme of International Scientific Observation

4.4 Scientific observers appointed under the CCAMLR Scheme of International Scientific Observation were deployed on all vessels fishing for finfish in the Convention Area in 2004/05. In addition, scientific observers were deployed on eight krill fishing vessels under the scheme. The Scientific Committee's advice on scientific observation is also considered in section 9.

Ecosystem monitoring and management

4.5 The Commission noted progress in developing a feedback management regime for the krill fishery.

4.6 In particular, the 2005 meeting of the Working Group on Ecosystem Monitoring (WG-EMM) included a Workshop on Management Procedures which focused on examining six candidate methods for subdividing the krill catch limit in Area 48 among small-scale management units (SSMUs) (SC-CAMLR-XXIV, paragraphs 3.16 to 3.22).

4.7 It also noted that the Scientific Committee had agreed that future work should continue to examine the sensitivity of performance measures in the development of the krill–predator–fishery–model (KPFM) (SC-CAMLR-XXIV, paragraphs 3.18 and 3.19). The Commission recognised the importance of operating models, such as KPFM, for developing and evaluating management procedures in order to be confident that such procedures will meet the

conservation objectives set out in Article II of the Convention. It also agreed that the KPFM, with its extensive documentation, graphic outputs and diagnostics, has successfully engaged participants with a wide range of scientific, modelling and fisheries management expertise.

4.8 The Commission noted the Scientific Committee's view that a further year's work should allow delivery of appropriate advice on the evaluation of options for the subdivision of the precautionary catch limit for krill in Area 48.

4.9 The Commission endorsed the Scientific Committee's work plan over the next few years (SC-CAMLR-XXIV, paragraph 3.43), noting in particular:

- (i) plans for an Australian krill biomass survey of Division 58.4.2 from January to March 2006 to provide an updated estimate of B_0 for Division 58.4.2;
- (ii) a change in the model for estimating krill acoustic target strength to that of a 'theoretically-derived, empirically-validated' model. Consequently, the Scientific Committee suggested holding a workshop to review and, if necessary, revise the current precautionary krill catch limits no later than 2007;
- (iii) a second Workshop on Management Procedures to be held in 2006 to develop appropriate advice on evaluating options for subdivision of the krill precautionary catch limit among SSMUs in Area 48.

4.10 The Commission questioned the timing of the proposed workshop to review and revise precautionary catch limits for krill (paragraph 4.9(ii)). Some Members considered that it would be advantageous to hold the workshop in 2008 or 2009 on completion of the CCAMLR-IPY-2008 Survey (paragraphs 4.76 to 4.80). Following discussion, the Commission endorsed the Scientific Committee's proposal to hold the workshop in 2007, noting that this would allow the Scientific Committee to incorporate any revision of catch limits in its advice on the subdivision of the precautionary catch limit for krill in Area 48 at the earliest possible opportunity.

4.11 The Commission endorsed the Scientific Committee's approval of the two Antarctic Treaty Consultative Meeting (ATCM) management plans containing marine areas (SC-CAMLR-XXIV, paragraph 3.23) – the Antarctic Specially Protected Area (ASPA) at Edmonson Point and a revised plan for the Antarctic Specially Managed Area (ASMA) at Admiralty Bay – and agreed to forward its conclusions to the next ATCM for its consideration.

Workshop on Marine Protected Areas

4.12 The Commission endorsed the Scientific Committee's advice arising from the 2005 Workshop on Marine Protected Areas (SC-CAMLR-XXIV, paragraphs 3.51 to 3.65), agreeing that the primary aim is to establish a harmonised regime for the protection of the Antarctic marine environment across the Antarctic Treaty System (ATS). This may require clarification of the roles and responsibilities of ATCM and CCAMLR in respect of the management of different human activities in the region (SC-CAMLR-XXIV, paragraph 3.52).

4.13 In terms of this workshop's remit to review current principles and practices related to the establishment of MPAs, the Commission noted that:

- (i) there was a need to develop a strategic approach to MPA design and implementation throughout the Southern Ocean, notably in relation to a system of protected areas;
- (ii) there was a strong need for collaboration at technical and policy levels to further develop the MPA concept in the Southern Ocean. Relevant bodies in such a dialogue would include key elements of the Treaty System (CEP and the ATCM) as well as SCAR, SCOR, observers to CCAMLR, intergovernmental and non-governmental organisations.

4.14 On the way that MPAs could be used to contribute to furthering the objectives of CCAMLR, the Commission noted that:

- (i) MPAs had considerable potential for furthering CCAMLR's objectives in applications ranging from protection of ecosystem processes, habitats and biodiversity to protection of particular species (including population and life history stages);
- (ii) under the IUCN categories of protected areas, the Convention Area as a whole would qualify as Category IV (Habitat/Species Management Area) as a protected area managed mainly for conservation through management intervention to ensure maintenance of habitats and/or to meet requirements of specific species;
- (iii) conservation outcomes appropriate for achieving the objectives of CCAMLR Article II include maintenance of biological diversity as well as the maintenance of ecosystem processes;
- (iv) attention may need to be given to the need for, *inter alia*, protection of:
 - (a) representative areas – a system of representative areas that would aim to provide a comprehensive, adequate and representative system of MPAs to contribute to the long-term ecological viability of marine systems, to maintain ecological processes and systems, and to protect the Antarctic marine biological diversity at all levels;
 - (b) scientific areas to assist with distinguishing between the effects of harvesting and other activities from natural ecosystem changes as well as providing opportunities for understanding of the Antarctic marine ecosystem without interference;
 - (c) areas potentially vulnerable to impacts by human activities, to mitigate those impacts and/or ensure the sustainability of the rational use of marine living resources;
- (v) the process of establishing a CCAMLR protected areas system will need to account for satisfactory fishery outcomes in terms of the rational use provisions of Article II.

4.15 On the types of scientific information required to develop MPAs, the Commission noted that:

- (i) key tasks to be considered in developing a system of protected areas to assist CCAMLR in achieving its broader conservation objectives are:
 - (a) a broad-scale bioregionalisation of the Southern Ocean;
 - (b) a fine-scale subdivision of biogeographic provinces, which may include hierarchies of spatial characteristics and features within regions, giving particular attention to areas identified in the bioregionalisation;
 - (c) identification of areas that might be used to achieve the conservation objectives;
 - (d) determination of areas requiring interim protection;
- (ii) such tasks should initially comprise a desktop study;
- (iii) the types of data required are listed in SC-CAMLR-XXIV, Annex 7, Table 2.

4.16 The Commission also recognised that the MPA Workshop had considered the types of information required to assess MPAs in the Convention Area currently under development or consideration (SC-CAMLR-XXIV, paragraphs 3.60 to 3.63).

4.17 The Commission endorsed the Scientific Committee's future work plan for developing a system of protected areas, including (SC-CAMLR-XXIV, paragraphs 3.65 and 3.73):

- (i) holding a workshop to advise on a bioregionalisation of the Southern Ocean, including, where possible, advice on smaller-scale delineation of provinces and potential areas for protection to further the conservation objectives of CCAMLR;
- (ii) establishing a Steering Committee, including members of the Scientific Committee and CEP. An important role of the Steering Committee will be to involve appropriate experts from outside the Scientific Committee and CEP with appropriate data or expertise;
- (iii) inviting CEP to undertake the initial work necessary to develop a bioregionalisation of the coastal provinces, as an extension of its terrestrial bioregionalisation work, while the Scientific Committee would undertake the initial work needed to delineate the oceanic provinces.

4.18 In considering the Scientific Committee's proposal to hold a second MPA Workshop in 2008, the Commission agreed that there is a need to make more rapid progress on such an important issue. It therefore urged the Scientific Committee to hold the workshop in 2007.

Dependent species and ecosystem considerations

4.19 The Commission noted that the Scientific Committee continues to consider a broad ecosystem approach to fisheries and in particular the effects of fisheries on non-target species (SC-CAMLR-XXIV, paragraphs 3.78 to 3.80). Progress is being made on the setting of catch limits for the target species in a fishery, and the implementation and conduct of that fishery.

Harvested species

4.20 The Commission noted the Scientific Committee's summary of various fisheries in 2004/05 (SC-CAMLR-XXIV, paragraphs 1.10 to 1.14). In all, 16 Members fished along with one Contracting Party.

Krill

4.21 The Commission noted the information provided by the Scientific Committee on krill fishing in 2003/04 (SC-CAMLR-XXIV, paragraph 4.1 and Table 2) compared with 2004/05 (SC-CAMLR-XXIV, paragraph 4.2 and Table 3). The krill harvest in the 2003/04 fishing season was 118 116 tonnes and up to September 2005 was 124 535 tonnes. All fishing occurred in Area 48 only, and most of the catch was taken within three of the 15 SSMUs.

4.22 The Commission noted that an analysis of historical catches indicated that only five out of 15 SSMUs in Area 48 contributed substantially to the total krill catch (SC-CAMLR-XXIV, paragraph 4.6). A shift in operations was noted in SSMUs at the South Shetland Islands, where fishing has shifted from the December–February period to fishing in March–May. In the vicinity of the South Orkney Islands the fishery has continued in the March–May period and at South Georgia the timing of operations has also remained relatively constant (June–August). This change in the season of the fishery may mean that the level of observer coverage (mainly in winter) may not be sufficient to understand the behaviour of the fishery or issues such as the by-catch of larval fish.

4.23 The Commission also noted that the Vanuatu-flagged vessel *Atlantic Navigator* had used a new fishing system where krill are continuously pumped aboard from the codend of a pelagic trawl without the need to bring the trawl aboard (SC-CAMLR-XXIV, paragraphs 4.8 and 4.9). This new technique may have considerable potential to impact other elements of the ecosystem either through by-catch, particularly of larval fish, or through incidental mortality of either immature krill or other small pelagic species.

4.24 The Commission noted that this new technique will be used by a Norwegian-flagged vessel in 2005/06. The Commission agreed that an urgent study was required to document the new technique and its potential impacts. Accordingly, the Commission welcomed Norway's undertaking to provide a report in 2006 on the operation of this technique and on its potential impacts. The Commission also noted deployment of scientific observers would assist in gathering essential information on the operational characteristics of this type of fishing.

4.25 Most Members of the Commission endorsed the Scientific Committee's advice that this new technique should not be considered a 'new and exploratory fishery', but that there is

a need for adequate information on its selectivity as well as on catch rate and location. In particular, because haul duration can extend for several days, there is considerable potential for single hauls to occur across several SSMUs (see also discussion in paragraphs 10.18 and 10.19).

4.26 Russia believed that this new continuous pumping technique may have a potentially negative impact on the Antarctic ecosystem, particularly through the incidental mortality of larval and juvenile fish, immature krill or other zooplankton organisms. Therefore Russia believed that the krill fishery based on the pumping technique should be classified as an exploratory fishery until such time as comprehensive information on the selectivity of the fishing method, characteristics of the hauls and their species composition, the location of krill catches and the haul duration was received and evaluated by the Scientific Committee.

4.27 Norway noted that this specific fishery had been going on for two years and had been undertaken in full compliance with all relevant CCAMLR measures.

4.28 Russia urged Norway to ensure that in the 2006/07 season the application for fishing for krill, using pumping technologies, is submitted in compliance with Conservation Measure 21-02.

4.29 The Commission noted the notifications of intention to harvest krill in the 2005/06 fishing season. These included Russia (15 000 tonnes), Japan (25 000 tonnes), the Republic of Korea (25 000 tonnes), Ukraine (30 000 tonnes), USA (50 000 tonnes) and Norway (100 000 tonnes), giving a total of 245 000 tonnes (WG-EMM-05/6). Norway further indicated that the Vanuatu-flagged vessel *Atlantic Navigator* ceased fishing for krill in August 2005. As notified, the vessel will be replaced by the Norwegian-flagged *Saga Sea*, which will begin fishing in December 2005.

4.30 In respect of the krill fishing vessel *Saga Sea*, Norway indicated that it would provide data on krill catches at a level at least equivalent to the haul-by-haul information required in Conservation Measure 23-06, and would consult the Secretariat as to how best effect this.

4.31 The Commission noted the utility of the notification procedure for krill fisheries which has been operating for the last two seasons and encouraged Members to continue to submit these notifications. It recognised that the time series of such information will be extremely valuable in discerning trends in the fishery.

4.32 The Commission noted the Scientific Committee's advice that the krill fishery's pattern of operation is changing in respect of the nations involved, in the composition of its products and in the harvesting technology being used. There may also be evidence of gradual increases in overall catch levels. These developments will require changes in the type of data and reporting formats required from the fishery and in the level of observer coverage (SC-CAMLR-XXIV, paragraph 4.11).

4.33 The Commission endorsed the Scientific Committee's advice that (SC-CAMLR-XXIV, paragraph 3.43):

- (i) while the Commission has set catch limits for each subarea in Area 48 in Conservation Measure 51-01, there is no requirement in Conservation Measure 23-03 to report catches at the scale of subarea and hence there was no mechanism by which to determine if a catch limit had been exceeded;
- (ii) in order to allow the consideration of catches in each SSMU at an annual time scale, paragraph 3 of Conservation Measure 23-06 be modified appropriately.

Toothfish

4.34 The Commission noted that Members had fished for *Dissostichus eleginoides* in 2004/05 in Subareas 48.3 and 48.4 and Division 58.5.2, and for *Dissostichus* spp. in Subareas 48.6, 88.1, 88.2 and Divisions 58.4.1, 58.4.2, 58.4.3a and 58.4.3b. Other fisheries for *D. eleginoides* occurred in the EEZs of South Africa (Subareas 58.6 and 58.7) and France (Subarea 58.6 and Division 58.5.1). A total catch of 14 074 tonnes of *Dissostichus* spp. was reported in the Convention Area in the 2004/05 season (to 21 September 2005), compared with 15 877 tonnes in the previous season (SC-CAMLR-XXIV, Tables 2 and 3).

4.35 Data reported in the CDS indicated that 8 511 tonnes of *Dissostichus* spp. were taken outside the Convention Area in 2004/05 (to October 2005) compared with 15 806 tonnes in the previous season (SC-CAMLR-XXIV, paragraph 4.23). The catch of *Dissostichus* spp. outside the Convention Area reported through the CDS was 4 465 tonnes in 2004/05 and 3 873 tonnes for Areas 41 and 87 respectively, compared to 8 411 and 5 828 tonnes respectively in 2003/04.

4.36 The Commission noted that the Scientific Committee and WG-FSA had considered two separate modelling strategies for assessing *D. eleginoides* in Subarea 48.3 (SC-CAMLR-XXIV, paragraphs 4.42 to 4.58).

4.37 The Commission endorsed the Scientific Committee's advice setting a catch limit of 3 556 tonnes for *D. eleginoides* in Subarea 48.3 in 2005/06 (SC-CAMLR-XXIV, paragraphs 4.59 to 4.62).

4.38 The Commission endorsed the Scientific Committee's advice on *D. eleginoides* in the French EEZs in Division 58.5.1 and Subarea 58.6 (SC-CAMLR-XXIV, paragraphs 4.67, 4.68 and 4.91). It commended France on implementing a tag-recapture experiment in the 2005/06 season as this represents a major step forward in the determination of stock status.

4.39 It also endorsed the Scientific Committee's advice on *D. eleginoides* in Division 58.5.2 (SC-CAMLR-XXIV, paragraphs 4.77 and 4.78).

4.40 The Commission noted that the Scientific Committee was unable to provide management advice for the fishery in the South African EEZ in Subareas 58.6 and 58.7 because the assessment for that fishery reported to WG-FSA was not based on the CCAMLR decision rules. The Commission urged South Africa to use the CCAMLR decision rules in estimating yields for the fishery and to consider the Scientific Committee's advice on the matter (SC-CAMLR-XXIV, paragraphs 4.83 and 4.84).

4.41 The Commission endorsed the Scientific Committee's advice (SC-CAMLR-XXIV, paragraphs 4.68, 4.85 and 4.92) on the continued prohibition of directed fishing for *D. eleginoides* in areas outside national jurisdiction in Subareas 58.6 and 58.7 and Divisions 58.4.4 and 58.5.1.

Icefish

4.42 The Commission noted that Members had fished for *Champscephalus gunnari* in Subarea 48.3 and Division 58.5.2 in 2004/05, and a total of 1 991 tonnes of *C. gunnari* was taken in the Convention Area (to 21 September 2005), compared with 2 762 tonnes in the previous season (SC-CAMLR-XXIV, Tables 2 and 3).

4.43 The Commission noted that neither an acoustic research survey nor the fishery had found large concentrations of *C. gunnari* in Subarea 48.3 in 2004/05. It also noted that various explanations were discussed by the Scientific Committee (SC-CAMLR-XXIV, paragraphs 4.95 to 4.97).

4.44 The Commission endorsed the Scientific Committee's advice (SC-CAMLR-XXIV, paragraphs 4.97 and 4.99) on *C. gunnari* in Subarea 48.3.

4.45 The Commission endorsed the Scientific Committee's advice (SC-CAMLR-XXIV, paragraphs 4.106 and 4.107) on *C. gunnari* in Division 58.5.2. In endorsing this advice, the Commission noted the Scientific Committee's advice (SC-CAMLR-XXIV, paragraph 4.108) that:

- (i) this catch would primarily be of age-4 fish, which have been reproductively mature for at least one year;
- (ii) the catch on this cohort in the following year (2006/07) should be zero in order to satisfy the decision rule that the biomass of the stock should be greater than or equal to 75% of that which would have been present after two years in the absence of fishing;
- (iii) this strategy would provide for three years of reproduction by this cohort, although the strategy of having the catch concentrated in one year may slightly reduce the capacity for reproduction in the cohort's fifth year;
- (iv) although unlikely, given the absence of a strong 1+ year class in the 2005 survey, should a survey in 2006 show a 2+ cohort entering the fishable population then it may be difficult to have a fishery in the 2006/07 season that results in a negligible catch of the current dominant cohort, which would be 4+ during that survey.

4.46 The Commission agreed that the fishery for *C. gunnari* within the French EEZ of Division 58.5.1 should remain closed until information on stock status is obtained from a survey (SC-CAMLR-XXIV, paragraph 4.109).

Other finfish species

4.47 The Commission endorsed the Scientific Committee's advice on other finfish fisheries in Subareas 48.1, 48.2 and 48.3 (SC-CAMLR-XXIV, paragraphs 4.112 and 4.119).

4.48 The Commission endorsed the Scientific Commission's advice that a mark-recapture program for *Dissostichus* spp. be conducted over the next three to five years in Subarea 48.4 with a 100 tonne catch limit per season (SC-CAMLR-XXIV, paragraph 4.118 and Annex 5, paragraph 5.143). The Commission agreed to take the necessary steps to ensure that this research program is not affected by other fishing activities.

By-catch species

4.49 The Commission noted that the Scientific Committee had been unable to provide new advice on by-catch catch limits (SC-CAMLR-XXIV, paragraphs 4.179, 4.186 and 4.187). Therefore, the Commission agreed to maintain the status quo for catch limits for by-catch species in 2005/06.

4.50 The Commission endorsed the Scientific Committee's advice (SC-CAMLR-XXIV, paragraphs 4.192 to 4.200) on changes to data reporting forms. The Commission also urged:

- (i) Members and scientific observers to complete all the information requested on the data forms;
- (ii) Members engaged in fisheries to collect information necessary to establish levels of risk, as used in the development of the level of risk for species such as the grenadier *Macrourus whitsoni* and the ray *Amblyraja georgiana* in the exploratory fishery in the Ross Sea (SC-CAMLR-XXIV, paragraph 4.196);
- (iii) Members and scientific observers to submit to the Secretariat, where feasible, reports on fishing methods and strategies likely to reduce by-catch of non-target species.

4.51 The Commission endorsed the Scientific Committee's advice (SC-CAMLR-XXIV, paragraphs 4.201 to 4.204) that:

- (i) where possible, vessels should release rays from the lines by cutting the snoods when the rays are still in the water, unless requested not to do so by the observer during the biological sampling period;
- (ii) the requirement to cut all rays from lines whilst still in the water be relaxed when observers are carrying out particular tasks aimed at collecting further information on rays during the sampling period concerned.

4.52 The Commission endorsed a new 4-category scale (SC-CAMLR-XXIV, paragraph 4.204) to assess the condition of skates and rays when they are returned to the water.

4.53 Spain noted that the by-catch in exploratory fisheries had necessitated closure of some SSRUs (CCAMLR-XXIV/BG/13). A study on *Macrourus* spp. in Subareas 88.1 and 88.2 had also demonstrated the influence of fishing method, depth, geographical area and bait type (SC-CAMLR-XXIV, paragraph 4.197). Spain proposed that the Commission consider revising the by-catch ‘move-on rule’ for exploratory fisheries so as to encourage the industry to improve the selectivity of longline fishing methods.

Crab resources

4.54 The Commission noted that there had been no fishery for crab in Subarea 48.3 in the 2004/05 season and that no proposal to harvest crab had been received for the 2005/06 season. The Commission endorsed the management advice (SC-CAMLR-XXIV, paragraph 4.182) provided by the Scientific Committee.

Squid resources

4.55 The Commission noted that there had been no fishery for *Martialia hyadesi* in Subarea 48.3 in the 2004/05 season and that no notification to harvest this species had been received for the 2005/06 season. The Commission endorsed the management advice (SC-CAMLR-XXIV, paragraph 4.184) provided by the Scientific Committee.

Scientific research exemption

4.56 The Commission recalled that scientific research surveys notified to the Secretariat under Conservation Measure 24-01 are regularly updated on the CCAMLR website. It noted the future surveys identified (SC-CAMLR-XXIV, paragraphs 8.1 to 8.3) by the Scientific Committee. These comprise:

- bottom trawl survey in Subarea 48.1 by Germany in November/December 2006
- bottom trawl survey in Division 58.5.1 by France during 2006/07
- bottom trawl survey in Subarea 88.3 by the USA in March 2006
- bottom trawl survey in Division 58.5.2 by Australia in 2006
- bottom trawl survey in Subarea 48.3 by the UK in January/February 2006
- acoustic survey in Subarea 88.1 by Italy in December 2006 and January 2007.

Secretariat supported activities

4.57 The Commission noted the work undertaken by the Secretariat in 2004/05 in support of the Scientific Committee and its working groups (SC-CAMLR-XXIV, paragraphs 12.1 to 12.13).

4.58 The Commission endorsed the revisions to the submission of meeting documents to the Scientific Committee and its working groups. The guidelines had been discussed and revised in 2005 so as to standardise the guidelines for the working groups (SC-CAMLR-XXIV, paragraphs 12.14 to 12.16).

4.59 The Commission also endorsed the Scientific Committee's decision that an electronic reference library of all relevant meeting documents, including those submitted at previous meetings, be made available generally to meeting participants under the Rules for Access and Use of CCAMLR Data (SC-CAMLR-XXIV, paragraph 12.19).

4.60 The Commission endorsed the implementation of an Internet newsgroup in support of working groups' activities. The Internet newsgroups will be operated in accordance with agreed terms of reference and does not require moderation by the Secretariat (SC-CAMLR-XXIV, paragraph 12.28). The Commission agreed to fund the development of the newsgroup system (SC-CAMLR-XXIV/9).

4.61 The Commission noted the Scientific Committee's concerns regarding a new trial electronic version of the *Statistical Bulletin* (eSB) which the Secretariat had developed at the request of WG-FSA (SC-CAMLR-XXI, Annex 5, paragraph 13.8; SC-CAMLR-XXIV, paragraphs 12.20 to 12.27). The trial eSB contained fine-scale catch data aggregated by species, area, fine-scale rectangle and month. Some Members were concerned that these aggregated catch data may provide information which could be used by IUU fishing vessels and/or may divulge proprietary information.

4.62 The Commission asked that the Secretariat draft a policy governing the presentation and publication of aggregated fine-scale data, and the degree of aggregation required to alleviate Members' concerns. The Commission agreed that such a policy should be uniformly applied to all fisheries in the Convention Area (SC-CAMLR-XXIV, paragraph 12.26).

Scientific Committee activities

4.63 The Commission endorsed the work plan for the Scientific Committee and its working groups in 2005/06 (SC-CAMLR-XXIV, paragraphs 13.1 to 13.62), including:

- (i) meeting of WG-EMM in Namibia from 17 to 28 July 2006 – the Second Workshop on Management Procedures will be held in week 1 of the meeting;
- (ii) meeting of WG-FSA, including ad hoc WG-IMAF, in Hobart from 9 to 20 October 2006;
- (iii) meeting of WG-FSA's Subgroup on Assessment Methods (WG-FSA-SAM) in Namibia in the week immediately prior to WG-EMM-06 (approximate dates: 10 to 14 July 2006);
- (iv) meeting of the Joint Assessment Group (JAG) in Namibia during the week following WG-FSA-SAM-06 (approximate dates: 17 to 21 July 2006) (paragraphs 8.3 to 8.5);

- (v) meeting of the Subgroup on Acoustic Survey and Analysis Methods (SG-ASAM) in Hobart in March 2006, in association with the meeting of the ICES Working Group on Fisheries Acoustic Science and Technology;
- (vi) the second workshop on the age determination of *C. gunnari* is scheduled between April and June 2006;
- (vii) SC-CAMLR-XXV scheduled in Hobart from 23 to 27 October 2006.

4.64 The Commission noted that the dates and venue of the meetings of JAG, SG-ASAM and the age determination workshop will be determined in consultation with meeting organisers and information will be circulated to Members in early 2006 (SC-CAMLR-XXIV, paragraph 13.15).

4.65 The Commission endorsed the Scientific Committee's decision that all observers invited to the 2005 meeting would be invited to participate in SC-CAMLR-XXV. In addition, the Scientific Committee had agreed to invite Peruvian scientists to participate in the 2006 meeting of WG-EMM and future planning meetings of the CCAMLR-IPY steering group (SC-CAMLR-XXIV, paragraph 13.42).

4.66 The Commission also noted that:

- (i) Dr E. Barrera-Oro's (Argentina) term as Vice-Chair of the Scientific Committee ended in 2005 and the Scientific Committee had unanimously elected Mr L. Pshenichnov (Ukraine) to the position for a term of two regular meetings (2006 and 2007);
- (ii) Dr K. Reid (UK) will replace Dr R. Hewitt (USA) as Convener of WG-EMM.

4.67 The Commission joined the Scientific Committee in thanking Dr Hewitt, outgoing convener of WG-EMM, and Dr Barrera-Oro, outgoing Vice-Chair, for their significant contributions to the work of the Scientific Committee. The Commission welcomed Dr Reid and Mr Pshenichnov.

Reorganisation of the work of the Scientific Committee and its working groups

4.68 The Commission endorsed the Scientific Committee's decision (SC-CAMLR-XXIV, paragraphs 13.1 to 13.11) to review the reorganisation of its work in order to improve the balance, conduct and integration of work between the major current elements of its work program.

4.69 The Commission noted that this review would be developed during the intersessional period by a steering committee (SC-CAMLR-XXIV, paragraph 13.11).

Report of WG-FSA

4.70 The Commission noted concerns expressed by the Scientific Committee (SC-CAMLR-XXIV, paragraphs 13.21 to 13.25) at the budget over-run in the costs of translating and publishing the 2005 report of WG-FSA.

4.71 The Scientific Committee had discussed ways to reduce the future costs of translating and publishing the report of WG-FSA. The Commission agreed that the 2005 report was very large. However Members' individual needs for information were varied and precluded consensus being reached over which sections of the report should be retained, and which may be removed.

4.72 Further, the Commission recalled that WG-FSA had tried to reduce the cost of translation in 2003 by placing some appendices in background documents. This approach resulted in information being available in English only and subject to the rules for access and use of data. While saving considerable costs, this approach was found to be generally unacceptable to Members of the Scientific Committee and WG-FSA (SC-CAMLR-XXII, paragraphs 10.3 to 10.5; SC-CAMLR-XXIII, paragraph 13.11).

4.73 In reply to the question posed by the Scientific Committee (SC-CAMLR-XXIV, paragraph 13.24), the Commission advised that it relied primarily on the advice and information provided in the Scientific Committee's report.

4.74 The Commission strongly urged the Scientific Committee to address this year's budget over-run and develop ways to either reduce the size of the report of WG-FSA in future years, or identify cost savings in other areas of its work.

4.75 The USA proposed that the Commission revoke its decision taken in 2004 to translate and publish the report of WG-FSA in its entirety (CCAMLR-XXIII, paragraph 4.65), and that it reinstate the practice of placing the appendices of WG-FSA in background documents. However, consensus was not reached regarding that proposal. The USA noted that the over-run in the Scientific Committee's budget resulted in an increase of some A\$1 500 in each Member's 2006 contribution to CCAMLR.

Activities of the CCAMLR-IPY Group during the intersessional period

4.76 The Commission recalled the Scientific Committee's progress in developing CCAMLR's contribution to the International Polar Year in 2008 (SC-CAMLR-XXIV, paragraphs 13.33 to 13.43; SC-CAMLR-XXIV/BG/2 Rev. 1).

4.77 It noted that the Scientific Committee had developed a core project to conduct a synoptic survey of krill, pelagic fish and plankton biomass and biodiversity in the South Atlantic (Expression of Intent (EoI) 148). This had been evaluated by the Joint IPY Committee and established as the 'lead project' under the IPY topic 'Natural Resources, Antarctic'. CCAMLR has also been invited to establish an umbrella project in support of other projects under 'Natural Resources, Antarctic'. Accordingly, and with the support of WG-EMM, an umbrella project had been developed with a wider circum-Antarctic perspective than the original CCAMLR-IPY proposal above.

4.78 The Commission congratulated the Scientific Committee on these developments, and formally endorsed the core project (EoI 148) and the umbrella project.

4.79 The Commission urged all Members to participate in the CCAMLR core project. It noted that firm commitments for ship-time and other research activities should be provided to the next round of consultations on the matter. These will take place in association with the WG-EMM meeting in July 2006.

4.80 The Commission welcomed Peru's proposal to participate in the CCAMLR-IPY projects (SC-CAMLR-XXIV, paragraph 13.42) as an Acceding State, noting that Peruvian scientists will be invited to the 2006 meeting of WG-EMM and future planning meetings of CCAMLR-IPY projects.

Joint CCAMLR-IWC workshop

4.81 The Commission endorsed the Scientific Committee's proposal (SC-CAMLR-XXIV, paragraphs 13.44 to 13.53) to hold a joint CCAMLR-IWC workshop to review information required for ecosystem models being developed to provide management advice on krill predators in the Antarctic marine ecosystem.