CCAMLR-XII

COMMISSION FOR THE CONSERVATION OF
ANTARCTIC MARINE LIVING RESOURCES

REPORT OF THE TWELFTH MEETING OF THE COMMISSION

HOBART, AUSTRALIA
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CCAMLR
25 Old Wharf
Hobart
Tasmania 7000
AUSTRALIA

Telephone: 61 02 310366
Facsimile: 61 02 232714
Telex: AA 57236

Dietrich Hammond

Chairman of the Commission
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Abstract

This document presents the adopted record of the Twelfth Meeting of the Commission for the Conservation of Antarctic Marine Living Resources held in Hobart, Australia from 25 October to 5 November 1993. Major topics discussed at this meeting include: review of the Report of the Scientific Committee, assessment and avoidance of incidental mortality of Antarctic marine living resources, current operation of the Systems of Inspection and Scientific Observation, compliance with conservation measures in force, review of existing conservation measures and adoption of new conservation measures including catch limitations for a number of species of finfish and for Antarctic crabs, and cooperation with other international organisations including the Antarctic Treaty System. The Reports of the Standing Committee on Administration and Finance and the Standing Committee on Observation and Inspection are appended.

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REPORT OF THE TWELFTH MEETING OF THE COMMISSION

(Hobart, Australia, 25 October to 5 November 1993)

OPENING OF THE MEETING

1.1 The Twelfth Annual Meeting of the Commission for the Conservation of Antarctic Marine Living Resources was held in Hobart, Tasmania, Australia from 25 October to 5 November 1993 under the Chairmanship of Dr Dietrich Hammer (EEC).

1.2 Members of the Commission represented were: Argentina, Australia, Belgium, Brazil, Chile, European Economic Community, France, Germany, India, Italy, Japan, Republic of Korea, New Zealand, Norway, Poland, Russian Federation, South Africa, Spain, Sweden, United Kingdom of Great Britain and Northern Ireland and United States of America.

1.3 Following established practice, Acceding States were invited to attend as observers, and Bulgaria and Greece attended in this capacity.

1.4 In view of Ukraine's fishing activities in the CCAMLR Convention Area and more recently its contribution to the Eleventh Meeting, Ukraine was invited to attend as an observer and was represented at the meeting.

1.5 The Food and Agriculture Organisation of the United Nations (FAO), the Intergovernmental Oceanographic Commission (IOC), the World Conservation Union (IUCN), the International Whaling Commission (IWC), the Scientific Committee on Antarctic Research (SCAR), the Scientific Committee on Oceanic Research (SCOR) and the Antarctic and Southern Ocean Coalition (ASOC) were invited to attend the meeting as observers. FAO, IOC, IUCN, IWC, SCAR and ASOC attended.

1.6 A List of Participants is at Annex 1. A List of Documents presented to the meeting is at Annex 2.

1.7 The meeting was opened by His Excellency General Sir Phillip Bennett, AC, KBE, DSO, Governor of Tasmania.

1.8 In his address, His Excellency drew attention, particularly, to CCAMLR's unique approach to sustainable development in the marine environment. Its integrated approach to resource management was ahead of its time and provided a model which other international organisations were now adopting. His Excellency referred to the reduction in fishing activity, which he hoped would be an opportunity to consolidate the experience, expertise and resources built up during CCAMLR's existence, rather than a reason for reducing research funding. Reference was also made to the introduction of the system of international scientific observation and to the adoption of precautionary approaches towards managing the existing finfish fisheries and the newly-established crab fishery.

1.9 The Governor emphasised the importance of scientific research, not only in the Antarctic, but also globally, and encouraged Members in their endeavours in the twin tasks of scientific research and balancing the conservation of the Antarctic marine ecosystem with the development needs of nations.

ORGANISATION OF THE MEETING

2.1 The Provisional Agenda (CCAMLR-XII/1), distributed prior to the meeting, was amended as follows:

(i) Item 3, sub-item (iii), "Budget for 1994 and Forecast Budget for 1995", was to be considered after sub-items (iv), (v) and (vi);

(ii) "Election of Chairman and Vice-Chairman of SCAF" was added as a sub-item to Item 3;

(iii) Item 9, "Management and Conservation of Antarctic Marine Living Resources in the Area of the South Georgia and South Sandwich Islands", was deleted on the understanding that issues which might have arisen under Item 9 of the Provisional Agenda could be addressed under other items of the Agenda, in particular Items 6 (Observation and Inspection) and 8 (Conservation Measures).

With these amendments, the Agenda was adopted (Annex 3).

2.2 The Delegation of New Zealand noted that under the Commission's Rules of Procedure it was clear that observer representatives invited to attend the Commission meeting were entitled to attend sessions of subsidiary bodies of the Commission unless the session had been closed at the request of a Member of the Commission.

2.3 The Chairman welcomed participants and observers and reported on intersessional activities. He informed the meeting of CCAMLR Working Group meetings that had taken place during the year - in La Jolla (Workshop on the Management of the Antarctic Crab Fishery), Tokyo (WG-Krill), Seoul (WG-CEMP) and Hobart (WG-FSA). He also reported on representation at the SCAR Planning Workshop for the Antarctic Pack-Ice Seals (APIS) Program (which CCAMLR co-sponsored), at the XVIIth Antarctic Treaty Consultative Meeting, at the 45th Meeting of IWC and at the 81st Statutory Meeting of ICES. Reports on these meetings are discussed in the relevant sections of this report.

FINANCE AND ADMINISTRATION

3.1 The Chair of the Standing Committee on Administration and Finance (SCAF), Ms R. Tuttle (USA) presented the report of the Committee (Annex 4) and outlined the results of the discussions.

Audited Financial Statements for 1992

3.2 The Commission accepted the Financial Statements for 1992.

Data Manager

3.3 The Commission endorsed the recommendations of SCAF that the Data Manager position be upgraded from International Civil Service level P4 to level P5 with effect from August 1994 and that the existing Data Manager remain in the position at the new level.

Members' Contributions

3.4 The Commission agreed that the existing formula for calculating Member contributions would continue in use for contributions to the 1994 budget and directed the Secretariat to prepare, and distribute to Members during the intersessional period, a paper outlining alternatives for discussion at the 1994 meeting. As a means to facilitating a decision on this subject at next year's Meeting, the Secretariat was directed to support the Chairman-elect of SCAF in the preparation and early distribution to Members of a questionnaire soliciting Members' comments.

3.5 The Commission endorsed the suggestion of SCAF, that Members encourage non-member nations which fish in the Convention Area to become Members in order to increase the effectiveness of the Commission and share the budgetary burden across a broader base.

3.6 The Commission noted that the late payment of annual contributions has a detrimental effect on the operations of the Commission and imposes an additional financial burden on those Members who pay on time. All Members were urged to pay their contributions in accordance with deadlines specified in Financial Regulation 5.6.

Cost Savings

3.7 The Commission noted the results of the Committee's discussions in relation to cost savings and endorsed the recommendations in the Committee's report (Annex 4) on the following subjects:

- use of review audits (paragraphs 3 and 4);
- meeting costs (paragraphs 13 and 15);
- Members' Activities Reports (paragraph 16);
- publications distribution policy (paragraph 17);
- meeting reports and documents (paragraph 18);
- Secretariat attendance at Working Groups (paragraph 19); and
- rationalisation of Working Groups (paragraph 22).

3.8 In endorsing the Committee's recommendations in respect of the publications distribution policy, the Commission directed the Executive Secretary to report at the 1994 meeting on the implications to date of the policy.

3.9 The Commission also noted that this distribution policy does not apply to any reciprocal agreements with other organisations for the provision of free publications.

3.10 In endorsing the Committee's recommendation in respect of the rationalisation of Working Groups, the Commission recognised the Scientific Committee's continuing efforts to ensure the most efficient and effective performance of its work.

3.11 As a means of reducing costs to Members, the Commission agreed that the 1994 meeting would open on a Wednesday, by which day the Scientific Committee would already

have been meeting for two days. Standing Committees of the Commission would then meet during the rest of the week and plenary session would commence the following Monday and run for a week, as this year.

Review of 1993 Budget

3.12 The Commission approved the following reallocation of expenditure in the 1993 budget and noted that this reallocation has no net effect on the total expenditure:

- reduce Publications item by A$3 000;
- reduce Allowances sub-item by A$28 500; and
- increase Salaries sub-item by A$31 500.

1994 Budget and Forecast Budget for 1995

3.13 The Commission considered the Scientific Committee's suggestions for upgrading of the *Selected Scientific Papers*. It agreed to the upgrading but directed the Executive Secretary to investigate the possibility of obtaining an independent review of the quality of the publication and report to the Commission annually, for the next three years, on productions costs, subscriber interest and progress towards cost recovery.

3.14 The Commission approved the Budget for 1994 as contained in the SCAF report (Annex 4).

3.15 The Commission noted the Forecast Budget for 1995.

3.16 The Commission directed the Executive Secretary to prepare a report, for consideration at the 1994 meeting, on the options for the introduction of an official flag for the Commission.

Chair and Vice-Chair of SCAF

3.17 South Africa was elected Chair and Chile Vice-Chair of SCAF for the next two years.

3.18 The Commission expressed its appreciation to Ms Tuttle for the efficient and diplomatic way she has chaired SCAF for the last three years.

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 *Champsocephalus 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 low 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.

ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY OF ANTARCTIC MARINE LIVING RESOURCES

5.1 Over the last few years CCAMLR has adopted and implemented a set of steps to monitor and evaluate the impact of anthropogenic debris and waste on marine living resources in the Convention Area (CCAMLR-V, paragraphs 40 to 43).

5.2 The Commission noted that reports required from Members on assessment and avoidance of incidental mortality in the Convention Area in the 1992/93 season had been submitted by Australia, Brazil, Japan, Norway, South Africa, UK and USA (CCAMLR-XII/BG/6, 8, 9, 10, 12 and 18).

5.3 Observations of lost and discarded fishing gear at sea were reported by Australia and Brazil. The UK reported the first observation of penguins contaminated with oil, which must have originated from nearby pollution at sea, at Bird Island, South Georgia (SC-CAMLR-XII/BG/15).

Marine Debris

5.4 Periodical surveys of beached marine debris were reported by Australia (increase in debris since the last survey at Heard Island), Brazil (King George Island), Chile (Livingston Island), UK (South Orkney Islands and South Georgia), USA (less debris than in previous years in the Antarctic Peninsula and no observations at all of debris at Seal Island, South Shetland Islands). South Africa plans to conduct a full survey of the beaches of Marion Island for marine debris in the near future.

5.5 The UK presented reports on surveys of beach debris for the last two years (winters of 1991 and 1992) at Bird Island, South Georgia (CCAMLR-XII/BG/3 and CCAMLR-XII/BG/4) and the last year (1992/93) at Signy Island, South Orkney Islands (CCAMLR-XII/BG/7).

(i) At Bird Island the 1991 survey reported a 75% reduction in debris compared to 1990; packaging bands and fishing net fragments were still the main types of debris. In 1992, however, there was a 20-fold increase in debris, chiefly due to large quantities of nylon string and rope. The incidence of packaging bands and fishing net also increased though most packaging bands had been cut. The end of open incineration practices at Bird Island reduced the incidence of items of local provenance from 20% to 0.

(ii) At Signy Island the current survey showed a further reduction (totalling 80% overall) in both weight and number of items of debris, compared to the two previous surveys. Whether this reflects improved adherence to the various regulations designed to protect the Southern Ocean marine environment or simply results from the reduction in fishing activity in the area, due to the closure of Subarea 48.2 to finfishing, is unknown.

5.6 In SC-CAMLR-XII/BG/17 Chile presented a summary of historical human impact at Cape Shirreff, Livingston Island. Beach debris from fishing and other activities carried out by 10 countries has been identified and this material has had an impact on juvenile fur seals (*Arctocephalus gazella*) and kelp gulls (*Larus dominicanus*). Some packaging bands, which have sharp edges and have the potential of causing damage to fur seals, have been found partly buried in sand in some areas. Chile suggested that:

(i) Members of CCAMLR agree to use their influence on the international scientific communities in order to improve Conservation Measures for the Southern Ocean Ecosystem, i.e. to reinforce MARPOL 73/78 and encourage other nations to ratify it; and

(ii) a monitoring network be established around Antarctica and its islands with a view to check whether the overall pollution problem is increasing, remaining stable or decreasing. This monitoring should include the recording of entanglements of birds and marine mammals, as well as other damage that this pollution is causing to other Antarctic marine biota, in order to propose appropriate Conservation Measures.

5.7 Last year the Commission requested the Secretariat to draft standard guidelines for conducting surveys of beached marine debris (CCAMLR-XI, paragraph 5.6). The required guidelines were prepared by the Science Officer in consultation with Members (CCAMLR-XII/BG/5). The guidelines were drafted in the same format as CEMP Standard Methods. In presenting the guidelines to the Commission, the Science Officer pointed out that, although all current surveys conducted by Members are aimed at monitoring the accumulation of marine debris by type and its change over time, the sampling effort and the amount of data collected do not yet justify the planning of assessment studies. Therefore, current studies should be designed as baseline studies and should be continued until the baseline required for planning of assessment studies is established. The data obtained should be regularly reviewed in order to assess progress in establishing a baseline.

5.8 The Commission noted that the guidelines had been briefly discussed by the Scientific Committee and that a number of Members had indicated that they would be undertaking surveys of beached debris in the near future in accordance with these guidelines (SC-CAMLR-XII, paragraphs 10.27 and 10.28). The Commission approved the guidelines and recommended that Members use them for conducting surveys of beached marine debris. It was agreed that the guidelines should be reviewed in two years time when Members had gained more experience in using the guidelines to conduct surveys.

Entanglement and Mortality in Marine Debris

5.9 The Commission noted that the Scientific Committee had reviewed data and papers on the entanglement of Antarctic fur seals in marine debris (SC-CAMLR-XII, paragraphs 10.23 to 10.26). There were reports from Australia of three animals entangled at Heard Island (CCAMLR-XII/BG/8) and from the USA of 14 animals - a much higher number than usual - entangled at Seal Island, South Shetland Islands (CCAMLR-XII/BG/12). The main entangling materials were packaging bands and synthetic cord. The UK had reported 10-fold and 75% increases in observations of entangled fur seals in winter and summer, respectively, on Bird Island, South Georgia (SC-CAMLR-XII/BG/6). The main entangling materials were plastic packaging bands and fragments of fishing net.

5.10 In relation to these new data on oiled seabirds, entangled seals and the levels and potential impacts of discarded debris, the Commission decided that it is necessary to reiterate the Commission's call (CCAMLR-V, paragraph 40) for Members, who have not already done so, to ratify and implement Annex V of the 1978 Protocol to the 1973/78 International Convention for the Prevention of Marine Pollution from Ships (MARPOL), and the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters (London Convention). As of March 1993, 15 CCAMLR Members and four Acceding States have accepted Annex V to MARPOL 73/78.

5.11 In addition, the Commission noted the recommendation of the Scientific Committee that a further step to alleviate the persistent problem of entanglement of fur seals with packaging bands would be to prohibit (including a phase-out period) the use of plastic packaging bands on bait boxes on fishing vessels in the Convention Area (SC-CAMLR-XII, paragraphs 10.25 and 10.34).

5.12 Accordingly, the Commission adopted Conservation Measure 63/XII (see paragraph 8.39).

5.13 The Commission also agreed to draw this Conservation Measure to the attention of Contracting Parties to other elements of the Antarctic Treaty System and to non-members in the Convention Area and to encourage them to take similar action within their areas of competence.

Incidental Mortality During Fishing Operations

5.14 The Scientific Committee discussed in detail reports received from several Members on observations of incidental mortality during fishing operations and actions taken to prevent such mortality (SC-CAMLR-XII, paragraphs 10.1 to 10.21). The Commission endorsed the initiative of the Scientific Committee to establish an *ad hoc* Working Group to consider incidental mortality arising from longline fishing operations (SC-CAMLR-XII, paragraph 10.19).

5.15 The Commission welcomed the efforts of Australia, Japan, New Zealand and Russia in research aimed at improving the design of "tori" poles and streamer lines described in Conservation Measure 29/XI (SC-CAMLR-XII, paragraphs 10.11, 10.13, 10.14 and 10.17).

5.16 Experience by some Members in using the streamer line specified in Conservation Measure 29/XI has shown that there may be some problems in its design. In this regard, the Scientific Committee recommended that until better designs are elaborated, it would be appropriate to revise Conservation Measure 29/XI. The Scientific Committee proposed several specific details of the required revision (SC-CAMLR-XII, paragraph 10.33).

5.17 The Commission considered this recommendation and the revised Conservation Measure 29/XII was adopted (see paragraph 8.39).

5.18 The Commission noted with regret from the report of the Scientific Committee that reporting of data on incidental mortality and on the effectiveness of mitigation measures was incomplete. The Commission noted the recommendation that it consider means for placing Scientific Observers on a high proportion of longline vessels in the Convention Area for at least one fishing season to collect the data required for a reliable assessment of the number and species of birds incidentally captured on longlines in the CCAMLR Convention Area (SC-CAMLR-XII, paragraphs 10.31 and 10.32).

5.19 The Delegation of New Zealand noted its additional recommendations that there was a need for rapid feedback between observers and the Commission on the effectiveness of mitigation measures under different prevailing circumstances and the desirability of having two observers on board to obtain complete coverage of all longline sets.

5.20 The recommendation of the Scientific Committee on placing Scientific Observers on a high proportion of longline vessels was considered by the Commission. Several Members felt it was necessary to explore all available mechanisms of the Convention to meet this objective. The Commission agreed that an item on conducting scientific observations of longline fisheries be discussed by SCOI next year. The Commission urged Members, in the meantime, to use more extensively the recently adopted Scheme of International Scientific Observation for placing observers on longline vessels. However, it was realised that such effort would be largely dependent on funds available to individual Members.

5.21 The Delegation of Poland proposed that the Commission amend Conservation Measure 30/IX in order to allow Polish fishing vessels to defer the installation of cable-less net echosounders to the end of 1995, due to plans to withdraw these trawlers from the Convention Area at that time. The Commission noted that the measure was passed two years ago, and recommended the Government of Poland to urge its fleet to comply with the measure. The Delegation of Poland asked that this issue be placed on next meeting's agenda and this was agreed.

Conference on Marine Debris

5.22 The Delegation of the USA drew the Commission's attention to the forthcoming Third International Conference on Marine Debris: Seeking Global Solutions, which will be held in Miami, Florida, from 8 to 13 May 1994 (CCAMLR-XII/BG/22). This conference will address several matters of direct interest to CCAMLR, including consideration of the sources, types, distribution, and impacts of marine debris. The Delegation of the USA agreed to provide a CCAMLR observer to this conference and to report to the Commission at its next meeting.

6.1 The Chairman of the Standing Committee on Observation and Inspection (SCOI) Ambassador J. Arvesen (Norway) introduced the report of the Committee. The Committee had considered Agenda Item 6 referred to it by the Commission. An additional item, "Election of the Chairman of SCOI" was also discussed by the Committee. The report of SCOI is appended as Annex 5.

Reports of Inspection

6.2 Twenty-six CCAMLR Inspectors were nominated by Members in accordance with provisions of the System of Inspection to carry out inspections in the 1992/93 season. Only one inspection was reported (CCAMLR-XII/12). The inspection of the Polish vessel, *Lyra*, fishing for krill in Subarea 48.1, was carried out on 3 March 1993 by CCAMLR Inspectors nominated by the US (Annex 5, paragraphs 6 and 7).

6.3 The Commission endorsed the Committee's suggestion that the System of Inspection, which is available to all Members, should be used more extensively in order to ensure compliance with Conservation Measures, particularly in those Statistical Areas where the majority of Conservation Measures are in force (Annex 5, paragraph 9).

6.4 The Commission endorsed the Committee's recommendation that in order to provide greater flexibility to the System of Inspection, Article I(f) of the System of Inspection be amended in such a way that the deadline for the designation of Inspectors be changed from the existing date of 1 May to a date which corresponds to the last day of the Commission meeting and that designations should remain valid until the last day of the Commission meeting in the following year (Annex 5, paragraph 22).

6.5 The Commission also endorsed the Committee's request that, in addition to reporting inspections carried out, information be provided to SCOI by Members about the actual number of Inspectors deployed at sea, duration of their trips and areas covered (Annex 5, paragraph 11).

6.6 Having adopted the new Scientific Research Exemption Provisions, consisting of Conservation Measure 47/XI and Resolution 9/XI, the Commission, in 1992, decided to review the status of the Register of Permanent Research Vessels (CCAMLR-XI, paragraph 9.12).

6.7 SCOI had several options for the revision of the Register's status described in the paper prepared by the Secretariat (CCAMLR-XII/13). The Committee had also received advice from the Scientific Committee on the matter (SC-CAMLR-XII, paragraphs 6.1 to 6.3).

6.8 The Committee had suggested that the Commission consider deletion of the Register of Permanent Research vessels and amend the Scientific Research Exemption Provisions as follows:

- delete reference to the Register and to the 1986 Scientific Research Exemption Provisions from Article IV(a), and add to Article IV(a) a request that Members submit a list of vessels intending to conduct fishing for research purposes in addition to the list of vessels intending to undertake harvesting activities; and

- amend Conservation Measure 47/XI to specify which exemptions apply to those research vessels intending to catch less than 50 tonnes.

6.9 The Delegation of Spain has made specific proposals on the amendment of Conservation Measure 47/XI (CCAMLR-XII/BG/20). The Commission considered these proposals and adopted Conservation Measure 64/XII to replace Conservation Measure 47/XI and Resolution 9/XI (see paragraph 8.39).

6.10 The Commission noted that the 50 tonne limit may not be appropriate for krill, crab and squid. It recommended that the Scientific Committee study this at its next meeting.

Compliance with Conservation Measures in Force

6.11 The Committee discussed several reported cases of apparent non-compliance with Conservation Measures in force in Subareas 48.3 and 48.4 (Annex 5, paragraphs 27 to 29).

6.12 The Observer from Bulgaria informed the Commission that the reasons for one Bulgarian vessel fishing in Subarea 48.4 contrary to Conservation Measure 44/XI was to avoid high economic losses because the vessel arrived in the area earlier, on 5 November expecting that the fishery would be open on this date as it was in 1991. The Commission expressed its disapproval and disappointment that Bulgaria, as an Acceding State, had not complied with this Conservation Measure.

6.13 The Commission endorsed the Committee's recommendation that Bulgaria be urged to take steps to become a Member of the Commission. The Commission also urged Ukraine, which fishes in the Convention Area, to join the Commission.

6.14 The Observer from Ukraine informed the Commission that the decision of the Government of Ukraine to join the Commission is expected shortly.

6.15 In this connection, the Commission instructed the Chairman to write to appropriate authorities in Bulgaria and Ukraine and advise them of the Commission's concern that all nations fishing in the CCAMLR Convention Area should take steps to become Members of the Commission.

6.16 The Commission noted the statement made by the Delegation of Chile at the SCOI meeting on matters related to the enforcement of Conservation Measures in the Convention Area for longline vessels operating under the flag of Chile (Annex 5, paragraph 31 and Appendix 1).

6.17 The Committee discussed the proposal of the Delegation of Chile that the use of remotely sensed automatic position fixing systems (transponders) on vessels fishing in the Convention Area would help to better meet the objective of the Convention and improve the reliability of fine-scale data which underlie management decisions (Annex 5, paragraph 33). The Commission agreed that the use of remotely sensed automatic position fixing systems would be an important step towards ensuring that objectives of the Convention were effectively met and that this question be included on the Provisional Agenda of the next meeting of the Commission, and endorsed the Committee's request that the Secretariat prepare a paper on this question to be considered at the next annual meeting (Annex 5, paragraph 35).

6.18 The Commission endorsed the Committee's recommendation that Members participating in any fishery for which catches are to be reported at specified intervals be requested to submit catch reports for the entire duration of the fishery, including periods when no catches were taken, i.e. to report so-called 'zero' catches (Annex 5, paragraph 24).

Operation of the Scheme of International Scientific Observation

6.19 The Scheme of International Scientific Observation was adopted last year by the Commission. The first observation under this Scheme was conducted in accordance with an agreement between Chile and the UK. Under this agreement, a Scientific Observer designated by the UK together with a Chilean scientist undertook scientific observations on board the Chilean longliner fishing for *D. eleginoides* in Subarea 48.4 (South Sandwich Islands) from 25 February to 3 March 1993. The Commission took note of information provided to the Scientific Committee by the Delegation of the USA about plans to conduct scientific observation in cooperation with Japan.

6.20 The Scientific Committee considered results of this first observation and highlighted the important role of Scientific Observers aboard commercial fishing vessels (SC-CAMLR-XII, paragraphs 2.23 and 11.1). The Chairman of the Scientific Committee, Dr Kock, stressed that more Scientific Observers need to be placed on board commercial vessels in order to collect information which is important for management decisions.

6.21 The Commission endorsed the Committee's suggestion that the Scheme of International Scientific Observation, which is available to all Members, should be more extensively used by Members, particularly in Statistical Areas where most Conservation Measures are in force, with the view of achieving the objectives of the Convention.

6.22 The Commission noted the Scientific Committee's indication that it will be some time before comprehensive observer reports become available under the Scientific Observers Scheme and that in the light of the limited experience acquired so far in using the *Scientific Observers Manual* it should be revised and a new edition published only after more information becomes available.

6.23 The Commission recalled SCOI's agreement that there would be need to review the Scheme as experience was gained in its operation (CCAMLR-XI, Annex 5, paragraph 47).

NEW AND EXPLORATORY FISHERIES

7.1 At its 1992 meeting, the Commission noted that Conservation Measure 31/X had succeeded in providing a useful mechanism for evaluating new fisheries as they begin, and it agreed that it would be desirable to ensure that such fisheries did not expand faster than the acquisition of relevant information during a fishery's exploratory phase (CCAMLR-XI, paragraphs 4.27 and 4.29).

7.2 In response to a request by the Commission (CCAMLR-XI, paragraphs 4.32 and 4.33), the Scientific Committee and its Working Groups had considered this matter during the intersessional period (SC-CAMLR-XII, paragraphs 7.3 to 7.10) using a paper prepared by the Delegation of the USA as a basis for its discussions (CCAMLR-XII/5).

7.3 The Commission endorsed the Scientific Committee's recommendation concerning a formal procedure pertaining to exploratory fisheries (SC-CAMLR-XII, paragraph 7.4). The Commission adopted Conservation Measure 65/XII (see paragraph 8.39).

CONSERVATION MEASURES

8.1 The Commission agreed that Conservation Measures 2/III (as amended by 19/IX which came into force on 1 November 1991 except for waters adjacent to Kerguelen and Crozet Islands), 3/IV, 4/V, 5/V, 6/V, 7/V, 18/IX, 19/IX, 30/X (which came into force on 3 May 1992, except for waters adjacent to Kerguelen and Crozet Islands), 31/X (which came into force on 3 May 1992, except for waters around Kerguelen and Crozet Islands and around the Prince Edward Islands), 40/X, 48/XI, 51/XI, 52/XI, 54/XI, 59/XI, 61/XI and 62/XI should remain in force[1].

8.2 Conservation Measures 44/XI, 49/XI, 50/XI, 53/XI, 55/XI through 58/XI and 60/XI were applicable to the 1992/93 season only and therefore lapse at the end of the present meeting.

8.3 Appreciation was expressed for a list of current Conservation Measures prepared by the Secretariat and the process of gradual consolidation of a conservation and management regime in the entire area of the Convention was recalled. The integrated approach to the conservation and management problems in Subarea 48.3 envisaged by Conservation Measure 7/V and other subsequent Conservation Measures, was praised and compliance with the full range of obligations, including accurate and thorough reporting, was once again emphasised.

1 Conservation Measures 5/V and 6/V, which prohibit directed fishing for *Notothenia rossii* in Subareas 48.1 and 48.2 respectively, remain in force but are currently encompassed within the provisions in Conservation Measures 72/XII and 73/XII.

8.4 In this regard, the Commission recalled that the majority of Conservation Measures apply to Subareas 48.3 and 48.4, and that consequently the full exercise of the responsibility of the Flag State to ensure compliance is called for in these areas.

8.5 In the course of other agenda items, the Commission adopted Conservation Measures 64/XII and 65/XII concerning scientific research exemption and exploratory fishing (paragraphs 6.9 and 7.3).

8.6 While agreeing in principle with Conservation Measures 64/XII and 65/XII, France and South Africa indicated that these Conservation Measures will not apply to their respective Exclusive Economic Zones around Kerguelen and Crozet Islands, and around the Prince Edward Islands. They specified that their countries will of course, as in the past, inform the Commission of their research programs and results; the total catches made during these research surveys in these economic zones will naturally be taken into account so as to comply with the advice of the Scientific Committee and the Commission.

8.7 One Member stated its reservation that the expression of paragraph 2(vi) of Conservation Measure 65/XII was not entirely in the spirit of a precautionary approach.

Krill Resources

8.8 The Commission considered the advice from the Scientific Committee that its revised estimate of potential yield for the combined Subareas 48.1, 48.2 and 48.3 was 3.08 million tonnes, but that changes to this estimate were likely to be made following refinement of the calculations being performed by WG-Krill. Revised estimates of yield in Statistical Area 58 are also expected in the near future (SC-CAMLR-XII, paragraphs 2.66 to 2.80).

8.9 The Commission agreed that no revision of the precautionary catch limits for krill in the Convention Area was necessary at the present meeting.

8.10 Consequently, the Commission agreed that Conservation Measures 32/X, 45/XI and 46/XI should remain in force.

Fish Resources

8.11 In considering Conservation Measures addressing data reporting, the Commission recalled that SCOI had recommended that catch reports be submitted for the entire duration of a fishery, including so-called zero catches (paragraph 6.18). Accordingly, Conservation Measures 51/XI and 61/XI were amended and adopted as 51/XII and 61/XII (see paragraph 8.39).

Subarea 48.3 (South Georgia)

Champsocephalus gunnari in Subarea 48.3

8.12 In reviewing management advice on this stock, the Commission recollected its decision last year to re-open the fishery for *C. gunnari* with a conservative TAC and to introduce detailed reporting requirements to improve the provision of data from the commercial fishery (CCAMLR-XI, paragraphs 9.18 and 9.19), based on the advice of the Scientific Committee (SC-CAMLR-XI, paragraph 3.68).

8.13 The Commission was informed that, for economic reasons, there had been no catch of *C. gunnari* in Subarea 48.3 during the 1992/93 season.

8.14 The Commission noted the recommendations of WG-FSA (SC-CAMLR-XII, Annex 5, paragraphs 6.56 to 6.62) that:

(i) in the light of uncertainty on the current status of the exploitable stock a conservative approach to management is appropriate in the immediate future;

(ii) a survey to establish the abundance of *C. gunnari* and other fish should be carried out during the 1993/94 season;

(iii) a TAC should be set either at 9 200 tonnes, because of the lack of new data on the by-catch of non-target fish species, or at 13 000 to 21 000 tonnes if the by-catch of these species could be monitored continuously during fishing; and

(iv) that all Conservation Measures covering reporting of effort and biological data, closure to protect spawning stock, mesh size regulations and prohibition on bottom trawling, should remain in force.

8.15 The Commission further noted that while the advice of the Scientific Committee was not unanimous, most Members agreed with the above recommendations of WG-FSA (SC-CAMLR-XII, paragraph 3.45). However, another view was expressed, suggesting closure of the fishery in view of the lack of recent data, past high variability in stock estimates and the large drop in biomass between 1989/90 and 1990/91, all combining to produce high levels of uncertainty (SC-CAMLR-XII, paragraph 3.46).

8.16 The Commission agreed on the general principle of a precautionary TAC and the prevailing view was that the TAC should remain at 9 200 tonnes, while some Members continued to stress that high levels of uncertainty associated with the current biomass estimates, warranted more stringent measures. In this connection, the information from the UK of its intention to do a research survey of *C. gunnari* in Subarea 48.3 in January 1994 was welcomed by the Commission and it was decided to delay accordingly the commencement of the fishing season. The proposed TAC was then endorsed by the Commission, subject to the understanding that any significant trend which would effect current estimates of the stock would be immediately brought to the attention of the Commission. The Commission noted that this would allow Members to be informed early by the Secretariat if there were indications against continuing fishing in the 1993/94 season. As always, the TAC level shall be kept under review by the Commission, taking into account the advice of the Scientific Committee.

8.17 Accordingly, the Commission adopted Conservation Measure 66/XII (see paragraph 8.39).

Electrona carlsbergi in Subarea 48.3

8.18 Last year, in the absence of new scientific data to estimate stock biomass, the Commission agreed to set a TAC broadly in line with that set in the preceding year.

8.19 This year, in the continuing absence of any information on the biomass and biological characteristics of the stock, the Commission agreed that it was no longer acceptable, for this stock, to continue to set TACs in line with assessments that were several years old.

8.20 The Commission also wished to ensure that any substantial fishery should be accompanied by a survey of the biomass and age structure of the stock and that the biological characteristics of by-catch should be studied and reported to CCAMLR.

8.21 Accordingly, Conservation Measure 67/XII, intended as a precautionary measure for the coming season, was adopted in conjunction with Conservation Measures 40/X and 54/XI (see paragraph 8.39).

Dissostichus eleginoides in Subarea 48.3

8.22 In reviewing management advice received from the Scientific Committee on this stock, the Commission:

(i) recollected the extensive discussion last year concerning TAC levels in relation to compliance with data reporting, proposals for division of fishing effort amongst fishing states and restriction of increase in the number of fishing vessels participating in the fishery (CCAMLR-XI, paragraphs 9.26 to 9.39);

(ii) noted the advice of the Scientific Committee (SC-CAMLR-XII, Annex 5, paragraphs 6.24 to 6.26) concerning:

(a) the possible depletion of the stock to around 30% of its unfished abundance and the recommendation that a substantial reduction in catch is required to allow the stock to rebuild;

(b) appropriate TACs in the case of whether this stock is considered restricted to Subarea 48.3 or whether allowance is made for fishing in areas adjacent to Subarea 48.3 but outside the Convention Area;

(c) the need for careful consideration of the number of vessels operating in the fishery;

(iii) noted further that the Scientific Committee had been unable to provide unanimous advice but that many Members had agreed with the recommendations of WG-FSA concerning possible levels of TAC. However, two other suggestions, one for closing the fishery and one for a TAC of 3 000 tonnes had also been made (SC-CAMLR-XII, paragraphs 3.34 to 3.39); and

(iv) reiterated its concern that adequate data be made available for the scientific assessment and management of this stock.

8.23 To improve the scientific assessment of the *D. eleginoides* stock, the Commission decided to designate Subarea 48.3 a special zone for Protection and Scientific Study under Article IX (2) (g) of the Convention. This designation is for one season (1993/94) and for this stock only.

8.24 In order to regulate the number of vessels involved in the fishery at any one time to avoid problems with stock assessments (SC-CAMLR-XII, Annex 5, paragraph 6.26), the Commission agreed to divide the season into five periods of equal length with the TAC evenly divided between these periods, and to allow not more than one vessel to fish at any one time[2]. Members interested in conducting this fishery are encouraged to agree on the period in which each Member may carry out its activities.

8.25 Members intending to conduct fishing activities for *D. eleginoides* in the Special Area for Protection and Scientific Study shall include in their research plans transmitted to the Secretariat a brief description of studies on at least the following items:

- determination of local density;
- stock distribution and identification;
- biological data including size and age distributions; and
- reports on the effectiveness of mitigation measures.

A protocol for the determination of local density by means of local depletion experiments is being made available by the Secretariat to all interested Members.

8.26 Accordingly, Conservation Measure 69/XII was adopted in conjunction with Conservation Measures 51/XII and 71/XII (see paragraph 8.39).

By-catch Species in Subarea 48.3

8.27 The Commission noted the advice of the Scientific Committee on these species and adopted Conservation Measure 68/XII (see paragraph 8.39).

[2] It was agreed that this decision was without prejudice or precedent to decisions regarding this fishery in future fishing seasons.

Subarea 48.1 (Antarctic Peninsula)
and Subarea 48.2 (South Orkney Islands)

8.28 The Commission noted the advice of the Scientific Committee on fisheries in these subareas (SC-CAMLR-XII, paragraphs 3.54 and 3.55) and accordingly adopted Conservation Measures 72/XII and 73/XII (see paragraph 8.39).

Subarea 48.4

Dissostichus eleginoides in Subarea 48.4

8.29 Last year an application by Chile under Conservation Measure 31/X for an exploratory fishery for *D. eleginoides* in Subarea 48.4 was approved by the Commission under the terms of Conservation Measure 44/XI. This exploratory fishery, in the northern part of the subarea, had resulted in low catch rates. In addition, a non-member, Bulgaria, had also fished in the subarea. Haul-by-haul catch and effort data (as required under Conservation Measure 44/XI) had been reported to CCAMLR from both fisheries.

8.30 The Commission noted that, based on the analysis of these data, WG-FSA had recommended a TAC of 28 tonnes for Subarea 48.4. The Commission noted one view that this TAC should apply only to the part of the subarea covered by the exploratory fishery and another view that the subarea be subdivided to restrict the TAC to the northern area, treating any fishery in the rest of the subarea as a new fishery.

8.31 After considering these views the Commission adopted Conservation Measure 70/XII in conjunction with Conservation Measures 51/XII and 71/XII (see paragraph 8.39).

Crab Resources

8. 32 Fishing for crabs in Subarea 48.3 during the 1992/93 season was undertaken by one US vessel between 10 July and 12 November 1992. The catch was 299 tonnes (272 000 individuals). No fishing occurred during 1993.

8.33 The Commission noted the development of this fishery under a conservative management strategy and believed that certain aspects of this strategy should be used as a model in the future development of new and exploratory fisheries.

8.34 The Commission agreed that a TAC of 1 600 tonnes should be imposed for the crab fishery in Subarea 48.3 for the next season and that indirect controls (size, sex, gear, etc.) should be continued. In addition, the Commission agreed that vessels operating in the fishery shall be required to participate in an experimental fishery.

8.35 The Commission recommended that the following additional measures identified by the Scientific Committee (SC-CAMLR-XII, paragraph 4.12) should have a high priority for investigation:

(i) the use of time-release or biodegradable devices to reduce the effects of "ghost" fishing resulting from pot loss, should be considered;

(ii) the adoption of a minimum mesh size and/or the incorporation of an escape port (usually a metal ring set into the side of the pot) in pots following research on mesh or port selectivity. This will serve to select only crabs of harvestable size more effectively in addition to reducing the number of potential discards. It will, however, reduce the ability to monitor parasitic infection; and

(iii) the use of pots with finer mesh or escape ports in order to obtain more representative length frequency information from harvested stocks.

8.36 The Commission noted that at this stage of its development the crab fishery has a number of special characteristics. These include:

(i) the recent fishery consists of only one boat and at this Commission meeting only one US vessel had indicated its wish to participate in the 1993/94 fishery;

(ii) crabs inhabit the ocean floor and are not free-swimming as are finfish and krill resources;

(iii) it is intended that biologists will participate on board the vessel during the entire fishing season to collect data, including haul-by-haul data, as specified by the Commission; and

(iv) the fishery, as set out by Conservation Measures 74/XII and 75/XII, will be conducted using indirect and direct controls and under the framework of an experimental design.

8.37 The Commission also noted the commitment of the US to provide thorough analyses of all aspects of the crab data to the Scientific Committee's Working Groups.

8.38 Accordingly, Conservation Measure 74/XII, setting direct and indirect controls, and Conservation Measure 75/XII, providing for the experimental design, were adopted in accordance with Conservation Measure 65/XII (see paragraph 8.39).

CONSERVATION MEASURES ADOPTED IN 1993

8.39 Conservation Measures adopted at the Twelfth Meeting of the Commission are given below.

CONSERVATION MEASURE 29/XII

Minimisation of the Incidental Mortality of Seabirds in the Course of Longline Fishing or Longline Fishing Research in the Convention Area

The Commission,

Noting the need to reduce the incidental mortality of seabirds during longline fishing by minimising their attraction to the fishing vessels and by preventing them from attempting to seize baited hooks, particularly during the period when the lines are set.

Recognising that successful techniques for reducing the mortality of albatrosses have been employed in the longline fishery for tuna immediately to the north of the Convention Area.

Agrees to the following measures to reduce the possibility of incidental mortality of seabirds during longline fishing.

1. Fishing operations shall be conducted in such a way that the baited hooks sink as soon as possible after they are put in the water. Only thawed bait shall be used.

2. During the setting of longlines at night, only the minimum ship's lights necessary for safety shall be used.

3. Trash and offal are not to be dumped while longline operations are in progress.

4. A streamer line designed to discourage birds from settling on baits during deployment of longlines shall be towed. Specification of the streamer line and its method of deployment is given in the Appendix to this Measure. Details of the construction relating to the number and placement of swivels may be varied so long as the effective sea surface covered by the streamers is no less than that covered by the currently specified design.

5. This Measure shall not apply to designated research vessels investigating better methods for

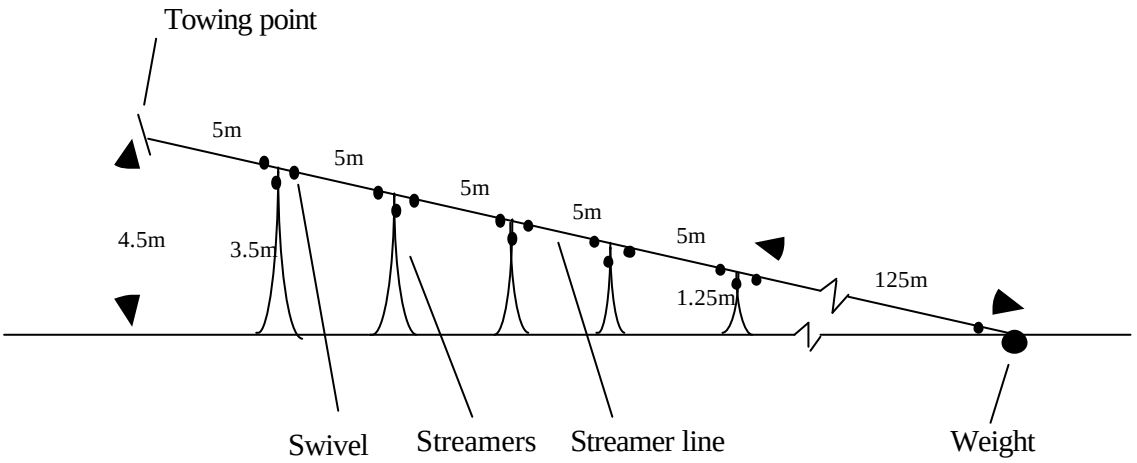
reducing incidental mortality of seabirds.

APPENDIX TO CONSERVA TION MEASURE 29/XII

1. The streamer line is to be suspended at the stern from a point approximately 4.5 m above the water and such that the line is directly above the point where the baits hit the water.

2. The streamer line is to be approximately 3 mm diameter, have a minimum length of 150 m and be weighted at the end so that it streams directly behind the ship even in cross winds.

3. At 5 m intervals commencing from the point of attachment to the ship five branch streamers each comprising two strands of approximately 3 mm diameter cord should be attached. The length of the streamer should range between approximately 3.5 m nearest the ship to approximately 1.25 m for the fifth streamer. When the streamer line is deployed the branch streamers should reach the sea surface and periodically dip into it as the ship heaves. Swivels should be placed in the streamer line at the towing point, before and after the point of attachment of each branch streamer and immediately before any weight placed on the end of the streamer line. Each branch streamer should also have a swivel at its attachment to the streamer line.



CONSERVATION MEASURE 51/XII

Five-day Catch and Effort Reporting System

This Conservation Measure is adopted in accordance with Conservation Measure 7/V where appropriate:

1. For the purposes of this Catch and Effort Reporting System the calendar month shall be divided into six reporting periods, *viz*: day 1 to day 5, day 6 to day 10, day 11 to day 15, day 16 to day 20, day 21 to day 25 and day 26 to the last day of the month. These reporting periods are hereinafter referred to as periods A, B, C, D, E and F.

2. At the end of each reporting period, each Contracting Party shall obtain from each of its vessels its total catch and total days and hours fished for that period and shall, by cable, telex or facsimile, transmit the aggregated catch and days and hours fished for its vessels so as to reach the Executive Secretary not later than the end of the next reporting period. In the case of longline fisheries, the number of hooks shall also be reported.

3. A report must be submitted by every Contracting Party taking part in the fishery for each reporting period for the duration of the fishery even if no catches are taken.

4. The catch of all species, including by-catch species, must be reported.

5. Such reports shall specify the month and reporting period (A, B, C, D, E or F) to which each report refers.

6. Immediately after the deadline has passed for receipt of the reports for each period, the Executive Secretary shall notify all Contracting Parties engaged in fishing activities in the area, of the total catch taken during the reporting period, the total aggregate catch for the season to date together with an estimate of the date upon which the total allowable catch is likely to be reached for that season. The estimate shall be based on a projection forward of the trend in daily catch rates, obtained using linear regression techniques from a number of the most recent catch reports.

7. At the end of every six reporting periods, the Executive Secretary shall inform all Contracting Parties of the total catch taken during the six most recent reporting periods, the total aggregate catch for the season to date together with an estimate of the date upon which the total allowable catch is likely to be reached for that season.

8. If the estimated date of completion of the TAC is within five days of the date on which the Secretariat received the report of the catches, the Executive Secretary shall inform all Contracting Parties that the fishery will close on that estimated day or on the day on which the report was received, whichever is the later.

CONSERVATION MEASURE 61/XII

Ten-day Catch and Effort Reporting System

This Conservation Measure is adopted in accordance with Conservation Measure 7/V where appropriate:

1. For the purposes of this Catch and Effort Reporting System the calendar month shall be divided into three reporting periods, *viz*: day 1 to day 10, day 11 to day 20, day 21 to the last day of the month. These reporting periods are hereinafter referred to as periods A, B and C.

2. At the end of each reporting period, each Contracting Party shall obtain from each of its vessels its total catch and total days and hours fished for that period and shall, by cable, telex or facsimile, transmit the aggregated catch and days and hours fished for its vessels so as to reach the Executive Secretary not later than the end of the next reporting period. In the case of longline fisheries, the number of hooks shall also be reported.

3. A report must be submitted by every Contracting Party taking part in the fishery for each reporting period for the duration of the fishery even if no catches are taken.

4. The retained catch of all species and by-catch species, must be reported.

5. Such reports shall specify the month and reporting period (A, B and C) to which each report refers.

6. Immediately after the deadline has passed for receipt of the reports for each period, the Executive Secretary shall notify all Contracting Parties engaged in fishing activities in the area, of the total catch taken during the reporting period, the total aggregate catch for the season to date together with an estimate of the date upon which the total allowable catch is likely to be reached for that season. The estimate shall be based on a projection forward of the trend in daily catch rates, obtained using linear regression techniques from a number of the most recent catch reports.

7. At the end of every three reporting periods, the Executive Secretary shall inform all Contracting Parties of the total catch taken during the three most recent reporting periods, the total aggregate catch for the season to date together with an estimate of the date upon which the total allowable catch is likely to be reached for that season.

8. If the estimated date of completion of the TAC is within ten days of the date on which the Secretariat received the report of the catches, the Executive Secretary shall inform all Contracting Parties that the fishery will close on that estimated day or on the day on which the report was received, whichever is the later.

CONSERVATION MEASURE 63/XII

Reduction in Use of Plastic Packaging Bands

The Commission,

Recollecting that for many years it has received evidence from the Scientific Committee that substantial numbers of Antarctic fur seals have been entangled and killed in plastic packaging bands in the Convention Area.

Noting that, despite the recommendations of CCAMLR and the provisions of the MARPOL Convention and its Annexes which prohibit the jettisoning of all plastics at sea, substantial entanglement of fur seals is still continuing.

Recognising that the bait boxes used on fishing vessels in particular and other packages in general need not be secured by plastic packaging bands because suitable alternatives exist.

Agrees to adopt the following Conservation Measure, to reduce the incidental mortality of seals due to entanglement, in accordance with Article IX of the Convention.

1. As a general practice all packaging bands, once removed from packages, shall be cut, so that they do not form a continuous loop.

2. The use on fishing vessels of plastic packaging bands to secure bait boxes shall be prohibited from the 1995/96 season.

3. The use of such packaging bands for other purposes on fishing vessels which do not use on-board incinerators shall be prohibited from the 1996/97 season.

CONSERVATION MEASURE 64/XII[1, 2]
The Application of Conservation Measures
to Scientific Research

This Conservation Measure governs the application of conservation measures to scientific research and is adopted in accordance with Article IX of the Convention.

1. General application.

(a) Catches taken by any vessel for research purposes will be considered as part of any catch limits in force for each species taken, and shall be reported to CCAMLR as part of the annual STATLANT returns.

(b) The CCAMLR within season catch and effort reporting systems shall apply whenever the catch within a specified reporting period exceeds five tonnes, unless more specific regulations apply to the particular species.

2. Application to vessels taking less than 50 tonnes of catch for any purpose.

(a) Any Member planning to use a vessel for research purposes when the estimated catch is expected to be less than a total of 50 tonnes shall notify the Secretariat of the Commission which in turn will notify all Members immediately, according to the format provided in Annex 6 of CCAMLR-XII. This notification shall be included in the Members' Activities Reports.

(b) Vessels to which the provisions of paragraph 2(a) above apply, shall be exempt from conservation measures relating to mesh size regulations, prohibition of types of gear, closed areas, fishing seasons and size limits, and reporting system requirements other than those specified in paragraphs 1(a) and (b) above.

3. Application to vessels taking more than 50 tonnes of finfish.

(a) Any Member planning to use any type of vessel to conduct fishing for research purposes when the estimated catch is expected to be more than 50 tonnes, shall notify the Commission and provide the opportunity for other Members to review and comment on its research plan. The plan shall be provided to the Secretariat for distribution to Members at least six months in advance of the planned starting date for the research. In the event of any request for a review of such plan being lodged within two months of its circulation, the Executive Secretary shall notify all Members and submit the plan to the

Scientific Committee for review. Based on the submitted research plan and any advice provided by the appropriate Working Group, the Scientific Committee will provide advice to the Commission where the review process will be concluded. Until the review process is complete the planned fishing for research purposes shall not proceed.

(b) Research plans shall be reported in accordance with the standardised guidelines and formats adopted by the Scientific Committee, given in Annex 6 of CCAMLR-XII.

(c) A summary of the results of any research subject to these provisions shall be provided to the Secretariat within 180 days of the completion of the research fishing. A full report shall be provided within 12 months.

(d) Catch and effort data resulting from the research fishing in accordance with paragraph (a) above, should be reported to the Secretariat according to the haul-by-haul reporting format for research vessels (C4).

1 except for waters adjacent to the Kerguelen and Crozet Islands
2 except for waters adjacent to the Prince Edward Islands

CONSERVATION MEASURE 65/XII[1, 2]
Exploratory fisheries

The Commission,

Recognising that in the past, some Antarctic fisheries had been initiated and subsequently expanded in the Convention Area before sufficient information was available upon which to base management advice, and

Agreeing that exploratory fishing should not be allowed to expand faster than the acquisition of information necessary to ensure that the fishery can and will be conducted in accordance with the principles set forth in Article II,

hereby adopts the following Conservation Measure in accordance with Article IX of the Convention:

1. For the purposes of this Conservation Measure, exploratory fisheries are defined as follows:

(i) an exploratory fishery shall be defined as a fishery that was previously classified as a Ònew fisheryÓ, as defined by Conservation Measure 31/X;

(ii) an exploratory fishery shall continue to be classified as such until sufficient information is available:

(a) to evaluate the distribution, abundance, and demography of the target species, leading to an estimate of the fisheryÕs potential yield,

(b) to review the fisheryÕs potential impacts on dependent and related species, and

(c) to allow the Scientific Committee to formulate and provide advice to the Commission on appropriate harvest catch levels, as well as effort levels and fishing gear, where appropriate.

2. To ensure that adequate information is made available to the Scientific Committee for evaluation, during the period when a fishery is classified as exploratory:

(i) the Scientific Committee shall develop (and update annually as appropriate) a Data Collection Plan, which will identify the data needed and describe the actions necessary to obtain the relevant data from the exploratory fishery;

(ii) each Member active in the fishery shall annually (by the specified date) submit to CCAMLR the data specified by the Data Collection Plan developed by the Scientific Committee;

(iii) each Member active in the fishery or intending to authorise a vessel to enter the fishery shall annually prepare and submit to CCAMLR by a specified date a Research and Fishery Operations Plan for review by the Scientific Committee and the Commission;

(iv) prior to any Member authorising its vessels to enter an exploratory fishery that is already in progress, that Member shall notify the Commission not less than three months in advance of the next regular meeting of the Commission, and the Member shall not enter the exploratory fishery until the conclusion of that meeting;

(v) if the data specified in the Data Collection Plan have not been submitted to CCAMLR for the most recent season in which fishing occurred, continued exploratory fishing by the Member which failed to report its data shall be prohibited until the relevant data have been submitted to CCAMLR and the Scientific Committee has been allowed an opportunity to review the data;

(vi) fishing capacity and effort shall be limited by a precautionary catch limit at a level not substantially above that necessary to obtain the information specified in the Data Collection Plan and required to make the evaluations outlined in paragraph 1(ii);

(vii) the name, type, size, registration number, and radio call sign of each vessel participating in the exploratory fishery shall be registered with the CCAMLR Secretariat at least three months in advance of starting fishing each season; and

(viii) each vessel participating in the exploratory fishery shall carry a scientific observer to ensure that data are collected in accordance with the agreed Data Collection Plan, and to assist in collecting biological and other relevant data.

3. The Data Collection Plan to be formulated and updated by the Scientific Committee shall include, where appropriate:

(i) a description of the catch, effort, and related biological, ecological, and environmental data required to undertake the evaluations described in paragraph 1(ii), and the date by which such data are to be reported annually to CCAMLR;

(ii) a plan for directing fishing effort during the exploratory phase to permit the acquisition of relevant data to evaluate the fishery potential and the ecological relationships among harvested, dependent, and related populations and the likelihood of adverse impacts; and

(iii) an evaluation of the time-scales involved in determining the responses of harvested, dependent and related populations to fishing activities.

4. Research and Fisheries Operations Plans to be prepared by Members participating or intending to participate in the exploratory fishery shall include as much of the following information as the Member is able to provide:

(i) a description of how the MemberÕs activities will comply with the Data Collection Plan developed by the Scientific Committee;

(ii) the nature of the exploratory fishery, including target species, methods of fishing, proposed region and maximum catch levels proposed for the forthcoming season;

(iii) biological information from comprehensive research/survey cruises, such as distribution, abundance, demographic data, and information on stock identity;

(iv) details of dependent and related species and the likelihood of them being affected by the proposed fishery; and

(v) information from other fisheries in the region or similar fisheries elsewhere that may assist in the evaluation of potential yield.

1 except for waters adjacent to the Kerguelen and Crozet Islands
2 except for waters adjacent to the Prince Edward Islands

CONSERVATION MEASURE 66/XII
Limitation of the Total Catch of *Champsocephalus gunnari* in Statistical Subarea 48.3 in the 1993/94 Season

Noting that a survey to assess the abundance of the stock of this species in Subarea 48.3 is to take place in January 1994.

The Commission adopted this Conservation Measure in accordance with Conservation Measure 7/V:

1. The total catch of *Champsocephalus gunnari* in the 1993/94 season, which shall commence on 1 January 1994[1] shall not exceed 9 200 tonnes in Statistical Subarea 48.3.

2. The fishery for *Champsocephalus gunnari* in Statistical Subarea 48.3 shall close if the by-catch of any of the species listed in Conservation Measure 68/XII reaches its by-catch limit or if the total catch of *Champsocephalus gunnari* reaches 9 200 tonnes, whichever comes first.

3. If, in the course of the directed fishery for *Champsocephalus gunnari*, the by-catch of any one haul of any of the species named in Conservation Measure 68/XII exceeds 5%, the fishing vessel shall move to another fishing ground within the subarea.

4. The use of bottom trawls in the directed fishery for *Champsocephalus gunnari* in Statistical Subarea 48.3 is prohibited.

5. The fishery for *Champsocephalus gunnari* in Statistical Subarea 48.3 shall be closed from 1 April 1994 until the end of the Commission meeting in 1994.

6. For the purpose of implementing paragraphs 1 and 2 of this Conservation Measure:

   (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XII shall apply in the 1993/94 season commencing on 1 January 1994;

   (ii) the Monthly Effort and Biological Data Reporting System set out in Conservation Measure 52/XI shall apply for *Champsocephalus gunnari* and all by-catch species listed in Conservation Measure 68/XII in the 1993/94 season, commencing on 1 January 1994.

[1] It was agreed that the opening of the fishery on this date was without prejudice or precedent to decisions regarding this fishery in future fishing seasons.

CONSERVATION MEASURE 67/XII
Precautionary TAC for *Electrona carlsbergi*
in Statistical Subarea 48.3 for the 1993/94 Season

This Conservation Measure is adopted in accordance with Conservation Measure 7/V:

1. For the purposes of this Conservation Measure the fishing season for *Electrona carlsbergi* is defined as the period from 6 November 1993 to the end of the Commission meeting in 1994.

2. The total catch of *Electrona carlsbergi* in the 1993/94 season shall not exceed 200 000 tonnes in Statistical Subarea 48.3.

3. In addition, the total catch of *Electrona carlsbergi* in the 1993/94 season shall not exceed 43 000 tonnes in the Shag Rocks region, defined as the area bounded by 52°30'S, 40°W; 52°30'S, 44°W; 54°30'S, 40°W and 54°30'S, 44°W.

4. In the event that the catch of *Electrona carlsbergi* is expected to exceed 20 000 tonnes in the 1993/94 season, a survey of stock biomass and age structure shall be conducted during that season by the principal fishing nations involved. A full report of this survey including data on stock biomass (specifically including area surveyed, survey design and density estimates), age structure and the biological characteristics of the by-catch shall be available for discussion at the 1994 meeting of the Working Group on Fish Stock Assessment.

5. The directed fishery for *Electrona carlsbergi* in Statistical Subarea 48.3 shall close if the by-catch of any of the species named in Conservation Measure 68/XII reaches its by-catch limit or if the total catch of *Electrona carlsbergi* reaches 200 000 tonnes, whichever comes first.

6. The directed fishery for *Electrona carlsbergi* in the Shag Rocks region shall close if the by-catch of any of the species named in Conservation Measure 68/XII reaches its by-catch limit or if the total catch of *Electrona carlsbergi* reaches 43 000 tonnes, whichever comes first.

7. If, in the course of the directed fishery for *Electrona carlsbergi*, the by-catch of any one haul of any of the species named in Conservation Measure 68/XII exceeds 5%, the fishing vessel shall move to another fishing ground within the subarea.

8. For the purpose of implementing this Conservation Measure:

   (i) the Catch Reporting System set out in Conservation Measure 40/X shall apply in the 1993/94 season;

   (ii) the Data Reporting System set out in Conservation Measure 54/XI shall apply in the 1993/94 season.

CONSERVATION MEASURE 68/XII

Limitation of the By-catch of *Notothenia gibberifrons*, *Chaenocephalus aceratus*, *Pseudochaenichthys georgianus*, *Notothenia rossii* and *Notothenia squamifrons*, in Statistical Subarea 48.3 for the 1993/94 Season

This Conservation Measure is adopted in accordance with Conservation Measure 7/V:

In any directed fishery in Statistical Subarea 48.3, during the 1993/94 season commencing 6 November 1993, the by-catch of *Notothenia gibberifrons* shall not exceed 1 470 tonnes; the by-catch of *Chaenocephalus aceratus* shall not exceed 2 200 tonnes; and the by-catch of *Pseudochaenichthys georgianus, Notothenia rossii* and *Notothenia squamifrons* shall not exceed 300 tonnes each.

CONSERVATION MEASURE 69/XII

Limits on the fishery for *Dissostichus eleginoides* in Statistical Subarea 48.3 for the 1993/94 Season

This Conservation Measure is adopted in accordance with Conservation Measure 7/V:

1. For the purpose of the fishery directed to *Dissostichus eleginoides* during the 1993/94 season, Statistical Subarea 48.3 shall be designated as a Special Area for Protection and Scientific Study in accordance with Article IX (2) (g) of the Convention.

2. The total catch of *Dissostichus eleginoides* in Statistical Subarea 48.3 caught during the 1993/94 season shall be limited to 1 300 tonnes.

3. For the purposes of the fishery for *Dissostichus eleginoides* in Statistical Subarea 48.3, the 1993/94 fishing season is defined as the period from 15 December 1993 to 15 September 1994, or until the TAC is reached, whichever is the sooner.

4. The TAC for the 1993/94 fishing season shall be divided evenly into five sequential time-periods of 55 days each, with not more than one vessel at any one time fishing within each period. These periods are as follows:

   15 December 1993 to 7 February 1994
   8 February 1994 to 3 April 1994
   4 April 1994 to 28 May 1994
   29 May 1994 to 22 July 1994
   23 July 1994 to 15 September 1994[1].

5. Any Member planning to conduct fishing and scientific research activities for *Dissostichus eleginoides* in the Special Area for Protection and Scientific Study during any of the five periods shall be required to conduct fishing for scientific purposes according to a research plan and shall transmit to the Executive Secretary at least ten days before the start of the period:

   (i) the research plan it intends to carry out within that period;

   (ii) an indication that a Scientific Observer has been appointed in accordance with the Scheme of International Scientific Observation of CCAMLR. This Scientific Observer is required to be aboard all vessels during all fishing activities within the period; and

   (iii) the name, type, size, and fish processing and storage capacity of the vessels.

6. Fishing within each of the five periods shall cease at the end of the relevant period, or when the TAC allocation of *Dissostichus eleginoides* for the period is reached, whichever is the sooner.

7. For the purpose of implementing this Conservation Measure:

   (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XII shall apply in the 1993/94 season, commencing on 15 December 1993.

   (ii) the Effort and Biological Data Reporting System set out in Conservation Measure 71/XII shall apply in the 1993/94 season, commencing on 15 December 1993.

[1] It was agreed that this decision was without prejudice or precedent to decisions regarding this fishery in future fishing seasons.

CONSERVATION MEASURE 70/XII

Catch Limit on *Dissostichus eleginoides* in
Statistical Subarea 48.4 for the 1993/94 Season

1. The total catch of *Dissostichus eleginoides* in Statistical Subarea 48.4 caught in the 1993/94 season shall be limited to 28 tonnes.

2. For the purposes of the fishery for *Dissostichus eleginoides* in Statistical Subarea 48.4, the 1993/94 fishing season is defined as the period from 15 December 1993 to the end of the Commission meeting in 1994, or until the TAC is reached, whichever is sooner.

3. For the purpose of implementing this Conservation Measure:

   (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XII shall apply in the 1993/94 season, commencing on 15 December 1993;

   (ii) the Effort and Biological Data Reporting System set out in Conservation Measure 71/XII shall apply in the 1993/94 season, commencing on 15 December 1993.

CONSERVATION MEASURE 71/XII
Effort and Biological Data Reporting System for *Dissostichus eleginoides*
in Statistical Subareas 48.3 and 48.4 for the 1993/94 Season

This Conservation Measure is adopted in accordance with Conservation Measure 7/V:

1. At the end of each month each Contracting Party shall obtain from each of its vessels the haul-by-haul data required to complete the CCAMLR fine-scale catch and effort data form for longline fisheries (Form C2, latest version). These data shall include numbers of seabirds or marine mammals of each species caught and released or killed. It shall transmit those data to the Executive Secretary not later than the end of the following month.

2. At the end of each month, each Contracting Party shall obtain from each of its vessels a representative sample of length composition measurements from the fishery (Form B2, latest version). It shall transmit those data to the Executive Secretary not later than the end of the following month.

3. For the purpose of implementing this Conservation Measure;

   (i) length measurements of fish should be of total length to the nearest centimetre below;

(ii) representative samples of length composition should be taken from a single fishing ground[1]. In the event that the vessel moves from one fishing ground to another during the course of a month, then separate length compositions should be submitted for each fishing ground.

4. Failure by a Contracting Party to provide either/or both of the haul-by-haul and length composition data for three consecutive months shall result in the closure of the fishery to vessels of that Contracting Party. If the Executive Secretary has not received either/or both of the haul-by-haul and length composition data for two consecutive months he shall notify the Contracting Party that the fishery will be closed to that Contracting Party unless those data (including arrears of data) are provided by the end of the next month. If at the end of the next month those data have still not been provided, the Executive Secretary shall notify all Contracting Parties of the closure of the fishery to vessels of the Contracting Party which has failed to supply the data as required.

[1] Pending the provision of a more appropriate definition, the term fishing ground is defined here as the area within a single fine-scale grid rectangle (0.5° latitude by 1° longitude).

CONSERVATION MEASURE 72/XII
Prohibition of Directed Fishing for Finfish
in Statistical Subarea 48.1

Taking of finfish, other than for scientific research purposes, is prohibited in Statistical Subarea 48.1 from 6 November 1993 until at least such time that a survey of stock biomass is carried out, its results reported to and analysed by the Working Group on Fish Stock Assessment and a decision that the fishery be re-opened is made by the Commission based on the advice of the Scientific Committee.

CONSERVATION MEASURE 73/XII
Prohibition of Directed Fishing for Finfish
in Statistical Subarea 48.2

Taking of finfish, other than for scientific research purposes, is prohibited in Statistical Subarea 48.2 from 6 November 1993 until at least such time that a survey of stock biomass is carried out, its results reported to and analysed by the Working Group on Fish Stock Assessment and a decision that the fishery be re-opened is made by the Commission based on the advice of the Scientific Committee.

CONSERVATION MEASURE 74/XII

Limits on the Exploratory Crab Fishery in Statistical Subarea 48.3 in the 1993/94 Season

The following Conservation Measure is adopted in accordance with Conservation Measure 7/V:

1. The crab fishery is defined as any commercial harvest activity in which the target species is any member of the crab group (Order *Decapoda*, Suborder *Reptantia*).

2. The crab fishery shall be limited to one vessel per Member.

3. The total catch of crab from Statistical Subarea 48.3 shall not exceed 1 600 tonnes during the 1993/94 fishing season.

4. Each Member intending to participate in the crab fishery shall notify the CCAMLR Secretariat at least three months in advance of starting fishing of the name, type, size, registration number, radio call sign, and research and fishing operations plan of the vessel that the Member has authorised to participate in the crab fishery.

5. All vessels fishing for crab shall report the following data to CCAMLR by 31 August 1994 for crabs caught prior to 31 July 1994:

   (i) the location, date, depth, fishing effort (number and spacing of pots and soak time), and catch (numbers and weight) of commercially sized crabs (reported on as fine a scale as possible, but no coarser than 0.5° latitude by 1° longitude) for each 10-day period;

   (ii) the species, size, and sex of a representative subsample of crabs sampled according to the procedure set out in Annex 7 of CCAMLR-XII (between 35 and 50 crabs shall be sampled every day from the line hauled just prior to noon) and by-catch caught in traps; and

   (iii) other relevant data, as possible, according to the requirements set out in Annex 7 of CCAMLR-XII.

6. For the purposes of implementing this Conservation Measure, the 10-day catch and effort reporting system set out in Conservation Measure 61/XII shall apply.

7. Data on catches taken between 31 July 1994 and 31 August 1994 shall be reported to CCAMLR by 30 September 1994 so that the data will be available to the Working Group on Fish Stock Assessment.

8. Crab fishing gear shall be limited to the use of crab pots (traps). The use of all other methods of catching crabs (e.g., bottom trawls) shall be prohibited.

9. The crab fishery shall be limited to sexually mature male crabs - all female and undersized male crabs caught shall be released unharmed. In the case of *Paralomis spinosissima* and *P. formosa*, males with a minimum carapace width of 102 mm and 90 mm, respectively, may be retained in the catch.

10. Crab processed at sea shall be frozen as crab sections (minimum size of crabs can be determined using crab sections).

CONSERVATION MEASURE 75/XII
Experimental Harvest Regime for the Crab Fishery in
Statistical Subarea 48.3 for Seasons 1993/94 to 1995/96

The following measures apply to all crab fishing within Statistical Subarea 48.3 for the 1993/94, 1994/95, and 1995/96 fishing seasons. Every vessel participating in the crab fishery in Subarea 48.3 shall conduct fishing operations in accordance with an experimental fishing regime as outlined below:

1. The experimental regime shall consist of three phases. Each vessel participating in the fishery shall complete all three phases. Phase 1 shall be conducted during the first season that a vessel participates in the experimental regime. Phases 2 and 3 shall be completed in the next season of fishing.

2. Vessels shall conduct Phase 1 of the experimental regime at the start of their first season of participation in the experimental regime. For the purposes of Phase 1, the following conditions shall apply:

   (i) Phase 1 shall be defined as a vessel's first 200 000 pot hours of effort at the start of its first fishing season.

   (ii) Every vessel conducting Phase 1 shall expend its first 200 000 pot hours of effort within a total area delineated by twelve 0.5° latitude by 1° longitude blocks. For the purposes of this Conservation Measure, these blocks shall be numbered A through L. The blocks are illustrated in Figure 1, and the northeast corner of each block is listed in

Table 1 of Annex 7 of CCAMLR-XII. For each string, pot hours shall be calculated by taking the total number of pots on the string and multiplying by the soak time (in hours) for that string.

(iii) Vessels shall not fish outside the area delineated by the twelve 0.5° latitude by 1° longitude blocks prior to completing Phase 1.

(iv) During Phase 1, vessels shall not expend more than 30 000 pot hours in any single 0.5° latitude by 1° longitude block.

(v) If a vessel returns to port before it has expended 200 000 pot hours in Phase 1, the balance of remaining pot hours shall be expended before the vessel can consider Phase 1 to be completed.

(vi) After completing 200 000 pot hours of experimental fishing, vessels shall consider Phase 1 to be completed and commence fishing in a normal fashion.

3. Normal fishing operations shall be conducted in accordance with the regulations set out in Conservation Measure 74/XII.

4. For the purposes of implementing normal fishing operations after Phase 1 of the experimental regime, the 10-day catch and effort reporting system set out in Conservation Measure 61/XII shall apply.

5. Vessels shall conduct Phase 2 of the experimental regime at the start of their second season of participation in the experimental regime. For the purposes of Phase 2, the following conditions shall apply:

(i) Every vessel conducting Phase 2 shall fish in three small squares measuring approximately 26 square nautical miles in area (the dimensions of these squares shall be 6° latitude by 7.5° longitude). These squares shall be subdivisions of the blocks delineated in Phase 1 of the experimental regime and numbered A1 through L40. The squares are illustrated in Figure 2 and the northeast corner of each square is listed in Table 2 of Annex 7 of CCAMLR-XII.

(ii) Vessels shall fish continuously (except in emergencies or foul weather conditions) within a single square until the average catch per pot has been reduced to 25 percent or less of its initial value and then continue fishing for an additional 7 500 pot hours. Not more than 50 000 total pot hours shall be expended in each square. For the purposes of Phase 2, the initial catch rate for a particular square shall be defined as the average catch per pot calculated from the first five sets made in that square. Soak times for these initial sets shall be at least 24 hours.

(iii) Vessels shall finish fishing in one square before starting operations in another square.

(iv) Vessels shall attempt to distribute effort throughout the entire square and not fish the gear in the same location on every set.

(v) Vessel captains shall decide which three squares will be fished, but selected squares may not be contiguous.

(vi) After completing fishing operations in the third square, fishing vessels shall consider Phase 2 to be completed and commence fishing in a normal fashion.

6. For the purposes of implementing normal fishing operations after Phase 2 of the experimental regime, the 10-day catch and effort reporting system set out in Conservation Measure 61/XII shall apply.

7. Vessels shall conduct Phase 3 of the experimental regime at the end of their second season of participation in the experimental regime. For the purposes of Phase 3, the following conditions shall apply:

(i) A vessel shall begin conducting Phase 3 of the experimental regime approximately one week prior to the conclusion of its second fishing season. A vessel's fishing season shall be concluded if the vessel leaves the fishery voluntarily or if the fishery is closed because the TAC has been attained.

(ii) If a vessel captain voluntarily concludes fishing operations, the vessel shall begin implementing Phase 3 approximately one week prior to the conclusion of its fishing operations.

(iii) The CCAMLR Secretariat shall notify (according to the guidelines set out in Conservation Measure 61/XII) all Contracting Parties that are conducting operations in their second experimental fishing season to begin Phase 3 when approximately one week remains before the TAC is attained and the fishery is closed.

(iv) To conduct Phase 3, every vessel shall return to the three squares it depleted during Phase 2 of the experimental regime and expend between 10 000 and 15 000 pot hours of effort in each square.

8. To facilitate analysis of data collected during Phases 2 and 3, vessels shall report the number (A1 through L40) of the square where fishing occurred, date, fishing effort (number and spacing of pots and soak time), and catch (numbers and weight) for each haul.

9. Data collected during the experimental regime shall be submitted to CCAMLR by 31 August of the prevailing split-year.

10. Vessels that complete all three phases of the experimental regime shall not be required to conduct experimental fishing in future seasons. However, these vessels shall abide by the guidelines set forth in Conservation Measure 74/XII.

11. Fishing vessels shall participate in the experiment independently (e.g., vessels may not cooperate to complete phases of the experiment).

12. Crabs captured during the experimental regime shall be considered part of the prevailing TAC for the current fishing season (e.g., for 1993/94, experimental catches shall be considered part of the 1 600 tonne TAC outlined in Conservation Measure 74/XII).

13. The experimental regime shall be instituted for a period of three split-years (1993/94 to 1995/96), and the details of the regime may be revised by the Commission during this period of time. Fishing vessels that begin experimental fishing in the 1995/96 split-year must complete the regime during the 1996/97 split-year.

Cooperation with SCAR

10.1 The SCAR Observer (Dr J. Croxall, UK) informed the Commission that the next biennial meeting of SCAR would take place in 1994. As there is no meeting in 1993, there would be no formal report from SCAR to the Commission this year. The SCAR Observer, however, advised that the Scientific Committee had considered several items relevant to cooperation between CCAMLR and SCAR (SC-CAMLR-XII, paragraphs 12.15 to 12.25). These items are:

- transfer of the BIOMASS database to the CCAMLR Data Centre;
- the SCAR Antarctic digital topographic database;
- the SCAR-COMNAP (Council of Managers of National Antarctic Programs) *ad hoc* planning group on Antarctic Data Management;
- the SO-GLOBEC (Southern Ocean Global Ocean Ecosystems Dynamics) Program;
- the Coastal Zone EASIZ (Ecology of the Antarctic Sea-Ice Zone) Program which is complementary to SO-GLOBEC; and
- SCAR APIS (Antarctic Pack-Ice Seals) Program.

10.2 In particular, the SCAR Observer noted that CCAMLR co-sponsored with SCAR the recent workshop for the APIS Program and welcomed the decision of the Scientific Committee to establish a liaison between CCAMLR and the SO-GLOBEC Program (SC-CAMLR-XII, paragraphs 12.23 and 12.25).

10.3 The Delegation of New Zealand advised the Commission of the formal opening in September 1993 of the International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand. ICAIR will use the latest technology to capture, document, manipulate and preserve useful Antarctic data and information. The Commission was advised of the SCAR-COMNAP recommendation to develop an Antarctic Master Directory, of which ICAIR would be a prototype.

10.4 Last year the Commission asked the Executive Secretary to contact the Secretary of SCAR concerning arrangements for CCAMLR participation in SCAR meetings (CCAMLR-XI, paragraph 10.5). The Executive Secretary reported the results of his discussions with the SCAR Executive Secretary,

Dr P. Clarkson, that he had had during his visit to the UK in May 1993. As a result of these discussions, all concerns brought up by the CCAMLR Observer to SCAR at the last meeting of the Commission, were successfully resolved.

10.5 The Commission took note that the Scientific Committee would be represented at several SCAR meetings to be held in 1994 (SC-CAMLR-XII, paragraphs 12.27 and 12.28).

Coordination on CEMP Site Protection within the Antarctic Treaty System

10.6 The Commission noted the letter of 14 June from the Convener of the SCAR Group of Specialists on Environmental Affairs and Conservation (GOSEAC) in which GOSEAC drew attention to the desirability of ensuring consistency between areas and sites protected under CCAMLR and the Protocol on Environmental Protection to the Antarctic Treaty. GOSEAC had also stressed the need for continued liaison between CCAMLR and SCAR concerning protected areas in the Antarctic.

10.7 The Secretariat circulated the GOSEAC correspondence in COMM CIRC 93/30 of 28 June 1993, and replies from Australia, Chile, and the UK were incorporated in CCAMLR-XII/11.

10.8 The Commission agreed that the existing procedures for communication and coordination were adequate regarding areas protected under CCAMLR (Conservation Measure 18/IX) and the Antarctic Treaty (at present, the Agreed Measures for the Conservation of Antarctic Flora and Fauna). These procedures ensured liaison between the respective elements of the Antarctic Treaty System and related organisations, including SCAR. The Commission expressed its desire to maintain strong links with SCAR on this matter.

10.9 It was noted, however, that once Annex V to the Protocol on Environmental Protection comes into force, the procedures for protecting areas under the Antarctic Treaty will change.

10.10 Annex V will simplify the Antarctic Treaty's system for protecting areas by establishing two designations: Antarctic Specially Protected Area (ASPA) and Antarctic Specially Managed Area (ASMA). Annex V does not extend this process to protected areas designated by other elements of the Antarctic Treaty System (e.g., CCAMLR, CCAS).

10.11 Examples of promoting consistency and coordination among components of the Antarctic Treaty System are provided by Article 6(2) of the Protocol's Annex V, which specifies that no marine area shall be designated as an ASPA or an ASMA without the prior approval of CCAMLR and by paragraph 5 of Conservation Measure 18/IX which requires that a Resolution of the Commission adopting a CEMP Management Site Management Plan be transmitted to SCAR.

10.12 The Commission stressed that although the responsibility for ensuring protection of CEMP sites resides with CCAMLR, it was entirely appropriate to consider ways in which consistency could be achieved between management plans for CEMP sites, ASPAs, and ASMAs.

10.13 The Commission recognised the importance and timeliness of investigating the implications of harmonising the management plans for CEMP sites with the provisions of relevant elements under the Protocol.

10.14 The Commission agreed that, where appropriate, it would be desirable that Management Plans adopted under CCAMLR are consistent with the provisions of the Protocol. This would reduce inconsistencies between Protected Areas within the Antarctic Treaty System.

10.15 To this end, the Commission requested Members to consider the provisions of Conservation Measure 18/IX during the intersessional period, considering to what extent it may be appropriate to revise this Conservation Measure so that it would correspond with the provisions of Annex V of the Protocol.

Proposed Antarctic Specially Managed Area in Admiralty Bay

10.16 The Delegations of Brazil and Poland submitted jointly a paper (CCAMLR-XII/BG/13) containing a draft proposal for the designation of an Antarctic Specially Managed Area (ASMA) at Admiralty Bay, King George Island, South Shetland Islands. Both countries operate year-round stations in the area. The proposed ASMA includes land and marine areas and, as such, will require prior approval of CCAMLR in accordance with Article 6(2) of Annex V to the Environmental Protocol.

10.17 Several delegations commended the Delegations of Brazil and Poland on their initiative to present the draft management plan for the Admiralty Bay ASMA to CCAMLR in compliance with the Protocol's provisions.

10.18 The Commission, while recognising that the Protocol is not yet in force, decided that it would be appropriate to review the proposal and draft management plan to help expedite its consideration by the Antarctic Treaty Consultative Parties. However, it was noted that some aspects of the draft plan should be reviewed by the Scientific Committee and its Working Groups.

10.19 Therefore, the Commission requested the Scientific Committee and its Working Groups to review the draft management plan for the Admiralty Bay ASMA during 1994 and to provide advice on the plan to the Commission at its next meeting.

10.20 It was noted that under the new provisions of the Antarctic Treaty's protected area system, as defined in Annex V of the Protocol, it was likely that CCAMLR would be receiving additional draft management plans from the Antarctic Treaty Consultative Parties in the future, with a request for advice and approval by the Commission.

10.21 To ensure that CCAMLR gave such future proposals due consideration, the Commission encouraged Members to consider during the intersessional period appropriate procedures to deal with such draft management plans received from Contracting Parties to the Antarctic Treaty. It was agreed that such procedures would be examined at the next meeting of the Commission.

Other Matters

10.22 CCAMLR was represented at the XVIIth ATCP Meeting (Venice, November 1992) by Italy. The Delegation of Italy submitted to the Consultative Parties a statement of recent developments in CCAMLR which had been prepared by the Secretariat.

10.23 The XVIIIth ATCP Meeting will be held in April 1994 in Kyoto, Japan.

10.24 The Commission agreed that there would be merit in having the Commission represented as appropriate by the Executive Secretary at Antarctic Treaty Consultative Party meetings.

COOPERATION WITH OTHER INTERNATIONAL ORGANISATIONS

Cooperation with FAO

11.1 In 1992, the Commission noted that papers presented at last year's FAO Technical Consultation on High Seas Fishing had revealed a very limited level of awareness of CCAMLR. The Secretariat was asked to inform FAO of the objectives of the CCAMLR Convention and the work of the Commission and the Scientific Committee (CCAMLR-XI, paragraph 11.6).

11.2 A paper was prepared by the Secretariat and presented at the Twentieth Session of the FAO Committee on Fisheries (Rome, Italy, 15 to 19 March 1993) by Ms Tuttle in her capacity as Chair of SCAF. Ms Tuttle presented to the Commission the relevant section of the COFI report describing information received from CCAMLR.

11.3 The Draft Agreement on the Flagging of Vessels Fishing on the High Seas to promote Compliance with Internationally Agreed Conservation and Management Measures was discussed at the COFI meeting in March 1993. The Secretariat has received a copy of the above mentioned Draft Agreement. The Secretariat also received and distributed to Members (COMM CIRC 93/12 of 26 February 1993) copies of documents from the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the North Atlantic Salmon Conservation Organisation (NASCO) dealing with the problem of reflagging vessels in their respective Convention Areas.

11.4 FAO has undertaken to draft "a code of conduct" on responsible fishing practices in consultation with other international organisations. Last year the Commission agreed that CCAMLR should follow closely the development of the "code of conduct" and participate as necessary in the preparation of documents for the forthcoming Intergovernmental Conference as decided by the UN Conference on Environment and Development, Agenda 21 (CCAMLR-XI, paragraph 11.5).

11.5 The next meeting of the FAO Technical Consultation on High Seas Fishery will be held in February 1994 (New York, USA). It was agreed that CCAMLR should be represented as an observer at this meeting.

Cooperation with IOC

11.6 The IOC Secretary, Dr G. Kullenberg, in his letter of 22 July 1993 to the Executive Secretary reaffirmed the willingness of his Commission to strengthen cooperation with CCAMLR in relation to research and observational programs in the Southern Ocean of common interest. He was asked to express the Commission's views concerning future cooperation between IOC and CCAMLR in the study of the Southern Ocean.

11.7 The Scientific Committee discussed the issue of cooperation with IOC (SC-CAMLR-XII, paragraphs 12.9 to 12.11). One of the observers from the IOC, Lic. E. Marschoff (Argentina) offered to compile a summary from reports of the CCAMLR Working Groups to report back to the IOC. The Commission welcomed this initiative.

Cooperation with IWC

11.8 CCAMLR was represented by Japan at the 45th Annual Meeting of IWC which was held in May 1993 (Kyoto, Japan). In reporting to the Commission (CCAMLR-XII/BG/17), the Delegate of Japan described the results of the meeting relating to the following subjects of interest to CCAMLR: the Revised Management Procedure for Baleen Whales; research plan for Southern Hemisphere large baleen whales; Southern Ocean whale sanctuary; research into the environment and the whale stocks; scientific research catches; and the Second International Decade of Cetacean Research.

11.9 The 46th Annual Meeting of IWC will be held in Puerto Vallarta, Mexico (May, 1994). It was agreed that CCAMLR should be represented by Japan at this meeting. The Delegation of Japan agreed to represent CCAMLR at the meeting.

UN CONFERENCE ON STRADDLING STOCKS AND HIGHLY MIGRATORY FISH STOCKS

12.1 Chile introduced its paper CCAMLR-XII/BG/21. This describes the background to its request (CCAMLR-XI/BG/14) that the Commission consider the Scientific Committee's advice on the possible contribution by CCAMLR to two issues under special consideration by the UN Conference, namely:

- the suitability of the concepts of maximum sustainable yield (MSY) and optimum sustainable yield in comparison with the approach described in Article II of the Convention; and

- the experience of CCAMLR in implementing the so-called precautionary approach in fisheries management.

12.2 The Commission welcomed the report of the Scientific Committee on this matter (SC-CAMLR-XII, paragraphs 13.1 to 13.12). Commenting on the precise discussions of the Scientific Committee on MSY, Japan observed that the Scientific Committee had considered MSY as a single species concept. The Negotiating Text prepared by the Conference's Chairman, however, made reference to "stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including ... the interdependence of stocks" and was thus not solely a single species concept.

12.3 It was noted that the UN would complete its work at a number of sessions from March to June 1994 and that all the Members of CCAMLR were also Members of the UN. Some Members suggested that it would be appropriate to await these deliberations before discussing the issue at the 1994 meeting of the Commission, so as to avoid acting in haste and allow FAO to complete its tasks. Furthermore, it was pointed out that the mandate to the Scientific Committee had not come from the Commission itself and might perhaps be considered in more detail following further discussion by the Commission.

12.4 However, it was also noted that there was no reason for CCAMLR to act as an entirely passive observer to these discussions. CCAMLR has an interest in the subject under discussion, and has considerable experience in applying the various approaches to management. In this context it was stressed that Article II of the Convention was the object of long negotiation and has been in force for 13 years, and that Article XXIII refers to cooperation between CCAMLR and other international agencies.

12.5 The Commission had already taken notice of the low level of awareness of CCAMLR that existed at the 1992 FAO Technical Consultation on High Seas Fishing (CCAMLR-XI, paragraph 11.6), and appreciated that since then a number of developments had taken place which had increased FAO's awareness of CCAMLR. It also noted that relationships with IWC had begun to change positively. However, it stressed the continued importance of making the work of the Commission known more widely in the UN and other relevant international organisations.

12.6 It was agreed, therefore, that it would be appropriate to inform the UN Conference and FAO of the work done in CCAMLR in respect of implementation of the principles described in Article II and in applying the precautionary approach in management, and that this would help to publicise the work of the Commission.

12.7 Accordingly, the Commission asked the Scientific Committee Chairman to prepare a letter to be sent by the Executive Secretary to the UN Conference and FAO which describes the actions taken by CCAMLR in implementing Article II and the precautionary approach. This letter, based in part on paragraphs 13.2 to 13.12 of SC-CAMLR-XII, is in Annex 8.

12.8 The observer from FAO stated that the deliberations of the Commission relating to the relevant UN meetings and the task of FAO in reviewing MSY as an effective management objective would be relayed to FAO and that he knew there would be great interest on the part of FAO in the discussions.

12.9 He further stated that FAO has great interest in the pioneering approaches of CCAMLR to ecosystem management, the unique problems of the Convention Area and the success achieved through its management measures. Several of these are expected to be directly applicable to other areas where FAO assists fisheries management.

ELECTION OF VICE-CHAIRMAN OF THE COMMISSION

13.1 It was noted that Russia would complete its term as Vice-Chairman of the Commission at the conclusion of the Twelfth Meeting. Japan was elected to serve in this position from the end of the 1993 meeting until the end of the meeting in 1995.

NEXT MEETING

14.1 The 1994 meetings of the Commission and the Scientific Committee will be held in Hobart during the period 24 October to 4 November.

OTHER BUSINESS

15.1 The Delegations of Argentina and Chile made several remarks in relation to the conservation of Antarctic marine living resources in the area of South Georgia and South Sandwich Islands:

15.2 They highlighted the understanding underlying the withdrawal of Item 9 of the Provisional Agenda (Management and Conservation of Antarctic marine living resources in the area of South Georgia and the South Sandwich Islands) that issues which might have arisen under that item could be addressed under other items of the Agenda, in particular Items 6 (Observation and Inspection) and 8 (Conservation Measures). Attention had been drawn to the terms of the joint statement by Argentina and the UK (COMM CIRC 93/25) to "renew efforts in the context of CCAMLR to ensure the conservation of the marine living resources in the Southern Ocean". Partial discussion of this issue had been reflected *inter alia* in specific aspects under Items 6 and 8 of the Agenda, where the opinion was sustained that only the application of the full range of CCAMLR instrumentalities would effectively cope with the challenges posed in Statistical Subareas 48.3 and 48.4.

15.3 They further expressed that an example of this integrated approach was the suggestion to designate such statistical subarea as a special area for protection and scientific study; which closely followed the Commission's previous decision (Conservation Measure 7/V) to monitor directly all fisheries permitted around South Georgia. The ecological unity of this area, the closest to the South American continent, was underlined.

15.4 They concluded that in the light of these comments, matters which could arise in the intersessional period, particularly with regard to the rightful application of the Convention and its rules and measures, should be reviewed at the next CCAMLR meeting.

15.5 The Chairman noted this request and expressed his readiness to consider any appropriate suggestion for a follow-up of this question.

ADOPTION OF THE REPORT OF THE TWELFTH MEETING OF THE COMMISSION

16.1 The Report of the Twelfth Meeting of the Commission was adopted.

CLOSE OF THE MEETING

17.1 In closing the meeting, the Chairman thanked the Secretariat for its support and assistance, the observers for their participation and the delegations for their cooperation and constructive efforts in making the meeting a success.

ANNEX 1

LIST OF PARTICIPANTS

LIST OF PARTICIPANTS

CHAIRMAN:

Dr Dietrich Hammer
Head of Delegation of the Commission
of the European Communities
Canberra

**CHAIRMAN,
SCIENTIFIC COMMITTEE:**

Dr Karl-Hermann Kock
Institut für Seefischerei
Hamburg

ARGENTINA

Representative:

Dr Orlando R. Rebagliati
Director de Antártida
Ministerio de Relaciones Exteriores,
Comercio Internacional y Culto
Buenos Aires

Alternate Representatives:

Mr Gerardo E. Bompadre
Secretario de Embajada
Embajada de la República Argentina
Canberra

Mr Julio Ayala
Secretario de Embajada
Dirección de Antártida
Ministerio de Relaciones Exteriores,
Comercio Internacional y Culto
Buenos Aires

Advisers:

Lic. Enrique Marschoff
Instituto Antártico Argentino
Buenos Aires

Lic. Esteban Barrera-Oro
Instituto Antártico Argentino
Buenos Aires

AUSTRALIA

Representative:

Mr Charles Mott
Department of Foreign Affairs and Trade
Canberra

Alternate Representatives:

Dr William de la Mare
Antarctic Division

Dr Knowles Kerry
Antarctic Division

Mrs Lyn Tomlin
Department of Foreign Affairs and Trade

Advisers:	Mr Richard Williams Antarctic Division
	Dr Stephen Nicol Antarctic Division
	Mr Andrew Jackson Antarctic Division
	Prof Patrick Quilty Antarctic Division
	Ms Sharon Moore Antarctic Division
	Mrs Helen Czescek Antarctic Division
	Ms Janet Dalziell Representative of Non-Governmental Organisations

BELGIUM

Representative:	Mr Michel Goffin Counsellor Royal Belgian Embassy Canberra

BRAZIL

Representative:	Mr Luiz A.F. Machado Department of Environmental Affairs Ministry of External Relations
Alternate Representative:	Dr Edith Fanta Universidade Federal do Paraná Biologia Celular, CXP. 19031 Curitiba, PR

CHILE

Representative:	Ambassador Jorge Berguño Dirección de Política Especial Ministerio de Relaciones Exteriores Santiago
Alternate Representative:	Dr Victor Marín Depto. de Ciencias Ecológicas, Facultad de Ciencias Universidad de Chile/INACH Santiago
Advisers:	Miss Vilma Correa Subsecretaría de Pesca Ministerio de Economía, Fomento y Reconstrucción Valparaíso

Dr Carlos Moreno
Instituto de Ecología y Evolución
Universidad Austral de Chile
Valdivia

Dr Daniel Torres
Instituto Antártico Chileno
Santiago

Mr Alfredo Gonzalo Benavides
Instituto Antártico Chileno
Santiago

Mrs Mercedes Meneses
Departamento Antártica
Dirección de Política Especial
Ministerio de Relaciones Exteriores
Santiago

EEC

Representative (Week 1): Dr Silvano Gregoli
Scientific Counsellor
EC Delegation to Australia and New Zealand
Canberra

Representative (Week 2) Mr John Spencer
Head of Unit
"Latin America, Antarctic and Mediterranean"
Directorate-General - Fisheries
Commission of the European Communities
Brussels

Adviser: Dr Volker Siegel
Institut für Seefischerei
Hamburg

FRANCE

Representative: Mr Charles Causeret
Conseiller des affaires étrangères
Direction des affaires juridiques
Ministère des affaires étrangères
Paris

Advisers: Prof Guy Duhamel
Sous-directeur
Laboratoire d'ichtyologie générale et appliquée
Muséum national d'histoire naturelle
Paris

Mlle. Laurence Cordonnery
Stagiaire des TAAF

GERMANY

Representative:	Mr Peter Bradhering Bundesministerium für Ernährung, Landwirtschaft und Forsten Bonn

INDIA

Representative:	His Excellency Mr Akbar Khaleeli High Commissioner for India Canberra

ITALY

Representative:	Counsellor Gerardo Carante Head of Office VII of the General Directorate for Cultural Relations Italian Ministry of Foreign Affairs
Alternate Representative:	Dr Silvio Dottorini Scientific Attaché Embassy of Italy Canberra
Advisers:	Prof Letterio Guglielmo Department of Animal Biology and Marine Ecology University of Messina Messina
	Dr Silvano Focardi Department of Environmental Biology University of Siena Siena

JAPAN

Representative:	Mr Kunio Yonezawa Ministry of Foreign Affairs Tokyo
Alternate Representatives:	Mr Ichiro Nomura Counsellor Oceanic Fisheries Department Fisheries Agency Tokyo
	Dr Mikio Naganobu Chief Scientist National Research Institute of Far Seas Fisheries Shimizu
Advisers:	Mr Nobuaki Kawakami First Secretary Embassy of Japan Canberra

Dr Mitsuo Fukuchi
National Institute of Polar Research
Tokyo

Mr Shinya Uno
International Affairs Division
Fisheries Agency
Tokyo

Mr Taro Ichii
National Research Institute of Far Seas Fisheries
Shimizu

Mr Takenobu Takahashi
Japan Deep Sea Trawlers Association
Tokyo

Mr Hirochika Katayama
Japan Deep Sea Trawlers Association
Tokyo

Mr Masashi Kigami
Japan Deep Sea Trawlers Association
Tokyo

KOREA, REPUBLIC OF

Representative:	Mr Yong-duc Chun Counsellor Embassy of the Republic of Korea Canberra
Alternate Representative:	Mr Won Seok Yang Senior Scientist National Fisheries Research and Development Agency
Adviser:	Dr Suam Kim Principal Scientist Korea Ocean Research and Development Institute

NEW ZEALAND

Representative:	Mrs Felicity Wong Legal Division Ministry of Foreign Affairs and Trade Wellington
Alternate Representative:	Dr Don Robertson Deputy Manager, Marine Research Ministry of Agriculture and Fisheries Wellington
Advisers:	Mrs Louise Sparrer Antarctic Policy Division Ministry of Foreign Affairs and Trade Wellington

Mr Barry Weeber
New Zealand Forest and Bird Protection Society

NORWAY

Representative: Mr Jan Arvesen
Ambassador, Polar Affairs Section
Royal Ministry of Foreign Affairs
Oslo

Alternate Representative: Mr Espen Larsen
Embassy Secretary
Royal Norwegian Embassy
Canberra

Adviser: Dr Torger Øritsland
Director of Research
Marine Research Institute
Bergen

POLAND

Representative: Dr Waldemar Figaj
Counsellor
Embassy of Poland
Canberra

Alternate Representative: Mr Zdzislaw Cielniaszek
Sea Fisheries Institute
Gdynia

RUSSIA

Representative: Mr Vadim Broukhis
Committee of the Russian Federation on Fisheries
Moscow

Advisers: Mr Vladimir Ikriannikov
Russian Fisheries Representative in Australia
Sydney

Dr K.V. Shust
VNIRO
Moscow

Mr G.V. Goussev
Committee of the Russian Federation on Fisheries
Moscow

Mr Vladimir Senioukov
SRPR
Murmansk

SOUTH AFRICA

Representative:	Mr G. de Villiers Director Sea Fisheries Administration Cape Town
Alternate Representatives:	Mr Denzil Miller Sea Fisheries Research Institute Cape Town
	Mr W.E. Marx Assistant Director Department of Foreign Affairs Pretoria

SPAIN

Representative:	His Excellency Dr Antonio Núñez Ambassador for Spain in Canberra
Alternate Representative:	Mr Antonio Fernández Dirección General de Recursos Pesqueros Madrid
Adviser:	Dr Eduardo Balguerías Centro Oceanográfico de Canarias Instituto Español de Oceanografía Santa Cruz de Tenerife

SWEDEN

Representative:	Mr Stellan Kronvall Assistant Under-Secretary Ministry of the Environment and Natural Resources Stockholm
Alternate Representative:	Professor Bo Fernholm Swedish Museum of Natural History Stockholm
Adviser:	His Excellency Mr Bo Heinebäck Ambassador Embassy of Sweden Canberra

UK

Representative:	Dr M.G. Richardson Head, Polar Regions Section South Atlantic and Antarctic Department Foreign and Commonwealth Office London

Alternate Representatives:	Professor J.R. Beddington Director Renewable Resources Assessment Group Imperial College London
	Mr Anthony Aust Foreign and Commonwealth Office London
Advisers:	Mrs C.M. McNeill Foreign and Commonwealth Office London
	Dr J.P. Croxall British Antarctic Survey Cambridge
	Dr Inigo Everson British Antarctic Survey Cambridge
	Dr Graeme Parkes Renewable Resources Assessment Group Imperial College London
	Ms Indrani Lutchman Representative of Non-Governmental Organisations

USA

Representative:	Mr R. Arnaudo Director, Division of Polar Affairs Office of Oceans Affairs Bureau of Oceans and International Environmental and Scientific Affairs US Department of State Washington, D.C.
Alternate Representative:	Dr Rennie Holt Chief Scientist, US AMLR Program Southwest Fisheries Science Center National Marine Fisheries Service La Jolla, California
Advisers:	Ms Erica Keen Office of Oceans Affairs Bureau of Oceans and International Environmental and Scientific Affairs US Department of State, Washington, D.C.
	Dr Polly A. Penhale Division of Polar Programs National Science Foundation Washington, D.C.

Ms Robin Tuttle
Office of International Affairs
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
Silver Spring, Maryland

Dr John Bengtson
Northwest Marine Mammal Laboratory
National Marine Fisheries Service
Seattle, Washington

Mr George Watters
Southwest Fisheries Science Center
National Marine Fisheries Service
La Jolla, California

Mr Paul J. Duffy
Golden Shamrock, Inc.
Kodiak, Alaska

Ms Beth Marks
The Antarctica Project
Washington, D.C.

OBSERVERS - ACCEDING STATES

BULGARIA

Mr Petre Jechev
c/- Ministry of Foreign Affairs
Republic of Bulgaria

GREECE

Dr Emmanuel Gounaris
President, Greek National Committee
for the Polar Regions
Ministry of Foreign Affairs
Athens

OBSERVERS

UKRAINE

Mr Stanislav Klementiev
Deputy Chairman
State Committee for Fisheries
Ukraine

Dr Vladimir Yakovlev
Director
Southern Scientific Research Institute of Marine Fishery
and Oceanography (YugNIRO)
Kerch, Ukraine

Mr Vyacheslav Luzin
Ministry of Foreign Relations
Kiev, Ukraine

OBSERVERS - INTERNATIONAL ORGANISATIONS

FAO Mr R. Shotton
FIRM
Food and Agriculture Organisation
of the United Nations
Rome

IOC Dr Enrique Marschoff
Instituto Antártico Argentino
Buenos Aires

Professor Garth Paltridge
Director, Antarctic CRC
University of Tasmania
Hobart

IUCN Mr Alistair Graham
Rocky Bay Road
Cygnet Tasmania

IWC Dr Karl-Hermann Kock
Institut für Seefischerei
Hamburg

SCAR Dr J. Croxall
British Antarctic Survey
Cambridge

OBSERVERS - NON-GOVERNMENTAL ORGANISATIONS

ASOC Dr Maj De Poorter
ASOC, New Zealand

SECRETARIAT

EXECUTIVE SECRETARY	Mr E. de Salas
SCIENCE OFFICER	Dr Eugene Sabourenkov
DATA MANAGER	Dr David Agnew
ADMINISTRATION/FINANCE OFFICER AND MEETING DOCUMENTS OFFICER	Mr Jim Rossiter
COMPUTER SPECIALIST	Mr Alasdair Blake
PERSONAL ASSISTANT TO THE EXECUTIVE SECRETARY	Mrs Geraldine Mackriell
REPORT SECRETARY	Mrs Genevieve Naylor
ASSISTANT DOCUMENTS OFFICER	Mrs Rosalie Marazas
SUPPORT STAFF	Mrs Leanne Bleathman
	Miss Belinda Marshall
FRENCH TEAM	Ms Gillian von Bertouch
	Mrs Bénédicte Graham
	Ms Floride Pavlovic
	Ms Michèle Roger
RUSSIAN TEAM	Mr Blair Scruton
	Ms Zulya Kamalova
	Mr Vasily Smirnov
SPANISH TEAM	Mr Fernando Cariaga
	Mrs Ana María Castro
	Mrs Marcia Fernandez
	Mr Demetrio Padilla
INTERPRETERS	Rosemary Blundo
	Sandra Hale
	Nina Hughes
	Rozalia Kamenev
	Véronique Moncho
	Diana Piñon
	Ludmilla Stern
	Irene Ulman

ANNEX 2

LIST OF DOCUMENTS

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CCAMLR-XII/1	PROVISIONAL AGENDA FOR THE TWELFTH MEETING OF THE COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES
CCAMLR-XII/2	ANNOTATED PROVISIONAL AGENDA FOR THE TWELFTH MEETING OF THE COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES
CCAMLR-XII/3	EXAMINATION OF THE AUDITED FINANCIAL STATEMENTS FOR 1992 Executive Secretary
CCAMLR-XII/4	REVIEW OF THE 1993 BUDGET, DRAFT 1994 BUDGET AND FORECAST 1995 BUDGET Executive Secretary
CCAMLR-XII/5	EVALUATING NEW AND EXPLORATORY FISHERIES Delegation of USA
CCAMLR-XII/6	CALCULATION OF MEMBERS' CONTRIBUTIONS TO THE 1994 BUDGET Executive Secretary
CCAMLR-XII/7	REVIEW OF POSSIBLE COST SAVING AREAS WITHIN THE CCAMLR BUDGET Secretariat
CCAMLR-XII/8	DATA MANAGEMENT AT CCAMLR: A REVIEW BY THE SECRETARIAT Secretariat
CCAMLR-XII/9	REVISION OF THE NUMBERING SYSTEM OF CONSERVATION MEASURES Secretariat
CCAMLR-XII/10	IMPLEMENTATION OF CONSERVATION MEASURES IN 1992/93 Secretariat
CCAMLR-XII/11	COORDINATION OF CEMP SITE PROTECTION BETWEEN CCAMLR AND THE ANTARCTIC TREATY CONSULTATIVE PARTIES Secretariat
CCAMLR-XII/12	CCAMLR SYSTEM OF INSPECTION - SUMMARY OF INSPECTIONS 1992/93 SEASON Secretariat
CCAMLR-XII/13	THE STATUS OF THE REGISTER OF PERMANENT RESEARCH VESSELS Secretariat
CCAMLR-XII/14	INTEREST ON LATE CONTRIBUTIONS Executive Secretary
CCAMLR-XII/15 Rev. 1	ORGANISATION OF THE MEETING: OBSERVERS Delegation of New Zealand
CCAMLR-XII/16	REPORT ON THE MEETING OF THE STANDING COMMITTEE ON OBSERVATION AND INSPECTION (SCOI)

CCAMLR-XII/17 REPORT OF THE STANDING COMMITTEE ON ADMINISTRATION AND FINANCE (SCAF)

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CCAMLR-XII/BG/1 LIST OF DOCUMENTS

CCAMLR-XII/BG/2 LIST OF MEETING PARTICIPANTS

CCAMLR-XII/BG/3 BEACH DEBRIS SURVEY - MAIN BAY, BIRD ISLAND SOUTH GEORGIA 1990/91
Delegation of United Kingdom

CCAMLR-XII/BG/4 BEACH DEBRIS SURVEY - MAIN BAY, BIRD ISLAND SOUTH GEORGIA 1991/92
Delegation of United Kingdom

CCAMLR-XII/BG/5 GUIDELINES FOR CONDUCTING SURVEYS OF BEACHED MARINE DEBRIS
Secretariat

CCAMLR-XII/BG/6 REPORT ON ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY IN THE CONVENTION AREA 1992/93
United Kingdom

CCAMLR-XII/BG/7 BEACH LITTER SURVEY SIGNY ISLAND, SOUTH ORKNEY ISLANDS, 1992/93
Delegation of United Kingdom

CCAMLR-XII/BG/8 REPORT ON ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY IN THE CONVENTION AREA 1992/93
Australia

CCAMLR-XII/BG/9 REPORT ON ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY IN THE CONVENTION AREA 1992/93
South Africa

CCAMLR-XII/BG/10 REPORT ON ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY IN THE CONVENTION AREA 1992/93
Japan

CCAMLR-XII/BG/11 ADDRESS GIVEN TO CITIZEN'S MARINE SUMMIT, JAPAN
BY DR I. EVERSON
Delegation of United Kingdom

CCAMLR-XII/BG/12 REPORT ON ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY IN THE CONVENTION AREA 1992/93
United States of America

CCAMLR-XII/BG/13 A PROPOSAL TO THE ANTARCTIC TREATY CONSULTATIVE PARTIES FOR AN ANTARCTIC SPECIAL MANAGEMENT AREA (ASMA), ADMIRALTY BAY, KING GEORGE ISLAND
Delegations of Brazil and Poland

CCAMLR-XII/BG/14 EXCERPT FROM TRANSLATION OF FAX DATED 19 AUGUST 1993 FROM CHILE RECEIVED IN THE SECRETARIAT ON 20 AUGUST 1993
Secretariat

CCAMLR-XII/BG/15 REPORT ON FISHERY AND SCIENTIFIC ACTIVITY OF UKRAINE IN THE ANTARCTIC IN 1992/93
Report of Observer, Ukraine

CCAMLR-XII/BG/16 VACANT

CCAMLR-XII/BG/17 REPORT OF THE CCAMLR OBSERVER AT THE 45TH ANNUAL MEETING OF THE IWC
CCAMLR Observer (Japan)

CCAMLR-XII/BG/18 REPORT ON ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY IN THE CONVENTION AREA 1992/93
Brazil

CCAMLR-XII/BG/19 UKRAINIAN POSITION ON SOME ITEMS OF THE AGENDA
Observer, Ukraine

CCAMLR-XII/BG/20 SCIENTIFIC RESEARCH EXEMPTION PROVISIONS
Delegation of Spain

CCAMLR-XII/BG/21 UN CONFERENCE ON STRADDLING FISH STOCKS AND HIGHLY MIGRATORY FISH STOCKS
Delegation of Chile

CCAMLR-XII/BG/22 THIRD INTERNATIONAL CONFERENCE, MARINE DEBRIS. SEEKING GLOBAL SOLUTIONS
Delegation of USA

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CCAMLR-XII/MA/1 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Poland

CCAMLR-XII/MA/2 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
France

CCAMLR-XII/MA/3 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Chile

CCAMLR-XII/MA/4 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Argentina

CCAMLR-XII/MA/5 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Australia

CCAMLR-XII/MA/6 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
South Africa

CCAMLR-XII/MA/7 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Russia

CCAMLR-XII/MA/8 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Japan

CCAMLR-XII/MA/9 REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93
Germany

CCAMLR-XII/MA/10	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 United Kingdom
CCAMLR-XII/MA/11	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 Republic of Korea
CCAMLR-XII/MA/12	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 USA
CCAMLR-XII/MA/13	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 Brazil
CCAMLR-XII/MA/14	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 New Zealand
CCAMLR-XII/MA/15	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 Sweden
CCAMLR-XII/MA/16	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 Spain
CCAMLR-XII/MA/17	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 Italy
CCAMLR-XII/MA/18	REPORT OF MEMBER'S ACTIVITIES IN THE CONVENTION AREA 1992/93 Norway

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SC-CAMLR-XII/1	PROVISIONAL AGENDA FOR THE TWELFTH MEETING OF THE SCIENTIFIC COMMITTEE FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES
SC-CAMLR-XII/2	ANNOTATED PROVISIONAL AGENDA FOR THE TWELFTH MEETING OF THE SCIENTIFIC COMMITTEE FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES
SC-CAMLR-XII/3	REPORT OF THE WORKING GROUP FOR THE CCAMLR ECOSYSTEM MONITORING PROGRAM (Seoul, Republic of Korea, 16 to 23 August 1993)
SC-CAMLR-XII/4	REPORT OF THE FIFTH MEETING OF THE WORKING GROUP ON KRILL (Tokyo, Japan, 4 to 12 August 1993)
SC-CAMLR-XII/5	REPORT OF THE WORKING GROUP ON FISH STOCK ASSESSMENT (Hobart, Australia, 12 to 19 October 1993)
SC-CAMLR-XII/6	VACANT
SC-CAMLR-XII/7	PUBLICATION POLICY - *CCAMLR SCIENCE* JOURNAL Secretariat
SC-CAMLR-XII/8	ACQUISITION OF SEA ICE DATA FOR CEMP INDICES Secretariat

SC-CAMLR-XII/9	DRAFT MANAGEMENT PLAN FOR THE PROTECTION OF CAPE SHIRREFF AND THE SAN TELMO ISLANDS, SOUTH SHETLAND ISLANDS, AS A SITE INCLUDED IN THE CCAMLR ECOSYSTEM MONITORING PROGRAM Delegations of Chile and the United States

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SC-CAMLR-XII/BG/1	SUMMARY OF FISHERY STATISTICS FOR 1993 Secretariat
SC-CAMLR-XII/BG/2	CCAMLR DATABASES AND DATA AVAILABILITY Secretariat
SC-CAMLR-XII/BG/3	REPORT OF A COORDINATION MEETING OF THE CONVENERS OF THE WORKING GROUPS ON KRILL, CEMP AND FISH AND THE CHAIRMAN OF THE SCIENTIFIC COMMITTEE
SC-CAMLR-XII/BG/4	AN EXPLORATORY FISHING EXPEDITION FOR *DISSOSTICHUS ELEGINOIDES* AROUND THE SOUTH SANDWICH ISLANDS, ANTARCTICA Delegations of Chile and United Kingdom
SC-CAMLR-XII/BG/5	SCAR-COMNAP PROPOSAL FOR AN ANTARCTIC DATA MANAGEMENT SYSTEM Secretariat
SC-CAMLR-XII/BG/6	ENTANGLEMENT OF ANTARCTIC FUR SEALS *ARCTOCEPHALUS GAZELLA* IN MAN-MADE DEBRIS AT BIRD ISLAND, SOUTH GEORGIA DURING THE 1992 WINTER AND 1992/93 PUP-REARING SEASON Delegation of United Kingdom
SC-CAMLR-XII/BG/7	RECORDS OF FISHING HOOKS ASSOCIATED WITH ALBATROSSES AT BIRD ISLAND, SOUTH GEORGIA, 1992/93 Delegation of United Kingdom
SC-CAMLR-XII/BG/8 Rev. 1	SEABIRD INTERACTIONS WITH LONG-LINING OPERATIONS DURING AN EXPLORATORY FISHING CRUISE FOR *DISSOSTICHUS ELEGINOIDES* TO SOUTH SANDWICH ISLANDS, ANTARCTICA Delegations of United Kingdom and Chile
SC-CAMLR-XII/BG/9	OBSERVER'S REPORT FROM THE 1993 MEETING OF THE SCIENTIFIC COMMITTEE OF THE INTERNATIONAL WHALING COMMISSION Observer (W.K. de la Mare, Australia)
SC-CAMLR-XII/BG/10	SOUTHERN OCEAN CEPHALOPODS SYMPOSIUM Delegation of United Kingdom
SC-CAMLR-XII/BG/11	FISHING AND CONSERVATION IN SOUTHERN WATERS Delegation of Germany
SC-CAMLR-XII/BG/12	FAO *AD HOC* CONSULTATION ON THE ROLE OF REGIONAL FISHERY AGENCIES IN RELATION TO HIGH SEAS FISHERY STATISTICS Secretariat

SC-CAMLR-XII/BG/13 OBSERVATIONS ON CCAMLR SPECIFICATIONS FOR STREAMER LINES TO REDUCE LONGLINE BY-CATCH OF SEABIRDS
Delegation of New Zealand

SC-CAMLR-XII/BG/14 INCIDENTAL CAPTURE OF SEABIRDS BY JAPANESE SOUTHERN BLUEFIN TUNA LONGLINE VESSELS IN NEW ZEALAND WATERS 1988 - 1992
Delegation of New Zealand

SC-CAMLR-XII/BG/15 OILED PENGUINS OBSERVED AT BIRD ISLAND, SOUTH GEORGIA, 1992/1993
Delegation of United Kingdom

SC-CAMLR-XII/BG/16 THE SCAR ANTARCTIC DIGITAL TOPOGRAPHIC DATABASE
Delegation of United Kingdom

SC-CAMLR-XII/BG/17 IMPACTO ANTROPICO EN CABO SHIRREFF, ISLA LIVINGSTON, ANTARTICA
Delegación de Chile (Available in Spanish only)

SC-CAMLR-XII/BG/18 REPORT ON MEASURES ON BOARD RUSSIAN VESSELS IN 1992/93 TO AVOID INCIDENTAL MORTALITY OF SEABIRDS
Delegation of Russia

SC-CAMLR-XII/BG/19 NOTES ON MANAGEMENT UNDER UNCERTAINTY
Observer, Ukraine

SC-CAMLR-XII/BG/20 REPORT OF THE SC-CAMLR OBSERVER AT THE SCAR PLANNING WORKSHOP FOR THE ANTARCTIC PACK-ICE SEALS (APIS) PROGRAM

SC-CAMLR-XII/BG/21 POPULATION DYNAMICS OF BLACK-BROWED AND GREY-HEADED ALBATROSSES *DIOMEDEA MELANOPHRIS* AND *D. CHRYSOSTOMA* AT BIRD ISLAND, SOUTH GEORGIA
Delegation of United Kingdom

SC-CAMLR-XII/BG/22 CO-OPERATIVE MECHANISMS FOR THE CONSERVATION OF ALBATROSS
Delegation of Australia

SC-CAMLR-XII/BG/23 REPORT OF THE CCAMLR OBSERVER TO ICES
CCAMLR Observer (D. Agnew, Secretariat)

SC-CAMLR-XII/BG/24 COOPERATION WITH IWC
Secretariat

SC-CAMLR-XII/BG/25 TOWARDS THE DEVELOPMENT OF AN INTERNATIONAL GLOBEC SOUTHERN OCEAN PROGRAM
SCAR Observer

SC-CAMLR-XII/BG/26 ANTARCTIC OZONE DEPLETION: IMPACTS OF ELEVATED UV-B LEVELS ON THE SOUTHERN OCEAN ECOSYSTEM
ASOC Observer

SC-CAMLR-XII/BG/27 DEFINITIONS AND APPLICABILITY OF VARIOUS CRITERIA TO THE MANAGEMENT OF MARINE LIVING RESOURCES
Observer, Ukraine (Available in Russian only)

ANNEX 3

AGENDA FOR THE TWELFTH MEETING OF THE COMMISSION

AGENDA FOR THE TWELFTH MEETING OF THE COMMISSION

1. Opening of the Meeting

2. Organisation of the Meeting
   (i) Adoption of the Agenda
   (ii) Report of the Chairman

3. Finance and Administration
   (i) Examination of Audited Financial Statements for 1992
   (ii) Review of Budget for 1993
   (iii) Review of Formula for Calculating Members' Contributions
   (iv) Interest on Late Payment of Members' Contributions
   (v) Review of Possible Areas of Cost Savings
   (vi) Budget for 1994 and Forecast Budget for 1995
   (vii) Election of Chairman and Vice-Chairman of SCAF

4. Report of the Scientific Committee

5. Assessment and Avoidance of Incidental Mortality of Antarctic Marine Living Resources
   (i) Marine Debris
   (ii) Incidental Mortality during Fishing Operations

6. Observation and Inspection
   (i) The System of Inspection
   (ii) Compliance with Conservation Measures in Force
   (iii) Operation of the Scheme of International Scientific Observation

7. New and Exploratory Fisheries

8. Conservation Measures
   (i) Review of Existing Measures
   (ii) Consideration of New Measures and Other Conservation Requirements

9. Withdrawn

10. Cooperation with Other Elements of the Antarctic Treaty System
    (i) SCAR
    (ii) Protection of CEMP Sites
    (iii) Other Matters

11. Cooperation with Other International Organisations

12. United Nations Conference on Straddling Fish Stocks and Highly Migratory Species

13. Election of Vice-Chairman of the Commission

14. Next Meeting

15. Other Business

16. Report of the Twelfth Meeting of the Commission

17. Close of the Meeting.

ANNEX 4

REPORT OF THE STANDING COMMITTEE ON ADMINISTRATION AND FINANCE (SCAF)

REPORT OF THE STANDING COMMITTEE ON ADMINISTRATION AND FINANCE (SCAF)

The following agenda items were considered by the Standing Committee on Administration and Finance for preliminary discussion:

Examination of Audited Financial Statements for 1992 (CCAMLR-XII/3)
Data Management (CCAMLR-XII/8)
Position of Data Manager (Position Descriptions)
Review of Formula for Calculating of Members' Contributions (CCAMLR-XII/6)
Interest on Late Payment of Members' Contributions (CCAMLR-XII/14)
Review of Possible Areas of Cost Saving (CCAMLR-XII/7)
Review of Budget for 1993 (CCAMLR-XII/4)
Budget for 1994 and Forecast Budget for 1995 (CCAMLR-XII/4)
Election of Chairman and Vice Chairman of SCAF.

AUDITED FINANCIAL STATEMENTS

2. **The Committee recommends that the Commission adopt the financial statements as presented in CCAMLR-XII/4.** The Committee noted that the audit report to the 1993 Financial Statements advised no qualifications in respect of compliance with Financial Regulations or International Accounting Standards.

3. **The Committee recommends that the Commission consider the use of review audits as appropriate.** Committee members consider that a history of unqualified audit reports and Members' confidence in the Secretariat indicate that the cost of full audits every year are not justified; full audits can be required on average every other year with abbreviated review audits in the alternate years. The potential savings of this recommendation are approximately A$4 000 in the review-only years.

4. **To facilitate the use of review audits, the Committee recommends that the Commission decide, each year after the 1993 financial year, whether to require a review audit instead of a full audit.**

DATA MANAGEMENT

5. **The Committee notes an increase in the relative level of the Data Management work and recommends that the Commission reflect this increase in the 1994 Budget.** The main change in this item is an additional A$19 000 in contract labour necessitated by a significant increase in data processing. The Chairman of the Scientific Committee strongly endorsed the need for such data.

DATA MANAGER

6. The Executive Secretary advised the Committee that the Data Manager's contract had expired in August 1992 and had since been extended by tacit agreement with the Data Manager pending a review of the tasks and abilities required of the position. The results of such a review by the Executive Secretary had been discussed with the Chairman of SCAF and were presented to the Committee for consideration.

7. **The Committee recommends that the Commission approve the revision of the post of Data Manager from International Civil Service level P4 to level P5 with effect from August 1994.** The upgrade is considered appropriate because of the increasingly technical demands on the Data Manager by the Scientific Committee and its Working Groups. Such demands exceed significantly the levels anticipated at the time the post was originally classified and include a considerable amount of data analysis and statistical modelling. The Chairman of the Scientific Committee has endorsed this advice. The cost of increasing the post is approximately A$21 000 per year (pro-rated in 1994 from August, at A$7 000).

8. **The Committee recommends to the Commission that, although the reclassification of the position effectively creates a new position, the present Data Manager continue at the new level.** The Chairman of the Scientific Committee endorsed the opinion of SCAF members that the present Data Manager is respected in the CCAMLR scientific community and very capable of performing the work of Data Manager at the higher level.

CALCULATION OF MEMBERS' CONTRIBUTIONS

9. Recognising the fundamental obligation of Members to support the Commission, the Committee discussed a number of alternative approaches to the contribution formula and **recommends to the Commission that the existing formula for calculating Member contributions be used as a basis for the 1994 budget contributions. The Committee further recommends that the Secretariat prepare a paper on the subject setting out options for consideration at the 1994 Meeting of the Commission.**

MEMBER CONTRIBUTIONS

10. **The Committee makes no recommendations to the Commission concerning a proposal to charge Members interest on the late payment of contributions to the annual budget.** Deliberations at SCAF failed to reach any consensus on whether or not it would be appropriate to charge interest on Members' Contributions which are not paid by the due date. Noting that its proposal had not received consensus, the Australian Delegation withdrew the proposal.

11. **The Committee recommends that non-member nations fishing in the Convention Area be encouraged by Member countries to become full members of CCAMLR as a means to increase the effectiveness of the Commission and allocate the budgetary burden across a broader base.**

12. **The Committee recommends that the Commission urge all Members to make contributions in accordance with Financial Regulation 5.6. Failure to do so has a detrimental effect on the operation of the organisation.**

COST SAVINGS

13. **The Committee recommends that the Secretariat continue its effort to find a less expensive location in the Hobart area for the Annual Meeting.** While initial discussions with the Tasmanian State Government have failed to reveal any appropriate location, the Executive Secretary will continue to search for acceptable alternatives with the State Government.

14. **The Committee recommends that the Commission open its meeting on the Wednesday of the Scientific Committee meeting.** Although there may be little or no savings to the Commission, attendance by Commission delegates will be shortened by two days, thus reducing Members' expenses.

15. **The Committee recommends that the Commission direct the Secretariat to prepare, for consideration at its next meeting, a paper outlining possible cost savings in conducting the Scientific and Commission meetings, together with the procedural and practical implications of such options.**

16. **The Committee recommends that, beginning in 1994, Members' Activities Reports no longer be published as a separate, bound volume.** The Committee noted that if Members submit reports on a timely basis, copies will be available in all official languages at the annual meeting. **The Committee recommends further that a notice advising of the availability of copies of individual reports from the Secretariat be included in the CCAMLR Newsletter.** The potential savings of these recommendations is A$23 000.

17. **The Committee recommends that, for a trial period of two years, the Commission adopt a publications distribution policy as follows:**

AVAILABILITY

Free, upon request of each Member:

- **up to four copies of the report of the Commission;**
- **up to 12 copies of the Scientific Committee report;**
- **up to two copies of all other CCAMLR publications.**

COST

- **The cost of additional copies of CCAMLR publications will be added to the Member's Contribution for the following year.**

POSTAGE

- **All Member copies will, unless otherwise requested, be posted to the Member's Embassy or Diplomatic post in Australia; and**

OTHER INSTITUTIONS, INDIVIDUALS, OBSERVERS

- **All copies of CCAMLR publications made available to other institutions, individuals and observers should be by subscription arrangements.**

The potential savings of this recommendation is A$17 000.

18. **The Committee recommends that the Standing Committees, Working Groups, Scientific Committee, and Commission keep their reports as brief as possible and review documents submitted to all meetings for length and appropriateness.** The Committee requested that the Executive Secretary convey this advice annually to Heads of Delegations.

19. **The Committee recommends that, henceforth, countries which host meetings of Working Groups away from Headquarters be invited to contribute towards the cost of attendance of officers of the Secretariat at such meetings.**

REVIEW OF 1993 BUDGET

20. **The Committee recommends that the Commission approve the reallocation of expenditure items in the 1993 Budget as follows:**

Reduce Publications item by A$3 000
Reduce Allowances sub-item by A$28 500
Increase Salaries sub-item by A$31 500

The reallocation is required as a result of US dollar/Australian dollar exchange rate changes causing unforseen salary increases. The increases have mainly been offset by the Science Officer agreeing to defer his Home Leave until 1994.

1994 BUDGET

21. While the Committee endorses the recommendation of the Scientific Committee to upgrade the *Selected Scientific Papers*, **it recommends that the Commission request that the Executive Secretary report each year, for a three year trial period, on production costs, subscriber interest and progress towards cost recovery. The Committee also recommends that the Executive Secretary report on the feasibility of an independent review of the quality of the publication.**

22. The Committee noted the efforts made by the Scientific Committee towards consolidating the meetings of two of its Working Groups, and the resulting savings in the cost of Secretariat support for the meetings. **In order to realise the full potential for savings and efficiency, the Committee recommends that the consolidation of Working Groups be completed as quickly as possible.**

23. **The Committee recommends that the Commission approve the following budget items (and the individual elements of the budget as set out in the attached table):**

Data Management	**A$87 300**
Meetings	**A$388 200**
Publications	**A$103 400**
Scientific Committee	**A$127 200**
Secretariat Costs	**A$926 900**

The 1994 expenditure budget of A$1 633 000 compares with a 1993 expenditure budget of A$1 526 800. The increase of A$106 200 represents an increase of 6.9%; as adjusted for inflation this is 4.0%.

1995 FORECAST BUDGET

24. The Committee noted a forecast 1995 expenditure budget of A$1 672 000.

OTHER BUSINESS

25. The Executive Secretary suggested that the Commission consider the appropriateness of a CCAMLR flag. **The Committee recommends that the Executive Secretary report to SCAF, at the 1994 Meeting, on options, including costs, relating to the possible introduction of such a flag.**

ELECTION OF CHAIR AND VICE-CHAIR

26. The Committee elected South Africa as Chair and Chile as Vice-chair for 1994 and 1995.

27. The Committee expressed its gratitude to Robin Tuttle for the efficient and diplomatic way she has chaired SCAF during the last three years.

PROJECTED INCOME AND EXPENDITURE FOR 1993,
BUDGET FOR 1994 AND FORECAST BUDGET FOR 1995

(Australian Dollars)

Budget for 1993					
(1) Budget adopted in 1992	(2) Estimates projected to 31/12/93	(3) Variance from Budget	Item Subitem	(4) 1994 Budget	(5) 1995 Forecast Budget
			INCOME		
1 309 800	1 283 473	-26 327	Members' Contributions	1 355 100	1 440 900
			Items from previous year		
0	0	0	- Arrears of Contributions	0	0
36 000	29 186	-6 814	- Interest	28 900	29 500
0	0	0	- Members' Contributions	0	0
0	0	0	- New Members' Contributions	0	0
181 000	182 977	1 977	- Staff Assessment Levy	249 000	201 600
0	31 164	31 164	- Surplus	0	0
1 526 800	1 526 800	0	Total Income	1 633 000	1 672 000
			EXPENDITURE		
			DATA MANAGEMENT		
6200	6200	0	Capital Equipment	6 400	6 600
3 600	3 600	0	Consumables	3 700	3 800
40 100	40 100	0	Contract Labour	60 300	72 400
11 100	11 100	0	Maintenance	11 400	11 800
5 300	5 300	0	Time Share Usage	5 500	5 700
66 300	66 300	0	Total Data Management	87 300	100 300
			MEETINGS		
377 400	377 400	0	Total Meetings	388 200	401 800
			PUBLICATIONS		
130 300	127 300	-3 000	Total Publications	103 400	98 300
			SCIENTIFIC COMMITTEE		
119 100	119 100	0	Total Scientific Committee	127 200	121 500
			SECRETARIAT COSTS		
18 400	18 400	0	Administration	19 100	19 800
216 900	188 400	-28 500	Allowances	247 800	237 300
5 000	5 000	0	Automobile	5 100	5 300
28 600	28 600	0	Communication	29 400	30 400
3 700	3 700	0	Incidentals	3 800	3 900
3 700	3 700	0	Library	3 800	3 900
28 400	28 400	0	Office Requisites	29 200	30 200
8 700	8 700	0	Premises	9 000	9 300
494 100	525 600	31 500	Salaries	544 300	573 400
26 200	26 200	0	Travel	35 400	36 600
833 700	836 700	3 000	Total Secretariat Costs	926 900	950 100
1 526 800	1 526 800	0	Total Expenditure	1 633 000	1 672 000

ANNEX 5

REPORT OF THE STANDING COMMITTEE ON OBSERVATION AND INSPECTION (SCOI)

REPORT OF THE STANDING COMMITTEE ON OBSERVATION AND INSPECTION (SCOI)

The meeting of the Standing Committee on Observation and Inspection was held from 27 to 29 October 1993 under the chairmanship of Ambassador J. Arvesen (Norway). All Members of the Commission were represented at the meeting. The Observer from Bulgaria, an Acceding State to the CCAMLR Convention, was also represented at the meeting.

2. The following items of the Commission's Agenda Item 6 were referred to the Committee for consideration:

(i) The System of Inspection;
(ii) Compliance with Conservation Measures in Force; and
(iii) Operation of the Scheme of International Scientific Observation.

3. The Chairman suggested that the item "Election of the Chairman of SCOI" also be included in the Committee's Agenda. Ambassador Arvesen has completed his second year as Chairman of SCOI.

4. The Agenda of the Committee, consisting of the four items listed in paragraphs 2 and 3 above, was adopted.

THE SYSTEM OF INSPECTION

5. In accordance with agreed procedure, the Secretariat prepared a summary of inspections conducted in the 1992/93 season (CCAMLR-XI, Annex 5, paragraph 11). This summary was presented as document CCAMLR-XII/12.

6. Only one inspection was reported to the Secretariat during the 1992/93 season. An inspection of the Polish vessel *Lyra*, fishing for krill in Subarea 48.1, was carried out on 3 March 1993 by CCAMLR Inspectors nominated by the USA. The report was distributed to Members together with COMM CIRC 93/33 of 14 July 1993. This report was available in its entirety for consideration by SCOI.

7. No infringements of CCAMLR Conservation Measures were found during this inspection. In presenting the report, the Delegation of the USA noted that the captain of the Polish vessel was very

cooperative and responsive to the Inspectors' questions concerning official CCAMLR business and less formal topics about the vessel's fishing practices. The Delegation of Poland advised the Committee that the crew of the Polish vessel was completely satisfied with the conduct of the inspection.

8. The Delegation of Argentina, supported by the Delegation of Australia, emphasised that the System of Inspection is the key mechanism within the CCAMLR Convention for ensuring compliance with Conservation Measures. The Delegation of Argentina suggested that CCAMLR Members should consider increasing participation in the system and, in particular, covering more extensively those areas where the majority of Conservation Measures are in force.

9. The Committee endorsed this point of view and stressed the desirability that the System of Inspection, which is available to all Members, be used more extensively in order to ensure compliance with Conservation Measures, particularly in those statistical areas where the majority of Conservation Measures are in force.

10. The Secretariat informed the Committee that during the 1992/93 season, 26 CCAMLR Inspectors were designated by six Members. Unfortunately, without additional information on the actual number of Inspectors deployed at sea, duration of their trips and statistical areas covered, it is difficult to judge the level of the inspection effort applied in the CCAMLR Convention Area. Despite the requirement that they do so, Reports of Members' Activities presently submitted to the Commission do not contain this information.

11. The Committee requested Members that, in addition to reporting inspections carried out, information be provided to SCOI about the actual number of Inspectors deployed at sea, duration of their trips and areas covered. This information is essential for assessing the level of inspection effort in the Convention Area.

12. The Delegation of Australia reported that two CCAMLR Inspectors were placed on board its research vessel *Aurora Australis*. No fishing vessels were observed during her voyages in Statistical Area 58 during the 1992/93 season and, consequently, no inspections were carried out.

13. The existing inspection reporting forms provide for the recording of much detailed information. However, the Delegation of the UK suggested that it might be useful to consider adding

details related to specific Conservation Measures applied to particular fisheries. The Delegation of the USA observed that because Conservation Measures may be changed annually, it would be better not to include in reporting forms any references to specific Conservation Measures in force.

14. The Committee decided that the revision of forms for reporting of inspections should be considered in detail at the next meeting of SCOI. The Secretariat was asked to consult with Members during the intersessional period and to prepare a draft proposal. This proposal should explore various ways of improving existing forms and, in particular, of designing forms which might be used to inspect any types of fishing operations.

15. The Committee also considered the status of the Register of Permanent Research vessels in the context of the new Scientific Exemption Provisions adopted at the last meeting of the Commission. These new Provisions consist of Resolution 9/XI and Conservation Measure 47/XI. The System of Inspection contains a specific reference to the Register and to the old 1986 Scientific Exemption Provisions (Article IV(a)).

16. The objective of the Register was to identify permanent research vessels which were exempt from the requirement to report their research plans in accordance with the 1986 Provisions, and to enable CCAMLR Inspectors to be informed of the fact that these vessels are exempt from Conservation Measures regulating commercial fisheries.

17. Having adopted the new Provisions, the Commission decided that at the 1993 Meeting it would be necessary to review the status of the Register of Permanent Research Vessels (CCAMLR-XI, paragraph 9.12). The Committee was asked to advise the Commission on the matter.

18. The Secretariat has prepared a paper reviewing the Status of the Register (CCAMLR-XII/13). The paper suggests that the new Provisions should be revised in order to include an explicit statement about any exemption applicable to permanent research vessels and definitions of all categories of vessels. Three options were identified. The future of the register of Permanent Research Vessels would depend on which option was chosen. Article IV(a) of the System of Inspection should be also amended accordingly.

19. The Scientific Committee had considered this paper and advised the Commission that Option III from CCAMLR-XII/13 would provide the Scientific Committee with the necessary means and sufficient time to consider any proposed fishing for research purposes. Under this Option, the Provisions should not make any distinction between different categories of vessels, and any plans for

research should be notified and provided in the prescribed detail when the estimated catch may exceed 50 tonnes. In this case there is no need to maintain the Register because listing vessels in the Register does not constitute an exemption from Conservation Measures.

20. In discussing the matter, the Committee felt that any suggested changes to the Provisions and related status of the Register should not disadvantage in any way conducting of fish assessment surveys in the Convention Area. The Delegation of Spain pointed out that Option III does not specify what exemptions are applied to those research vessels which intended to catch less than 50 tonnes and how to identify these vessels for inspection purposes.

21. The Committee decided that the Commission should consider adopting a revised version of Option III. According to this revised version, Article IV(a) of the System of Inspection should be amended by deleting a reference to the Register and the 1986 Scientific Exemption Provisions, and by requesting that Members submit a list of vessels intending to conduct fishing for research purposes in addition to the list of vessels intending to undertake harvesting activities. The Committee recommended that the Commission consider amending Conservation Measure 47/XI to specify the exemptions applied to those research vessels intending to catch less than 50 tonnes.

22. In order to provide greater flexibility to the CCAMLR System of Inspection it was considered that the deadline for the designation of Inspectors be changed from the existing date of 1 May to a date which corresponds to the last day of the Commission meeting. The Committee recommended that Article I(f) of the System of Inspection be amended accordingly, and that designations should remain valid until the last day of the Commission meeting in the following year.

COMPLIANCE WITH CONSERVATION MEASURES IN FORCE

23. All Conservation Measures were notified to Members on 10 November 1992. There were no objections to any Conservation Measures adopted at the Eleventh Meeting of the Commission and, in accordance with Article IX.6(b) of the Convention, those measures became binding to all Members on 9 May 1993.

24. The Secretariat presented a paper describing the implementation of Conservation Measures in the 1992/93 season (CCAMLR-XII/10). In particular, the paper recommended that in order to improve the accuracy in predicting closure dates of fisheries, Members participating in any fishery

should be requested to submit catch reports for the entire duration of the fishery including periods when no catches were taken, i.e., to report so-called "zero" catches. The Committee approved this recommendation.

25. The Committee considered the requirement of Article XX.3 of the Convention that "Members of the Commission shall provide to the Commission at such intervals as may be prescribed, information on steps taken to implement the Conservation Measures adopted by the Commission".

26. The Committee recommended to the Commission that the above requirement be brought to the attention of Members. Reports on steps taken to implement Conservation Measures could be presented to SCOI at its annual meetings. The report of the Committee to the Commission will contain a summary of Members' reports.

27. The Delegation of Chile informed the Committee that on 23 February 1993 the vessel *Frio Sur V,* which carried two Scientific Observers to Subarea 48.4 (see paragraph 37 below) reported possible infringements in Subarea 48.3 by three longline ships (one Russian and two Chilean). Such reports were duly passed on to the Secretariat by the Chilean Department of Foreign Affairs. On this matter, the Delegation of the UK confirmed that the UK had approached the Chilean authorities and the Russian State Committee on Fisheries for explanation. The response from the latter indicated that from the logbook of the sighted Russian vessel, the vessel on 19 March 1993 was outside of the Convention Area. This response did not accord with the evidence of the Scientific Observer which placed the Russian vessel (call sign MN 0309) at position 53°35.8'S and 43°32.7'W, well inside Subarea 48.3.

28. The Delegation of the UK also informed the Committee of an apparent infringement of Conservation Measure 44/XI by the Chilean vessel *Elqui* on 2 March, 1993. The vessel was seen hauling longlines in Subarea 48.3 at position 54°06.7'S and 39°43.7'W. The vessel claimed it was not aware of the closure of the toothfish fishery on 5 February, and that it had a permit to longline in the subarea until April 1993. The Delegation of the UK indicated that it had provided detailed information on this apparent infringement to the Chilean authorities to assist them in taking appropriate actions.

29. The Committee considered the case of the Bulgarian vessel fishing contrary to Conservation Measure 44/XI (as notified to Members in COMM CIRC 93/4). The Committee expressed its disapproval and disappointment that Bulgaria, as an Acceding State, had not complied voluntarily

with this Conservation Measure. The Committee urged that all Acceding States should voluntarily comply with Conservation Measures adopted by the Commission and further urged that any other nations which undertake fishing in the CCAMLR Convention Area, such as Ukraine, be persuaded to accede to the Convention and to apply to become Members of the Commission.

30. The Delegation of Poland noted that, according to information provided in CCAMLR-XII/10, only Japan and Poland reported krill catches from Statistical Area 48 and Division 48.4.2 by month, in compliance with Conservation Measures 32/X, 45/XI and 46/XI. The Delegation of Chile recalled that it had reported its catches of krill taken from 3 to 8 April on 7 May 1993. The Committee confirmed that all Members fishing for krill are required to report catches on a monthly basis in accordance with the Conservation Measures listed above.

31. The Delegation of Chile made a further statement on matters related to the enforcement of Conservation Measures in the Convention Area for longline vessels operating under the flag of Chile. The full text of this statement is appended.

32. The Committee accepted the statement with appreciation and commended the Delegation of Chile for a very candid and sincere approach in considering current problems of enforcing Conservation Measures for the Chilean vessels, in the same way as was done last year (CCAMLR-XI, Annex 5, paragraph 25). The Committee also expressed its hope that Chile would report results of its effort on ensuring full compliance of Chilean vessels with CCAMLR Conservation Measures at the next meeting of SCOI.

33. Some delegations suggested that the following ways of improving enforcement of Conservation Measures be considered by the Committee:

- the reinforcement of the Observation and Inspection Systems considering, among other possibilities, giving in special circumstances the status of Inspectors to Scientific Observers, thus giving legal value to their testimony; and

- the use of automatic positioning systems to better meet the objective of the Convention and improve the reliability of fine-scale data which underlie management decisions.

34. However, the Committee strongly reiterated its previous decisions that the System of Inspection and the Scheme of International Scientific Observation are to be considered as inherently different.

35. The Committee asked the Secretariat to explore during the intersessional period the feasibility of using transponders linked to vessels' Global Positioning System (GPS) which transmit regular identification, date and position of a vessel's location, and prepare a paper, with proposals, including costs and issues of confidentiality of data for the next meeting of SCOI. The Committee recommended that this question be included as a sub-item on the Provisional Agenda of the next meeting of the Commission.

36. The Delegation of Germany informed the Committee on a pilot project on the use of satellite observation methods conducted within the EEC. The Committee noted Chile's decision to place transponders on its vessels and asked that a report of the results of these projects and any other material on the use of transponders by other Members, be made available to the Secretariat.

OPERATION OF THE SCHEME OF INTERNATIONAL SCIENTIFIC OBSERVATION

37. The Scheme of International Scientific Observation was adopted last year by the Commission. The first observation under this Scheme was conducted in accordance with an agreement between Chile and the UK. In accordance with this agreement, a Scientific Observer nominated by the UK together with a Scientific Observer nominated by Chile undertook scientific observations on board the Chilean longliner, *Frio Sur V*, fishing for Patagonian toothfish in Subarea 48.4 (South Sandwich Islands). The report of this observation was presented to the Scientific Committee as SC-CAMLR-XII/BG/4.

38. The Delegations of the UK and Chile described this observation as successful although the amount of fish caught was very small and scientific data collected were relatively sparse. The Government of Chile and, in particular, the fishing company Frioaysen S.A., were commended for their excellent legal and practical arrangements. The Memorandum of Understanding between Chile and the UK on the conduct of this observation was compiled in conformity with the requirements of the Scheme. Copies of this Memorandum were circulated to Members in COMM CIRC 93/17 on 15 April 1993.

39. The Committee suggested that this Memorandum might be used, as appropriate, as a useful example for Members negotiating bilateral agreements for scientific observations.

40. The Delegation of the USA informed the Committee about plans to conduct scientific observation in cooperation with Japan. The Delegation of Japan welcomed the US interest in

such cooperation, however was not certain at this time that it would be possible to finalise a bilateral arrangement in time for the coming fishing season. The implementing arrangement between the USA and Japan, once concluded, will also be provided to the Secretariat.

41. The Committee welcomed the first scientific observation conducted in cooperation between Chile and the UK. The Delegation of New Zealand observed that in order to obtain reliable assessment of incidental mortality of marine birds during longline fishing, the full coverage of ships which participate in this type of fishing, was required and more intensive use of the Scheme recommended. The Delegation of Japan stated that while recognising the merit of using the Scheme more intensively and by covering more statistical areas, it should not be understood as a prerequisite in planning and conducting Members' fishery operations. Furthermore, the delegation recalled the requirement of the Scheme that placing of observers should be implemented only through bilateral arrangements between Members concerned.

42. The Committee stressed the desirability that the Scheme of International Scientific Observation which is available to all Members, should be more extensively used by Members, particularly in statistical areas where most Conservation Measures are in force, with the view of achieving the objectives of the Convention.

43. The pilot version of the *Scientific Observers Manual* was published and distributed to Members. The Scientific Committee decided last year that upon implementation of the Scheme the manual should be tested in the field and be reviewed or updated whenever necessary.

44. In response to a question from the Delegation of New Zealand, the Secretariat confirmed that after the period covered by the pilot edition presently in circulation, the *Scientific Observers Manual* would be published in a ring-bound format so that it can be easily updated.

45. So far only limited experience has been acquired in using the manual in the field. The Working Group on Fish Stock Assessment (WG-FSA) provided some comments on the manual in the light of the scientific observation conducted on board the Chilean longliner (see paragraph 37 above). The Scientific Committee recommended that a new edition of the manual should be considered only after more information about its use becomes available.

46. The Committee was advised by the Chair of SCAF that the Draft Budget for 1994 contained a provision of $5 200 for the next edition of the *Scientific Observers Manual*, including versions in languages other than English. The Committee decided that in view of the comments in paragraph 45 above, there is no need to retain this item of expenditure in the 1994 Budget.

47. Several delegations recalled the ongoing need to review the Scheme of International Scientific Observation as experience was gained in its operation.

ELECTION OF THE CHAIRMAN OF SCOI

48. In discussing this item, the Committee commended the present Chairman for a very effective way of guiding negotiations and conducting business of the Committee. During the last two years the work of the Committee has resulted in many improvements of the System of Inspection and in the adoption of the Scheme of International Scientific Observation. In this context the Delegation of France asked the Chairman, if he could agree to continue to chair the Committee for some time. This request was seconded by the Delegations of Argentina, Poland and Japan.

49. The Chairman agreed to continue for one more year.

50. The Chairman suggested to the Committee that it might be also useful to consider electing one Vice-Chairman to assist the Chairman. The Committee agreed with this suggestion. Dr W. Figaj (Poland) was nominated by the Delegation of Argentina and seconded by the Delegation of Sweden. The Committee unanimously elected Dr Figaj as Vice-Chairman for the period from the end of this meeting to the end of the Committee meeting in 1995. The Chairman congratulated the new Vice-Chairman on his election.

ADOPTION OF THE REPORT

51. The report of the meeting was adopted.

52. The Chairman thanked Delegates for their cooperation and support during the meeting. The Delegate of the UK, on behalf of the Committee, thanked the Chairman for his careful and skilful guidance throughout the meeting and looked forward to an equally successful meeting of the Committee in 1994.

CONTROL IN CCAMLR AREAS: LONGLINE FLEET WITH CHILEAN FLAG

Statement of the Delegation of Chile

During the Eleventh Meeting of CCAMLR, the Delegation of Chile informed SCOI, and thereby, the Commission, about four infringements of Conservation Measure 35/X which limited the TAC of *Dissostichus eleginoides* at 3 350 tonnes.

The cases involving Chilean vessels have been the subject of legal proceedings, initiated by the Office of the Public Prosecutor of the National Fishing Services (Servicio Nacional de Pesca - SERNAP). However, several legal appeals have hindered such proceedings, thus delaying their outcome. Nevertheless, the Chilean authorities have persisted in their legal action. At the same time, they have approached the legislative branch in order to introduce precise provisions in the Fisheries Law, aimed at facilitating their application to possible legal actions in the future. This illustrates our determination to demand compliance with the international treaties ratified by our country.

CURRENT INFORMATION ON THE SITUATION OF LEGAL PROCEEDINGS
DUE TO INFRINGEMENTS OF CCAMLR'S CONSERVATION MEASURES

Infringements of Conservation Measure 35/X

During the fishing season 1992/1993, the National Fishing Service (SERNAP) initiated three legal proceedings before the courts in Punta Arenas, involving four vessels. To date there have been first instance rulings by the courts in favour of the Chilean authorities, in the cases of the vessels *Antonio Lorenzo, María Tamara* and *Elqui*. However, the affected fishing companies have lodged appeals before the Supreme Court, claiming that courts are unqualified to deal with infringements committed in areas outside our exclusive economic zone. Similarly, in one of the cases, SERNAP appealed before the Supreme Court, claiming that one of the courts had declared itself unfit during the first instance ruling.

The following are the details of each of the cases:

(a) CONCAR Fishing Company, infringement by the FS *Antonio Lorenzo* and *María Tamara*.

The first instance ruling rejected the unfitness plea, confirmed by the Court of Appeal of Punta Arenas. There is an appeal by writ of error before the Appeals Court of Punta Arenas.

(b) Punta Arenas Fishing Company, infringement by the FS *Chaval*.

The first instance ruling accepted the unfitness plea, SERNAP appealed against this ruling before First Court of Appeal of Punta Arenas.

(c) Los Andes Fishing Company, infringement by the FS *Elqui*.

In September 1992, the First Court of Appeals of Punta Arenas rejected the protection plea lodged by Los Andes Fishing Company against the National Fishing Service and the Port Authority of Punta Arenas, on the basis that they had acted within the order of reference established by law.

The first instance ruling rejected the unfitness plea, confirmed by the Court of Appeals of Punta Arenas. At present there is an appeal by writ of error before the Supreme Court lodged by the company in question.

It should be pointed out that in every case, all the catch from these vessels was confiscated at the time of their reaching land at Punta Arenas; such catch is awaiting a final ruling from the Court.

On 28 October, oral pleadings were heard by the Supreme Court regarding these cases; after that, the last instance ruling, which will allow the closing of these proceedings, will be made.

Infringements of Conservation Measure 55/XI

The irregular situations which have arisen after the closing of the fishing season 1992/1993 involve four vessels *(Antonio Lorenzo, Marazul XI, Elqui* and *Mar del Sur II).* In one instance, the incident has been reported to the justice tribunals of Punta Arenas because it was possible to demonstrate that the vessel had been operating outside CCAMLR regulations. In the other cases, there is currently a report being prepared by the Chilean Navy due to the difficulty in preparing a clear statement of facts. Once this report is finished, it will be referred to the courts for the appropriate judicial process.

Similarly, Chile has received requests from the US to investigate situations which refer to sightings of vessels with Chilean flags in the waters of Subarea 48.3. However, it has not been possible to gather clear evidence that such vessels were in fact infringing CCAMLR's Conservation Measures. In all the cases mentioned, inspections were performed with the participation of staff from SERNAP and the Chilean Navy. In the course of these inspections, all fishing and navigation records were confiscated in order to start the relevant reports and legal proceedings.

ANNEX 6

FORMATS FOR NOTIFICATION OF RESEARCH VESSEL ACTIVITY

(Annex to Conservation Measure 64/XII)

Format 1

NOTIFICATION OF RESEARCH VESSEL ACTIVITY WHEN THE TOTAL CATCH IS EXPECTED TO BE LESS THAN 50 TONNES

Name and registration number of vessel_____

Division and subarea in which research is to be carried out _____

Estimated dates of entering and leaving CCAMLR Convention Area _____

Purpose of research _____

_____

Fishing equipment likely to be used:

Bottom trawl_____

Midwater trawl _____

Longline _____

Crab pots _____

Other fishing gear (specify) _____

Format 2

FORMAT FOR REPORTING PLANS FOR FINFISH SURVEYS IN THE CONVENTION AREA WHEN THE TOTAL CATCH IS EXPECTED TO BE MORE THAN 50 TONNES

CCAMLR MEMBER _____

SURVEY DETAILS

A statement of the planned research objectives _____
_____
_____
_____
_____
_____
_____
_____

Survey Area/Subarea/Division_____

Geographical Boundaries: Latitude from _____ to _____

Longitude from _____ to _____

Is a map of area surveyed (preferably including bathymetry and positions of sampling stations/hauls) appended to the format: _____

Proposed dates of survey: from _____ / _____ / _____ (Y/M/D)

to _____ / _____ / _____ (Y/M/D)

The name(s) and address of the chief scientist(s) responsible for planning and coordinating the research _____
_____
_____

Number of scientists _____ and crew _____ to be aboard the vessel.

Is there opportunity for inviting scientists from other Members: _____

If so, indicate a number of such scientists _____

DESCRIPTION OF VESSEL

Name of vessel _____

Name and address of vessel owner _____
_____

Vessel type (dedicated research or chartered commercial vessel) _____

Port of registration _____ Registration number _____

Radio call sign _____ Overall length _____ (m)

Tonnage _____

Equipment used for determining position _____

Fishing capacity (limited to scientific sampling activities only
or commercial capacity) _____ (tonnes/day)

Fish processing capacity (if vessel type is commercial) _____(tonnes/day)

Fish storage capacity (if vessel type is commercial) _____(m^3)

DESCRIPTION OF FISHING GEAR TO BE USED:

Trawl type (i.e. bottom, midwater):_____

Mesh shape (i.e. diamond, square) and
mesh size in codend (mm) _____

Longline _____

Other sampling gear as plankton nets, CTD probes,
water samplers, etc. (specify) _____

DESCRIPTION OF ACOUSTIC GEAR TO BE USED

Type _____ Frequency _____

SURVEY DESIGN AND METHODS OF DATA ANALYSES

Survey design (random, semi-random) _____

Target species _____

Stratification (if any) according to:

Depth zones (list) _____

Fish density (list) _____

Other (specify) _____

Duration of standard sampling stations/hauls (preferably 30 min) _____ (min)

Proposed number of hauls _____

Proposed sample size (total) _____ (number)_____(kg)

Proposed methods of survey data analyses
(i.e. swept area method, acoustic survey) _____

DATA TO BE COLLECTED

Haul-by-haul catch and effort data in accordance with CCAMLR Form C4 for reporting results of fishing for research purposes: _____

_____

Fine-scale biological data in accordance with CCAMLR Forms B1, B2 and B3:

_____

_____

Other data (as applicable)

_____

DATA REQUIREMENTS AND EXPERIMENTAL REGIME FOR THE EXPLORATORY CRAB FISHERY

(Annex to Conservation Measures 74/XII and 75/XII)

DATA REQUIREMENTS FOR THE EXPLORATORY CRAB FISHERY IN STATISTICAL SUBAREA 48.3

Catch and Effort Data:

Cruise Descriptions

cruise code, vessel code, permit number, year.

Pot Descriptions

pot shape, dimensions, mesh size, funnel attitude, number of chambers, presence of an escape port.

Effort Descriptions

date, time, latitude and longitude of the start of the set, compass bearing of the set, total number of pots set, spacing of pots on the line, number of pots lost, depth, soak time, bait type.

Catch Descriptions

retained catch in numbers, by-catch of all species, incremental record number for linking with sample information.

Biological Data:

For these data, crabs are to be sampled from the line hauled just prior to noon, by collecting the entire contents of a number of pots spaced at intervals along the line so that between 35 and 50 specimens are represented in the subsample.

Cruise Descriptions

cruise code, vessel code, permit number.

Sample Descriptions

date, position at the start of the set, compass bearing of the set, line number.

Data

species, sex, length of at least 35 individuals, presence/absence of rhizocephalan parasites, record of the destination of the crab (kept, discarded, destroyed), record of the pot number from which the crab comes.

LOCATIONS OF FISHING AREAS FOR THE EXPERIMENTAL REGIME OF THE EXPLORATORY CRAB FISHERY

Table 1: Northeast corners for twelve 0.5° latitude by 1° longitude blocks that are considered to be the operational area for fishing vessels conducting Phase 1 of the experimental crab fishery regime (Conservation Measure 75/XII).

	Coordinates of Northeast Corner	
Block Number	Latitude	Longitude
A	53 30.0 S	39 00.0 W
B	53 30.0 S	38 00.0 W
C	53 30.0 S	37 00.0 W
D	53 30.0 S	36 00.0 W
E	53 30.0 S	35 00.0 W
F	54 00.0 S	36 00.0 W
G	54 00.0 S	35 00.0 W
H	54 30.0 S	35 00.0 W
I	54 30.0 S	34 00.0 W
J	55 00.0 S	36 00.0 W
K	55 00.0 S	35 00.0 W
L	55 00.0 S	34 00.0 W

Table 2: Northeast corners for 6° latitude by 7.5° longitude squares that are to be considered the operational area for fishing vessels conducting Phases 2 and 3 of the experimental crab fishery regime (Conservation Measure 75/XII). Vessels shall not conduct fishing operations in areas listed as "CLOSED".

Square Number	Coordinates of Northeast Corner		Square Number	Coordinates of Northeast Corner	
	Latitude	Longitude		Latitude	Longitude
A1	53 30.0 S	39 52.5 W	A26	53 48.0 S	39 45.0 W
A2	53 30.0 S	39 45.0 W	A27	53 48.0 S	39 37.5 W
A3	53 30.0 S	39 37.5 W	A28	53 48.0 S	39 30.0 W
A4	53 30.0 S	39 30.0 W	A29	53 48.0 S	39 22.5 W
A5	53 30.0 S	39 22.5 W	A30	53 48.0 S	39 15.0 W
A6	53 30.0 S	39 15.0 W	A31	53 48.0 S	39 07.5 W
A7	53 30.0 S	39 07.5 W	A32	53 48.0 S	39 00.0 W
A8	53 30.0 S	39 00.0 W	A33	53 54.0 S	39 52.5 W
A9	53 36.0 S	39 52.5 W	A34	53 54.0 S	39 45.0 W
A10	53 36.0 S	39 45.0 W	A35	53 54.0 S	39 37.5 W
A11	53 36.0 S	39 37.5 W	A36	53 54.0 S	39 30.0 W
A12	53 36.0 S	39 30.0 W	A37	53 54.0 S	39 22.5 W
A13	53 36.0 S	39 22.5 W	A38	53 54.0 S	39 15.0 W
A14	53 36.0 S	39 15.0 W	A39	53 54.0 S	39 07.5 W
A15	53 36.0 S	39 07.5 W	A40	53 54.0 S	39 00.0 W
A16	53 36.0 S	39 00.0 W	B1	53 30.0 S	38 52.5 W
A17	53 42.0 S	39 52.5 W	B2	53 30.0 S	38 45.0 W
A18	53 42.0 S	39 45.0 W	B3	53 30.0 S	38 37.5 W
A19	53 42.0 S	39 37.5 W	B4	53 30.0 S	38 30.0 W
A20	53 42.0 S	39 30.0 W	B5	53 30.0 S	38 22.5 W
A21	53 42.0 S	39 22.5 W	B6	53 30.0 S	38 15.0 W
A22	53 42.0 S	39 15.0 W	B7	53 30.0 S	38 07.5 W
A23	53 42.0 S	39 07.5 W	B8	53 30.0 S	38 00.0 W
A24	53 42.0 S	39 00.0 W	B9	53 36.0 S	38 52.5 W
A25	53 48.0 S	39 52.5 W	B10	53 36.0 S	38 45.0 W

Square Number	Coordinates of Northeast Corner		Square Number	Coordinates of Northeast Corner	
	Latitude	Longitude		Latitude	Longitude
B11	53 36.0 S	38 37.5 W	C36	53 54.0 S	37 30.0 W
B12	53 36.0 S	38 30.0 W	C37	53 54.0 S	37 22.5 W
B13	53 36.0 S	38 22.5 W	C38	53 54.0 S	37 15.0 W
B14	53 36.0 S	38 15.0 W	C39	53 54.0 S	37 07.5 W
B15	53 36.0 S	38 07.5 W	C40	53 54.0 S	37 00.0 W
B16	53 36.0 S	38 00.0 W	D1	53 30.0 S	36 52.5 W
B17	53 42.0 S	38 52.5 W	D2	53 30.0 S	36 45.0 W
B18	53 42.0 S	38 45.0 W	D3	53 30.0 S	36 37.5 W
B19	53 42.0 S	38 37.5 W	D4	53 30.0 S	36 30.0 W
B20	53 42.0 S	38 30.0 W	D5	53 30.0 S	36 22.5 W
B21	53 42.0 S	38 22.5 W	D6	53 30.0 S	36 15.0 W
B22	53 42.0 S	38 15.0 W	D7	53 30.0 S	36 07.5 W
B23	53 42.0 S	38 07.5 W	D8	53 30.0 S	36 00.0 W
B24	53 42.0 S	38 00.0 W	D9	53 36.0 S	36 52.5 W
B25	53 48.0 S	38 52.5 W	D10	53 36.0 S	36 45.0 W
B26	53 48.0 S	38 45.0 W	D11	53 36.0 S	36 37.5 W
B27	53 48.0 S	38 37.5 W	D12	53 36.0 S	36 30.0 W
B28	53 48.0 S	38 30.0 W	D13	53 36.0 S	36 22.5 W
B29	53 48.0 S	38 22.5 W	D14	53 36.0 S	36 15.0 W
B30	53 48.0 S	38 15.0 W	D15	53 36.0 S	36 07.5 W
B31	53 48.0 S	38 07.5 W	D16	53 36.0 S	36 00.0 W
B32	53 48.0 S	38 00.0 W	D17	53 42.0 S	36 52.5 W
B33	53 54.0 S	38 52.5 W	D18	53 42.0 S	36 45.0 W
B34	53 54.0 S	38 45.0 W	D19	53 42.0 S	36 37.5 W
B35	53 54.0 S	38 37.5 W	D20	53 42.0 S	36 30.0 W
B36	53 54.0 S	38 30.0 W	D21	53 42.0 S	36 22.5 W
B37	53 54.0 S	38 22.5 W	D22	53 42.0 S	36 15.0 W
B38	53 54.0 S	38 15.0 W	D23	53 42.0 S	36 07.5 W
B39	53 54.0 S	38 07.5 W	D24	53 42.0 S	36 00.0 W
B40	53 54.0 S	38 00.0 W	D25	53 48.0 S	36 52.5 W
C1	53 30.0 S	37 52.5 W	D26	53 48.0 S	36 45.0 W
C2	53 30.0 S	37 45.0 W	D27	53 48.0 S	36 37.5 W
C3	53 30.0 S	37 37.5 W	D28	53 48.0 S	36 30.0 W
C4	53 30.0 S	37 30.0 W	D29	53 48.0 S	36 22.5 W
C5	53 30.0 S	37 22.5 W	D30	53 48.0 S	36 15.0 W
C6	53 30.0 S	37 15.0 W	D31	53 48.0 S	36 07.5 W
C7	53 30.0 S	37 07.5 W	D32	53 48.0 S	36 00.0 W
C8	53 30.0 S	37 00.0 W	D33	53 54.0 S	36 52.5 W
C9	53 36.0 S	37 52.5 W	D34	53 54.0 S	36 45.0 W
C10	53 36.0 S	37 45.0 W	D35	53 54.0 S	36 37.5 W
C11	53 36.0 S	37 37.5 W	D36	53 54.0 S	36 30.0 W
C12	53 36.0 S	37 30.0 W	D37	53 54.0 S	36 22.5 W
C13	53 36.0 S	37 22.5 W	D38	53 54.0 S	36 15.0 W
C14	53 36.0 S	37 15.0 W	D39	53 54.0 S	36 07.5 W
C15	53 36.0 S	37 07.5 W	D40	53 54.0 S	36 00.0 W
C16	53 36.0 S	37 00.0 W	E1	53 30.0 S	35 52.5 W
C17	53 42.0 S	37 52.5 W	E2	53 30.0 S	35 45.0 W
C18	53 42.0 S	37 45.0 W	E3	53 30.0 S	35 37.5 W
C19	53 42.0 S	37 37.5 W	E4	53 30.0 S	35 30.0 W
C20	53 42.0 S	37 30.0 W	E5	53 30.0 S	35 22.5 W
C21	53 42.0 S	37 22.5 W	E6	53 30.0 S	35 15.0 W
C22	53 42.0 S	37 15.0 W	E7	53 30.0 S	35 07.5 W
C23	53 42.0 S	37 07.5 W	E8	53 30.0 S	35 00.0 W
C24	53 42.0 S	37 00.0 W	E9	53 36.0 S	35 52.5 W
C25	53 48.0 S	37 52.5 W	E10	53 36.0 S	35 45.0 W
C26	53 48.0 S	37 45.0 W	E11	53 36.0 S	35 37.5 W
C27	53 48.0 S	37 37.5 W	E12	53 36.0 S	35 30.0 W
C28	53 48.0 S	37 30.0 W	E13	53 36.0 S	35 22.5 W
C29	53 48.0 S	37 22.5 W	E14	53 36.0 S	35 15.0 W
C30	53 48.0 S	37 15.0 W	E15	53 36.0 S	35 07.5 W
C31	53 48.0 S	37 07.5 W	E16	53 36.0 S	35 00.0 W
C32	53 48.0 S	37 00.0 W	E17	53 42.0 S	35 52.5 W
C33	53 54.0 S	37 52.5 W	E18	53 42.0 S	35 45.0 W
C34	53 54.0 S	37 45.0 W	E19	53 42.0 S	35 37.5 W
C35	53 54.0 S	37 37.5 W	E20	53 42.0 S	35 30.0 W

Square Number	Coordinates of Northeast Corner		Square Number	Coordinates of Northeast Corner	
	Latitude	Longitude		Latitude	Longitude
E21	53 42.0 S	35 22.5 W	G6	54 00.0 S	35 15.0 W
E22	53 42.0 S	35 15.0 W	G7	54 00.0 S	35 07.5 W
E23	53 42.0 S	35 07.5 W	G8	54 00.0 S	35 00.0 W
E24	53 42.0 S	35 00.0 W	G9	54 06.0 S	35 52.5 W
E25	53 48.0 S	35 52.5 W	G10	54 06.0 S	35 45.0 W
E26	53 48.0 S	35 45.0 W	G11	54 06.0 S	35 37.5 W
E27	53 48.0 S	35 37.5 W	G12	54 06.0 S	35 30.0 W
E28	53 48.0 S	35 30.0 W	G13	54 06.0 S	35 22.5 W
E29	53 48.0 S	35 22.5 W	G14	54 06.0 S	35 15.0 W
E30	53 48.0 S	35 15.0 W	G15	54 06.0 S	35 07.5 W
E31	53 48.0 S	35 07.5 W	G16	54 06.0 S	35 00.0 W
E32	53 48.0 S	35 00.0 W	G17	54 12.0 S	35 52.5 W
E33	53 54.0 S	35 52.5 W	G18	54 12.0 S	35 45.0 W
E34	53 54.0 S	35 45.0 W	G19	54 12.0 S	35 37.5 W
E35	53 54.0 S	35 37.5 W	G20	54 12.0 S	35 30.0 W
E36	53 54.0 S	35 30.0 W	G21	54 12.0 S	35 22.5 W
E37	53 54.0 S	35 22.5 W	G22	54 12.0 S	35 15.0 W
E38	53 54.0 S	35 15.0 W	G23	54 12.0 S	35 07.5 W
E39	53 54.0 S	35 07.5 W	G24	54 12.0 S	35 00.0 W
E40	53 54.0 S	35 00.0 W	G25	54 18.0 S	35 52.5 W
F1	54 00.0 S	36 52.5 W	G26	54 18.0 S	35 45.0 W
F2	54 00.0 S	36 45.0 W	G27	54 18.0 S	35 37.5 W
F3	54 00.0 S	36 37.5 W	G28	54 18.0 S	35 30.0 W
F4	54 00.0 S	36 30.0 W	G29	54 18.0 S	35 22.5 W
F5	54 00.0 S	36 22.5 W	G30	54 18.0 S	35 15.0 W
F6	54 00.0 S	36 15.0 W	G31	54 18.0 S	35 07.5 W
F7	54 00.0 S	36 07.5 W	G32	54 18.0 S	35 00.0 W
F8	54 00.0 S	36 00.0 W	G33	54 24.0 S	35 52.5 W
F9	CLOSED		G34	54 24.0 S	35 45.0 W
F10	CLOSED		G35	54 24.0 S	35 37.5 W
F11	54 06.0 S	36 37.5 W	G36	54 24.0 S	35 30.0 W
F12	54 06.0 S	36 30.0 W	G37	54 24.0 S	35 22.5 W
F13	54 06.0 S	36 22.5 W	G38	54 24.0 S	35 15.0 W
F14	54 06.0 S	36 15.0 W	G39	54 24.0 S	35 07.5 W
F15	54 06.0 S	36 07.5 W	G40	54 24.0 S	35 00.0 W
F16	54 06.0 S	36 00.0 W	H1	CLOSED	
F17	CLOSED		H2	54 30.0 S	35 45.0 W
F18	CLOSED		H3	54 30.0 S	35 37.5 W
F19	CLOSED		H4	54 30.0 S	35 30.0 W
F20	54 12.0 S	36 30.0 W	H5	54 30.0 S	35 22.5 W
F21	54 12.0 S	36 22.5 W	H6	54 30.0 S	35 15.0 W
F22	54 12.0 S	36 15.0 W	H7	54 30.0 S	35 07.5 W
F23	54 12.0 S	36 07.5 W	H8	54 30.0 S	35 00.0 W
F24	54 12.0 S	36 00.0 W	H9	CLOSED	
F25	CLOSED		H10	54 36.0 S	35 45.0 W
F26	CLOSED		H11	54 36.0 S	35 37.5 W
F27	CLOSED		H12	54 36.0 S	35 30.0 W
F28	CLOSED		H13	54 36.0 S	35 22.5 W
F29	CLOSED		H14	54 36.0 S	35 15.0 W
F30	CLOSED		H15	54 36.0 S	35 07.5 W
F31	54 18.0 S	36 07.5 W	H16	54 36.0 S	35 00.0 W
F32	54 18.0 S	36 00.0 W	H17	CLOSED	
F33	CLOSED		H18	54 42.0 S	35 45.0 W
F34	CLOSED		H19	54 42.0 S	35 37.5 W
F35	CLOSED		H20	54 42.0 S	35 30.0 W
F36	CLOSED		H21	54 42.0 S	35 22.5 W
F37	CLOSED		H22	54 42.0 S	35 15.0 W
F38	CLOSED		H23	54 42.0 S	35 07.5 W
F39	CLOSED		H24	54 42.0 S	35 00.0 W
F40	54 24.0 S	36 00.0 W	H25	54 48.0 S	35 52.5 W
G1	54 00.0 S	35 52.5 W	H26	54 48.0 S	35 45.0 W
G2	54 00.0 S	35 45.0 W	H27	54 48.0 S	35 37.5 W
G3	54 00.0 S	35 37.5 W	H28	54 48.0 S	35 30.0 W
G4	54 00.0 S	35 30.0 W	H29	54 48.0 S	35 22.5 W
G5	54 00.0 S	35 22.5 W	H30	54 48.0 S	35 15.0 W

Square Number	Coordinates of Northeast Corner		Square Number	Coordinates of Northeast Corner	
	Latitude	Longitude		Latitude	Longitude
H31	54 48.0 S	35 07.5 W	J16	55 06.0 S	36 00.0 W
H32	54 48.0 S	35 00.0 W	J17	55 12.0 S	36 52.5 W
H33	54 54.0 S	35 52.5 W	J18	55 12.0 S	36 45.0 W
H34	54 54.0 S	35 45.0 W	J19	55 12.0 S	36 37.5 W
H35	54 54.0 S	35 37.5 W	J20	55 12.0 S	36 30.0 W
H36	54 54.0 S	35 30.0 W	J21	55 12.0 S	36 22.5 W
H37	54 54.0 S	35 22.5 W	J22	55 12.0 S	36 15.0 W
H38	54 54.0 S	35 15.0 W	J23	55 12.0 S	36 07.5 W
H39	54 54.0 S	35 07.5 W	J24	55 12.0 S	36 00.0 W
H40	54 54.0 S	35 00.0 W	J25	55 18.0 S	36 52.5 W
I1	54 30.0 S	34 52.5 W	J26	55 18.0 S	36 45.0 W
I2	54 30.0 S	34 45.0 W	J27	55 18.0 S	36 37.5 W
I3	54 30.0 S	34 37.5 W	J28	55 18.0 S	36 30.0 W
I4	54 30.0 S	34 30.0 W	J29	55 18.0 S	36 22.5 W
I5	54 30.0 S	34 22.5 W	J30	55 18.0 S	36 15.0 W
I6	54 30.0 S	34 15.0 W	J31	55 18.0 S	36 07.5 W
I7	54 30.0 S	34 07.5 W	J32	55 18.0 S	36 00.0 W
I8	54 30.0 S	34 00.0 W	J33	55 24.0 S	36 52.5 W
I9	54 36.0 S	34 52.5 W	J34	55 24.0 S	36 45.0 W
I10	54 36.0 S	34 45.0 W	J35	55 24.0 S	36 37.5 W
I11	54 36.0 S	34 37.5 W	J36	55 24.0 S	36 30.0 W
I12	54 36.0 S	34 30.0 W	J37	55 24.0 S	36 22.5 W
I13	54 36.0 S	34 22.5 W	J38	55 24.0 S	36 15.0 W
I14	54 36.0 S	34 15.0 W	J39	55 24.0 S	36 07.5 W
I15	54 36.0 S	34 07.5 W	J40	55 24.0 S	36 00.0 W
I16	54 36.0 S	34 00.0 W	K1	55 00.0 S	35 52.5 W
I17	54 42.0 S	34 52.5 W	K2	55 00.0 S	35 45.0 W
I18	54 42.0 S	34 45.0 W	K3	55 00.0 S	35 37.5 W
I19	54 42.0 S	34 37.5 W	K4	55 00.0 S	35 30.0 W
I20	54 42.0 S	34 30.0 W	K5	55 00.0 S	35 22.5 W
I21	54 42.0 S	34 22.5 W	K6	55 00.0 S	35 15.0 W
I22	54 42.0 S	34 15.0 W	K7	55 00.0 S	35 07.5 W
I23	54 42.0 S	34 07.5 W	K8	55 00.0 S	35 00.0 W
I24	54 42.0 S	34 00.0 W	K9	55 06.0 S	35 52.5 W
I25	54 48.0 S	34 52.5 W	K10	55 06.0 S	35 45.0 W
I26	54 48.0 S	34 45.0 W	K11	55 06.0 S	35 37.5 W
I27	54 48.0 S	34 37.5 W	K12	55 06.0 S	35 30.0 W
I28	54 48.0 S	34 30.0 W	K13	55 06.0 S	35 22.5 W
I29	54 48.0 S	34 22.5 W	K14	55 06.0 S	35 15.0 W
I30	54 48.0 S	34 15.0 W	K15	55 06.0 S	35 07.5 W
I31	54 48.0 S	34 07.5 W	K16	55 06.0 S	35 00.0 W
I32	54 48.0 S	34 00.0 W	K17	55 12.0 S	35 52.5 W
I33	54 54.0 S	34 52.5 W	K18	55 12.0 S	35 45.0 W
I34	54 54.0 S	34 45.0 W	K19	55 12.0 S	35 37.5 W
I35	54 54.0 S	34 37.5 W	K20	55 12.0 S	35 30.0 W
I36	54 54.0 S	34 30.0 W	K21	55 12.0 S	35 22.5 W
I37	54 54.0 S	34 22.5 W	K22	55 12.0 S	35 15.0 W
I38	54 54.0 S	34 15.0 W	K23	55 12.0 S	35 07.5 W
I39	54 54.0 S	34 07.5 W	K24	55 12.0 S	35 00.0 W
I40	54 54.0 S	34 00.0 W	K25	55 18.0 S	35 52.5 W
J1	55 00.0 S	36 52.5 W	K26	55 18.0 S	35 45.0 W
J2	55 00.0 S	36 45.0 W	K27	55 18.0 S	35 37.5 W
J3	55 00.0 S	36 37.5 W	K28	55 18.0 S	35 30.0 W
J4	55 00.0 S	36 30.0 W	K29	55 18.0 S	35 22.5 W
J5	55 00.0 S	36 22.5 W	K30	55 18.0 S	35 15.0 W
J6	55 00.0 S	36 15.0 W	K31	55 18.0 S	35 07.5 W
J7	55 00.0 S	36 07.5 W	K32	55 18.0 S	35 00.0 W
J8	55 00.0 S	36 00.0 W	K33	55 24.0 S	35 52.5 W
J9	55 06.0 S	36 52.5 W	K34	55 24.0 S	35 45.0 W
J10	55 06.0 S	36 45.0 W	K35	55 24.0 S	35 37.5 W
J11	55 06.0 S	36 37.5 W	K36	55 24.0 S	35 30.0 W
J12	55 06.0 S	36 30.0 W	K37	55 24.0 S	35 22.5 W
J13	55 06.0 S	36 22.5 W	K38	55 24.0 S	35 15.0 W
J14	55 06.0 S	36 15.0 W	K39	55 24.0 S	35 07.5 W
J15	55 06.0 S	36 07.5 W	K40	55 24.0 S	35 00.0 W

Square Number	Coordinates of Northeast Corner	
	Latitude	Longitude
L1	55 00.0 S	34 52.5 W
L2	55 00.0 S	34 45.0 W
L3	55 00.0 S	34 37.5 W
L4	55 00.0 S	34 30.0 W
L5	55 00.0 S	34 22.5 W
L6	55 00.0 S	34 15.0 W
L7	55 00.0 S	34 07.5 W
L8	55 00.0 S	34 00.0 W
L9	55 06.0 S	34 52.5 W
L10	55 06.0 S	34 45.0 W
L11	55 06.0 S	34 37.5 W
L12	55 06.0 S	34 30.0 W
L13	55 06.0 S	34 22.5 W
L14	55 06.0 S	34 15.0 W
L15	55 06.0 S	34 07.5 W
L16	55 06.0 S	34 00.0 W
L17	55 12.0 S	34 52.5 W
L18	55 12.0 S	34 45.0 W
L19	55 12.0 S	34 37.5 W
L20	55 12.0 S	34 30.0 W
L21	55 12.0 S	34 22.5 W
L22	55 12.0 S	34 15.0 W
L23	55 12.0 S	34 07.5 W
L24	55 12.0 S	34 00.0 W
L25	55 18.0 S	34 52.5 W
L26	55 18.0 S	34 45.0 W
L27	55 18.0 S	34 37.5 W
L28	55 18.0 S	34 30.0 W
L29	55 18.0 S	34 22.5 W
L30	55 18.0 S	34 15.0 W
L31	55 18.0 S	34 07.5 W
L32	55 18.0 S	34 00.0 W
L33	55 24.0 S	34 52.5 W
L34	55 24.0 S	34 45.0 W
L35	55 24.0 S	34 37.5 W
L36	55 24.0 S	34 30.0 W
L37	55 24.0 S	34 22.5 W
L38	55 24.0 S	34 15.0 W
L39	55 24.0 S	34 07.5 W
L40	55 24.0 S	34 00.0 W

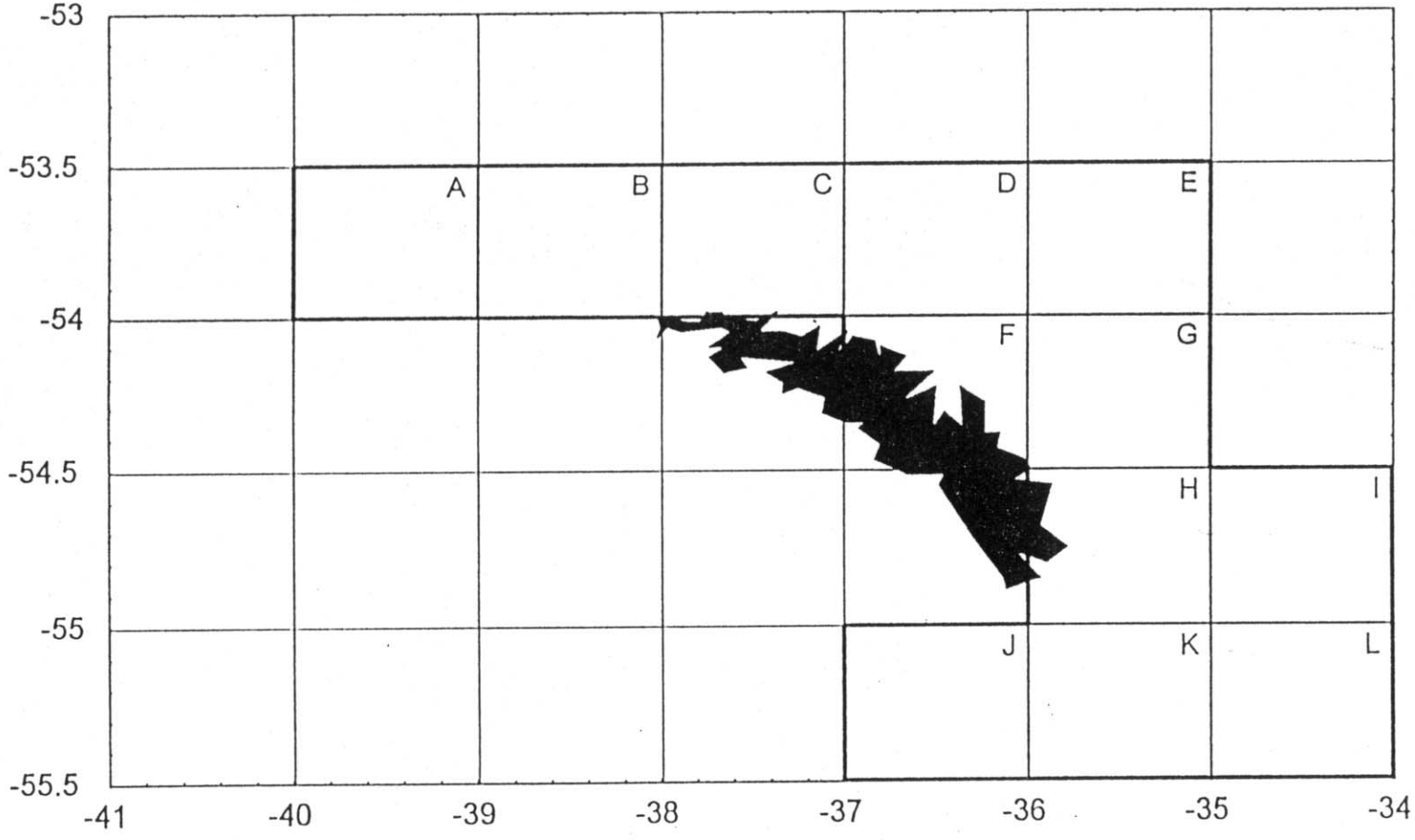

Figura 1: Zonas de operación para la Fase 1 del regimen experimental de gestión de la pesquería de centollas en la Subárea 48.3.

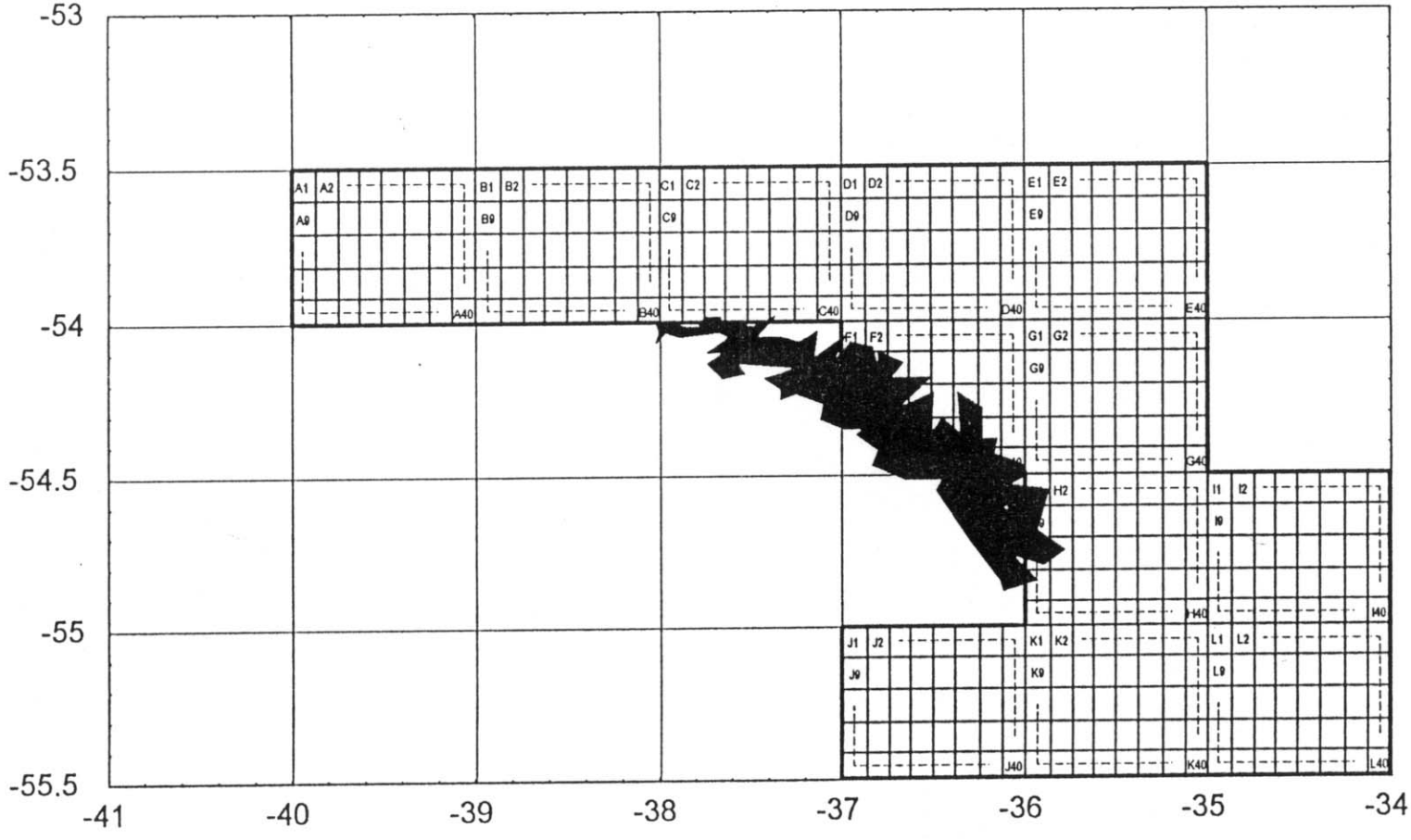

Figura 2: Cuadrículas de pesca para las Fases 2 y 3 de la gestión experimental para la pesquería de centollas en la Subárea 48.3.

CCAMLR'S APPROACH TO ECOSYSTEM MANAGEMENT

Text of letter to be sent by the Executive Secretary
of CCAMLR to the UN and FAO (see paragraph 12.7)

CCAMLR'S APPROACH TO ECOSYSTEM MANAGEMENT

The Convention's primary objective is the conservation of Antarctic marine living resources which includes the rational utilisation of such resources (Article II, paragraphs 1 and 2). Also explicit in Article II is that the provisions for marine resource exploitation should take account of ecosystem interactions. The Article (paragraph 3) states that:

> "Any harvesting and associated activities in the area to which this Convention applies shall be conducted in accordance with the provisions of this Convention and with the following principles of conservation:
>
> (a) prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment.
>
> (b) maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in subparagraph (a) above; and
>
> (c) prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources."

2. Based on these provisions, the Commission has endorsed the following general concepts as a basis for the development of a management policy for krill (CCAMLR-IX, paragraphs 4.17 and 4.18):

(i) to aim at keeping the krill biomass at a higher level than might be the case if only single species harvesting considerations were of concern;

(ii) to focus on the lowest biomass that might occur over a future period, rather than the mean biomass at the end of that period as might be the case in a single species context, given that krill dynamics have a stochastic component;

(iii) to ensure that any reduction of food to predators which may arise because of krill harvesting is not such that land breeding predators with restricted foraging ranges are disproportionately affected in comparison with predators in pelagic habitats; and

(iv) to examine what level of krill escapement would be sufficient to meet the reasonable requirements of krill predators.

3. These concepts have been applied to krill in a way which specifically attempts to take into account the need to sustain consistency of catch levels with time.

4. Further, the Commission has attempted to take into account uncertain or unknown effects so that, on available information at least, the possibilities of management objectives not being met are reduced.

5. In the exercise of its management responsibilities CCAMLR has adopted a conservative approach. In this regard it has adopted the following Conservation Measures:

- the introduction, in 1991 and 1992, of precautionary catch limits for krill fisheries in Statistical Area 48 and Division 58.4.2 to prevent uncontrolled expansion of the krill fishery;

- the institution in 1992 of advance notification and data requirements prior to the development of new fisheries, which led to catch and effort regulations being applied to exploratory fishing;

- the implementation in 1993 of an experimental approach to the crab (*Paralomis* ssp.) fishery in Subarea 48.3 which integrates experimental with commercial fisheries thereby optimising available resources which are limited for stock assessment purposes;

- the control in 1993 of exploratory fishing, such that it should not be allowed to expand faster than the acquisition of information necessary to ensure that the fishery can and will be conducted in accordance with the concepts developed from Article II;

- the introduction of a precautionary catch limit for the fishery on *Electrona carlsbergi* 1993; and

- the prohibition since 1991 of bottom trawling to safeguard against unknown effects of bottom trawling on mixed species assemblages and benthos.

6. A list of relevant Conservation Measures is provided.