

**CONSERVATION MEASURES AND RESOLUTIONS  
ADOPTED AT CCAMLR-XIX**

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**CONSERVATION MEASURE 29/XIX<sup>1,2</sup>**

**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 fishing vessels and by preventing them from attempting to seize baited hooks, particularly during the period when the lines are set,

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

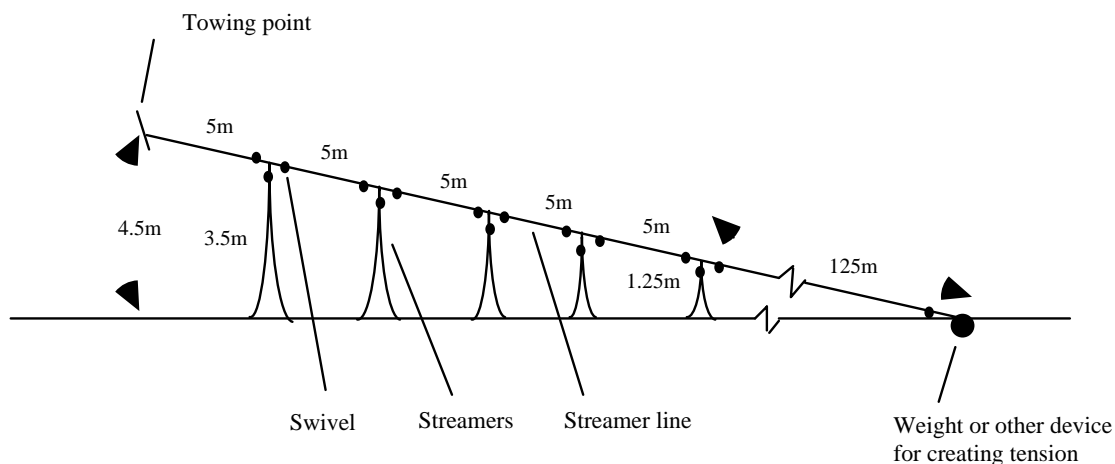
1. Fishing operations shall be conducted in such a way that the baited hooks sink as soon as possible after they are put in the water. Only thawed bait shall be used.
2. For vessels using the Spanish method of longline fishing, weights should be released before line tension occurs; weights of at least 8.5 kg mass shall be used, spaced at intervals of no more than 40 m, or 6 kg mass shall be used, spaced at intervals of no more than 20 m.
3. Longlines shall be set at night only (i.e. during the hours of darkness between the times of nautical twilight<sup>3</sup>)<sup>4</sup>. During longline fishing at night, only the minimum ship's lights necessary for safety shall be used.
4. The dumping of offal is prohibited while longlines are being set. The dumping of offal during the haul shall be avoided. Any such discharge shall take place only on the opposite side of the vessel to that where longlines are hauled.
5. Vessels which are so configured that they lack on-board processing facilities or adequate capacity to retain offal on board, or the ability to discharge offal on the opposite side of the vessel to that where longlines are hauled, shall not be authorised to fish in the Convention Area.
6. 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. Details of the device dragged in the water in order to create tension in the line may also be varied.
7. Other variations in the design of streamer lines may be tested on vessels carrying two observers, at least one appointed in accordance with the CCAMLR Scheme of International Scientific Observation, providing that all other elements of this conservation measure are complied with<sup>5</sup>.

8. Every effort should be made to ensure that birds captured alive during longlining are released alive and that wherever possible hooks are removed without jeopardising the life of the bird concerned.

- <sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands
- <sup>2</sup> Except for waters adjacent to the Prince Edward Islands
- <sup>3</sup> The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. All times, whether for ship operations or observer reporting, shall be referenced to GMT.
- <sup>4</sup> Wherever possible, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).
- <sup>5</sup> The streamer lines under test should be constructed and operated taking full account of the principles set out in WG-IMALF-94/19 (available from the CCAMLR Secretariat); testing should be carried out independently of actual commercial fishing and in a manner consistent with the spirit of Conservation Measure 65/XII.

### APPENDIX TO CONSERVATION MEASURE 29/XIX

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 have a device at the end to create tension so that the main line 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 32/XIX**  
**Precautionary Catch Limitations on *Euphausia superba***  
**in Statistical Area 48**

1. The total catch of *Euphausia superba* in Statistical Area 48 shall be limited to 4.0 million tonnes in any fishing season. A fishing season begins on 1 December and finishes on 30 November of the following year.
2. The total catch shall be further subdivided into statistical subareas as follows:
  - Subarea 48.1 – 1.008 million tonnes;
  - Subarea 48.2 – 1.104 million tonnes;
  - Subarea 48.3 – 1.056 million tonnes; and
  - Subarea 48.4 – 0.832 million tonnes.
3. Precautionary catch limits to be agreed by the Commission on the basis of advice of the Scientific Committee shall be applied to smaller management units, or on such other basis as the Scientific Committee may advise, if the total catch in Statistical Area 48 in any fishing season exceeds 620 000 tonnes.
4. This measure shall be kept under review by the Commission, taking into account the advice of the Scientific Committee.
5. For the purpose of implementing this conservation measure the catches shall be reported to the Commission on a monthly basis.

**CONSERVATION MEASURE 51/XIX**  
**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.
9. Should a Contracting Party fail to transmit a report to the Executive Secretary in the appropriate form by the deadline specified in paragraph 2, the Executive Secretary shall issue a reminder to the Contracting Party. If at the end of a further two five-day periods those data have still not been provided, the Executive Secretary shall notify all Contracting Parties of the closure of the fishery to the vessel which has failed to supply the data as required and the Contracting Party concerned shall require the vessel to cease fishing. If the Executive Secretary is notified by the Contracting Party that the failure of the vessel to report is due to technical difficulties, the vessel may resume fishing once the report or explanation concerning the failure has been submitted.

**CONSERVATION MEASURE 64/XIX<sup>1,2</sup>**  
**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 finfish including no more than 10 tonnes of *Dissostichus* spp.

- (a) Any Member planning to use a vessel for research purposes when the estimated catch is as above shall notify the Secretariat of the Commission which in turn will notify all Members immediately, according to the format provided in Annex 64/A. 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 or more than 10 tonnes of *Dissostichus* spp.
- (a) Any Member planning to use any type of vessel to conduct fishing for research purposes when the estimated catch is as above, 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 64/A.
  - (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).

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands

<sup>2</sup> Except for waters adjacent to the Prince Edward Islands

**FORMATS FOR NOTIFICATION OF RESEARCH VESSEL ACTIVITY**

Format 1

**NOTIFICATION OF RESEARCH VESSEL ACTIVITY WHEN THE  
TOTAL CATCH IS EXPECTED TO BE LESS THAN 50 TONNES  
OF FINFISH INCLUDING NO MORE THAN 10 TONNES  
OF *DISSOSTICHUS* SPP.**

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 OF FINFISH  
OR MORE THAN 10 TONNES OF *DISSOSTICHUS* SPP.**

CCAMLR MEMBER \_\_\_\_\_

**SURVEY DETAILS**

A statement of the planned research objectives \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





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)

\_\_\_\_\_

**CONSERVATION MEASURE 106/XIX**  
**Precautionary Catch Limitation on *Euphausia superba***  
**in Statistical Division 58.4.1**

1. The total catch of *Euphausia superba* in Statistical Division 58.4.1 shall be limited to 440 000 tonnes in any fishing season. A fishing season begins on 1 December and finishes on 30 November the following year.
2. The total catch shall be further subdivided into two subdivisions within Division 58.4.1 as follows: west of 115°E, 277 000 tonnes; and east of 115°E, 163 000 tonnes.
3. This measure shall be kept under review by the Commission, taking into account the advice of the Scientific Committee.
4. For the purposes of implementing this conservation measure, the catches shall be reported to the Commission on a monthly basis.

**CONSERVATION MEASURE 121/XIX<sup>1,2</sup>**  
**Monthly Fine-Scale Biological Data Reporting System**  
**for Trawl, Longline and Pot Fisheries**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 7/V, where appropriate.

This conservation measure is invoked by the conservation measures to which it is attached.

1. Specification of 'target species' and 'by-catch species' referred to in this conservation measure shall be made in the conservation measure to which it is attached.
2. At the end of each month each Contracting Party shall obtain from each of its vessels representative samples of length composition measurements of the target species and by-catch species from the fishery (Form B2). It shall transmit those data in the specified form 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; and
  - (ii) a representative sample of length composition should be taken from each single fine-scale grid rectangle (0.5° latitude by 1° longitude) in which fishing occurs. In the event that the vessel moves from one fine-scale grid rectangle to another during the course of a month, then a separate length composition should be submitted for each fine-scale grid rectangle.
4. Should a Contracting Party fail to transmit the fine-scale length composition data to the Executive Secretary in the appropriate form by the deadline specified in paragraph 2, the Executive Secretary shall issue a reminder to the Contracting Party. If at the end of a further two months 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.

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands

<sup>2</sup> Except for waters adjacent to the Prince Edward Islands

**CONSERVATION MEASURE 122/XIX<sup>1,2</sup>**  
**Monthly Fine-Scale Catch and Effort Data Reporting System**  
**for Trawl, Longline and Pot Fisheries**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 7/V, where appropriate.

This conservation measure is invoked by the conservation measures to which it is attached.

1. Specification of 'target species' and 'by-catch species' referred to in this conservation measure shall be made in the conservation measure to which it is attached.
2. At the end of each month each Contracting Party shall obtain from each of its vessels the data required to complete the CCAMLR fine-scale catch and effort data form (trawl fisheries Form C1, longline fisheries Form C2, or pot fisheries Form C5). It shall transmit those data in the specified format to the Executive Secretary not later than the end of the following month.
3. The catch of all target and by-catch species must be reported by species.
4. The numbers of seabirds and marine mammals of each species caught and released or killed must be reported.
5. Should a Contracting Party fail to transmit the fine-scale catch and effort data to the Executive Secretary in the appropriate form by the deadline specified in paragraph 2, the Executive Secretary shall issue a reminder to the Contracting Party. If at the end of a further two months 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.

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands

<sup>2</sup> Except for waters adjacent to the Prince Edward Islands

**CONSERVATION MEASURE 147/XIX<sup>1</sup>**  
**Provisions to ensure Compliance with CCAMLR**  
**Conservation Measures by Vessels, including**  
**Cooperation between Contracting Parties**

1. Contracting Parties shall undertake inspections of those fishing vessels that intend to land or tranship *Dissostichus* spp. at their ports. The inspection shall be for the purpose of determining that the catch to be unloaded or transhipped is accompanied by the *Dissostichus* catch document required by Conservation Measure 170/XIX, that the catch agrees with the information recorded on the document and, if the vessel carried out

harvesting activities in the Convention Area, that these activities were carried out in accordance with CCAMLR conservation measures.

2. To facilitate these inspections, Contracting Parties shall require vessels to provide advance notice of their entry into port and to convey a written declaration that they have not engaged in or supported illegal, unregulated and unreported (IUU) fishing in the Convention Area. The inspection shall be conducted within 48 hours of port entry and shall be carried out in an expeditious fashion. It shall impose no undue burdens on the vessel or its crew, and shall be guided by the relevant provisions of the CCAMLR System of Inspection. Vessels which either declare that they have been involved in IUU fishing or fail to make a declaration shall be denied port access, other than for emergency purposes.
3. In the event that there is evidence that the vessel has fished in contravention of the CCAMLR conservation measures, the catch shall not be landed or transhipped. The Contracting Party will inform the Flag State of the vessel of its inspection findings and will cooperate with the Flag State in taking such appropriate action as is required to investigate the alleged infringement, and, if necessary, apply appropriate sanctions in accordance with national legislation.
4. Contracting Parties shall promptly advise the Secretariat of any vessels denied port access or permission to land or tranship *Dissostichus* spp. The Secretariat shall promptly convey such reports to all Contracting Parties.

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands

#### **CONSERVATION MEASURE 170/XIX** **Catch Documentation Scheme for *Dissostichus* spp.**

The Commission,

Concerned that illegal, unregulated and unreported (IUU) fishing for *Dissostichus* spp. in the Convention Area threatens serious depletion of populations of *Dissostichus* spp.,

Aware that IUU fishing involves significant by-catch of some Antarctic species, including endangered albatross,

Noting that IUU fishing is inconsistent with the objective of the Convention and undermines the effectiveness of CCAMLR conservation measures,

Underlining the responsibilities of Flag States to ensure that their vessels conduct their fishing activities in a responsible manner,

Mindful of the rights and obligations of Port States to promote the effectiveness of regional fishery conservation measures,

Aware that IUU fishing reflects the high value of, and resulting expansion in markets for and international trade in, *Dissostichus* spp.,

Recalling that Contracting Parties have agreed to introduce classification codes for *Dissostichus* spp. at a national level,

Recognising that the implementation of a Catch Documentation Scheme for *Dissostichus* spp. will provide the Commission with essential information necessary to provide the precautionary management objectives of the Convention,

Committed to take steps, consistent with international law, to identify the origins of *Dissostichus* spp. entering the markets of Contracting Parties and to determine whether *Dissostichus* spp. harvested in the Convention Area that is imported into their territories was caught in a manner consistent with CCAMLR conservation measures.

Wishing to reinforce the conservation measures already adopted by the Commission with respect to *Dissostichus* spp.,

Inviting non-Contracting Parties whose vessels fish for *Dissostichus* spp. to participate in the Catch Documentation Scheme for *Dissostichus* spp.,

hereby adopts the following conservation measure in accordance with Article IX of the Convention:

1. Each Contracting Party shall take steps to identify the origin of *Dissostichus* spp. imported into or exported from its territories and to determine whether *Dissostichus* spp. harvested in the Convention Area that is imported into or exported from its territories was caught in a manner consistent with CCAMLR conservation measures.
2. Each Contracting Party shall require that each master or authorised representative of its flag vessels authorised to engage in harvesting of *Dissostichus eleginoides* and/or *Dissostichus mawsoni* complete a *Dissostichus* catch document for the catch landed or transhipped on each occasion that it lands or tranships *Dissostichus* spp.
3. Each Contracting Party shall require that each landing of *Dissostichus* spp. at its ports and each transshipment of *Dissostichus* spp. to its vessels be accompanied by a completed *Dissostichus* catch document.
4. Each Contracting Party shall, in accordance with their laws and regulations, require that their flag vessels which intend to harvest *Dissostichus* spp., including on the high seas outside the Convention Area, are provided with specific authorisation to do so. Each Contracting Party shall provide *Dissostichus* catch document forms to each of its flag vessels authorised to harvest *Dissostichus* spp. and only to those vessels.
5. A non-Contracting Party seeking to cooperate with CCAMLR by participating in this Scheme may issue *Dissostichus* catch document forms to any of its flag vessels that intend to harvest *Dissostichus* spp.
6. The *Dissostichus* catch document shall include the following information:
  - (i) the name, address, telephone and fax numbers of the issuing authority;
  - (ii) the name, home port, national registry number, and call sign of the vessel and, if issued, its IMO/Lloyd's registration number;

- (iii) the reference number of the licence or permit, whichever is applicable, that is issued to the vessel;
  - (iv) the weight of each *Dissostichus* species landed or transhipped by product type, and
    - (a) by CCAMLR statistical subarea or division if caught in the Convention Area; and/or
    - (b) by FAO statistical area, subarea or division if caught outside the Convention Area;
  - (v) the dates within which the catch was taken;
  - (vi) the date and the port at which the catch was landed or the date and the vessel, its flag and national registry number, to which the catch was transhipped; and
  - (vii) the name, address, telephone and fax numbers of the recipient(s) of the catch and the amount of each species and product type received.
7. Procedures for completing *Dissostichus* catch documents in respect of vessels are set forth in paragraphs A1 to A10 of Annex 170/A to this measure. The standard catch document is attached to the annex.
  8. Each Contracting Party shall require that each shipment of *Dissostichus* spp. imported into its territory be accompanied by the export-validated *Dissostichus* catch document(s) and, where appropriate, validated re-export document(s) that account for all the *Dissostichus* spp. contained in the shipment.
  9. An export-validated *Dissostichus* catch document issued in respect of a vessel is one that:
    - (i) includes all relevant information and signatures provided in accordance with paragraphs A1 to A11 of Annex 170/A to this measure; and
    - (ii) includes a signed and stamped certification by a responsible official of the exporting State of the accuracy of the information contained in the document.
  10. Each Contracting Party shall ensure that its customs authorities or other appropriate officials request and examine the import documentation of each shipment of *Dissostichus* spp. imported into its territory to verify that it includes the export-validated *Dissostichus* catch document(s) and, where appropriate, validated re-export document(s) that account for all the *Dissostichus* spp. contained in the shipment. These officials may also examine the content of any shipment to verify the information contained in the catch document or documents.
  11. If, as a result of an examination referred to in paragraph 10 above, a question arises regarding the information contained in a *Dissostichus* catch document or a re-export document the exporting State whose national authority validated the document(s) and, as appropriate, the Flag State whose vessel completed the document are called on to cooperate with the importing State with a view to resolving such question.

12. Each Contracting Party shall promptly provide by the most rapid electronic means copies to the CCAMLR Secretariat of all export-validated *Dissostichus* catch documents and, where relevant, validated re-export documents that it issued from and received into its territory and shall report annually to the Secretariat data, drawn from such documents, on the origin and amount of *Dissostichus* spp. exported from and imported into its territory.
13. Each Contracting Party, and any non-Contracting Party that issues *Dissostichus* catch documents in respect of its flag vessels in accordance with paragraph 5, shall inform the CCAMLR Secretariat of the national authority or authorities (including names, addresses, phone and fax numbers and email addresses) responsible for issuing and validating *Dissostichus* catch documents.
14. Notwithstanding the above, any Contracting Party may require additional verification of catch documents, including, inter alia, the use of VMS, in respect of catches by its flag vessels outside the Convention Area, when landed at and exported from its territory.

#### **ANNEX 170/A**

- A1. Each Flag State shall ensure that each *Dissostichus* catch document form that it issues includes a specific identification number consisting of:
  - (i) a four-digit number, consisting of the two-digit International Standards Organization (ISO) country code plus the last two digits of the year for which the form is issued; and
  - (ii) a three-digit sequence number (beginning with 001) to denote the order in which catch document forms are issued.

It shall also enter on each *Dissostichus* catch document form the number as appropriate of the licence or permit issued to the vessel.

- A2. The master of a vessel which has been issued a *Dissostichus* catch document form or forms shall adhere to the following procedures prior to each landing or transshipment of *Dissostichus* spp.:
  - (i) the master shall ensure that the information specified in paragraph 6 of this conservation measure is accurately recorded on the *Dissostichus* catch document form;
  - (ii) if a landing or transshipment includes catch of both *Dissostichus* spp., the master shall record on the *Dissostichus* catch document form the total amount of the catch landed or transhipped by weight of each species;
  - (iii) if a landing or transshipment includes catch of *Dissostichus* spp. taken from different statistical subareas and/or divisions, the master shall record on the *Dissostichus* catch document form the amount of the catch by weight of each species taken from each statistical subarea and/or division; and
  - (iv) the master shall convey to the Flag State of the vessel by the most rapid electronic means available, the *Dissostichus* catch document number, the dates within which

the catch was taken, the species, processing type or types, the estimated weight to be landed and the area or areas of the catch, the date of landing or transshipment and the port and country of landing or vessel of transshipment and shall request from the Flag State, a Flag State confirmation number.

- A3. If the Flag State determines that the catch landed or transhipped as reported by the vessel is consistent with its authorisation to fish, it shall convey a unique Flag State confirmation number to the master by the most rapid electronic means available.
- A4. The master shall enter the Flag State confirmation number on the *Dissostichus* catch document form.
- A5. The master of a vessel that has been issued a *Dissostichus* catch document form or forms shall adhere to the following procedures immediately after each landing or transshipment of *Dissostichus* spp.:
- (i) in the case of a transshipment, the master shall confirm the transshipment by obtaining the signature on the *Dissostichus* catch document of the master of the vessel to which the catch is transferred;
  - (ii) in the case of a landing, the master or authorised representative shall confirm the landing by obtaining a signed and stamped certification on the *Dissostichus* catch document by a responsible official at the port of landing or free trade zone;
  - (iii) in the case of a landing, the master or authorised representative shall also obtain the signature on the *Dissostichus* catch document of the individual that receives the catch at the port of landing or free trade zone; and
  - (iv) in the event that the catch is divided upon landing, the master or authorised representative shall present a copy of the *Dissostichus* catch document to each individual that receives a part of the catch at the port of landing or free trade zone, record on that copy of the catch document the amount and origin of the catch received by that individual and obtain the signature of that individual.
- A6. In respect of each landing or transshipment, the master or authorised representative shall immediately sign and convey by the most rapid electronic means available a copy, or, if the catch landed was divided, copies, of the signed *Dissostichus* catch document to the Flag State of the vessel and shall provide a copy of the relevant document to each recipient of the catch.
- A7. The Flag State of the vessel shall immediately convey by the most rapid electronic means available a copy or, if the catch was divided, copies, of the signed *Dissostichus* catch document to the CCAMLR Secretariat to be made available by the next working day to all Contracting Parties.
- A8. The master or authorised representative shall retain the original copies of the signed *Dissostichus* catch document(s) and return them to the Flag State no later than one month after the end of the fishing season.
- A9. The master of a vessel to which catch has been transhipped (receiving vessel) shall adhere to the following procedures immediately after landing of such catch in order to complete each *Dissostichus* catch document received from transhipping vessels:



- (i) the master of the receiving vessel shall confirm the landing by obtaining a signed and stamped certification on the *Dissostichus* catch document by a responsible official at the port of landing or free trade zone;
  - (ii) the master of the receiving vessel shall also obtain the signature on the *Dissostichus* catch document of the individual that receives the catch at the port of landing or free trade zone; and
  - (iii) in the event that the catch is divided upon landing, the master of the receiving vessel shall present a copy of the *Dissostichus* catch document to each individual that receives a part of the catch at the port of landing or free trade zone, record on that copy of the catch document the amount and origin of the catch received by that individual and obtain the signature of that individual.
- A10. In respect of each landing of transhipped catch, the master or authorised representative of the receiving vessel shall immediately sign and convey by the most rapid electronic means available a copy of all the *Dissostichus* catch documents, or if the catch was divided, copies, of all the *Dissostichus* catch documents, to the Flag State(s) that issued the *Dissostichus* catch document, and shall provide a copy of the relevant document to each recipient of the catch. The Flag State of the receiving vessel shall immediately convey by the most rapid electronic means available a copy of the document to the CCAMLR Secretariat to be made available by the next working day to all Contracting Parties.
- A11. For each shipment of *Dissostichus* spp. to be exported from the country of landing, the exporter shall adhere to the following procedures to obtain the necessary export validation of the *Dissostichus* catch document(s) that account for all the *Dissostichus* spp. contained in the shipment:
- (i) the exporter shall enter on each *Dissostichus* catch document the amount of each *Dissostichus* spp. reported on the document that is contained in the shipment;
  - (ii) the exporter shall enter on each *Dissostichus* catch document the name and address of the importer of the shipment and the point of import;
  - (iii) the exporter shall enter on each *Dissostichus* catch document the exporter's name and address, and shall sign the document; and
  - (iv) the exporter shall obtain a signed and stamped validation of the *Dissostichus* catch document by a responsible official of the exporting State.
- A12. In the case of re-export, the re-exporter shall adhere to the following procedures to obtain the necessary re-export validation of the *Dissostichus* catch document(s) that account for all the *Dissostichus* spp. contained in the shipment:
- (i) the re-exporter shall supply details of the net weight of product of all species to be re-exported, together with the *Dissostichus* catch document number to which each species and product relates;
  - (ii) the re-exporter shall supply the name and address of the importer of the shipment, the point of import and the name and address of the exporter;

- (iii) the re-exporter shall obtain a signed and stamped validation of the above details by the responsible official of the exporting State on the accuracy of information contained in the document(s); and
- (iv) the responsible official of the exporting state shall immediately transmit by the most rapid electronic means a copy of the re-export document to the Secretariat to be made available next working day to all Contracting Parties.

The standard form for re-export is attached to this annex.

**DISSOSTICHUS CATCH DOCUMENT**

**V1.2**

<b>Document Number</b>	<b>Flag State Confirmation Number</b>
------------------------	---------------------------------------

**PRODUCTION SECTION**  
**1. Issuing Authority of Document**  
 Name \_\_\_\_\_ Address \_\_\_\_\_ Tel: \_\_\_\_\_  
 \_\_\_\_\_ Fax: \_\_\_\_\_

**2. Fishing Vessel Name** \_\_\_\_\_ **Home Port & Registration Number** \_\_\_\_\_ **Call Sign** \_\_\_\_\_ **IMO/Lloyd's Number** \_\_\_\_\_  
 (if issued)

**3. Licence Number** (if issued) \_\_\_\_\_ **4. Fishing dates for catch under this document**  
 From: \_\_\_\_\_ To: \_\_\_\_\_

**5. Date of Landing/Transshipment** \_\_\_\_\_

6. Description of Fish (Landed/Transhipped)						7. Recipient name, address, telephone, fax and signature. Recipient Name:  Signature:  Address:  Tel:  Fax:
Species	Type	Estimated Weight to be Landed (kg)	Area Caught	Verified Weight Landed (kg)	Net Weight Sold (kg)	

Species: **TOP** *Dissostichus eleginoides*, **TOA** *Dissostichus mawsoni*  
 Type: **WHO** Whole; **HAG** Headed and gutted; **HAT** Headed and tailed; **FLT** Fillet; **HGT** Headed, gutted, tailed; **OTH** Other (specify)

**8. Landing/Transshipment Information:** I certify that the above information is complete, true and correct to the best of my knowledge and that any *Dissostichus* spp. taken in the Convention Area was caught in a manner:  
 consistent  \* with CCAMLR conservation measures.  
 not consistent  \*

**Master of Fishing Vessel or Authorised Representative** (print in block letters) \_\_\_\_\_ **Signature** \_\_\_\_\_ **Landing/Transshipment Port and Country/Area** \_\_\_\_\_

**9. Certificate of Transshipments:** I certify that the above information is complete, true and correct to the best of my knowledge.  
**Master of Receiving Vessel** \_\_\_\_\_ **Signature** \_\_\_\_\_ **Vessel Name** \_\_\_\_\_ **Registration Number** \_\_\_\_\_

**10. Certificate of Landing and/or Transshipment within a Port Area:** I certify that the above landing information is complete, true and correct to the best of my knowledge.  
**Name** \_\_\_\_\_ **Authority** \_\_\_\_\_ **Signature** \_\_\_\_\_ **Address** \_\_\_\_\_ **Tel:** \_\_\_\_\_ **Seal (Stamp)** \_\_\_\_\_  
**Fax:** \_\_\_\_\_

11. EXPORT SECTION			12. Exporter Declaration: I certify that the above information is complete, true and correct to the best of my knowledge.			
Description of Fish			Name	Address	Signature	Export Licence (if issued)
Species	Product Type	Net Weight (kg)				

**13. Export Government Authority Validation:** I certify that the above information is complete, true and correct to the best of my knowledge.  
**Name/Title** \_\_\_\_\_ **Signature** \_\_\_\_\_ **Date** \_\_\_\_\_ **Seal (Stamp)** \_\_\_\_\_

**14. IMPORT SECTION**  
**Name of Importer** \_\_\_\_\_ **Address** \_\_\_\_\_  
**Point of Unlading:** \_\_\_\_\_ **City** \_\_\_\_\_ **State/Province** \_\_\_\_\_ **Country** \_\_\_\_\_

\* Tick whichever applies



## **CONSERVATION MEASURE 192/XIX<sup>1</sup>**

### **Directed Fishing for *Dissostichus* spp. in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Article IX of the Convention:

Directed fishing for *Dissostichus* spp. in Statistical Subareas 48.5 and 88.3, and Statistical Divisions 58.4.1 (except BANZARE Bank), 58.4.2 north of 64°S (except BANZARE Bank) and 58.5.1, is prohibited from 1 December 2000 to 30 November 2001. Directed fishing by longlining in Statistical Division 58.5.2 is prohibited from 1 December 2000 to 30 November 2001.

BANZARE Bank is defined as waters within the latitudes 55°S and 64°S and longitudes 73°30'E and 89°E.

<sup>1</sup> Except in waters adjacent to the Kerguelen Islands

## **CONSERVATION MEASURE 193/XIX**

### **Prohibition of Directed Fishing for *Dissostichus* spp. except in accordance with Specific Conservation Measures in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Article IX of the Convention:

Directed fishing for *Dissostichus* spp. in Statistical Subarea 88.2 north of 65°S and Statistical Division 58.4.4 south of 60°S is prohibited from 1 December 2000 to 30 November 2001.

## **CONSERVATION MEASURE 194/XIX**

### **Limitation of the Total Catch of *Champocephalus gunnari* in Statistical Subarea 48.3 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 7/V:

1. The total catch of *Champocephalus gunnari* in the 2000/01 season shall be limited to 6 760 tonnes in Statistical Subarea 48.3.
2. The fishery for *Champocephalus gunnari* in Statistical Subarea 48.3 shall close if the by-catch of any of the species listed in Conservation Measure 95/XIV reaches its by-catch limit or if the total catch of *Champocephalus gunnari* reaches 6 760 tonnes, whichever is sooner.
3. If, in the course of the directed fishery for *Champocephalus gunnari*, the by-catch in any one haul of any of the species named in Conservation Measure 95/XIV
  - is greater than 100 kg and exceeds 5% of the total catch of all fish by weight, or

- is equal to or greater than 2 tonnes, then

the fishing vessel shall move to another location at least 5 n miles distant<sup>1</sup>. The fishing vessel shall not return to any point within 5 n miles of the location where the by-catch of species named in Conservation Measure 95/XIV exceeded 5% for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 5% is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.

4. Where any haul contains more than 100 kg of *Champocephalus gunnari*, and more than 10% of the *Champocephalus gunnari* by number are smaller than 240 mm total length, the fishing vessel shall move to another fishing location at least 5 n miles distant<sup>1</sup>. The fishing vessel shall not return to any point within 5 n miles of the location where the catch of small *Champocephalus gunnari* exceeded 10%, for a period of at least five days<sup>2</sup>. The location where the catch of small *Champocephalus gunnari* exceeded 10% is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.
5. The use of bottom trawls in the directed fishery for *Champocephalus gunnari* in Statistical Subarea 48.3 is prohibited.
6. The fishery for *Champocephalus gunnari* in Statistical Subarea 48.3 shall be closed from 1 March to 31 May 2001.
7. Each vessel participating in the directed fishery for *Champocephalus gunnari* in Statistical Subarea 48.3 in the 2000/01 season shall have a scientific observer, appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities within the fishing period.
8. 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/XIX shall apply in the 2000/01 season; and
  - (ii) the Monthly Fine-scale Catch and Effort Data Reporting System set out in Conservation Measure 122/XIX shall apply for *Champocephalus gunnari*. Data shall be reported on a haul-by-haul basis.
9. Fine-scale biological data, as required under Conservation Measure 121/XIX shall be collected and recorded. Such data shall be reported in accordance with the Scheme of International Scientific Observation.

<sup>1</sup> This provision concerning the minimum distance separating fishing locations is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**CONSERVATION MEASURE 195/XIX**  
**Fishery for *Champtocephalus gunnari* in**  
**Statistical Division 58.5.2 in the 2000/01 Season**

1. The total catch for *Champtocephalus gunnari* in Statistical Division 58.5.2 shall be limited to 1 150 tonnes in the 2000/01 season.
2. Areas in Statistical Division 58.5.2 outside that defined in paragraph 4 below shall be closed to directed fishing for *Champtocephalus gunnari*.
3. Fishing shall cease if the by-catch of any of the species reaches its by-catch limit as detailed in Conservation Measure 198/XIX.
4. For the purpose of this fishery for *Champtocephalus gunnari*, the area open to the fishery is defined as that portion of Statistical Division 58.5.2 that lies within the area enclosed by a line:
  - (i) starting at the point where the meridian of longitude 72°15'E intersects the Australia–France Maritime Delimitation Agreement Boundary then south along the meridian to its intersection with the parallel of latitude 53°25'S;
  - (ii) then east along that parallel to its intersection with the meridian of longitude 74°E;
  - (iii) then northeasterly along the geodesic to the intersection of the parallel of latitude 52°40'S and the meridian of longitude 76°E;
  - (iv) then north along the meridian to its intersection with the parallel of latitude 52°S;
  - (v) then northwesterly along the geodesic to the intersection of the parallel of latitude 51°S with the meridian of longitude 74°30'E; and
  - (vi) then southwesterly along the geodesic to the point of commencement.

A chart illustrating the above definition is appended to this conservation measure (Annex 195/A).
5. For the purposes of this fishery for *Champtocephalus gunnari*, the 2000/01 season is defined as the period from 1 December 2000 to 30 November 2001.
6. The catch limit may only be taken by trawling.
7. Where any haul contains more than 100 kg of *Champtocephalus gunnari*, and more than 10% of the *Champtocephalus gunnari* by number are smaller than 240 mm total length, the fishing vessel shall move to another fishing location at least 5 n miles distant<sup>1</sup>. The fishing vessel shall not return to any point within 5 n miles of the location where the catch of small *Champtocephalus gunnari* exceeded 10% for a period of at least five days<sup>2</sup>. The location where the catch of small *Champtocephalus gunnari* exceeded 10% is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.

8. Each vessel participating in the fishery shall have at least one scientific observer, and may include one appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities.
9. Each vessel operating in the fishery for *Champtocephalus gunnari* in Statistical Division 58.5.2 shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
10. A ten-day catch and effort reporting system shall be implemented:
  - (i) for the purpose of implementing this system, the calendar month shall be divided into three reporting periods, viz: day 1 to day 10, day 11 to day 20 and day 21 to the last day of the month. The reporting periods are hereafter referred to as periods A, B and C;
  - (ii) at the end of each reporting period, each Contracting Party participating in the fishery shall obtain from each of its vessels information on total catch and total days and hours fished for that period and shall, by cable, telex, facsimile or electronic transmission, transmit the aggregated catch and days and hours fished for its vessels so as to reach the Executive Secretary no later than the end of the next reporting period;
  - (iii) 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;
  - (iv) the catch of *Champtocephalus gunnari* and of all by-catch species must be reported;
  - (v) such reports shall specify the month and reporting period (A, B and C) to which each report refers;
  - (vi) 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 division of the total catch taken during the reporting period and the total aggregate catch for the season to date; and
  - (vii) 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 and the total aggregate catch for the season to date.
11. A fine-scale effort and biological data reporting system shall be implemented:
  - (i) the scientific observer(s) aboard each vessel shall collect the data required to complete the CCAMLR fine-scale catch and effort data form C1, latest version. These data shall be submitted to the CCAMLR Secretariat not later than one month after the vessel returns to port;
  - (ii) the catch of *Champtocephalus gunnari* and of all by-catch species must be reported;

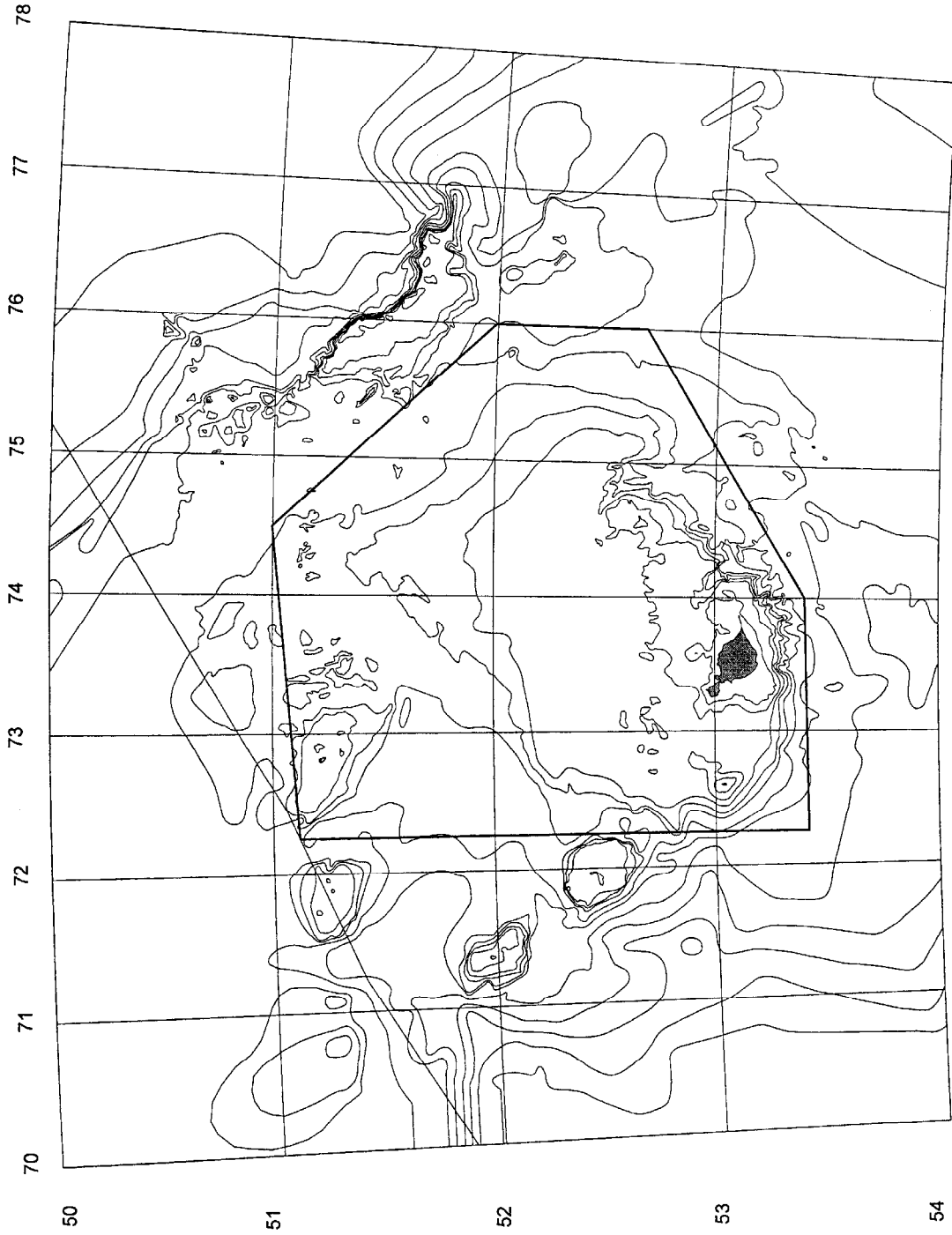


- (iii) the numbers of seabirds and marine mammals of each species caught and released or killed must be reported;
- (iv) the scientific observer(s) aboard each vessel shall collect data on the length composition from representative samples of *Champscephalus gunnari* and by-catch species:
  - (a) length measurements shall be to the nearest centimetre below; and
  - (b) representative samples of length composition shall be taken from each fine-scale grid rectangle (0.5° latitude by 1° longitude) fished in each calendar month; and
- (v) the above data shall be submitted to the CCAMLR Secretariat not later than one month after the vessel returns to port.

<sup>1</sup> This provision concerning the minimum distance separating fishing locations is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

CHART OF THE HEARD ISLAND PLATEAU



**CONSERVATION MEASURE 196/XIX**  
**Limits on the Fishery for *Dissostichus eleginoides***  
**in Statistical Subarea 48.3 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 7/V:

1. The total catch of *Dissostichus eleginoides* in Statistical Subarea 48.3 in the 2000/01 season shall be limited to 4 500 tonnes.
2. Directed fishing shall be by longlines and pots only. The use of all other methods of directed fishing for *Dissostichus eleginoides* in Statistical Subarea 48.3 is prohibited.
3. For the purposes of the longline fishery for *Dissostichus eleginoides* in Statistical Subarea 48.3, the 2000/01 fishing season is defined as the period from 1 May to 31 August 2001, or until the catch limit is reached, whichever is the sooner.
4. For the purposes of the pot fishery for *Dissostichus eleginoides* in Statistical Subarea 48.3, the 2000/01 fishing season is defined as the period from 1 December 2000 to 30 November 2001, or until the catch limit is reached, whichever is the sooner.
5. The by-catch of crab shall be counted against the catch limit in the crab fishery in Subarea 48.3.
6. Each vessel participating in the *Dissostichus eleginoides* fishery in Statistical Subarea 48.3 in the 2000/01 season shall have at least one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities within the fishing period.
7. For the purpose of implementing this conservation measure:
  - (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XIX shall apply in the 2000/01 season; and
  - (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 122/XIX shall apply in the 2000/01 season. Data shall be submitted on a haul-by-haul basis. For the purpose of Conservation Measure 122/XIX the target species is *Dissostichus eleginoides* and 'by-catch species' are defined as any species other than *Dissostichus eleginoides*.
8. Fine-scale biological data, as required under Conservation Measure 121/XIX shall be collected and recorded. Such data shall be reported in accordance with the System of International Scientific Observation.

**CONSERVATION MEASURE 197/XIX**  
**Fishery for *Dissostichus eleginoides* in**  
**Statistical Division 58.5.2 in the 2000/01 Season**

1. The total catch of *Dissostichus eleginoides* in Statistical Division 58.5.2 shall be limited to 2 995 tonnes in the 2000/01 season.

2. For the purpose of this fishery for *Dissostichus eleginoides*, the 2000/01 fishing season is defined as the period from 1 December 2000 to 30 November 2001.
3. Fishing shall cease if the by-catch of any species reaches its by-catch limit as detailed in Conservation Measure 198/XIX.
4. The catch limit may only be taken by trawling.
5. Each vessel participating in the fishery for *Dissostichus eleginoides* in Statistical Division 58.5.2 shall have at least one scientific observer, and may include one appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities.
6. Each vessel operating in the fishery for *Dissostichus eleginoides* in Statistical Division 58.5.2 shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
7. A ten-day catch and effort reporting system shall be implemented:
  - (i) for the purpose of implementing this 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;
  - (ii) at the end of each reporting period, each Contracting Party participating in the fishery shall obtain from each of its vessels information on total catch and total days and hours fished for the period and shall, by electronic transmission, 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;
  - (iii) 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;
  - (iv) the catch of *Dissostichus eleginoides* and of all by-catch species must be reported;
  - (v) such reports will specify the month and reporting period (A, B and C) to which each report refers;
  - (vi) 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 division of the total catch taken during the reporting period and the total aggregate catch for the season to date; and
  - (vii) 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 and the total aggregate catch for the season to date.
8. A fine-scale effort and biological data reporting system shall be implemented:

- (i) the scientific observer(s) aboard each vessel shall collect the data required to complete the CCAMLR fine-scale catch and effort data form C1, latest version. These data shall be submitted to the CCAMLR Secretariat not later than one month after the vessel returns to port;
  - (ii) the catch of *Dissostichus eleginoides* and all by-catch species must be reported;
  - (iii) the numbers of seabirds and marine mammals of each species caught and released or killed must be reported;
  - (iv) the scientific observer(s) aboard each vessel shall collect data on the length composition from representative samples of *Dissostichus eleginoides* and by-catch species as detailed in the CCAMLR *Scientific Observers Manual* (Part III, Section 1) for finfish fisheries:
    - (a) length measurements shall be to the nearest centimetre below; and
    - (b) representative samples of length composition shall be taken from each fine-scale grid rectangle (0.5° latitude by 1° longitude) fished in each calendar month; and
  - (v) the above data shall be submitted to the CCAMLR Secretariat not later than one month after the vessel returns to port.
9. The total number and weight of *Dissostichus eleginoides* discarded, including those with the 'jellymeat' condition, shall be reported. These fish will count towards the total allowable catch.

#### **CONSERVATION MEASURE 198/XIX**

##### **Limitation of the By-catch in Statistical Division 58.5.2 in the 2000/01 Season**

1. There shall be no directed fishing for any species other than *Dissostichus eleginoides* and *Champscephalus gunnari* in Statistical Division 58.5.2 in the 2000/01 fishing season.
2. In directed fisheries in Statistical Division 58.5.2 in the 2000/01 season, the by-catch of *Channichthys rhinoceratus* shall not exceed 150 tonnes, and the by-catch of *Lepidonotothen squamifrons* shall not exceed 80 tonnes.
3. The by-catch of any fish species not mentioned in paragraph 2, and for which there is no other catch limit in force, shall not exceed 50 tonnes in Statistical Division 58.5.2. For the purposes of by-catch catch limits, skates and rays will be considered as a single species.
4. If, in the course of a directed fishery, the by-catch in any one haul of any by-catch species for which by-catch limitations apply under this conservation measure is equal to, or greater than 2 tonnes, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles<sup>1</sup> of the location where the by-catch exceeded 2 tonnes for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 2

tonnes is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.

<sup>1</sup> This provision concerning the minimum distance separating fishing locations is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**CONSERVATION MEASURE 199/XIX**  
**Precautionary Catch Limit for *Electrona carlsbergi***  
**in Statistical Subarea 48.3 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure 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 1 December 2000 to 30 November 2001.
2. The total catch of *Electrona carlsbergi* in the 2000/01 season shall be limited to 109 000 tonnes in Statistical Subarea 48.3.
3. In addition, the total catch of *Electrona carlsbergi* in the 2000/01 season shall be limited to 14 500 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 2000/01 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 made available in advance for discussion at the meeting of the Working Group on Fish Stock Assessment in 2001.
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 95/XIV reaches its by-catch limit or if the total catch of *Electrona carlsbergi* reaches 109 000 tonnes, whichever is sooner.
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 95/XIV reaches its by-catch limit or if the total catch of *Electrona carlsbergi* reaches 14 500 tonnes, whichever is sooner.
7. If, in the course of the directed fishery for *Electrona carlsbergi*, the by-catch in any one haul of any species other than the target species
  - is greater than 100 kg and exceeds 5% of the total catch of all fish by weight, or
  - is equal to or greater than 2 tonnes, then

the fishing vessel shall move to another fishing location at least 5 n miles distant<sup>1</sup>. The fishing vessel shall not return to any point within 5 n miles of the location where the by-catch of species, other than the target species, exceeded 5%, for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 5% is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.

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 2000/01 season;
  - (ii) the Monthly Fine-scale Catch and Effort Data Reporting System set out in Conservation Measure 122/XIX shall also apply in the 2000/01 season. For the purposes of Conservation Measure 122/XIX, the target species is *Electrona carlsbergi*, and 'by-catch species' are defined as any cephalopod, crustacean or fish species other than *Electrona carlsbergi*; and
  - (iii) the Monthly Fine-scale Biological Data Reporting System set out in Conservation Measure 121/XIX shall also apply in the 2000/01 season. For the purposes of Conservation Measure 121/XIX, the target species is *Electrona carlsbergi*, and 'by-catch species' are defined as any cephalopod, crustacean or fish species other than *Electrona carlsbergi*. For the purposes of paragraph 3(ii) of Conservation Measure 121/XIX a representative sample shall be a minimum of 500 fish.

<sup>1</sup> This provision concerning the minimum distance separating fishing locations is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**CONSERVATION MEASURE 200/XIX<sup>1,2</sup>**  
**General Measures for Exploratory Fisheries for *Dissostichus* spp.**  
**in the Convention Area in the 2000/01 Season**

The Commission,

Noting the need for the distribution of fishing effort and catch in fine-scale rectangles<sup>3</sup> in these exploratory fisheries,

hereby adopts the following conservation measure:

1. This conservation measure applies to exploratory fisheries using the trawl or longline methods except for such fisheries where the Commission has given specific exemptions to the extent of those exemptions. In trawl fisheries, a haul comprises a single deployment of the trawl net. In longline fisheries, a haul comprises the setting of one or more lines in a single location.
2. Fishing should take place over as large a geographical and bathymetric range as possible to obtain the information necessary to determine fishery potential and to avoid over-concentration of catch and effort. To this end, fishing in any fine-scale rectangle

shall cease when the reported catch reaches 100 tonnes and that rectangle shall be closed to fishing for the remainder of the season. Fishing in any fine-scale rectangle shall be restricted to one vessel at any one time.

3. In order to give effect to paragraph 2 above:
  - (i) the precise geographic position of a haul in trawl fisheries will be determined by the mid-point of the path between the start-point and end-point of the haul;
  - (ii) the precise geographic position of a haul in longline fisheries will be determined by the centre-point of the line or lines deployed;
  - (iii) catch and effort information for each species by fine-scale rectangle shall be reported to the Executive Secretary every five days using the Five-Day Catch and Effort Reporting System set out in Conservation Measure 51/XIX; and
  - (iv) the Secretariat shall notify Contracting Parties participating in these fisheries when the total catch for *Dissostichus eleginoides* and *Dissostichus mawsoni* combined in any fine-scale rectangle is likely to reach 100 tonnes, and fishing in that fine-scale rectangle shall be closed when that limit is reached.
4. If the by-catch of *Macrourus* spp. in any one haul
  - is greater than 100 kg and exceeds 18% of the total catch of all fish by weight, or
  - is equal to or greater than 2 tonnes, then

the fishing vessel shall move to another location at least 5 n miles distant<sup>4</sup>. The fishing vessel shall not return to any point within 5 n miles of the location where the by-catch of *Macrourus* spp. exceeded 18% for a period of at least five days<sup>5</sup>. The location where the by-catch exceeded 18% is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.

5. The by-catch of any species other than *Macrourus* spp. in the exploratory fisheries in the statistical subareas and divisions concerned shall be limited to the following:
  - in small-scale research units (SSRUs) in Subarea 48.6, Division 58.4.2 and Subarea 88.1 south of 65°S, and on BANZARE Bank, the by-catch of any species shall be limited to 50 tonnes; and
  - in other SSRUs, the by-catch of any species shall be limited to 20 tonnes.

For the purposes of by-catch catch limits, skates and rays will be counted as a single species.

If the by-catch of any one species exceeds 2 tonnes on any one haul, then the fishing vessel shall move to another location at least 5 n miles distant<sup>4</sup>. The fishing vessel shall not return to any point within 5 n miles of the location where the by-catch exceed 2 tonnes for a period of at least five days<sup>5</sup>. The location where the by-catch exceeded 2 tonnes is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.



6. The total number and weight of *Dissostichus eleginoides* and *Dissostichus mawsoni* discarded, including those with the 'jellymeat' condition, shall be reported.
7. Each vessel participating in the exploratory fisheries for *Dissostichus* spp. during the 2000/01 season shall have one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation, and where possible one additional scientific observer, on board throughout all fishing activities within the fishing season.
8. The data collection plan (Annex 200/A) and research plan (Annex 200/B) shall be implemented. Data collected pursuant to the Data Collection and Research Plans for the period up to 31 August 2001 shall be reported to CCAMLR by 30 September 2001 so that the data will be available to the meeting of the Working Group on Fish Stock Assessment (WG-FSA) in 2001. Such data taken after 31 August shall be reported to CCAMLR not later than three months after the closure of the fishery, but, where possible, submitted in time for the consideration of WG-FSA.

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands

<sup>2</sup> Except for waters adjacent to the Prince Edward Islands

<sup>3</sup> A fine-scale rectangle is defined as an area of 0.5° latitude by 1° longitude with respect to the northwest corner of the statistical subarea or division. The identification of each rectangle is by the latitude of its northernmost boundary and the longitude of the boundary closest to 0°.

<sup>4</sup> This provision concerning the minimum distance separating fishing locations is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>5</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**DATA COLLECTION PLAN FOR EXPLORATORY FISHERIES**

1. All vessels will comply with the five-day catch and effort reporting system (Conservation Measure 51/XIX) and monthly fine-scale effort and biological data reporting system (Conservation Measures 121/XIX and 122/XIX).
2. All data required by the CCAMLR *Scientific Observers Manual* for finfish fisheries will be collected. These include:
  - (i) position, date and depth at the start and end of every haul;
  - (ii) haul-by-haul catch and catch per effort by species;
  - (iii) haul-by-haul length frequency of common species;
  - (iv) sex and gonad state of common species;
  - (v) diet and stomach fullness;
  - (vi) scales and/or otoliths for age determination;
  - (vii) number and mass by species of by-catch of fish and other organisms; and
  - (viii) observation on occurrence and incidental mortality of seabirds and mammals in relation to fishing operations.
3. Data specific to longline fisheries will be collected. These include:
  - (i) position and sea depth at each end of every line in a haul;
  - (ii) setting, soak, and hauling times;
  - (iii) number and species of fish lost at surface;
  - (iv) number of hooks set;
  - (v) bait type;
  - (vi) baiting success (%);
  - (vii) hook type; and
  - (viii) sea and cloud conditions and phase of the moon at the time of setting the lines.

**RESEARCH PLAN FOR EXPLORATORY FISHERIES**

1. Activities under this research plan shall not be exempted from any conservation measure in force.
2. This plan applies to all small-scale research units (SSRUs) as defined in Table 1 and Figure 1.
3. Any vessel undertaking prospecting or commercial fishing in any SSRU must undertake the following research activities:
  - (i) On first entry into a SSRU, the first 10 hauls, designated 'first series', whether by trawl or longline, should be designated 'research hauls' and must satisfy the criteria set out in paragraph 4.
  - (ii) The next 10 hauls, or 10 tonnes of catch for longlining, whichever trigger level is achieved first, or 10 tonnes of catch for trawling, are designated the 'second series'. Hauls in the second series can, at the discretion of the master, be fished as part of normal exploratory fishing. However, provided they satisfy the requirements of paragraph 4, these hauls can also be designated as research hauls.
  - (iii) On completion of the first and second series of hauls, if the master wishes to continue to fish within the SSRU, the vessel must undertake a 'third series' which will result in a total of 20 research hauls being made in all three series. The third series of hauls shall be completed during the same visit as the first and second series in a SSRU.
  - (iv) On completion of 20 research hauls the vessel may continue to fish within the SSRU.
  - (v) When either the catch limit or the end of the fishing season is reached, all fishing within the designated area should cease.
4. To be designated as a research haul:
  - (i) each research haul must be separated by not less than 10 n miles from any other research haul, distance to be measured from the geographical mid-point of each research haul;
  - (ii) each haul shall comprise: for longlines, at least 3 500 hooks; this may comprise a number of separate lines set in the same location; for trawls, at least 30 minutes effective fishing time as defined in the *Draft Manual for Bottom Trawl Surveys in the Convention Area* (SC-CAMLR-XI, Annex 5, Appendix H, Attachment E, paragraph 4).
  - (iii) each haul of a longline shall have a soak time of not less than six hours, measured from the time of completion of the setting process to the beginning of the hauling process; and

5. All data specified in the data collection plan (Annex 200/A) of this conservation measure shall be collected for every research haul; in particular, all fish in a research haul up to 100 fish are to be measured and at least 30 fish sampled for biological studies (paragraphs 2(iv) to 2(vi) of Annex 200/A). Where more than 100 fish are caught, a method for randomly subsampling the fish should be applied.

Table 1: The coordinates of the small-scale research units (Figure 1).

Subarea/ Division	SSRU	Grid Coordinates			
		Top Left Latitude	Top Left Longitude	Bottom Right Latitude	Bottom Right Longitude
58.4.1	A	55 S	80 E	64 S	89 E
58.4.3	A	55 S	60 E	62 S	73.5 E
58.4.3	B	55 S	73.5 E	62 S	80 E
58.4.4	A	51 S	40 E	54 S	42 E
58.4.4	B	51 S	42 E	54 S	46 E
58.4.4	C	51 S	46 E	54 S	50 E
58.4.4	D	Areas outside SSRUs A, B, C			
58.7	A	45 S	37 E	48 S	40 E
58.6	A	45 S	40 E	48 S	44 E
58.6	B	45 S	44 E	48 S	48 E
58.6	C	45 S	48 E	48 S	51 E
58.6	D	45 S	51 E	48 S	54 E
88.1	A	60 S	150 E	65 S	170 W
88.1	B	65 S	150 E	72 S	180
88.1	C	65 S	180	72 S	170 W
88.1	D	72 S	171 E	84 S	180
88.1	E	72 S	180	84.5 S	170 W

Subarea 88.2 is divided into six 10° longitudinal sections and one 5° longitudinal section; designated A–F from west to east.

Subarea 48.6 is divided into one section north of 60° (A) and five 10° longitudinal sections south of 60°; designated B–F from west to east.

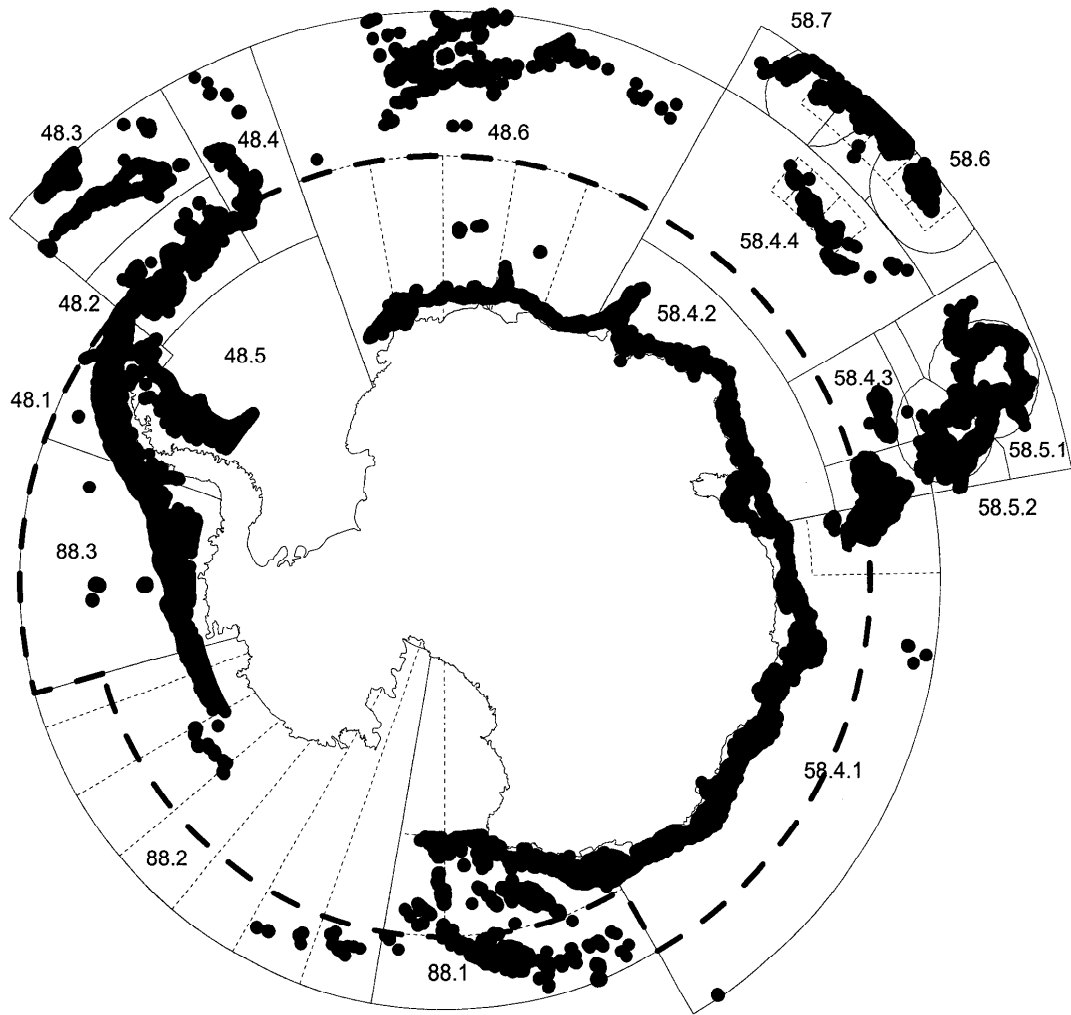


Figure 1: Small-scale research units for new and exploratory fisheries. The boundaries of these units are listed in Table 1. EEZ boundaries for Australia, France and South Africa are marked in order to address notifications for new and exploratory fisheries in waters adjacent to these zones. Dashed line – delineation between *Dissostichus eleginoides* and *Dissostichus mawsoni*; shaded patches – seabed areas between 500 and 1 800 m.

**CONSERVATION MEASURE 201/XIX**  
**Limitation of By-catch in the Exploratory Fisheries**  
**in Statistical Divisions 58.4.1, 58.4.2 and 58.4.3**  
**in the 2000/01 Season**

1. The by-catch in exploratory fisheries in Divisions 58.4.1, 58.4.2 and 58.4.3 shall not exceed 50 tonnes per species in each division in the 2000/01 season.
2. For the purposes of this measure, by-catch is defined as any species not specified as a target species in a conservation measure relevant to one of the divisions specified in paragraph 1. For the purposes of by-catch catch limits, skates and rays will be considered as a single species.
3. This measure applies to fisheries conducted under Conservation Measures 203/XIX, 204/XIX, 205/XIX, 206/XIX, 207/XIX and 212/XIX.

**CONSERVATION MEASURE 202/XIX**  
**Exploratory Longline Fishery for *Dissostichus* spp.**  
**in Statistical Subarea 48.6 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. in Statistical Subarea 48.6 shall be limited to the exploratory longline fishery by Argentina, Brazil and South Africa. The fishery shall be conducted by Argentinian, Brazilian and South African-flagged vessels using longlining only. No more than one vessel per country shall fish at any one time.
2. The precautionary catch limit for this exploratory longline fishery in Statistical Subarea 48.6 shall be limited to 455 tonnes of *Dissostichus* spp. north of 60°S, and 455 tonnes of *Dissostichus* spp. south of 60°S. In the event that either limit is reached, the relevant fishery shall be closed.
3. For the purpose of this exploratory longline fishery, the 2000/01 fishing season to the north of 60°S is defined as the period from 1 March to 31 August 2001. The 2000/01 fishing season south of 60°S is defined as the period from 15 February to 15 October 2001.
4. The exploratory longline fishery for the above species shall be carried out in accordance with Conservation Measures 29/XIX and 200/XIX.

**CONSERVATION MEASURE 203/XIX**  
**Exploratory Trawl Fishery for *Dissostichus* spp.**  
**on BANZARE Bank in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. by trawl on BANZARE Bank shall be limited to the exploratory fishery by Australian-flagged vessels. No more than one vessel shall fish at any one time.
2. BANZARE Bank is defined as waters within the latitudes 55°S and 64°S and longitudes 73°30'E and 89°E.
3. The total catch of *Dissostichus* spp. in the 2000/01 season taken by the trawl method shall not exceed 150 tonnes for BANZARE Bank.
4. Catch of *Dissostichus* spp. shall be further limited to 100 tonnes in any one fine-scale rectangle (0.5° latitude by 1° longitude).
5. (i) The by-catch in this exploratory fishery shall be regulated as set out in Conservation Measure 201/XIX.  
  
(ii) If in the course of a directed fishery, the by-catch in any one haul of any by-catch species for which by-catch limitations apply, as set out in paragraph 5(i) of this conservation measure, is equal to, or greater than 2 tonnes, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles<sup>1</sup> of the location where the by-catch exceeded 2 tonnes for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 2 tonnes is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.
6. For the purposes of this exploratory trawl fishery, the 2000/01 fishing season is defined as the period from 1 December 2000 to 30 November 2001 or until the catch limit of the target or by-catch species is reached, whichever is the sooner.
7. Each vessel participating in this exploratory trawl fishery for *Dissostichus* spp. on BANZARE Bank in the 2000/01 season shall have at least one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation on board throughout all fishing activities within these divisions.
8. Each vessel operating in this exploratory trawl fishery for *Dissostichus* spp. on BANZARE Bank shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
9. For the purpose of implementing this conservation measure:
  - (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XIX shall apply; and
  - (ii) the monthly fine-scale biological data, as required under Conservation Measure 121/XIX, shall be recorded and reported in accordance with the System of International Scientific Observation when undertaking commercial fishing on BANZARE Bank.
10. The total number and weight of *Dissostichus* spp. discarded, including those with the 'jellymeat' condition, shall be reported. These fish will count towards the total allowable catch.

11. The data collection plan shall be as set out in Annex 200/A of Conservation Measure 200/XIX (General Measures for Exploratory Fisheries for *Dissostichus* spp. in the Convention Area in the 2000/01 Season), with the following variations:
  - (i) data reporting measures specific to the longlining method shall not apply.
12. The research and fisheries operations plans shall be as set out in Annex 200/B of Conservation Measure 200/XIX, with the following variation:
  - (i) prospecting and fishing will be unrestricted until 10 tonnes of *Dissostichus* spp. has been taken from any one aggregation that may be discovered;
  - (ii) once 10 tonnes of *Dissostichus* spp. has been taken from any one aggregation the vessel must complete a survey using an echosounder to map the aggregation and the physical feature with which it is associated;
  - (iii) the vessel must complete eight research trawls around the aggregation to map its extent and to obtain CPUE data;
  - (iv) the research trawls should be arranged as evenly as possible around the aggregation and the track of any trawl should not be closer than 2 n miles to any part of the track of another research trawl; and
  - (v) these provisions will apply to each aggregation discovered where 10 tonnes or more of *Dissostichus* spp. have been caught, irrespective of the number of hauls.

<sup>1</sup> This provision is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**CONSERVATION MEASURE 204/XIX**  
**Exploratory Longline Fishery for *Dissostichus* spp.**  
**on BANZARE Bank outside Areas under National**  
**Jurisdictions in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. on BANZARE Bank outside areas under national jurisdictions by the longline method shall be limited to the exploratory longline fishery by Argentina and France. The fishery shall be conducted by Argentinian and French-flagged vessels using longlining only. No more than one vessel per country shall fish at any one time.
2. BANZARE Bank is defined as waters between the latitudes 55°S and 64°S and longitudes 73°30'E and 89°E.
3. The precautionary catch limit of *Dissostichus* spp. for this exploratory longline fishery shall be limited to 300 tonnes on BANZARE Bank.



4. The by-catch in this exploratory fishery shall be regulated as set out in Conservation Measure 201/XIX.
5. For the purpose of this exploratory longline fishery, the 2000/01 fishing season is defined as the period from 1 May to 31 August 2001.
6. The exploratory longline fishery for the above species shall be carried out in accordance with Conservation Measures 29/XIX and 200/XIX.

#### **CONSERVATION MEASURE 205/XIX**

##### **Exploratory Trawl Fishery for *Dissostichus* spp. on Elan Bank (Statistical Division 58.4.3) in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. by trawl on Elan Bank in Statistical Division 58.4.3 shall be limited to the exploratory fishery by Australian-flagged vessels. No more than one vessel shall fish at any one time.
2. Elan Bank is defined as waters within the latitudes 55°S and 62°S and longitudes 60°E and 73°30'E.
3. The total catch of *Dissostichus* spp. in the 2000/01 season taken by the trawl method shall not exceed 145 tonnes for Elan Bank.
4. Catch of *Dissostichus* spp. shall be further limited to 100 tonnes in any one fine-scale rectangle (0.5° latitude by 1° longitude).
5. (i) The by-catch in this exploratory fishery shall be regulated as set out in Conservation Measure 201/XIX.  
  
(ii) If in the course of a directed fishery, the by-catch in any one haul of any by-catch species for which by-catch limitations apply, as set out in paragraph 5(i) of this conservation measure, is equal to, or greater than 2 tonnes, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles<sup>1</sup> of the location where the by-catch exceeded 2 tonnes for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 2 tonnes is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.
6. For the purposes of this exploratory trawl fishery, the 2000/01 fishing season is defined as the period from 1 December 2000 to 30 November 2001 or until the catch limit of the target or by-catch species is reached, whichever is the sooner.
7. Each vessel participating in this exploratory trawl fishery for *Dissostichus* spp. on Elan Bank in Statistical Division 58.4.3 in the 2000/01 season shall have at least one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation on board throughout all fishing activities within these divisions.

8. Each vessel operating in this exploratory trawl fishery for *Dissostichus* spp. on Elan Bank in Statistical Division 58.4.3 shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
9. For the purpose of implementing this conservation measure:
  - (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XIX shall apply; and
  - (ii) the monthly fine-scale biological data, as required under Conservation Measure 121/XIX, shall be recorded and reported in accordance with the System of International Scientific Observation when undertaking commercial fishing on Elan Bank in Statistical Division 58.4.3.
10. The total number and weight of *Dissostichus* spp. discarded, including those with the 'jellymeat' condition, shall be reported. These fish will count towards the total allowable catch.
11. The research and fisheries operations plans shall be as set out in Annex 200/A and 200/B of Conservation Measure 200/XIX (General Measures for Exploratory Fisheries for *Dissostichus* spp. in the Convention Area in the 2000/01 Season), with the following variations:
  - (i) there shall be one small-scale research unit for Elan Bank, as defined in paragraph 2 above.
  - (ii) data reporting measures specific to the longlining method shall not apply; and
  - (iii) any vessel undertaking prospecting or commercial fishing in the small-scale research unit (SSRU) must undertake the research activities once 10 tonnes of *Dissostichus* spp. have been caught irrespective of the number of hauls.

<sup>1</sup> This provision is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**CONSERVATION MEASURE 206/XIX**  
**Exploratory Longline Fishery for *Dissostichus* spp.**  
**on Elan Bank (Statistical Division 58.4.3) outside Areas**  
**under National Jurisdictions in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. on Elan Bank in Statistical Division 58.4.3 outside areas under national jurisdictions by the longline method shall be limited to the exploratory longline fishery by Argentina and France. The fishery shall be conducted by Argentinian and French-flagged vessels using longlining only. No more than one vessel per country shall fish at any one time.

2. Elan Bank is defined as waters within the latitudes 55°S and 62°S and longitudes 60°E and 73°30'E outside areas of national jurisdiction.
3. The precautionary catch limit of *Dissostichus* spp. for this exploratory longline fishery shall be limited to 250 tonnes on Elan Bank.
4. The by-catch in this exploratory fishery shall be regulated as set out in Conservation Measure 201/XIX.
5. For the purpose of this exploratory longline fishery, the 2000/01 fishing season is defined as the period from 1 May to 31 August 2001.
6. The exploratory longline fishery for the above species shall be carried out in accordance with Conservation Measures 29/XIX and 200/XIX.

**CONSERVATION MEASURE 207/XIX**  
**Exploratory Trawl Fishery for *Dissostichus* spp.**  
**in Statistical Division 58.4.2 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. by trawl in Statistical Division 58.4.2 south of 64°S shall be limited to the exploratory fishery by Australian-flagged vessels.
2. The total catch of *Dissostichus* spp. taken by the trawl method shall not exceed 500 tonnes, of which no more than 150 tonnes shall be taken in any one of the zones bounded by the longitudes 30°E and 40°E, 40°E and 50°E, 50°E and 60°E, 60°E and 70°E, 70°E and 80°E respectively.
3. The by-catch in this exploratory fishery shall be regulated as set out in Conservation Measure 201/XIX.
4. If, in the course of a directed fishery, the by-catch in any one haul of any by-catch species for which by-catch limitations apply, as set out in paragraph 3 of this conservation measure, is equal to, or greater than 2 tonnes, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles<sup>1</sup> of the location where the by-catch exceeded 2 tonnes for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 2 tonnes is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel.
5. For the purposes of this exploratory trawl fishery, the 2000/01 fishing season is defined as the period from 1 December 2000 to 30 November 2001 or until the catch limit is reached, whichever is the sooner.
6. Each vessel participating in this exploratory trawl fishery in Statistical Division 58.4.2 in the 2000/01 season shall have at least one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation on board throughout all fishing activities within this division.

7. Each vessel operating in this exploratory trawl fishery in Statistical Division 58.4.2 shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
8. For the purpose of implementing this conservation measure:
  - (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XIX shall apply; and
  - (ii) the monthly fine-scale biological data, as required under Conservation Measure 121/XIX, shall be recorded and reported in accordance with the System of International Scientific Observation.
9. The total number and weight of *Dissostichus* spp. discarded, including those with the 'jellymeat' condition, shall be reported. These fish will count towards the total allowable catch.
10. The data collection and research plans in Annex 207/A shall be implemented and the results reported to CCAMLR not later than three months after the closure of the fishery.

<sup>1</sup> This provision is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**DATA COLLECTION AND RESEARCH PLANS**

1. Demersal trawling for *Dissostichus* spp. in water shallower than 550 m shall be prohibited except for the research activities described below:
  - (i) demersal trawling shall be allowed only in designated 'open' areas on the upper and mid-slope in depths greater than 550 m;
  - (ii) the manner in which areas are designated 'open' and 'closed' for demersal trawling will be determined according to the following procedure:
    - (a) open and closed areas will consist of a series of north–south strips extending from the coast to beyond the foot of the continental slope. Each strip will be one degree of longitude wide;
    - (b) in the first instance, when the vessel has found an appropriate area for prospecting or fishing, it will designate the strip as open, with the area to be fished to be approximately centered in that strip;
    - (c) a single prospecting haul will be permitted in that strip before it is designated as open or closed, to establish if an aggregation of interest is present. There must be a minimum of 30 minutes of longitude between prospecting hauls where no strip is designated open;
    - (d) whenever a strip is designated open, at least one strip adjacent to that strip must be designated as closed. Any remnant strips less than one degree wide resulting from the previous selection of open and closed strips, will be designated as closed;
    - (e) once a strip is designated closed it cannot be subsequently fished in that season by any method that allows fishing gear to contact the bottom;
    - (f) prior to commercial fishing in an open strip, the vessel must undertake the survey trawls in the open strip as described below. The survey trawls in the adjacent closed strip must be undertaken prior to the vessel fishing a new strip. If the adjacent closed strip has already been surveyed, a new survey is not necessary; and
    - (g) when the vessel wishes to fish in a new strip, it must not choose a strip already closed. Once a new strip is designated, conditions as described in paragraphs (b) to (f) will apply to that strip.
2. Survey trawls in each open strip and its adjacent closed strip will be conducted according to the following scheme:
  - (i) each pair of strips will be divided between the shelf area above 550 m and the slope area below 550 m. In each open and closed strip the following research shall be undertaken:

- (a) in the section deeper than 550 m, two stations (whose locations have been randomly pre-selected according to depth and longitude) shall be sampled. At each of these stations a beam trawl sample of benthos and a bottom-trawl sample of finfish using a commercial trawl with a small mesh liner shall be taken;
  - (b) in the section shallower than 550 m, two stations shall be sampled at randomly pre-selected sites according to depth and longitude for benthos using a beam trawl once at each station only; and
  - (c) this will be undertaken in each pair of the open and closed strips using the process described above.
3. The following data and material will be collected from research and commercial hauls, as required by the CCAMLR *Scientific Observers Manual*:
- (i) position, date and depth at the start and end of every haul;
  - (ii) haul-by haul catch and catch per effort by species;
  - (iii) haul-by haul length frequency of common species;
  - (iv) sex and gonad state of common species;
  - (v) diet and stomach fullness;
  - (vi) scales and/or otoliths for age determination;
  - (vii) by-catch of fish and other organisms; and
  - (viii) observations on the occurrence of seabirds and mammals in relation to fishing operations, and details of any incidental mortality of these animals.

**CONSERVATION MEASURE 208/XIX<sup>1</sup>**  
**Exploratory Longline Fishery for *Dissostichus eleginoides***  
**in Statistical Division 58.4.4 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus eleginoides* in Statistical Division 58.4.4 shall be limited to the exploratory longline fishery by Argentina, Brazil, France, South Africa, Ukraine and Uruguay. The fishery shall be conducted by Argentinian, Brazilian, French, South African, Ukrainian and Uruguayan-flagged vessels using longlining only. No more than one vessel per country shall fish at any one time.
2. The precautionary catch for Statistical Division 58.4.4 shall be limited to 370 tonnes of *Dissostichus* spp. north of 60°S, to be taken by longlining. In the event that this limit is reached, the fishery shall be closed.
3. For the purpose of this exploratory longline fishery, the 2000/01 fishing season is defined as the period from 1 May to 31 August 2001.
4. The exploratory longline fishery for the above species shall be carried out in accordance with Conservation Measures 29/XIX and 200/XIX.

5. Members who for whatever reason are unable to participate in the fishery must inform the Secretariat of changes in their plans no later than 1 April 2001.

<sup>1</sup> Except for waters adjacent to the Prince Edward Islands

#### **CONSERVATION MEASURE 209/XIX<sup>1,2</sup>**

##### **Exploratory Longline Fishery for *Dissostichus eleginoides* in Statistical Subarea 58.6 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus eleginoides* in Statistical Subarea 58.6 shall be limited to the exploratory longline fishery by Argentina, France and South Africa. The fishery shall be conducted by Argentinian, French and South African-flagged vessels using longlining only. No more than one vessel per country shall fish at any one time.
2. The precautionary catch limit for this exploratory fishery in Statistical Subarea 58.6 shall be limited to 450 tonnes of *Dissostichus eleginoides*, to be taken by longlining. In the event that this limit is reached, the fishery shall be closed.
3. For the purpose of this exploratory longline fishery, the 2000/01 fishing season is defined as the period from 1 May to 31 August 2001.
4. The exploratory longline fishery for the above species shall be carried out in accordance with Conservation Measures 29/XIX and 200/XIX.

<sup>1</sup> Except for waters adjacent to the Crozet Islands

<sup>2</sup> Except for waters adjacent to the Prince Edward Islands

#### **CONSERVATION MEASURE 210/XIX**

##### **Exploratory Longline Fishery for *Dissostichus* spp. in Statistical Subarea 88.1 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. in Statistical Subarea 88.1 shall be limited to the exploratory longline fishery by New Zealand, South Africa and Uruguay. The fishery shall be conducted by three New Zealand, two South African and one Uruguayan-flagged vessels using longlining only.
2. The precautionary catch limit north of 65°S in Statistical Subarea 88.1 shall be limited to 175 tonnes of *Dissostichus* spp. In the event this limit is reached, the fishery north of 65°S shall be closed.
3. The precautionary catch limit south of 65°S in Statistical Subarea 88.1 shall be limited to 1 889 tonnes of *Dissostichus* spp. In the event this limit is reached, the fishery south of 65°S shall be closed. In order to ensure an adequate spread of fishing effort south of

65°S, no more than 472 tonnes of *Dissostichus* spp. shall be taken from each of the four small-scale research units (SSRUs), as defined in Annex 200/B of Conservation Measure 200/XIX, identified for Statistical Subarea 88.1 south of 65°S.

4. For the purposes of this exploratory longline fishery, the 2000/01 fishing season is defined as the period from 1 December 2000 to 31 August 2001.
5. The directed longline fishery for *Dissostichus* spp. in Statistical Subarea 88.1 shall be carried out in accordance with all aspects of Conservation Measures 29/XIX and 200/XIX with the exception of paragraph 6 below.
6. South of 65°S the directed fishery for the above species shall be carried out in accordance with the provisions of Conservation Measures 200/XIX and 29/XIX, except paragraph 3 (night setting) of Conservation Measure 29/XIX shall not apply. Prior to licensing, each vessel shall demonstrate its capacity to comply with experimental line-weighting trials as approved by the Scientific Committee and attached as Annex 210/A and such data shall be reported to CCAMLR immediately. South of 65°S, longlines may be set during daylight hours only if the vessels are demonstrating a consistent minimum line sink rate of 0.3 metres per second. Any vessel catching a total of three (3) seabirds shall immediately revert to night setting in accordance with Conservation Measure 29/XIX.
7. Each vessel participating in the fishery shall have at least two scientific observers, one of whom shall be an observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities within this fishery.
8. Each vessel participating in this exploratory longline fishery shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
9. Fishing for *Dissostichus* spp. in Statistical Subarea 88.1 shall be prohibited within 10 n miles of the coast of the Balleny Islands.
10. There shall be no offal discharge in this fishery.
11. All vessels shall be prohibited from discharging in this area: oil or fuel products or oily residues into the sea, except as permitted in Annex I of MARPOL 73/78; disposal of garbage; food wastes not capable of passing through a screen with openings no greater than 25 mm; or sewage within 12 n miles of land or ice shelves; or sewerage while the ship is travelling at a speed of less than 4 knots.



**EXPERIMENTAL LINE-WEIGHTING TRIALS**

1. Paragraph 3 of Conservation Measure 29/XIX shall not apply only where a vessel can demonstrate prior to licensing for this fishery its ability to fully comply with the following experimental protocol, observed by a scientific observer:
  - (i) set a minimum of five longlines with a minimum of four Time Depth Recorders (TDR) on each line;
  - (ii) randomise TDR placement on the longline within and between sets;
  - (iii) calculate an individual sink rate for each TDR when returned to the vessel, where:
    - (a) the sink rate shall be measured as an average of the time taken to sink from the surface (0 m) to 15 m; and
    - (b) this sink rate shall be at a minimum rate of 0.3 m/s;
  - (iv) if the minimum sink rate is not achieved at all 20 sample points, repeat the test until such time as a total of 20 tests with a minimum sink rate of 0.3 m/s are recorded; and
  - (v) all equipment and fishing gear used in the tests is to be the same as that to be used in the Convention Area.
2. During fishing, for a vessel to maintain the exemption to night-time setting requirements, continuous line sink monitoring shall be undertaken by the CCAMLR scientific observer. The vessel shall cooperate with the CCAMLR observer who shall:
  - (i) aim to place a TDR on every longline set during the observer's shift;
  - (ii) every seven days place all available TDRs on a single longline to determine any sink rate variation along the line;
  - (iii) randomise TDR placement on the longline within and between sets;
  - (iv) calculate an individual rate for each TDR when returned to the vessel; and
  - (v) measure the sink rate as an average of the time taken to sink from the surface (0 m) to 15 m.
3. The vessel shall:
  - (i) ensure the average sink rate is at a minimum of 0.3 m/s;
  - (ii) report daily to the fishery manager; and
  - (iii) ensure that data collected from line sink trials is recorded in the approved format and submitted to the fishery manager at the conclusion of the season.

**CONSERVATION MEASURE 211/XIX**  
**Exploratory Longline Fishery for *Dissostichus* spp.**  
**in Statistical Subarea 88.2 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Dissostichus* spp. in Statistical Subarea 88.2 shall be limited to the exploratory longline fishery by South Africa and Uruguay. The fishery shall be conducted by South African and Uruguayan-flagged vessels using longlining only. No more than one vessel per country shall fish at any one time.
2. The precautionary catch for this exploratory longline fishery in Statistical Subarea 88.2 shall be limited to 250 tonnes of *Dissostichus* spp. south of 65°S. In the event that this limit is reached, the fishery shall be closed.
3. For the purposes of this exploratory longline fishery, the 2000/01 fishing season is defined as the period from 15 December 2000 to 31 August 2001.
4. The exploratory longline fishery for the above species shall be carried out in accordance with Conservation Measures 29/XIX and 200/XIX.
5. Each vessel participating in this exploratory longline fishery shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.

**CONSERVATION MEASURE 212/XIX**  
**Exploratory Trawl Fishery for *Chaenodraco wilsoni*,**  
***Lepidonotothen kempfi*, *Trematomus eulepidotus* and**  
***Pleuragramma antarcticum* in Statistical Division 58.4.2**  
**in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 65/XII:

1. Fishing for *Chaenodraco wilsoni*, *Lepidonotothen kempfi*, *Trematomus eulepidotus*, and *Pleuragramma antarcticum* by trawl in Statistical Division 58.4.2 south of 64°S shall be limited to the exploratory fishery by Australian-flagged vessels.
2. The total catch of all species in the 2000/01 season shall not exceed 1 500 tonnes.
3. The catch of *Chaenodraco wilsoni* in the 2000/01 season shall be taken by the midwater trawl method only, except for the research program on shallow-water bottom trawling specified in paragraph 4 of Annex 212/A of this conservation measure, and shall not exceed 500 tonnes.
4. The catches of *Lepidonotothen kempfi*, *Trematomus eulepidotus* and *Pleuragramma antarcticum* in the 2000/01 season shall be taken by the midwater trawl method only, except for the research program on shallow-water bottom trawling specified in paragraph 4 of Annex 212/A of this conservation measure, and shall not exceed 300 tonnes for any one species.

5. Any *Dissostichus* spp. caught during the directed fishery for the above species shall be deducted from the catch of *Dissostichus* spp. authorised in Conservation Measure 207/XIX.
6. (i) The by-catch in this exploratory fishery shall be regulated as set out in Conservation Measure 201/XIX.  
  
(ii) If, in the course of a directed fishery, the by-catch in any one haul of any by-catch species for which by-catch limitations apply, as set out in paragraph 6(i) of this conservation measure, is equal to, or greater than 2 tonnes, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles<sup>1</sup> of the location where the by-catch exceeded 2 tonnes for a period of at least five days<sup>2</sup>. The location where the by-catch exceeded 2 tonnes is defined as the path followed by the fishing vessel from the point at which the fishing gear was first deployed from the fishing vessel to the point at which the fishing gear was retrieved by the fishing vessel. These provisions do not apply to activities undertaken under paragraph 2(f) of Annex 212/A of this conservation measure.
7. For the purposes of this exploratory trawl fishery, the 2000/01 fishing season is defined as the period from 1 December 2000 to 30 November 2001 or until the catch limit is reached, whichever is the sooner.
8. Each vessel participating in this exploratory trawl fishery in Statistical Division 58.4.2 in the 2000/01 season shall have at least one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation on board throughout all fishing activities within this division.
9. Each vessel operating in this exploratory trawl fishery in Statistical Division 58.4.2 shall be required to operate a VMS at all times, in accordance with Conservation Measure 148/XVII.
10. For the purpose of implementing this conservation measure:
  - (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 51/XIX shall apply; and
  - (ii) the monthly fine-scale biological data, as required under Conservation Measure 121/XIX, shall be recorded and reported in accordance with the System of International Scientific Observation.
11. The total number and weight of *Dissostichus* spp. discarded, including those with the 'jellymeat' condition, shall be reported. These fish will count towards the total allowable catch.
12. The data collection and research plans in Annex 212/A shall be implemented and the results reported to CCAMLR not later than three months after the closure of the fishery.

<sup>1</sup> This provision is adopted pending the adoption of a more appropriate definition of a fishing location by the Commission.

<sup>2</sup> The specified period is adopted in accordance with the reporting period specified in Conservation Measure 51/XIX, pending the adoption of a more appropriate period by the Commission.

**RESEARCH AND DATA COLLECTION PLANS**

1. There shall be five small-scale research units (SSRUs), bounded by the longitudes 30°E to 40°E, 40°E to 50°E, 50°E to 60°E, 60°E to 70°E and 70°E to 80°E.
2. Any vessel undertaking prospecting or commercial fishing in any SSRU must undertake the following research activities once 10 tonnes of any one species have been caught, irrespective of the number of hauls required:
  - (i) a minimum of 20 hauls must be made within the SSRU and must collectively satisfy the criteria specified in subparagraphs (ii) to (iv);
  - (ii) each haul must be separated by not less than 10 n miles from any other haul, distance to be measured from the geographical mid-point of each haul;
  - (iii) each haul shall comprise at least 30 minutes effective fishing time as defined in the *Draft Manual for Bottom Trawl Surveys in the Convention Area* (SC-CAMLR-XI, Annex 5, Appendix H, Attachment E, paragraph 4); and
  - (iv) all data specified in the paragraph 5 of this annex shall be collected for every research haul; in particular, all fish in a research haul up to 100 fish are to be measured and biological characteristics obtained from 30 fish, where more than 100 fish are caught, a method for randomly subsampling the fish should be applied.
3. The requirement to undertake the above research activities applies irrespective of the period over which the trigger levels of 10 tonnes of catch in any SSRU are achieved during the 2000/01 fishing season. The research activities must commence immediately the trigger levels have been reached and must be completed before the vessel leaves the SSRU.
4. In the SSRU between 60°E and 70°E and in locations where the bottom depth is 280 m or less:
  - (i) a maximum total of 10 commercial bottom trawls may be conducted in no more than seven locations, but with no more than two bottom trawls in any one location;
  - (ii) each location must be at least 5 n miles distant from any other location; and
  - (iii) at each location trawled, three separate samples will be taken with a beam trawl in the vicinity of the commercial trawl track to assess the benthos present and compare with the benthos brought up in the commercial trawl.
5. The following data and material will be collected from research and commercial hauls, as required by the CCAMLR *Scientific Observers Manual*:
  - (i) position, date and depth at the start and end of every haul;
  - (ii) haul-by haul catch and catch per effort by species;
  - (iii) haul-by haul length frequency of common species;

- (iv) sex and gonad state of common species;
- (v) diet and stomach fullness;
- (vi) scales and/or otoliths for age determination;
- (vii) by-catch of fish and other organisms; and
- (viii) observations on the occurrence of seabirds and mammals in relation to fishing operations, and details of any incidental mortality of these animals.

**CONSERVATION MEASURE 213/XIX**  
**Exploratory Fishery for *Martialia hyadesi* in**  
**Statistical Subarea 48.3 in the 2000/01 Season**

The Commission hereby adopts the following conservation measure in accordance with Conservation Measures 7/V and 65/XII:

1. The total catch of *Martialia hyadesi* in the 2000/01 season shall be limited to 2 500 tonnes.
2. For the purposes of this exploratory fishery, the fishing season is defined as the period from 1 December 2000 to 30 November 2001 or until the catch limit is reached, whichever is sooner.
3. For the purposes of implementing this conservation measure:
  - (i) the Ten-day Catch and Effort Reporting System, as set out in Conservation Measure 61/XII shall apply;
  - (ii) the data required to complete the CCAMLR standard fine-scale catch and effort data form for squid jig fisheries (Form C3) shall be reported from each vessel. These data shall include numbers of seabirds and marine mammals of each species caught and released or killed. These data shall be reported to CCAMLR by 31 August 2001 for catches taken prior to 31 July 2001; and
  - (iii) data on catches taken between 31 July 2001 and 31 August 2001 shall be reported to CCAMLR by 30 September 2001 so that the data will be available to the meeting of the Working Group on Fish Stock Assessment in 2001.
4. Each vessel participating in this exploratory fishery for *Martialia hyadesi* in Statistical Subarea 48.3 during the 2000/01 season shall have at least one international scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities in this subarea during the fishing season.
5. The data collection plan in Annex 213/A shall be implemented. Data collected pursuant to the plan for the period up to 31 August 2001 shall be reported to CCAMLR by 30 September 2001 so that the data will be available to the meeting of the Working Group on Fish Stock Assessment in 2001. Such data collected after 31 August shall be reported to CCAMLR not later than three months after the closure of the fishery.

**DATA COLLECTION PLAN FOR EXPLORATORY  
SQUID (*MARTIALIA HYADESI*) FISHERIES  
IN STATISTICAL SUBAREA 48.3**

1. All vessels will comply with conditions set by CCAMLR. These include data required to complete the data form (Form TAC) for the Ten-day Catch and Effort Reporting System, as specified by Conservation Measure 61/XII; and data required to complete the CCAMLR standard fine-scale catch and effort data form for a squid jig fishery (Form C3). This includes numbers of seabirds and marine mammals of each species caught and released or killed.
2. All data required by the CCAMLR *Scientific Observers Manual* for squid fisheries will be collected. These include:
  - (i) vessel and observer program details (Form S1);
  - (ii) catch information (Form S2); and
  - (iii) biological data (Form S3).

**CONSERVATION MEASURE 214/XIX  
Experimental Harvest Regime for the Crab Fishery  
in Statistical Subarea 48.3 in the 2000/01 Season**

The following measures apply to all crab fishing within Statistical Subarea 48.3 in the 2000/01 fishing season. Every vessel participating in the crab fishery in Statistical Subarea 48.3 shall conduct fishing operations in accordance with an experimental harvest regime as outlined below:

1. Vessels shall conduct the experimental harvest regime in the 2000/01 season at the start of their first season of participation in the crab fishery and the following conditions shall apply:
  - (i) every vessel when undertaking an experimental harvesting regime shall expend its first 200 000 pot hours of effort within a total area delineated by twelve blocks of 0.5° latitude by 1.0° longitude. For the purposes of this conservation measure, these blocks shall be numbered A to L. In Annex 214/A, the blocks are illustrated (Figure 1), and the geographic position is denoted by the coordinates of the northeast corner of the block. For each string, pot hours shall be calculated by taking the total number of pots on the string and multiplying that number by the soak time (in hours) for that string. Soak time shall be defined for each string as the time between start of setting and start of hauling;
  - (ii) vessels shall not fish outside the area delineated by the 0.5° latitude by 1.0° longitude blocks prior to completing the experimental harvesting regime;
  - (iii) vessels shall not expend more than 30 000 pot hours in any single block of 0.5° latitude by 1.0° longitude;

- (iv) if a vessel returns to port before it has expended 200 000 pot hours in the experimental harvesting regime the remaining pot hours shall be expended before it can be considered that the vessel has completed the experimental harvesting regime; and
  - (v) after completing 200 000 pot hours of experimental fishing, it shall be considered that vessels have completed the experimental harvesting regime and they shall be permitted to commence fishing in a normal fashion.
2. Data collected during the experimental harvest regime up to 30 June 2001 shall be submitted to CCAMLR by 31 August 2001.
  3. Normal fishing operations shall be conducted in accordance with the regulations set out in Conservation Measure 215/XIX.
  4. For the purposes of implementing normal fishing operations after completion of the experimental harvest regime, the Ten-day Catch and Effort Reporting System set out in Conservation Measure 61/XII shall apply.
  5. Vessels that complete experimental harvest 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 215/XIX.
  6. Fishing vessels shall participate in the experimental harvest regime independently (i.e. vessels may not cooperate to complete phases of the experiment).
  7. Crabs 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.
  8. All vessels participating in the experimental harvest regime shall carry at least one scientific observer on board during all fishing activities.

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

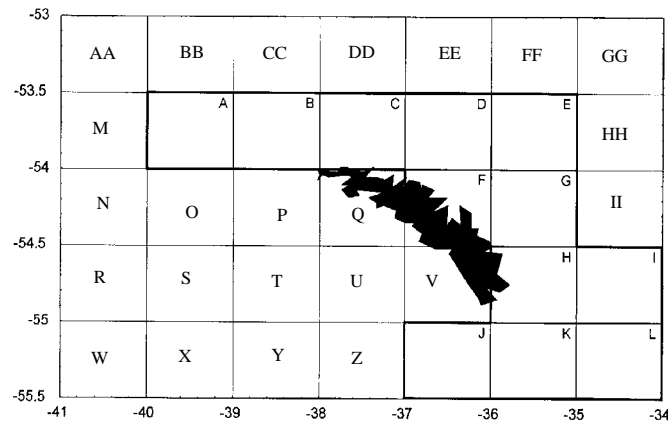


Figure 1: Operations area for Phase 1 of the experimental harvest regime for the crab fishery in Statistical Subarea 48.3.

**CONSERVATION MEASURE 215/XIX**  
**Limits on the Crab Fishery in Statistical Subarea 48.3**  
**in the 2000/01 Season**

The Commission hereby adopts the following conservation measure 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. In Statistical Subarea 48.3, the crab fishing season is defined as the period from 1 December 2000 to 30 November 2001, or until the catch limit is reached, whichever is sooner.
3. The crab fishery shall be limited to one vessel per Member.
4. The total catch of crab from Statistical Subarea 48.3 shall be limited to 1 600 tonnes during the 2000/01 crab fishing season. The by-catch of *Dissostichus eleginoides* shall be counted against the catch limit in the fishery for *D. eleginoides* in Subarea 48.3.
5. Each vessel participating in the crab fishery in Statistical Subarea 48.3 in the 2000/01 season shall have a scientific observer, appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities within the fishing period.
6. 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.
7. All vessels fishing for crab shall report the following data to CCAMLR by 31 August 2001 for crabs caught prior to 31 July 2001:
    - (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 1.0° longitude) for each 10-day period;
    - (ii) the species, size, and sex of a representative subsample of crab sampled according to the procedure set out in Annex 215/A (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 215/A.
  8. For the purposes of implementing this conservation measure, the Ten-day Catch and Effort Reporting System set out in Conservation Measure 61/XII shall apply.
  9. Data on catches taken between 31 July and 31 August 2001 shall be reported to CCAMLR by 30 September 2001 so that the data will be available to the Working Group on Fish Stock Assessment.
  10. 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.
  11. 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 *Paralomis formosa*, males with a minimum carapace width of 102 mm and 90 mm, respectively, may be retained in the catch.
  12. Crab processed at sea shall be frozen as crab sections (minimum size of crabs can be determined using crab sections).

**ANNEX 215/A**

**DATA REQUIREMENTS ON THE  
CRAB FISHERY IN STATISTICAL SUBAREA 48.3**

Catch and Effort Data:

Cruise Descriptions

cruise code, vessel code, permit number, year.

Pot Descriptions

diagrams and other information, including pot shape, dimensions, mesh size, funnel position, aperture and orientation, 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 and weight, by-catch of all species (see Table 1), incremental record number for linking with sample information.

Table 1: Data requirements for by-catch species in the crab fishery in Statistical Subarea 48.3.

Species	Data Requirements
<i>Dissostichus eleginoides</i>	Numbers and estimated total weight
<i>Notothenia rossii</i>	Numbers and estimated total weight
Other species	Estimated total weight

#### 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 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.

**RESOLUTION 13/XIX**  
**Flagging and Licensing of Non-Contracting Party Vessels**

The Commission,

Concerned that illegal, unregulated and unreported (IUU) fishing in the Convention Area continues to persist,

Noting that IUU fishing is inconsistent with the objective of the Convention and undermines the effectiveness of CCAMLR conservation measures,

Recognising that the vast majority of the IUU fishing in the Convention Area is undertaken by fishing vessels flying the flag of non-Contracting Parties,

Inspired by the FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas,

urges all Contracting Parties, consistent with their domestic legislation, to avoid flagging a non-Contracting Party vessel or licensing such a vessel to fish in waters under their fisheries jurisdiction, if that particular vessel has a history of engagement in IUU fishing in the Convention Area.

**RESOLUTION 14/XIX**  
**Catch Documentation Scheme: Implementation**  
**by Acceding States and Non-Contracting Parties**

The Commission,

Having considered reports on the implementation of the Catch Documentation Scheme for *Dissostichus* spp. established by Conservation Measure 170/XVIII,

Being satisfied that the Scheme has been successfully launched, and noting the improvements to the scheme made by Conservation Measure 170/XIX,

Conscious that the effectiveness of the Scheme depends also on implementation of the Scheme by those Contracting Parties which are not Members of the Commission ('Acceding States') but which fish for, or trade in, *Dissostichus* spp., as well as by non-Contracting Parties.

Concerned at the evidence that several acceding States and non-Contracting Parties which continue to be engaged in fishing for, or trading in, *Dissostichus* spp. are not implementing the Scheme,

Particularly concerned at the failure by such acceding States to implement the Scheme, to uphold and promote its objectives, and to meet their obligations under Article XXII to exert appropriate efforts with regard to activities contrary to the objectives of the Convention,

Determined to take all necessary measures, consistent with international law, to ensure that the effectiveness and credibility of the Scheme is not harmed by non-implementation of it by acceding States and non-Contracting Parties,

Acting pursuant to Article X of the Convention,

1. Urges all Acceding States and non-Contracting Parties not participating in the Catch Documentation Scheme which fish for, or trade in, *Dissostichus* spp. to implement the Scheme as soon as possible.
2. Requests to this end that the CCAMLR Secretariat convey this resolution to such Acceding States and non-Contracting Parties and give all possible advice and assistance to them.
3. Recommends that Members of the Commission make appropriate representations concerning this resolution to such Acceding States and non-Contracting Parties.
4. Reminds Members of the Commission of their obligation under the Catch Documentation Scheme to prevent trade in *Dissostichus* spp. in their territory, or by their flag vessels, with Acceding States or non-Contracting Parties when it is not carried out in compliance with the Scheme.
5. Decides to consider the matter again at the Twentieth Meeting of the Commission in 2001 with a view to taking such further measures as may be necessary.

#### **RESOLUTION 15/XIX**

##### **Use of Ports not Implementing the Catch Documentation Scheme for *Dissostichus* spp.**

The Commission,

Noting that a number of Acceding States and non-Contracting Parties not participating in the Catch Documentation Scheme for *Dissostichus* spp., as set out in Conservation Measure 170/XIX, continue to in trade in *Dissostichus* spp.; and

Recognising that these Acceding States and non-Contracting Parties thus do not participate in the landing procedures for *Dissostichus* spp. accompanied by *Dissostichus* Catch Documents;

urges Contracting Parties,

1. Where they are unable to provide an authorised Flag State official(s) to monitor a landing for the purposes of validating *Dissostichus* Catch Documents, to discourage their flag vessels authorised to fish for *Dissostichus* spp. from using ports of Acceding States and non-Contracting Parties which are not implementing the Catch Document Scheme for *Dissostichus* spp.
2. To attach to the authorisation to fish a list of all Acceding States and non-Contracting Parties that are implementing the Catch Documentation Scheme.

## **RESOLUTION 16/XIX**

### **Application of VMS in the Catch Documentation Scheme**

The Commission agreed that, on a voluntary basis, subject to their laws and regulations, Flag States participating in the Catch Documentation Scheme for *Dissostichus* spp. should ensure that their flag vessels authorised to fish for or tranship *Dissostichus* spp. on the high seas maintain an operational VMS, as defined in Conservation Measure 148/XVII, throughout the whole of the calendar year.<sup>1</sup>

<sup>1</sup> This requirement does not extend to vessels of less than 19 m engaged in artisanal fisheries.

## **CONSERVATION MEASURE 18/XIX**

### **Procedure for According Protection to CEMP Sites**

The Commission,

Bearing in mind that the Scientific Committee has established a system of sites contributing data to the CCAMLR Ecosystem Monitoring Program (CEMP), and that additions may be made to this system in the future;

Recalling that it is not the purpose of the protection accorded to CEMP sites to restrict fishing activity in adjacent waters;

Recognising that studies being undertaken at CEMP sites may be vulnerable to accidental or wilful interference;

Concerned, therefore, to provide protection for CEMP sites, scientific investigations and the Antarctic marine living resources therein, in cases where a Member or Members of the Commission conducting or planning to conduct CEMP studies believes such protection to be desirable;

hereby adopts the following conservation measure in accordance with Article IX of the Convention:

1. In cases where a Member or Members of the Commission conducting, or planning to conduct, CEMP studies at a CEMP site believe it desirable that protection should be accorded to the site, it, or they, shall prepare a draft management plan in accordance with Annex A to this conservation measure.
2. Each such draft management plan shall be sent to the Executive Secretary for transmission to all Members of the Commission for their consideration at least three months before its consideration by WG-EMM.
3. The draft management plan shall be considered in turn by WG-EMM, the Scientific Committee and the Commission. In consultation with the Member or Members of the Commission which drew up the draft management plan, it may be amended by any of these bodies. If a draft management plan is amended by either WG-EMM or the Scientific Committee, it shall be passed on in its amended form either to the Scientific Committee or to the Commission as the case may be.

4. If, following completion of the procedures outlined in paragraphs 1 to 3 above, the Commission considers it appropriate to accord the desired protection to the CEMP site, the Commission shall adopt a Resolution calling on Members to comply, on a voluntary basis, with the provisions of the draft management plan, pending the conclusion of action in accordance with paragraphs 5 to 8 below.
5. The Executive Secretary shall communicate such a Resolution to SCAR, the Antarctic Treaty Consultative Parties and, if appropriate, the Contracting Parties to other components of the Antarctic Treaty System which are in force.
6. Unless, before the opening date of the next regular meeting of the Commission, the Executive Secretary has received:
  - (i) an indication from an Antarctic Treaty Consultative Party that it desires the resolution to be considered at a Consultative Meeting; or
  - (ii) an objection from any other quarter referred to in paragraph 5 above;

the Commission may, by means of a conservation measure, confirm its adoption of the management plan for the CEMP site and shall include the management plan in Annex 18/A of that conservation measure.
7. In the event that an Antarctic Treaty Consultative Party has indicated its desire for the Resolution to be considered at a Consultative Meeting, the Commission shall await the outcome of such consideration, and may then proceed accordingly.
8. If objection is received in accordance with paragraphs 6(ii) or 7 above, the Commission may institute such consultations as it may deem appropriate to achieve the necessary protection and to avoid interference with the achievement of the principles and purposes of, and measures approved under, the Antarctic Treaty and other components of the Antarctic Treaty System which are in force.
9. The management plan of any site may be amended by decision of the Commission. In such cases full account shall be taken of the advice of the Scientific Committee. Any amendment which increases the area of the site or adds to categories or types of activities that would jeopardise the objectives of the site shall be subject to the procedures set out in paragraphs 5 to 8 above.
10. Entry into a CEMP site described by a conservation measure shall be prohibited except for the purposes authorised in the relevant management plan for the site and in accordance with a permit issued under paragraph 11.
11. Each Contracting Party shall, as appropriate, issue permits authorising its nationals to carry out activities consistent with the provisions of the management plans for CEMP sites and shall take such other measures, within its competence, as may be necessary to ensure that its nationals comply with the management plans for such sites.
12. Copies of such permits shall be sent to the Executive Secretary as soon as practical after they are issued. Each year the Executive Secretary shall provide the Commission and the Scientific Committee with a brief description of the permits that have been issued by the Parties. In cases where permits are issued for purposes not directly related to the conduct of CEMP studies at the site in question, the Executive Secretary shall forward a

copy of the permit to the Member or Members of the Commission conducting CEMP studies at that site.

13. Each management plan shall be reviewed every five years by WG-EMM and the Scientific Committee to determine whether it requires revision and whether continued protection is necessary. The Commission may then act accordingly.

**INFORMATION TO BE INCLUDED IN MANAGEMENT  
PLANS FOR CEMP SITES**

Management plans shall include:

**A. GEOGRAPHICAL INFORMATION**

1. A description of the site, and any buffer zone within the site, including:
  - (a) geographical coordinates;
  - (b) natural features;
  - (c) boundary markers;
  - (d) natural features that define the site;
  - (e) access points (pedestrian, vehicular, airborne, sea-borne);
  - (f) pedestrian and vehicular routes in the site;
  - (g) preferred anchorages;
  - (h) location of structures within the site;
  - (i) areas or zones within the site, described in generic or geographical terms, or both, in which activities are prohibited or otherwise constrained;
  - (j) location of nearby scientific stations, research or refuge facilities; and
  - (k) location of areas or sites, in or near the site, which have been accorded protected status in accordance with measures adopted under the Antarctic Treaty or other components of the Antarctic Treaty System which are in force.
2. Maps showing:
  - (a) the location of the site in relation to major surrounding features; and
  - (b) where applicable, the geographical features listed in paragraph 1 above.

**B. BIOLOGICAL FEATURES**

1. A description of the biological features of the site, in both space and time, which it is the purpose of the management plan to protect.

**C. CEMP STUDIES**

1. A full description of the CEMP studies being conducted or planned to be conducted, including the species and parameters which are being or are to be studied.

**D. PROTECTION MEASURES**

1. Statements of prohibited activities:
  - (a) throughout the site at all times of the year;



- (b) throughout the site at defined parts of the year;
  - (c) in parts of the site at all times of the year; and
  - (d) in parts of the site at defined parts of the year.
2. Prohibitions regarding access to and movement within or over the site.
  3. Prohibitions regarding:
    - (a) the installation, modification, and/or removal of structures; and
    - (b) the disposal of waste.
  4. Prohibitions for the purpose of ensuring that activity in the site does not prejudice the purposes for which protection status has been accorded to areas or sites, in or near the site, under the Antarctic Treaty or other components of the Antarctic Treaty System which are in force.

#### E. COMMUNICATIONS INFORMATION

1. The name, address, telephone, telex and facsimile numbers of:
  - (a) the organisation or organisations responsible for appointing national representative(s) to the Commission; and
  - (b) the national organisation or organisations conducting CEMP studies at the site.

#### Notes:

1. A code of conduct. If it would help towards achieving the scientific objectives of the site, a code of conduct may be annexed to the management plan. Such a code should be written in hortatory rather than mandatory terms, and must be consistent with the prohibitions contained in Section D above.
2. Members of the Commission preparing draft management plans for submission in accordance with this conservation measure should bear in mind that the primary purpose of the management plan is to provide for the protection of CEMP studies at the site through the application of the prohibitions contained in Section D. To that end, the management plan is to be drafted in concise and unambiguous terms. Information which is intended to help scientists, or others, appreciate broader considerations regarding the site (e.g. historical and bibliographic information) should not be included in the management plan but may be annexed to it.

**CONSERVATION MEASURE 62/XIX**  
**Protection of the Seal Islands CEMP Site**

1. The Commission noted that a program of long-term studies is being undertaken at Seal Islands, 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 the Seal Islands CEMP site, as defined in the Seal Islands management plan.
3. Members are required to comply with the provisions of the Seal Islands CEMP site management plan, which is recorded in Annex 62/A.
4. In accordance with Article X, the Commission shall draw this conservation measure 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.

**MANAGEMENT PLAN FOR THE PROTECTION OF SEAL ISLANDS,  
SOUTH SHETLAND ISLANDS, AS A SITE INCLUDED IN THE  
CCAMLR ECOSYSTEM MONITORING PROGRAM<sup>1</sup>**

A. GEOGRAPHICAL INFORMATION

1. Description of the site:

- (a) Geographical coordinates: The Seal Islands are composed of small islands and skerries located approximately 7 km north of the northwest corner of Elephant Island, South Shetland Islands. The Seal Islands CEMP Protected Area includes the entire Seal Islands group, which is defined as Seal Island plus any land or rocks exposed at mean low tide within a distance of 5.5 km of the point of highest elevation on Seal Island. Seal Island is the largest island of the group, and is situated at 60°59'14"S, 55°23'04"W (coordinates are given for the point of highest elevation on the island – see Figures 1 and 2).
- (b) Natural features: The Seal Islands cover an area approximately 5.7 km from east to west and 5 km from north to south. Seal Island is approximately 0.7 km long and 0.5 km wide. It has an altitude of about 125 m, with a raised plateau at about 80 m, and precipitous cliffs on most coastlines. There is a raised, sandy beach on the western shore and several coves on the northern and eastern shores. Seal Island is joined to the adjacent island to the west by a narrow sand bar that is approximately 50 m long; the bar is rarely passable on foot, and only when seas are calm and the tide is very low. Other islands in the group are similar to Seal Island, with precipitous cliffs, exposed coasts, and a few sand beaches and protected coves. There is no permanent ice on any of the islands. Seal Island is mainly composed of poorly consolidated sedimentary rocks. Rocks crumble and fracture easily, resulting in prevalent erosion from water runoff and coastal wave action. Geologists have characterised the bedrock 'pebbly mudstone'. No fossils have been reported from the site. Because colonies of penguins are present in virtually all sectors of Seal Island (including the summit), the soil in many areas as well as several vertical rock faces are enriched by guano.
- (c) Boundary markers: As of 1997, no man-made boundary markers indicating the limits of the protected area had been established. The boundaries of the site are defined by natural features (i.e. coastlines).
- (d) Natural features that define the site: The Seal Islands CEMP Protected Area includes the entire Seal Islands group (see Section A.1(a) for definition). No buffer zones are defined for the site.
- (e) Access points: The site may be accessed by boat or aircraft at any point where pinnipeds and seabirds will not be adversely affected (see Sections D.1 and D.2). Access by small boat is recommended in most circumstances because the number of beach landing spots for helicopters (which must approach these spots by flying

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<sup>1</sup> As adopted at CCAMLR-XVI (paragraphs 9.67 and 9.68), and revised at CCAMLR-XIX (paragraph 9.9).

over water rather than over land) is very limited. There are no landing sites for fixed-winged aircraft.

- (f) Pedestrian and vehicular routes: Pedestrians should follow the advice of the local scientists in selecting pathways which will minimise disturbance to wildlife (see Section D.2(d)). Land vehicles are not permitted except in the immediate vicinity of the field camp and the beach (see Section D.2(c)).
- (g) Preferred anchorages: Numerous shoals and pinnacles are known to exist in the vicinity of the Seal Islands, and navigation charts of the area are incomplete. Most ships visiting the area recently have preferred an anchorage spot approximately 1.5 km to the southeast of Seal Island (Figure 2), which has a rather consistent depth of approximately 18 m. A second anchorage utilised by smaller vessels is located approximately 0.5 km to the northeast of Seal Island (Figure 2) at a depth of about 20 m. Organisation(s) conducting CEMP studies at the site can provide further details about sailing instructions pertaining to these anchorages (see Section E.2).
- (h) Location of structures within the site: As of March 1999 no structures remained on Seal Island. Between 1996 and 1999, all structures were dismantled and retrograded from the island.
- (i) Areas within the site where activities are constrained: The protection measures specified in Section D apply to all areas within the Seal Islands Protected Area, as defined in Section A.1(d).
- (j) Location of nearby scientific research or refuge facilities: The nearest research facility to the site is the scientific field camp maintained by the Brazilian government at Stinker Point, Elephant Island (61°04'S, 55°21'W), which is approximately 26 km south of Seal Island. However in some years this site is not occupied. Numerous scientific stations and research facilities are located on King George Island, which is approximately 215 km southwest of Seal Island.
- (k) Areas or sites protected under the Antarctic Treaty System: No areas or sites within or near (i.e. within 100 km) the Seal Island Protected Area have been accorded protected status in accordance with measures adopted under the Antarctic Treaty or other components of the Antarctic Treaty System which are in force.

## 2. Maps of the site:

- (a) Figure 1 shows the geographical position of the Seal Islands in relation to major surrounding features, including the South Shetland Islands and adjacent bodies of water.
- (b) Figure 2 illustrates the location of the entire Seal Islands archipelago and preferred vessel anchorages. The detailed insert of Seal Island in Figure 2 shows the location of structures associated with CEMP studies and the location of the point of highest elevation (indicated by a cross).

## B. BIOLOGICAL FEATURES

1. Terrestrial: There is no information on soil biology at Seal Island but it is likely that similar types of plants and invertebrates are found as at other sites in the South Shetland Islands. Lichens are present on stable rock surfaces. There is no evidence of well-developed moss or grass banks being present on Seal Island.
2. Inland waters: There are no known lakes or ephemeral ponds of significance on Seal Island.
3. Marine: No studies on littoral communities have been carried out.
4. Birds: Seven species of birds are known to breed on the Seal Islands: chinstrap penguins (*Pygoscelis antarctica*), macaroni penguins (*Eudyptes chrysolophus*), Cape petrels (*Daption capense*), Wilson's storm petrels (*Oceanites oceanicus*), southern giant petrels (*Macronectes giganteus*), southern black-backed gulls (*Larus dominicanus*) and American Sheathbills (*Chionis alba*). The chinstrap penguin population on Seal Island numbers approximately 20 000 breeding pairs, nesting in about 60 colonies throughout the island. About 350 pairs of macaroni penguins nest on Seal Island in five separate colonies. The nesting and chick-rearing period for chinstrap and macaroni penguins at Seal Island extends from November to March. No surveys have been made of cape petrel or storm petrel populations, however, both species are numerous; the Cape petrels nest on cliff faces and the storm petrels nest in burrows in the talus slopes. Brown skuas (*Catharacta lönnerbergi*) are common. Blue-eyed shags (*Phalacrocorax atriceps*), Adélie penguins (*Pygoscelis adeliae*), gentoo penguins (*Pygoscelis papua*), king penguins (*Aptenodytes patagonicus*) and rockhopper penguins (*Eudyptes chrysocome*) are among the avian visitors to the area.
5. Pinnipeds: Five species of pinnipeds have been observed at Seal Island: Antarctic fur seals (*Arctocephalus gazella*), southern elephant seals (*Mirounga leonina*), Weddell seals (*Leptonychotes weddellii*), leopard seals (*Hydrurga leptonyx*) and crabeater seals (*Lobodon carcinophagus*). Of these, fur seals are the only confirmed breeders on the island, although small numbers of elephant seals probably breed on the island early in the spring. During the last few years approximately 600 fur seal pups have been born in the Seal Islands group, with approximately half of these born on Seal Island and half on Large Leap Island (Figure 2). The fur seal pupping and pup-rearing period at Seal Island extends from late November to early April. During the austral summer, elephant seals are ashore during their moult period; Weddell seals regularly haul out on the beaches; crabeater seals are infrequent visitors; and leopard seals are common both ashore and in coastal waters where they prey on penguins and fur seal pups.

## C. CEMP STUDIES

1. The presence at the Seal Islands of both Antarctic fur seal and penguin breeding colonies, as well as significant commercial krill fisheries within the foraging range of these species make this an excellent site for inclusion in the CEMP network of sites established to help meet CCAMLR objectives. However, recent geological assessments of Seal Island have indicated that soil composition of cliff areas above and around the camp site are unstable and might result in catastrophic failure during periods of intense

rainfall. Therefore, in 1994 the AMLR Program terminated its research at Seal Island and between 1996 and 1999 dismantled and retrograded all camp and observation blind structures.

2. No CEMP studies are being conducted at Seal Island and the USA has no plans to occupy the site in the future except to conduct seal and bird censuses.

#### D. PROTECTION MEASURES

##### 1. Prohibited activities and temporal constraints:

- (a) Throughout the site at all times of the year: Any activities which damage, interfere with, or adversely affect CEMP monitoring and directed research which potentially could be conducted at this site are not permitted.
- (b) Throughout the site at all times of the year: Any non-CEMP activities are not permitted which result in:
  - (i) killing, injuring, or disturbing pinnipeds or seabirds;
  - (ii) damaging or destroying pinniped or seabird breeding areas; or
  - (iii) damaging or destroying the access of pinnipeds or seabirds to their breeding areas.
- (c) Throughout the site at defined parts of the year: Human occupation of the site during the period 1 June to 31 August is not permitted except under emergency circumstances.
- (d) In parts of the site at all times of the year: Building structures within the boundaries of any pinniped or seabird colony is not permitted. For this purpose, colonies are defined as the specific locations where pinniped pups are born or where seabird nests are built. This prohibition does not pertain to placing markers (e.g. numbered stakes, posts, etc.) or situating research equipment in colonies as may be required to facilitate scientific research.
- (e) In parts of the site at defined parts of the year: Entry into any pinniped or seabird colonies during the period 2 September to 31 May is not permitted except in association with CEMP activities.

##### 2. Prohibitions regarding access to and movement within or over the site:

- (a) Entry of the site at locations where pinniped or seabird colonies are present in the immediate vicinity is not permitted.
- (b) Aircraft overflight of the site is not permitted at altitudes less than 1 000 m unless the proposed flight plan has been reviewed in advance by the organisation(s) conducting CEMP activities at the site (see Section E.2).
- (c) The use of land vehicles is not permitted except to transport equipment and supplies to and from the field camp.

- (d) Pedestrians are not permitted to walk through areas used regularly by pinnipeds and seabirds (i.e. colonies, resting areas, pathways) or to disturb other fauna or flora, except as necessary to conduct authorised research.
3. Prohibitions regarding structures:
- (a) New structures are not permitted to be built within the site unless the proposed plans have been reviewed in advance by the organisation(s) conducting CEMP activities at the site (see Section E.2).
  - (b) Building structures other than those directly supporting CEMP directed scientific research and monitoring activities or to house personnel and/or their equipment is not permitted.
  - (c) Human occupation of these structures is not permitted during the period 1 June to 31 August (see Section D.1(c)).
4. Prohibitions regarding waste disposal:
- (a) Landfill disposal of non-biodegradable materials is not permitted; non-biodegradable materials brought to the site are to be removed when no longer in use.
  - (b) Disposal of waste fuels, volatile liquids and scientific chemicals within the site is not permitted; these materials are to be removed from the site for proper disposal elsewhere.
  - (c) The burning of any non-organic materials or the open burning of any materials is not permitted (except for properly used fuels for heating, lighting, cooking or electricity).
5. Prohibitions regarding the Antarctic Treaty System:

It is not permitted to undertake any activities in the Seal Islands CEMP Protected Area which are not in compliance with the provisions of: (i) the Antarctic Treaty, including the Agreed Measures for the Conservation of Antarctic Fauna and Flora; (ii) the Convention on the Conservation of Antarctic Seals; and (iii) the Convention on the Conservation of Antarctic Marine Living Resources.

## E. COMMUNICATIONS INFORMATION

1. Organisation(s) appointing national representatives to the Commission:

Bureau of Oceans and International Environmental and Scientific Affairs  
US Department of State  
Washington, DC 20520  
USA

Telephone: +1 (202) 647 3262  
Facsimile: +1 (202) 647 1106

2. Organisation(s) which potentially might conduct CEMP studies at the site:

US Antarctic Marine Living Resources Program  
Southwest Fisheries Science Center  
National Marine Fisheries Service, NOAA  
PO Box 271  
La Jolla, Ca. 92038  
USA

Telephone: +1 (858) 546 5601

Facsimile: +1 (858) 546 5608



## **ANNEX 62/A SEAL ISLANDS, APPENDIX 1**

### **CODE OF CONDUCT FOR THE SEAL ISLANDS, ANTARCTICA**

Investigators should take all reasonable steps to ensure that their activities, both in implementing their scientific protocols as well as in maintaining a field camp, do not unduly harm or alter the natural behaviour and ecology of wildlife in the Seal Islands. Wherever possible, actions should be taken to minimise disturbance of the natural environment.

Capturing, handling, killing, photographing and taking eggs, blood or other biological samples from pinnipeds and seabirds should be limited to that necessary to provide essential background information or to characterise and monitor individual and population parameters that may change in detectable ways in response to changes in food availability or other environmental factors. Sampling should be done and reported in accordance with: (i) the Antarctic Treaty, including the Agreed Measures for the Conservation of Antarctic Fauna and Flora; (ii) the Convention for the Conservation of Antarctic Seals; and (iii) the Convention on the Conservation of Antarctic Marine Living Resources.

Geological and other studies which can be done inside of the pinniped and seabird breeding seasons in such a way as they do not damage or destroy pinniped or seabird breeding areas, or access to those areas, would be permitted as long as they would not adversely affect the planned assessment and monitoring studies. Likewise, the planned assessment and monitoring studies would not be affected adversely by periodic biological surveys or studies of other species which do not result in killing, injuring or disturbing pinnipeds or seabirds, or damage or destroy pinnipeds or seabird breeding areas or access to those areas.

## ANNEX 62/A SEAL ISLANDS, APPENDIX 2

### BACKGROUND INFORMATION CONCERNING THE SEAL ISLANDS, ANTARCTICA

Prior to the discovery of the South Shetland Islands in 1819, there were substantial colonies of fur seals, and possible elephant seals, throughout the archipelago. Commercial exploitation began shortly after discovery and, by the mid-1820s, fur seal breeding colonies had been completely destroyed throughout the South Shetland Islands (Stackpole, 1955; O’Gorman, 1963). Antarctic fur seals were not observed again in the South Shetland Islands until 1958, when a small colony was discovered at Cape Shirreff, Livingston Island (O’Gorman, 1961). The original colonisers probably came from South Georgia where surviving fur seal colonies had substantially recovered by the early 1950s. At present, the fur seal rookeries in the Seal Islands group are the second largest in the South Shetland Islands, with the largest rookeries being at Cape Shirreff and Telmo Islands, Livingston Island (Bengtson et al., 1990).

During the past three decades, the population of Antarctic fur seals in the South Shetland Islands grew to a level at which tagging or other research could be undertaken at selected locations without threatening the population’s continued existence and growth.

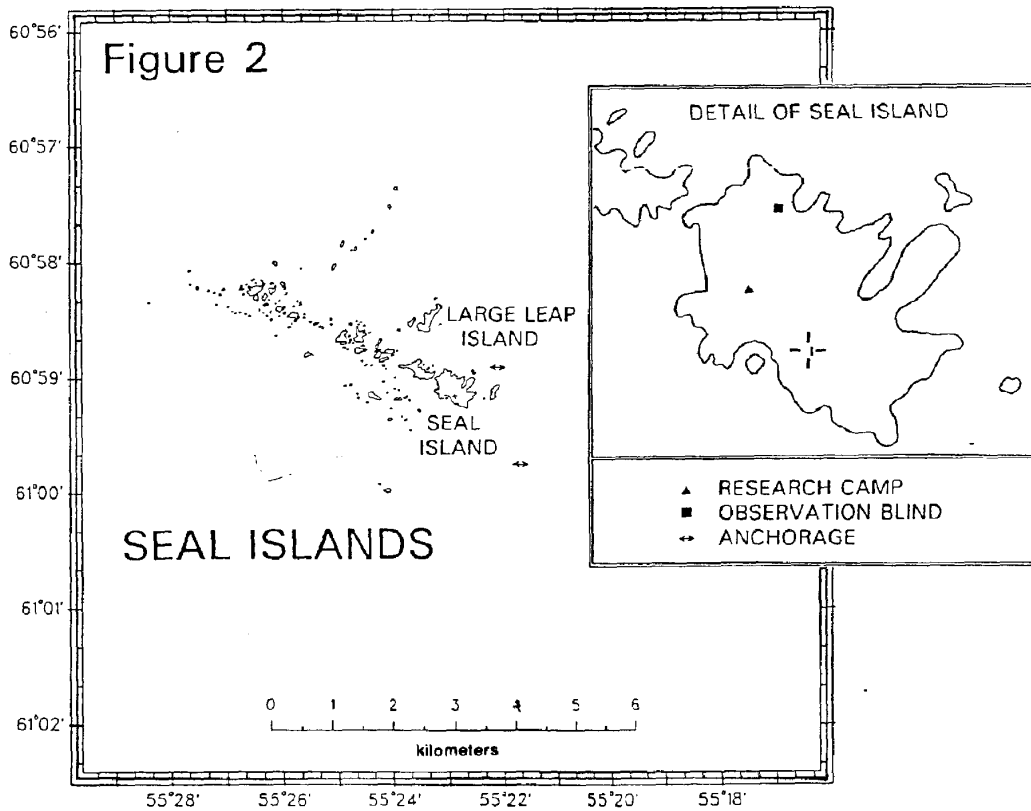
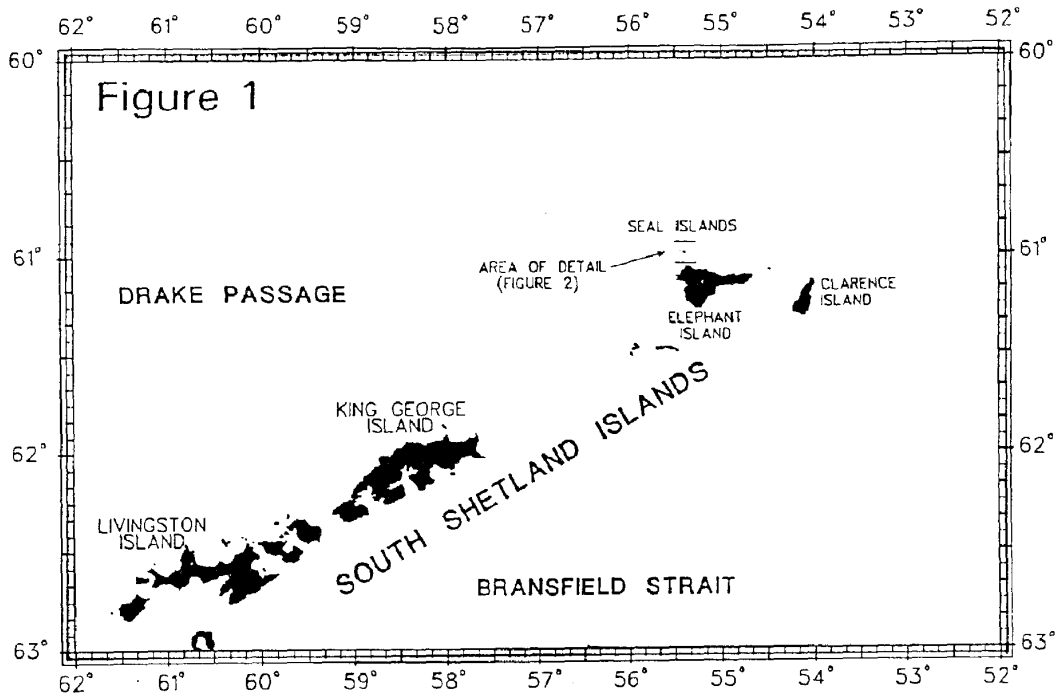
During the 1986/87 austral summer, researchers from the USA surveyed areas on the South Shetland Islands and the Antarctic Peninsula to identify fur seal and penguin breeding colonies that might be suitable for inclusion in the network of CEMP monitoring sites being established. The results of that survey (Shuford and Spear, 1987; Bengtson et al., 1990), suggested that the Seal Island area would be an excellent site for long-term monitoring of fur seal and penguin colonies that might be affected by fisheries in the Antarctic Peninsula Integrated Study Region.

To safely and effectively carry out a long-term monitoring program, a temporary, multi-year field camp for a small group of researchers was established on Seal Island. This camp was occupied annually by US scientists during the austral summer (approximately December to February) between 1986/87 and 1993/94. Because of the geological assessment that the cliff areas above and around the camp site are unstable and might result in catastrophic failure during periods of intense rainfall, the camp was closed. Between 1995/96 and 1998/99 all buildings, equipment, and supplies were retrograded from the island.

In 1991, to protect the site from damage or disturbance that could adversely affect the long-term CEMP monitoring and directed research which were being conducted and planned for the future, the Seal Islands were proposed as a CEMP Protected Area. At its 1997 meeting (SC-CAMLR-XVI, paragraphs 4.17 to 4.20), the CCAMLR Scientific Committee reviewed the status of the Seal Island CEMP site management plan. Based on the expectation that research at the site would end, the Scientific Committee agreed that site protection would be extended for five years.

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**CONSERVATION MEASURE 82/XIX**  
**Protection of the Cape Shirreff CEMP Site**

1. The Commission noted that a program of long-term studies is being undertaken 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 the Cape Shirreff CEMP site, as defined in the Cape Shirreff management plan.
3. Members shall comply with the provisions of the Cape Shirreff CEMP site management plan, which is recorded in Annex 82/A.
4. In accordance with Article X, the Commission shall draw this conservation measure 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.

**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<sup>1</sup>**

A. GEOGRAPHICAL INFORMATION

1. Description of the site:

(a) Geographical coordinates: Cape Shirreff is a low, ice-free peninsula towards the western end of the north coast of Livingston Island, South Shetland Islands, situated at latitude 62°27'S, longitude 60°47'W, between Barclay Bay and Hero Bay. San Telmo Islands are the largest of a small group of ice-free rock islets, approximately 2 km west of Cape Shirreff.

(b) Natural features: Cape Shirreff is approximately 3 km from north to south and 0.5 to 1.2 km from east to west. The site is characterised by many inlets, coves and cliffs. Its southern boundary is bordered by a permanent glacial ice barrier, which is located at the narrowest part of the cape. The cape is mainly an extensive rock platform, 46 to 83 m above sea level, the bedrock being largely covered by weathered rock and glacial deposits. The eastern side of the base of the cape has two beaches with a total length of about 600 m. The first is a boulder beach, the second of sand. Above this is a raised beach with mosses and lichens, crossed by melt-streams from the snow above. The extremity of the cape has a rocky barrier about 150 m long. The western side is formed by almost continuous cliffs 10 to 15 m high above an exposed coast with a few protected beaches. At the Southwestern base of the cape is a small sandy and pebble beach approximately 50 m long.

The San Telmo Islands are located approximately 2 km west of Cape Shirreff, and are a group of ice-free, rocky islets. The east coast of San Telmo Island (the largest of the group) has a sandy and pebble beach (60 m) at the south end, separated from the northern sandy beach (120 m) by two irregular cliffs (45 m) and narrow pebble beaches.

(c) Boundary markers: The boundaries of the Cape Shirreff CEMP Protected Area are identical to the boundaries of the Site of Special Scientific Interest No. 32, as specified by ATCM Recommendation XV-7. At present, there are no man-made boundary markers indicating the limits of the SSSI or established protected areas. The boundaries of the site are defined by natural features (i.e. coastlines, glacial margins) described in Section A.1(d).

(d) Natural features that define the site: The Cape Shirreff CEMP Protected Area includes the entire area of the Cape Shirreff peninsula north of the glacier ice tongue margin, and most of the San Telmo Islands group. For the purposes of the CEMP protected area, 'the entire area' of Cape Shirreff and the San Telmo Islands

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<sup>1</sup> As adopted at CCAMLR-XVIII (paragraphs 9.5 and 9.6), and revised at CCAMLR-XIX (paragraph 9.9).

group is defined as any land or rocks exposed at mean low tide within the area delimited by the map (Figure 3).

- (e) Access points: The Cape Shirreff part of the CEMP site may be entered at any point where pinniped or seabird rookeries are not present on or near the beach. Access to the island in the San Telmo group is unrestricted but should be at the least densely populated areas and cause minimal disturbance to the fauna. Access for other than CEMP research should avoid disturbing pinnipeds and seabirds (see Sections D.1 and D.2). Access by small boat or helicopter is recommended in most circumstances. Four helicopter landing areas are recommended including: (i) the south plain of Playa Yámana, which is situated on the Southwest coast of the cape; (ii) on the west coast of the cape, on the top plain of Gaviota Hill (10 x 20 m), near the monument erected to commemorate the officers and crew of the Spanish ship *San Telmo*; (iii) the wide plain, Paso Ancho, situated to the east of Cónдор Hill; and (iv) the top plain of Cónдор Hill. Recommended sites for landing small boats include: (i) the northern end of Half Moon beach, on the east coast of the cape; (ii) on the east coast, 300 m north of El Mirador, there is a deep channel which permits easy disembarkation, and (iii) the northern end of Playa Yámana on the west coast of the cape (during high tide conditions). There are no landing sites for fixed-wing aircraft.
- (f) Pedestrian and vehicular routes: Boats, helicopters, fixed-wing aircraft and land vehicles should avoid the site except for operations directly supporting authorised scientific activities. During these operations, boats and aircraft should travel routes that avoid or minimise disturbance of pinnipeds and seabirds. Land vehicles should not be used except to transport needed equipment and supplies to and from the field camps. Pedestrians should not walk through wildlife population areas, especially during the breeding season, or disturb other fauna or flora except as necessary to conduct authorised research.
- (g) Preferred anchorages: Numerous shoals and pinnacles are known to exist in the vicinity of Cape Shirreff and the San Telmo Islands. The detailed bathymetric chart No. 14301 produced by the Servicio Hidrográfico y Oceanográfico de la Armada de Chile (SHOA, 1994) provides guidance but those unfamiliar with local conditions at Cape Shirreff are advised to approach the area with caution. Three anchorages that have been used in the past are: (i) northwest coast – situated between Rapa-Nui Point on Cape Shirreff and the northern extremity of the San Telmo Islands; (ii) east coast – 2.5 km to the east of El Mirador, being alert for icebergs drifting in the area; and (iii) south coast – located about 4 km off the southern coast of Byers Peninsula to support ship-based helicopter operations. Organisation(s) conducting CEMP studies at the site can provide further details about sailing instructions pertaining to recommended anchorages (see Section E.2).
- (h) Location of structures within the site: During the 1991/92 austral summer, a fibreglass cabin for four people was installed by the Instituto Antártico Chileno (INACH) (Anonymous, 1992) in the El Mirador area. This area is on the cape's east coast, at the base of Condor Hill (near the site of the previous installation of the former Soviet Union). This site was chosen because of its accessibility by helicopter and boat, shelter from winds, good water supply and absence of seal or bird colonies. During the 1996/97 austral summer a US AMLR field camp was

established approximately 50 m to the south of the INACH camp. The US camp is comprised of four small wood-constructed buildings (including an outhouse); all within 3 m of each other and jointed by wooden walkways. In February 1999 an emergency shelter/bird observation blind was constructed by the US program at the northern end of the Cape. Minor remains of a hut used in the past by the former Soviet Union as well as sparse evidence of a 19th century sealers' camp can be found near the camp site.

- (i) Areas within the site where activities are constrained: The protection measures specified in Section D apply to all areas within the Cape Shirreff CEMP Protected Area, as defined in Section A.1(d).
- (j) Location of nearby scientific, research, or refuge facilities: The nearest research facility to the site is Juan Carlos I Station (summer only) maintained by the Spanish government at South Bay, Livingston Island, (62°40'S, 60°22'W), approximately 30 km southeast of Cape Shirreff. The Chilean Station Arturo Prat is located on Greenwich Island (62°30'S, 59°41'W) approximately 56 km northeast of Cape Shirreff. Numerous scientific stations and research facilities (e.g. Argentina, Brazil, Chile, China, Korea, Poland, Russia, Uruguay) are located on King George Island, approximately 100 km northeast of Cape Shirreff. The largest of these facilities is Base Presidente Eduardo Frei Montalva (also formerly referred to as Base Teniente Rodolfo Marsh Martin), maintained by the Chilean government on the western end of King George Island (62°12'S, 58°55'W).
- (k) Areas or sites protected under the Antarctic Treaty System: Cape Shirreff and the San Telmo Islands are protected as a Site of Special Scientific Interest (No. 32) under the Antarctic Treaty System (see Section A.1(c)). Several other sites or areas within 100 km of Cape Shirreff are also protected under the Antarctic Treaty System: SSSI No. 5, Fildes Peninsula (62°12'S, 58°59'W); SSSI No. 6, Byers Peninsula (62°38'S, 61°05'W); SSSI No. 35, Ardley Island, Maxwell Bay, King George Island (62°13'S, 58°56'W); Marine SSSI No. 35, Western Bransfield Strait (63°20'S to 63°35'S, 61°45'W to 62°30'W); and SPA No. 16, Coppermine Peninsula, Robert Island (62°23'S, 59°44'W). The Seal Islands CEMP Protected Area (60°59'14"S, 55°23'04"W) is located approximately 325 km northeast of Cape Shirreff.

## 2. Maps of the site:

- (a) Figures 1 and 2 show the geographical position of Cape Shirreff and the San Telmo Islands in relation to major surrounding features, including the South Shetland Islands and adjacent bodies of water.
- (b) Figure 3 identifies the boundaries of the site and provides details of specific locations within the vicinity of Cape Shirreff and the San Telmo Islands, including preferred vessel anchorages.

## B. BIOLOGICAL FEATURES

- 1. Terrestrial: There is no information on soil biology of Cape Shirreff but it is likely that similar types of plants and invertebrates are found as at other sites in the South Shetland



Islands (e.g. see Lindsey, 1971; Allison and Smith, 1973; Smith, 1984; Sömme, 1985). A moderate lichen cover (e.g. *Polytrichum alpestre*, *Usnea fasciata*) is present on rocks located in the higher geological platforms. In some valleys there are patches of moss and grass (e.g. *Deschampsia antarctica*).

2. Inland waters: There are several ephemeral ponds and streams located at Cape Shirreff. These form from melting snow, especially in January and February. Hidden Lake is the only permanent body of water on the cape, and it is located in the confluence of the slope of three hills: El Toqui, Pehuenche and Aymara. The lake's drainage supports the growth of moss banks along its northeast and southwest slopes. From the southwest slope a stream flows to the western coast at Playa Yámana. The lake's depth is estimated at two to 3 m and it is approximately 12 m long when fullest; the lake diminishes considerably in size after February (Torres, 1995). There are no known lakes or ephemeral ponds of significance on the San Telmo Islands.
3. Marine: No studies on littoral communities have been carried out. There is abundant macroalgae present in the intertidal zone. The limpet *Nacella concinna* is common, as elsewhere in the South Shetland Islands.
4. Seabirds: In January 1958, 2 000 pairs of chinstrap penguins (*Pygoscelis antarctica*) and 200 to 500 pairs of gentoo penguins (*P. papua*) were reported (Croxford and Kirkwood, 1979). In 1981 two unspecified penguin colonies had 4 328 and 1 686 individuals respectively (Sallaberry and Schlatter, 1983). A census in January 1987, produced estimates of 20 800 adult chinstrap penguins and 750 adult gentoo penguins (Shuford and Spear, 1987). Huckle-Gaete et al. (1997a) identified the presence of 31 breeding colonies for both species during 1996/97 and reported estimates of 6 907 breeding pairs of chinstrap penguins and 682 of gentoo penguins. A chick census developed in early February that same year gave a total of 8 802 chinstrap penguins and 825 gentoo penguins. The first of a continuing CCAMLR census of the colonies at Cape Shirreff conducted on 3 December, 1997 recorded 7 617 and 810 breeding pairs of chinstrap and gentoo penguins, respectively (Martin 1998). Dominican gulls (*Larus dominicanus*), brown skuas (*Catharacta lönnerbergi*), Antarctic terns (*Sterna vittata*), blue-eyed shags (*Phalacrocorax atriceps*), Cape petrels (*Daption capense*), Wilson's storm petrels (*Oceanites oceanicus*) and black-bellied storm petrel (*Fregetta tropica*) also nest on the cape. Giant petrels (*Macronectes giganteus*) are regular visitors during the austral summer (Torres, 1995).
5. Pinnipeds: Cape Shirreff is presently the site of the largest known breeding colony of the Antarctic fur seal (*Arctocephalus gazella*) in the South Shetland Islands. The first post-exploitation record of fur seals at Cape Shirreff was reported by O'Gorman (1961) in mid-February 1958 when 27 non-breeding adults were seen. Over the past 30 years, the colony has continued to increase in size (Aguayo and Torres, 1968, 1993; Bengtson et al., 1990, Torres, 1995; Huckle-Gaete et al., 1999). Annual censuses begun in 1991/92 by INACH scientists showed that pup production has increased every year except for 1997/98 when there was an apparent 14% decrease in the entire SSSI. From 1965/66 to 1998/99 the population increased at a rate of 19.8%. However, from 1992/93 to 1998/99 the growth rate has decreased to ca. 7% per year, with the last census in 1998/99 reporting 5 497 pups born on Cape Shirreff and 3 027 pups born on San Telmo Islands (Huckle-Gaete et al., 1999). Groups of non-breeding southern elephant seals (*Mirounga leonina*), Weddell seals (*Leptonychotes weddelli*), leopard seals (*Hydrurga leptonyx*) and crabeater seals (*Lobodon carcinophagus*) have been

observed on the cape (O’Gorman, 1961; Aguayo and Torres, 1967; Bengtson et al., 1990; Torres et al., 1998). Additionally, observations of pup carcasses suggest breeding sites of southern elephant seals (Torres, 1995).

#### C. CEMP STUDIES

1. The presence at Cape Shirreff of both Antarctic fur seal and penguin breeding colonies, and of krill fisheries within the foraging range of these species, make this a critical site for inclusion in the ecosystem monitoring network established to help meet the objectives of the Convention on the Conservation of Antarctic Marine Living Resources. The purpose of the designation is to allow planned research and monitoring to proceed, while avoiding or reducing, to the greatest extent possible, other activities which could interfere with or affect the results of the research and monitoring program or alter the natural features of the site.
2. The following species are of particular interest for CEMP routine monitoring and directed research at this site: Antarctic fur seals, chinstrap penguins and gentoo penguins.
3. Long-term studies are under way to assess and monitor the feeding ecology, growth and condition, reproductive success, behaviour, and population dynamics of pinnipeds and seabirds that breed in the area. The results of these studies will be compared with environmental data, wildlife diseases, offshore sampling data, and fishery statistics to identify possible cause-effect relationships.
4. Chilean scientists have been conducting studies at the site for many years and in recent seasons they have developed studies specifically designed to contribute to CEMP. These studies have mainly focused on Antarctic fur seals, wildlife diseases and survey of marine debris. Annual marine debris surveys began in 1985, with a baseline established in 1994 (e.g. Torres and Jorquera 1995, 1999). In 1996/97 US scientists began CEMP monitoring studies of Antarctic fur seals, chinstrap and gentoo penguins in conjunction with studies of offshore prey distribution and general oceanography (e.g. Martin 1999).
5. Penguin parameters routinely monitored include trends in population size (A3), demography (A4), duration of foraging trips (A5), breeding success (A6), chick fledging weight (A7), chick diet (A8) and breeding chronology (A9). Studies of fur seals include foraging energetics, at-sea foraging locations using satellite-linked telemetry, diving behaviour, diet studies, duration of foraging trips (C1), reproductive success, and pup growth rates (C2).

#### D. PROTECTION MEASURES

1. Prohibited activities and temporal constraints:
  - (a) Throughout the site at all times of the year: Any activities which damage, interfere with, or adversely affect the planned CEMP monitoring and directed research at this site are not permitted.

- (b) Throughout the site at all times of the year: Any non-CEMP activities are not permitted which result in:
    - (i) killing, injuring, or disturbing pinnipeds or seabirds;
    - (ii) damaging or destroying pinniped or seabird breeding areas; or
    - (iii) damaging or destroying the access of pinnipeds or seabirds to their breeding areas.
  - (c) Throughout the site at defined parts of the year: Human occupation of the site during the period 1 June to 31 August is not permitted except under emergency circumstances.
  - (d) In parts of the site at all times of the year: Building structures within boundaries of any pinniped or seabird colony is not permitted. For this purpose, colonies are defined as the specific locations where pinniped pups are born or where seabird nests are built. This prohibition does not pertain to placing markers (e.g. numbered stakes, posts, etc.) or situating research equipment in colonies as may be required to facilitate scientific research.
  - (e) In parts of the site at defined parts of the year: Entry into any pinniped or seabird colonies during the period 1 September to 31 May is not permitted except in association with CEMP activities.
2. Prohibitions regarding access to and movement within the site:
- (a) Entry to the site at locations where pinniped or seabird colonies are present in densely populated areas is not permitted.
  - (b) Aircraft overflight of the site is not permitted at altitudes less than 1 000 m unless the proposed flight plan has been reviewed in advance by the organisation(s) conducting CEMP activities at the site (see Section E.2). Aircraft overflight at altitudes below 200 m is not permitted.
  - (c) The use of land vehicles is not permitted except to transport needed equipment and supplies to and from the field camps.
  - (d) Pedestrians are not permitted to walk through wildlife population areas (e.g. colonies, resting areas, pathways), or to disturb other fauna or flora, except as necessary to conduct authorised research.
3. Prohibitions regarding structures:
- (a) Building structures other than those directly supporting authorised scientific research and monitoring programs or to house research personnel and their equipment is not permitted.
  - (b) Human occupation of these structures is not permitted during the period 1 June to 31 August (see Section D.1(c)).
  - (c) New structures are not permitted to be built within the site unless the proposed plans have been reviewed in advance by the organisation(s) conducting CEMP activities at the site (see Section E.2).

4. Prohibitions regarding waste disposal:

- (a) Landfill disposal of any materials is not permitted; all materials brought to the site are to be removed when no longer in use.
- (b) Disposal of waste fuels, volatile liquids and scientific chemicals within the site is not permitted; these materials are to be removed from the site for proper disposal elsewhere.
- (c) The open burning of any materials is not permitted (except for properly used fuels for heating, lighting or cooking).

5. Prohibitions regarding the Antarctic Treaty System:

It is not permitted to undertake any activities in the Cape Shirreff CEMP Protected Area which are not in compliance with the provisions of: (i) the Antarctic Treaty, including the Agreed Measures for the Conservation of Antarctic Fauna and Flora and the Protocol on Environmental Protection, (ii) the Convention for the Conservation of Antarctic Seals, and (iii) the Convention for the Conservation of Antarctic Marine Living Resources.

E. COMMUNICATIONS INFORMATION

1. Organisation(s) appointing national representatives to the Commission.

- (a) Ministerio de Relaciones Exteriores  
Direccion de Medio Ambiente (DIMA)  
Catedral 1143, 2° Piso  
Santiago  
Chile

Telephone: +56 (2) 673 2152  
Facsimile: +56 (2) 380 1084  
Email: dima5@minrel.cl

- (b) Bureau of Oceans and International Environmental and Scientific Affairs  
US Department of State  
Washington DC 20520  
USA

Telephone: +1 (202) 647 3262  
Facsimile: +1 (202) 647 1106

2. Organisation(s) conducting CEMP studies at the site.

- (a) Ministerio de Relaciones Exteriores  
Instituto Antártico Chileno  
Luis Thayer Ojeda 814  
Casilla 16521, Correo 9  
Santiago  
Chile

Telephone: +56 (2) 232 2617  
Facsimile: +56 (2) 232 0440  
Email: dtorres@inach.cl

- (b) US Antarctic Marine Living Resources Program  
National Marine Fisheries Service, NOAA  
Southwest Fisheries Science Center  
PO Box 271  
La Jolla Ca. 92038  
USA

Telephone: +1 (858) 546 5601  
Facsimile: +1 (858) 546 5608  
Email: rholt@ucsd.edu

## **ANNEX 82/B CAPE SHIRREFF, APPENDIX 1**

### **CODE OF CONDUCT FOR THE CAPE SHIRREFF CEMP PROTECTED AREA**

Investigators should take all reasonable steps to ensure that their activities, both in implementing their scientific protocols as well as in maintaining a field camp, do not unduly harm or alter the natural behaviour and ecology of wildlife. Wherever possible, actions should be taken to minimise disturbance of the natural environment.

Killing, capturing, handling and taking eggs, blood, or other biological samples from pinniped and seabirds should be limited to that necessary to characterise and monitor individual and population parameters that may change in detectable ways in response to changes in food availability or other environmental factors. Sampling should be done and reported in accordance with: (i) the Agreed Measures for the Conservation of Antarctic Fauna and Flora and the Protocol on Environmental Protection, (ii) the Convention for the Conservation of Antarctic Seals, and (iii) the Convention for the Conservation of Antarctic Marine Living Resources.

Geological, glaciological and other studies which can be done outside of the pinniped and seabird breeding season, and which will not damage or destroy pinniped or seabird breeding areas, or access to those areas, would not adversely affect the planned assessment and monitoring studies. Likewise, the planned assessment and monitoring studies would not be affected adversely by periodic biological surveys or studies of other species which do not result in killing, injuring, or disturbing pinnipeds or seabirds, or damage or destroy pinnipeds or seabird breeding areas or access to those areas.

## **ANNEX 82/B CAPE SHIRREFF, APPENDIX 2**

### **BACKGROUND INFORMATION CONCERNING CAPE SHIRREFF**

Prior to the discovery of the South Shetland Islands in 1819, there were substantial colonies of fur seals, and possibly elephant seals, throughout the archipelago. Within a few months of discovery, Cape Shirreff was the scene of intensive sealing activities until about 1825. Sealers' refuges were erected all around the western shores of Livingston Island, with those on the south coast being occupied mainly by American sealers and those on the north coast by British sealers. There were about 60 to 75 men living ashore at Cape Shirreff in January 1821 (Stackpole, 1955) and 95 000 skins were taken during the 1821/22 season (O'Gorman, 1963). There are ruins of at least 12 sealers' huts on the cape and the shoreline in several bays is littered with timbers and sections of wrecked sealers' vessels (Torres, 1995). The outcome of the sealing of the early 1820s was the extermination of fur seals from the entire region. Antarctic fur seals were not observed again in the South Shetland Islands until 1958, when a small colony was discovered at Cape Shirreff, Livingston Island (O'Gorman, 1961). The original colonisers probably came from South Georgia, where surviving fur seal colonies had substantially recovered by the early 1950s. Chilean studies at the site began in 1965 (e.g. Aguayo and Torres, 1967, 1968) and US studies began in 1996 (e.g. Martin, 1998). At present, the fur seal rookeries at Cape Shirreff and the San Telmo Islands are the largest in the South Shetland Islands.

## ANNEX 82/B CAPE SHIRREFF, APPENDIX 3

### HISTORY OF PROTECTION AT CAPE SHIRREFF

Cape Shirreff was designated in 1966 as Specially Protected Area (SPA) No. 11 by ATCM Recommendation IV-11 'on the grounds that the cape supports a considerable diversity of plant and animal life, including many invertebrates, that a substantial population of elephant seals (*Mirounga leonina*) and small colonies of Antarctic fur seals are found on the beaches and that the area is of outstanding interest'. The protection conferred on this site was successful in ensuring that Antarctic fur seals were not disturbed during the important early phases of their recolonisation. Subsequent to the site's designation as a SPA, the locally breeding population of Antarctic fur seals increased to a level at which biological research activities could be undertaken without threatening the continued recolonisation and population increase of this species.

Surveys during the mid-1980s to locate study sites for long-term monitoring of fur seal and penguin populations as part of the CCAMLR Ecosystem Monitoring Program (CEMP) indicated that Cape Shirreff would be an excellent site within the Antarctic Peninsula Integrated Study Region. To carry out such a monitoring program safely and effectively, a multi-year field camp for four to six researchers was needed within the area previously designated as SPA No. 11. This might have been considered inappropriate within a SPA and hence a proposal was made in 1988 to redesignate Cape Shirreff as a Site of Special Scientific Interest (SSSI). Additionally, it was proposed substantially to enlarge the site by the inclusion of the San Telmo Islands group, presently the location of the largest fur seal colony in the Antarctic Peninsula region.

Cape Shirreff was redesignated in 1990 as SSSI No. 32 by Recommendation XV-7, which was adopted by the XVth Consultative Meeting of the Antarctic Treaty. It was understood that SSSI No. 32, Cape Shirreff, should be redesignated an SPA (in its enlarged form) if and when the long-term monitoring of fur seals and seabirds at the site should be ended.

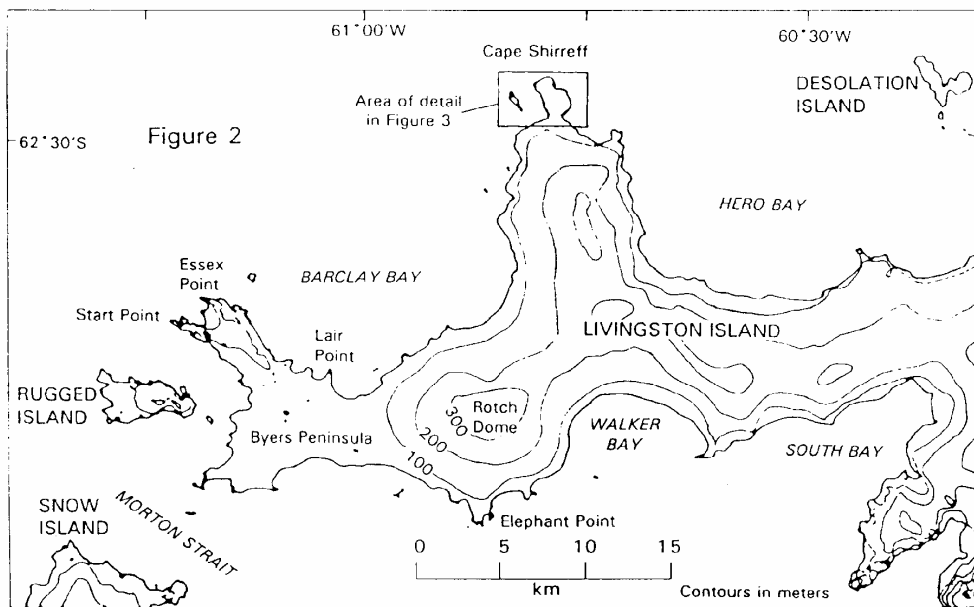
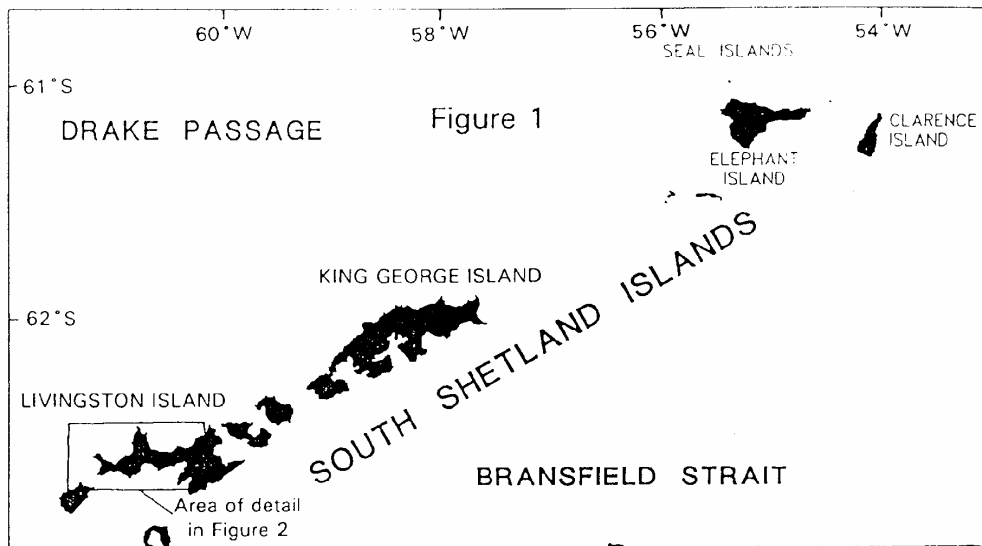
Chilean and US scientists initiated CEMP studies at Cape Shirreff during the late 1980s, and have collaborated on predator studies at Cape Shirreff since 1996/97. To further protect the site from damage or disturbance that could adversely affect the long-term CEMP monitoring and directed research, in 1991 Cape Shirreff was proposed as a CEMP Protected Area.



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Figures 1 and 2: These maps show the general position of Cape Shirreff and the San Telmo Islands CEMP Protected Area (Figure 1) and the location of the CEMP Protected Area in relation to the northwestern portion of Livingston Island.

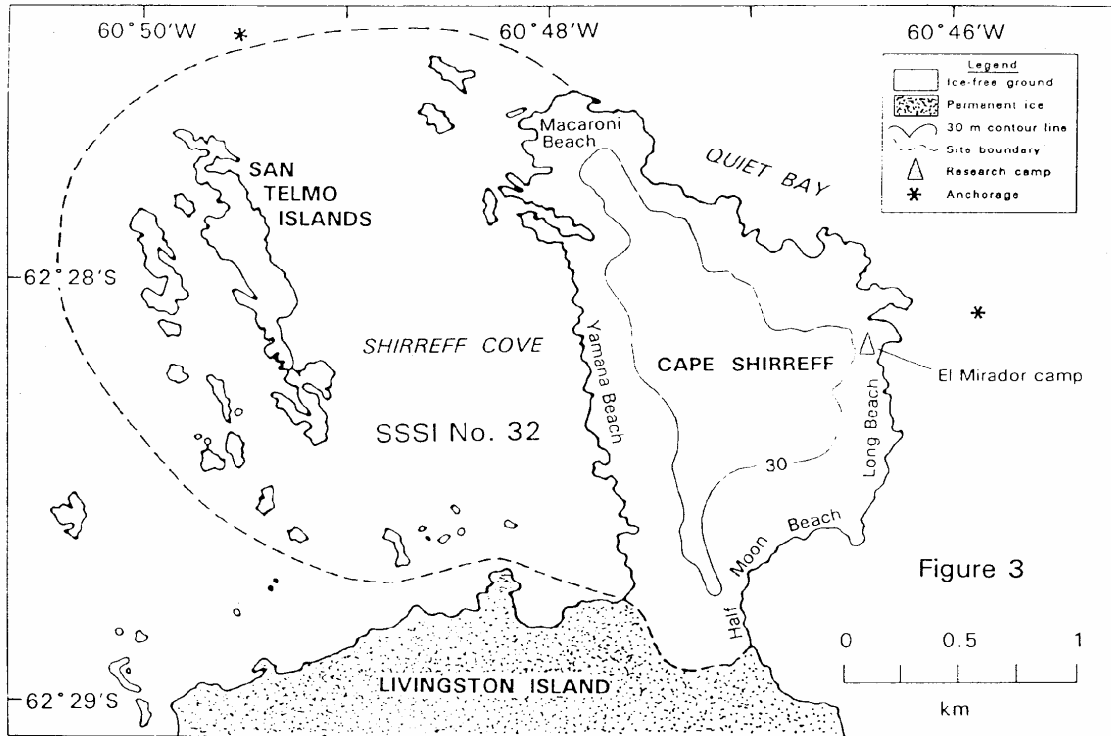


Figure 3: This map shows a detailed view of the Cape Shirreff and the San Telmo Islands CEMP Protected Area. Note that the boundaries of the CEMP Protected Area are identical to the boundaries of Site of Special Scientific Interest No. 32, which is protected under the Antarctic Treaty.