

**ĐđĐ²ĐµĐ´Đ³⁄₄Đ¹⁄₄Đ»ĐµĐ¹⁄₂Đ, Ñ• Đ³⁄₄ ĐđÑ€Đ³⁄₄Đ¹⁄₄Ñ<Ñ•Đ»Đµ  
Đ°Ñ€Đ, Đ»Ñ• Đ² 2011/12 Đ³. ĐđĐ²ĐµĐ´Đ³⁄₄Đ¹⁄₄Đ»ĐµĐ¹⁄₂Đ, Đµ Đ³⁄₄  
Đ¹⁄₂Đ°Đ¹⁄₄ĐµÑ€ĐµĐ¹⁄₂Đ, Đ, ÑfÑ‡Đ°Ñ•Ñ,Đ²Đ³⁄₄Đ²Đ°Ñ,Ñ€Đ²  
ĐđÑ€Đ³⁄₄Đ¹⁄₄Ñ<Ñ•Đ»ĐµEuphausia superba Đ²  
Ñ•Đ³⁄₄Đ³⁄₄Ñ,Đ²ĐµÑ,Ñ•Ñ,Đ²Đ, Đ, Ñ• Đ¹⁄₄ĐµÑ€Đ³⁄₄Đ¹ ĐđĐ³⁄₄  
Ñ•Đ³⁄₄Ñ...Ñ€Đ°Đ¹⁄₂ĐµĐ¹⁄₂Đ, ÑŽ 21-03 (Word**

ĐžĐđÑfĐ±Đ»Đ,Đ°Đ³⁄₄Đ²Đ°Đ¹⁄₂Đ³⁄₄ Ñ‡Ñ,, 16/02/2012 - 11:45ÑfÑ,Ñ€Đ°  
ĐđĐ³⁄₄Đ»Ñ€Đ•Đ³⁄₄Đ²Đ°Ñ,ĐµĐ»ĐµĐ¹⁄₄ admin  
Ñ‡ĐµÑ,Đ²ĐµÑ€Đ³, 21 Đ°ĐđÑ€ĐµĐ»Ñ• 2011  
COMM CIRC 11/42  
SC CIRC 11/15  
Response Due Date(s):

- [English](#)
- [FranÃ§ais](#)
- [EspaÃ±ol](#)



**CCAMLR**

PO BOX 213, NORTH HOBART, TASMANIA 7002 AUSTRALIA  
181 MACQUARIE STREET, HOBART, TASMANIA 7000 AUSTRALIA  
Website: [www.ccamlr.org](http://www.ccamlr.org)

Phone: (61) 3 6210 1111  
Fax: (61) 3 6224 8744  
Email: [ccamlr@ccamlr.org](mailto:ccamlr@ccamlr.org)

**TO ALL MEMBERS OF THE COMMISSION  
AND THE SCIENTIFIC COMMITTEE**

**COMM CIRC 11/42  
SC CIRC 11/15**

21 April 2011

**Notification of Krill Fisheries in 2011/12**

Members intending to participate in a krill fishery in 2011/12 are required to notify the Secretariat no later than 1 June 2011, to allow WG-EMM to consider all notifications for krill fisheries. The procedures for notification are described in Conservation Measure 21-03 and, where applicable, Conservation Measure 21-02, and the deadline of 1 June (CCAMLR-XXVIII, paragraph 12.15) applies to both procedures. The notification forms are attached. The Secretariat will acknowledge all notifications received.

A list of notifications will be circulated to all Members, and the notifications will be placed, in their language of submission, on the 'Members Only' section of the CCAMLR website by 7 June 2011. If possible, the summary pages will be translated into English for their use at WG-EMM.

Andrew Wright  
Executive Secretary

Attch.

## ATTACHMENT 1

### NOTIFICATION OF INTENT TO PARTICIPATE IN A FISHERY FOR *EUPHAUSIA SUPERBA* IN ACCORDANCE WITH CONSERVATION MEASURE 21-03

ANNEX 21-03/A

Member: \_\_\_\_\_

Fishing season: \_\_\_\_\_

Name of vessel: \_\_\_\_\_

Expected level of catch (tonnes): \_\_\_\_\_

Fishing technique: ☐ Conventional trawl  
☐ Continuous fishing system  
☐ Pumping to clear codend  
☐ Other methods: Please specify \_\_\_\_\_

Method used for direct estimate of green weight of krill caught<sup>1</sup>: \_\_\_\_\_

Products to be derived from the catch<sup>2</sup>:

Product type	% of catch

## Notified fishing areas and months

Statistical subarea/division	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
	48.1											
	48.2											
	48.3											
	48.4											
	48.5											
	48.6											
	58.4.1											
	58.4.2											
	88.1											
	88.2											
	88.3											

X Mark boxes where and when the notified vessel(s) is/are most likely to operate.  
 Precautionary catch limits not set, therefore considered as exploratory fisheries.

Note that the details provided here are for information only and do not preclude operation in areas or times which were not specified.

- <sup>1</sup> As of 2011/12, the notification shall include a description of the exact detailed method of estimation of the green weight of krill caught and, if conversion factors are applied, the exact detailed method of how each conversion factor was derived. Members are not required to re-submit such a description in the following seasons, unless changes in the method of green weight estimation occurred.
- <sup>2</sup> Information to be provided to the extent possible.

**NET CONFIGURATION AND USE OF FISHING TECHNIQUES  
AS LISTED IN ANNEX 21-03/A**

Net opening (mouth) circumference (m)	Vertical opening (m)	Horizontal opening (m)

Net Panel length and mesh size

Panel	Length (m)	Mesh size (mm)
1st panel		
2nd panel		
3rd panel		
....		
....		
Final panel (Codend)		

Provide diagram of each net configuration used

--

Use of multiple fishing techniques\*: Yes    No

\*If yes, frequency of switch between fishing techniques: \_\_\_\_\_

	Fishing technique	Expected proportion of time to be used (%)
1		
2		
3		
4		
5		
...		
		Total 100%

Presence of marine mammal exclusion device\*: Yes No

\*If yes, provide design of the device:

Provide explanation of fishing techniques, gear configuration and characteristics and fishing patterns:

## VESSEL INFORMATION

Each notification must address the following information, for each vessel, in accordance with Conservation Measure 10-02, paragraphs 3 and 4:

### Conservation Measure 10-02, paragraph 3

(i)	Name of fishing vessel	<i>[please complete]</i>
	Previous names (if known)	<i>[please complete]</i>
	Registration number	<i>[please complete]</i>
	IMO number (if issued)	<i>[please complete]</i>
	External markings	<i>[please complete]</i>
	Port of registry	<i>[please complete]</i>
(iii)	Previous flag (if any)	<i>[please complete]</i>
(iv)	International Radio Call Sign	<i>[please complete]</i>
(v)	Name of vessel's owner(s)	<i>[please complete]</i>
	Address of vessel owner(s)	<i>[please complete]</i>
	Beneficial owner(s) if known	<i>[please complete]</i>
(vi)	Name of licence owner	<i>[please complete, if different from vessel owner(s)]</i>
	Address of licence owner (operator)	<i>[please complete]</i>
(vii)	Type of vessel	<i>[please complete]</i>
(viii)	Where was vessel built	<i>[please complete]</i>
	When was vessel built	<i>[please complete]</i>
(ix)	Vessel length overall LOA (m)	<i>[please complete]</i>
(x)	12 x 7 cm colour photographs - 1 x starboard side of the vessel - 1 x port side of the vessel - 1 x stern view	<i>[please ensure side photographs display the full overall length and complete structural features of the vessel and the stern photograph is taken directly from astern; include these in the section "Supporting Documentation"]</i>
(xi)	Details of the implementation of the tamper-proof requirements of the VMS device installed	<i>[please complete; comprehensive information may be included in the section "Supporting Documentation"]</i>

**Conservation Measure 10-02, paragraph 4 (to the extent practicable)**

(i)	Name of operator Address of operator	<i>[please complete, if different from vessel owner(s)]</i> <i>[please complete, if different from vessel owner(s)]</i>
(ii)	Names and nationality of master and, where relevant, of fishing master	<i>[please complete]</i> <i>[please complete]</i>
(iii)	Type of fishing method(s)	<i>[please complete]</i>
(iv)	Vessel beam (m)	<i>[please complete]</i>
(v)	Vessel gross registered tonnage	<i>[please complete]</i>
(vi)	Vessel communication types and numbers (INMARSAT A, B and C)	<i>[please complete]</i>
(vii)	Normal crew complement	<i>[please complete]</i>
(viii)	Power of main engine(s) (kW)	<i>[please complete]</i>
(ix)	Carrying capacity (tonne) Number of fish holds Capacity of all holds (m <sup>3</sup> )	<i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i>
(x)	Any other information in respect of each licensed vessel that is considered appropriate (e.g. ice classification) for the purposes of the implementation of the conservation measures adopted by the Commission.	<i>[please complete; comprehensive information may be included in the section "Supporting Documentation"]</i>

**SUPPORTING DOCUMENTATION**

*[Please attach photographs of each vessel - starboard side, port side and stern view and any other information appropriate to the fishery notification ]*



## ATTACHMENT 2

### NOTIFICATION OF INTENT TO PARTICIPATE IN AN EXPLORATORY FISHERY IN ACCORDANCE WITH CONSERVATION MEASURE 21-02

#### SUMMARY

Member

Fishing season

Type of fishery and gear

Target species

Fishing area

Names of fishing vessels and  
companies involved

Total notification payment due (A\$)  
(A\$8 000 per vessel per fishery)

In this notification, the Member and its flagged vessel(s) agree to: *[please tick]*      *Yes*      *No*

Comply fully with measures specified in Conservation Measures 22-06 and 22-07 (as applicable to the relevant subarea or division) with respect to bottom fishing and the prevention of significant adverse impact on vulnerable marine ecosystems (VMEs) (if applicable).

☐      ☐

Comply with the requirements of Conservation Measure 25-02 in order to minimise seabird by-catch during longlining (if applicable).

☐      ☐

Comply with the requirements of Conservation Measure 25-03 in order to minimise seabird and marine mammal by-catch during trawling (if applicable).

☐      ☐

Comply fully with measures specified in Conservation Measure 24-02 if an exemption is sought from setting longlines at night, or fish outside specified fishing seasons (if applicable).

☐      ☐

Comply fully with measures specified in Conservation Measures 41-04, 41-05, 41-06, 41-07, 41-09, 41-10, 41-11 (toothfish fisheries), 52-05 (krill fisheries), 52-02 and 52-03 (crab fisheries) (as applicable to the relevant subarea or division) if specified seabird by-catch levels are reached when fishing during daytime setting and/or fishing outside normal fishing seasons.

☐      ☐

Comply with scientific observer requirements specified in Conservation Measures 41-04, 41-05, 41-06, 41-07, 41-09, 41-10, 41-11 (toothfish fisheries), 52-05 (krill fisheries), 52-02 and 52-03 (crab fisheries) (as applicable to the relevant subarea or division) .

☐      ☐

## **FISHERY INFORMATION**

Each notification must address the requirements of conservation measures in force, where these apply.

### **Conservation Measure 21-01 (New Fishery)**

- (i) Nature of the proposed fishery
  - Target species
  - Method of fishing
  - Subarea or division where fishing would occur
  - Minimum level of catch required to develop a viable fishery
- (ii) Biological information from comprehensive research/survey cruises, such as distribution, abundance, demographic data, and information on stock identity
- (iii) Details of dependent and associated species and the likelihood of them being affected by the proposed fishery
- (iv) Information from other fisheries in the region or similar fisheries elsewhere that may assist in the valuation of the potential yield
- (v) If the proposed fishery will be undertaken using bottom trawl gear, information on the known and anticipated impacts of this gear on vulnerable marine ecosystems, including benthos and benthic communities.
- (vi) Provide a commitment, in its proposal, to implement any Data Collection Plan developed by the Scientific Committee for the fishery.

### **Conservation Measure 21-02 (Exploratory Fishery)**

#### **Fishery Operations Plan**

- (i) Nature of the exploratory fishery
  - Target species
  - Methods of fishing
  - Subarea or division where fishing would occur
  - Maximum catch levels proposed for the forthcoming season
- (ii) Biological information on the target species from comprehensive research/survey cruises, such as distribution, abundance, demographic data, and information on stock identity
- (iii) Details of dependent and related species and the likelihood of their being affected by the proposed fishery

- (iv) Information from other fisheries in the region or similar fisheries elsewhere that may assist in the evaluation of potential yield

Commitment to implement the Data Collection Plan, including actions to:

- (i) Ensure that each vessel is equipped and configured so as to comply with all relevant conservation measures
- (ii) Ensure that each vessel carries a CCAMLR-designated scientific observer to collect data in accordance with the Data Collection Plan, and to assist in collecting biological and other relevant data
- (iii) Submit to CCAMLR, by the specified deadlines, all data arising from the Data Collection Plan

#### **Conservation Measures 22-06 and 22-07 (Bottom Fishing)**

- (i) Submit a preliminary assessment of the potential for the proposed bottom fishing activities to have significant adverse impacts on VMEs (see proforma in Annex 22-06/A)
- (ii) Submit to CCAMLR, by the specified deadlines, all VME-related data in accordance with Conservation Measure 22-07

#### **Conservation Measure 24-02 (Longline Fisheries)**

Advice that each vessel complies fully with measures specified in Conservation Measure 24-02 if an exemption is sought from setting longlines at night, or fishing outside specified fishing seasons.

#### **Conservation Measure 25-02 (Longline and Pot Fisheries)**

Advice that each vessel complies fully with the requirements of Conservation Measure 25-02 in order to minimise the incidental mortality of seabirds during longlining.

### **Conservation Measure 25-03 (Trawl Fisheries)**

Advice that each vessel complies fully with the requirements of Conservation Measure 25-03 in order to minimise the incidental mortality of seabirds and marine mammals during trawling.

### **Conservation Measure 41-01 (Toothfish Fisheries)**

Commitment to implement the fishery-based research in exploratory toothfish fisheries including the:

- (i) Data Collection Plan (Annex 41-01/A)
- (ii) Research Plan (Annex 41-01/B)
- (iii) Tagging Program (Annex 41-01/C).

### **Conservation Measure 51-04 (Krill Fisheries)**

Commitment to implement the fishery-based research in exploratory krill fisheries including the:

- (i) Data Collection Plan (Annex 51-04/A - attached)
- (ii) Research Plan (Annex 51-04/B - attached)

### **Conservation Measures 52-02 or 52-03 (Crab Fisheries)**

Commitment to implement the fishery-based research in exploratory crab fisheries including the:

- (i) Data Requirements (Annex 52-02/A or Annex 52-03/A as applicable)
- (ii) Experimental Harvest Regime (Annex 52-02/B or Annex 52-03/B as applicable)

### **Conservation Measures 41-04, 41-05, 41-06, 41-07, 41-09, 41-10, 41-11, 51-05, 52-02 or 52-03 (Exploratory Fisheries)**

Advice that each vessel will comply fully with the requirements in these conservation measures, where these apply, including compliance with mitigation measures and seabird by-catch levels, and additional requirements if fishing occurs during daytime and/or outside normal fishing seasons.

## VESSEL INFORMATION

Each notification must address the following information, for each vessel, in accordance with Conservation Measure 10-02, paragraphs 3 and 4:

### Conservation Measure 10-02, paragraph 3

(i)	Name of fishing vessel Previous names (if known) Registration number IMO number (if issued) External markings Port of registry	<i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i>
(iii)	Previous flag (if any)	<i>[please complete]</i>
(iv)	International Radio Call Sign	<i>[please complete]</i>
(v)	Name of vessel's owner(s) Address of vessel owner(s) Beneficial owner(s) if known	<i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i>
(vi)	Name of licence owner Address of licence owner (operator)	<i>[please complete, if different from vessel owner(s)]</i> <i>[please complete]</i>
(vii)	Type of vessel	<i>[please complete]</i>
(viii)	Where was vessel built When was vessel built	<i>[please complete]</i> <i>[please complete]</i>
(ix)	Vessel length overall LOA (m)	<i>[please complete]</i>
(x)	12 x 7 cm colour photographs - 1 x starboard side of the vessel - 1 x port side of the vessel - 1 x stern view	<i>[please ensure side photographs display the full overall length and complete structural features of the vessel and the stern photograph is taken directly from astern; include these in the section "Supporting Documentation"]</i>
(xi)	Details of the implementation of the tamper-proof requirements of the VMS device installed	<i>[please complete; comprehensive information may be included in the section "Supporting Documentation"]</i>

**Conservation Measure 10-02, paragraph 4 (to the extent practicable)**

(i)	Name of operator Address of operator	<i>[please complete, if different from vessel owner(s)]</i> <i>[please complete, if different from vessel owner(s)]</i>
(ii)	Names and nationality of master and, where relevant, of fishing master	<i>[please complete]</i> <i>[please complete]</i>
(iii)	Type of fishing method(s)	<i>[please complete]</i>
(iv)	Vessel beam (m)	<i>[please complete]</i>
(v)	Vessel gross registered tonnage	<i>[please complete]</i>
(vi)	Vessel communication types and numbers (INMARSAT A, B and C)	<i>[please complete]</i>
(vii)	Normal crew complement	<i>[please complete]</i>
(viii)	Power of main engine(s) (kW)	<i>[please complete]</i>
(ix)	Carrying capacity (tonne) Number of fish holds Capacity of all holds (m <sup>3</sup> )	<i>[please complete]</i> <i>[please complete]</i> <i>[please complete]</i>
(x)	Any other information in respect of each licensed vessel that is considered appropriate (e.g. ice classification) for the purposes of the implementation of the conservation measures adopted by the Commission.	<i>[please complete; comprehensive information may be included in the section "Supporting Documentation"]</i>

**SUPPORTING DOCUMENTATION**

*[Please attach photographs of each vessel - starboard side, port side and stern view and any other information appropriate to the fishery notification]*

## **DATA COLLECTION PLANS FOR EXPLORATORY KRILL FISHERIES**

1. During normal fishing operations, all vessels will comply with the Ten-day Catch and Effort Reporting System (Conservation Measure 23-02) and the Monthly Fine-scale Catch, Effort and Biological Data Reporting Systems (Conservation Measures 23-04 and 23-05), including requirements for the provision of haul-by-haul data.
2. During normal fishing operations, all data required by the CCAMLR *Scientific Observers Manual* for krill fisheries will be collected.
3. Detailed information on the configuration of every commercial trawl used during normal fishing operations and every research net used during required research operations will be reported to CCAMLR no later than one month after the conclusion of each fishing trip.
4. Data collected from research net hauls shall include:
  - (i) the start and end positions and times of the haul;
  - (ii) the date on which the haul was conducted;
  - (iii) characteristics of the haul such as tow speed, the maximum amount of wire payed out during a tow, the average wire angle during the tow, and calibrated flow-meter values that can be used to provide accurate measures of volume filtered;
  - (iv) an estimate of the total catch (in numbers or weight) of krill; and
  - (v) a random sample of up to 200 krill or the entire catch, whichever is less, to be taken from the haul by the observer – the length, sex and maturity stage should be measured and recorded for all krill according to protocols in the CCAMLR *Scientific Observers Manual*.
5. At a minimum, data collected from acoustic transects shall:
  - (i) as far as possible, be recorded following protocols specified for the CCAMLR-2000 Survey;
  - (ii) be linked to position data recorded from a GPS;
  - (iii) be continuously recorded and then electronically archived every five days or whenever the vessel moves between exploratory units, which ever occurs most frequently.
6. Data collected during research operations conducted by fishing vessels shall be reported to CCAMLR no later than one month after the conclusion of each fishing trip.
7. Data collected by Contracting Parties conducting fishery-independent research operations shall, as applicable, be submitted to CCAMLR following guidelines for the submission of CEMP data and data collected during the CCAMLR-2000

Survey. These data shall be submitted in sufficient time to be considered by the next meeting of WG-EMM.

ANNEX 51-04/B

## **RESEARCH PLANS FOR EXPLORATORY KRILL FISHERIES**

1. Activities under this Research Plan shall not be exempted from any conservation measure in force.
2. This plan applies to all subareas or divisions.
3. A schematic representation of the plans described herein is provided in Figure 1.
4. Contracting Parties intending to conduct exploratory krill fisheries shall choose one of the following four Research and Data Collection Plans and advise CCAMLR of their choice at least one month prior to initiating any fishing activities.
  - (i) predator monitoring;
  - (ii) a research survey conducted from a scientific vessel;
  - (iii) acoustic transects by fishing vessels; or
  - (iv) research trawls by fishing vessels.
5. Where a Contracting Party's vessel collaborates with a research institute to conduct the research plan, the Contracting Party shall identify the collaborating institute.
6. In cases where Contracting Parties select plan (i), predator monitoring, from the list in paragraph 4 above, those Parties shall, as far as possible, follow CEMP Standard Methods. Monitoring shall be conducted for a period of time sufficient both to cover the entire breeding period of land-based predators and to cover the duration of any exploratory fishing that occurs during their breeding season.
7. In cases where Contracting Parties select plan (ii), research survey conducted from a scientific vessel, from the list in paragraph 4 above, Contracting Parties shall, as far as possible, follow all data collection and analysis protocols specified for the CCAMLR-2000 Survey.
8. In cases where Contracting Parties select plans (iii) acoustic transects by fishing vessels, or (iv) research trawls by fishing vessels, from the list in paragraph 4 above, vessels participating in exploratory krill fisheries may carry out the research plan either before (preferred option) or after normal exploratory fishing operations. The research requirements must be completed within a fishing season.
9. For the purposes of this conservation measure, exploratory units are defined as areas of 1° latitude by 1° longitude size, and the vertices of these units shall occur at integer points of latitude and longitude within statistical subarea or divisions.



10. If the vessel undertakes Plan (iii), acoustic transects by fishing vessels, or Plan (iv), research trawls by fishing vessels, before normal exploratory fishing operations, then the research plan shall be conducted as follows:
  - (i) undertake a research plan for the exploratory units based on the area where it intends to fish;
  - (ii) during normal exploratory fishing operations, vessels can choose to fish in any exploratory unit;
  - (iii) complete additional research operations so that the number of exploratory units in which research operations are conducted by the end of fishing is greater than, or equal to, the catch obtained during normal fishing operations divided by 2 000 tonnes;
  - (iv) carry out its work so that exploratory units in which research operations are conducted surround and include the units where normal fishing operations are conducted.
11. If the vessel undertakes Plan (iii), acoustic transects by fishing vessels, or Plan (iv), research trawls by fishing vessels, after normal exploratory fishing operations, then the research plan shall be conducted as follows:
  - (i) during normal exploratory fishing operations, vessels can choose to fish in any exploratory unit, however, one set of acoustic transects or one set of research hauls must be conducted in each exploratory unit visited during normal fishing operations;
  - (ii) upon completion (either voluntarily or if the catch limit has been reached) of normal exploratory fishing operations, the vessel will transit to the nearest previously unvisited exploratory unit and begin research operations;
  - (iii) the vessel will determine how many previously unvisited exploratory units must be surveyed during research operations by dividing the catch obtained during normal exploratory fishing operations by 2 000 tonnes and rounding that number to the nearest integer;
  - (iv) the vessel will then select a number of exploratory units equal to the number of units determined by the calculation in item 11(ii) above and conduct one set of acoustic transects or one set of research hauls in each of these units;
  - (v) exploratory units visited during research operations must not have been visited during normal exploratory fishing operations;
  - (vi) the survey will be conducted in a way that ensures the exploratory units visited during research operations will surround the units in which normal exploratory fishing operations previously occurred.
12. Research hauls shall be conducted with nekton trawls commonly used in scientific research (e.g. IKMT or RMT type nets) that have 4–5 mm mesh, including the codend. Every research haul shall be a randomly located, oblique haul made to a

depth of 200 m or 25 m above the bottom (whichever is less) with a duration of 0.5 h. A set of research hauls is defined as three research hauls separated by a minimum of 10 n miles.

13. Acoustic transects shall be conducted using a scientific-quality echo sounder collecting information at a minimum frequency of 38 kHz with a minimum observing depth of 200 m. The echosounder should be calibrated prior to the vessel leaving port and, to the extent possible, on the actual fishing ground, and calibration data shall be reported with research transect data. If a vessel is unable to calibrate its echo sounder on the fishing grounds:
  - (i) acoustic transects comparable with transects visited in previous fishing seasons should be conducted on subsequent visits;
  - (ii) vessels undertaking continuous trawling should attempt to match some acoustic observations with respective trawl catches since they may be able to trawl more or less immediately after acoustic data have been recorded.

Every acoustic transect shall be a randomly located continuous path travelled at constant speed of 10 knots or less and in a constant direction. The minimum distance between the start and end points of a transect shall be 30 n miles, and a set of acoustic transects is defined as two transects separated by at least 10 n miles.

14. All acoustic transects, both during normal exploratory fishing operations and research operations, shall be accompanied by at least one net haul. These hauls can be conducted either with commercial trawls or with research trawls. Trawls that accompany acoustic transects can be conducted during the transect or immediately after the completion of the transect. In the latter case, the trawl shall be conducted along a previous segment of the transect line. Trawls that accompany acoustic transects shall be at least 0.5 h in duration, or of sufficient time to achieve a representative sample, and the data collected from these hauls shall be the same as those required for research hauls.

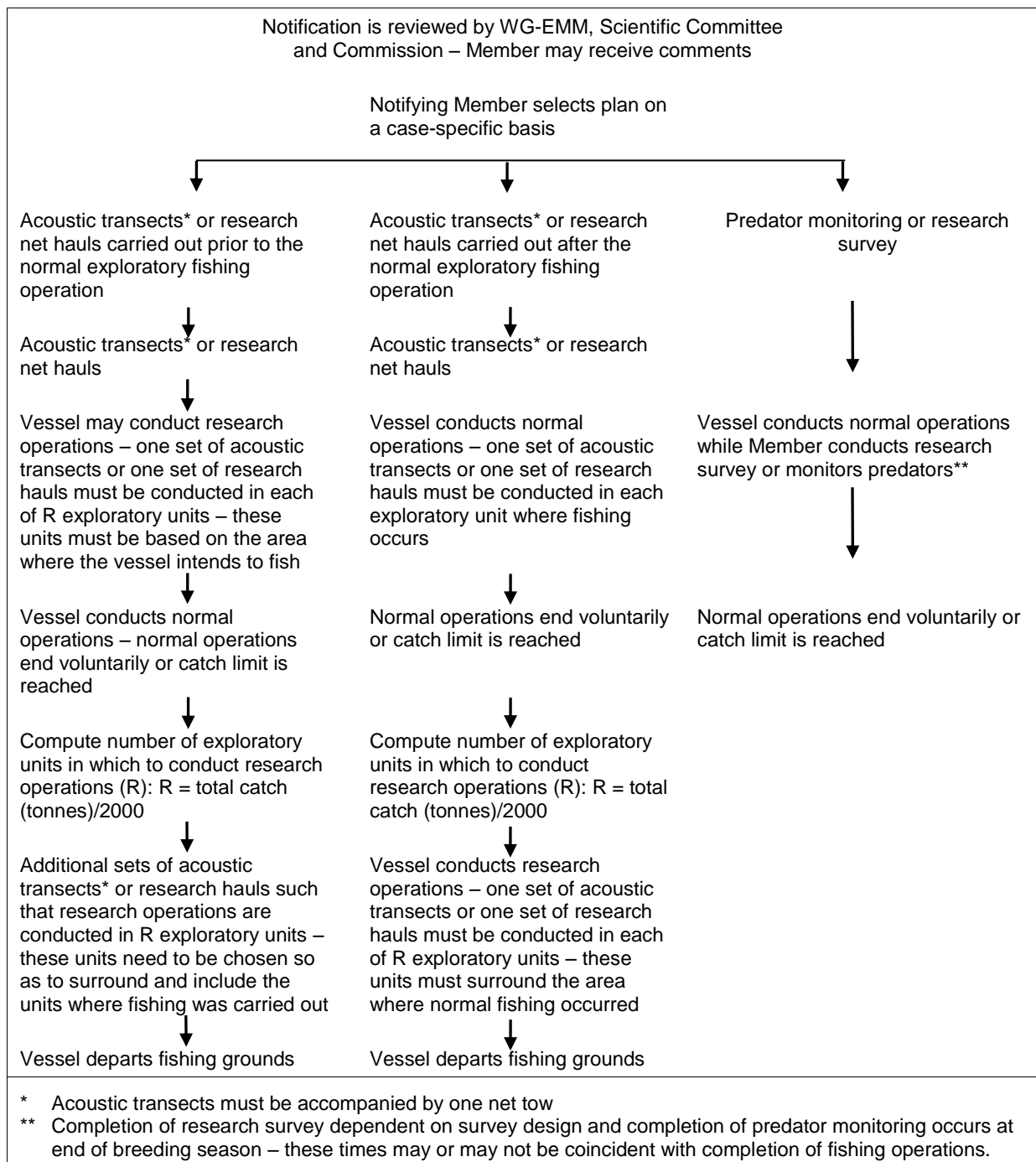


Figure 1: Schematic description of main operations to be conducted during the planning and prosecution of exploratory krill fisheries.