Conservation Measure 24-05 (2020)
Fishing for research purposes pursuant to Conservation
Measure 24-01

	24-05
Species	all
Area	all
Season	2020/21
Gear	all

The Commission,

- <u>Desiring</u> to increase clarity, traceability and transparency related to the details of fishing for research purposes,
- <u>Welcoming</u> the work of the Commission towards simplifying and harmonising the regulatory framework governing CCAMLR fisheries,
- <u>Recognising</u> the need to increase both transparency and documentation in relation to fishing for research purposes that has been authorised by the Commission,

hereby adopts the following conservation measure in accordance with Conservation Measure 24-01, paragraph 3(d):

- 1. For the 2020/21 season, the following research activities authorised each season pursuant to Conservation Measure 24-01, paragraph 3, or current multi-year research activities previously approved by the Commission, shall be conducted in accordance with the Research Plans endorsed by the Commission and the requirements of Conservation Measure 24-01 and this conservation measure (Table 1).
- 2. Unless otherwise specified in Conservation Measure 24-01 or column (e) of the table in paragraph 1 above, all relevant CCAMLR conservation measures apply to activities carried out under this conservation measure, including requirements related to mesh size, gear type, closed areas, size limits, incidental mortality, environmental protection, by-catch, compliance and data reporting.

Season

3. For the purposes of the definition of a season in this conservation measure, Conservation Measure 32-01 applies.

Research activities pursuant to Conservation Measure 24-01, paragraph 3, in 2020/21. Table 1:

(a) Area/ subarea/ division	(b) Member(s)	(c) Target species or taxa	(d) Catch limit ¹ (tonnes) or effort limit (sets/hauls)	(e) Specific conservation measure exemptions necessary for research	(f) Scientific Committee paragraphs
48.1	Ukraine	Dissostichus mawsoni	43 tonnes/29 sets ²	None	SC-CAMLR-39, 4.2 to 4.4
58.4.4b	Japan and France	Dissostichus eleginoides	32 tonnes ³	None	SC-CAMLR-39, 4.5
88.1	New Zealand	Dissostichus mawsoni	65 tonnes/(55 bottom sets and 10 vertical sets)	CM 31-02	SC-CAMLR-39, 4.5

If multiple Members are involved in a Research Plan, they will indicate the intended distribution of the catch limit, where specified, between them. 1

² The by-catch limit for *Macrourus* spp. for this research plan is 7 tonnes.
 ³ The catch limits in research blocks 5844b_1 and 5844b_2 shall respectively be 18 and 14 tonnes.

Conservation Measure 25-03 (2020)¹ Minimisation of the incidental mortality of seabirds and marine mammals in the course of trawl fishing in the Convention Area

	25-03
Species	seabirds,
	marine mammals
Area	all
Season	all
Gear	trawl

The Commission,

Noting the need to reduce the incidental mortality of, or injury to, seabirds and marine mammals from fishing operations,

<u>Adopts</u> the following measures to reduce the incidental mortality of, or injury to, seabirds and marine mammals during trawl fishing.

- 1. The use of net monitor cables on vessels in the CAMLR Convention Area is prohibited².
- 2. Vessels operating within the Convention Area should at all times arrange the location and level of lighting so as to minimise illumination directed out from the vessel, consistent with the safe operation of the vessel.
- 3. The discharge of offal^{3,4} and discards⁵ shall be prohibited during the shooting and hauling of trawl gear.
- 4. Nets shall be cleaned prior to shooting to remove items that might attract birds.
- 5. Vessels should adopt shooting and hauling procedures that minimise the time that the net is lying on the surface of the water with the meshes slack. Net maintenance should, to the extent possible, not be carried out with the net in the water.
- 6. Vessels should be encouraged to develop gear configurations that will minimise the chance of birds encountering the parts of the net to which they are most vulnerable. This could include increasing the weighting or decreasing the buoyancy of the net so that it sinks faster, or placing coloured streamers or other devices over particular areas of the net where the mesh sizes create a particular danger to birds.
 - ¹ Except for waters adjacent to the Kerguelen and Crozet Islands
 - ² Net monitoring cables may be used on vessels using continuous trawling methods during the 2020/21 fishing season provided the vessels follow the specifications of a trial of mitigation devices outlined in SC-CAMLR-38, paragraphs 5.13 and 5.14. Vessels that participated in the trial during the 2019/20 fishing season shall also take account of CCAMLR-39, paragraph 5.63. Other vessels are encouraged to give due consideration to CCAMLR-39, paragraph 5.63. All Members with vessels conducting the trial shall provide a detailed preliminary report of the trial to the next meeting of the Working Group on Fish Stock Assessment (WG-FSA), and a complete report to the next meeting of WG-FSA after the completion of a full season of fishing. All vessels conducting the trial shall report results to WG-FSA, and this trial exemption will be reviewed at CCAMLR-40 following further advice from the Scientific Committee. This trial should compare different mitigation options for practicality and effectiveness in mitigating bird strikes on fishing-related cables (warps and net monitoring cables) in continuous trawling operations.
 - ³ 'Offal' is defined as bait and by-products from the processing of fish and other organisms, including parts or sections of fish or organisms which are by-products of processing.
 - ⁴ 'Stick water' is a liquid discharge produced as a by-product of processing of krill and fish. As stick water does not contain a source of food for birds, it is not considered as offal (see footnote 3).
 - ⁵ For the purpose of this conservation measure, 'discards' are defined as whole fish or other organisms, except elasmobranchs and invertebrates where the vessel is fishing north of 60°S, returned to the sea

dead or with low expectation of survival, as described in the Observer Longline Logbook 'Observed Haul Catch' form instructions.

25-03

Conservation Measure 32-09 (2020) Prohibition of directed fishing for *Dissostichus* spp. except in accordance with specific conservation measures in the 2020/21 season

	32-09
Species	toothfish
Area	48.5
Season	2020/21
Gear	all

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

Directed fishing for *Dissostichus* spp. in Statistical Subarea 48.5 is prohibited from 1 December 2020 to 30 November 2021.

		33-02
Conservation Measure 33-02 (2020)	Species	by-catch
Limitation of by-catch in Statistical Division 58.5.2	Area	58.5.2
in the 2020/21 seeson	Season	2020/21
in the 2020/21 season	Gear	all

22 02

- 1. There shall be no directed fishing for any species other than *Dissostichus eleginoides* and *Champsocephalus gunnari* in Statistical Division 58.5.2 in the 2020/21 fishing season.
- 2. In directed fisheries in Statistical Division 58.5.2 in the 2020/21 season, the by-catch of *Channichthys rhinoceratus* shall not exceed 1 663 tonnes, the by-catch of *Lepidonotothen* squamifrons shall not exceed 80 tonnes, the by-catch of *Macrourus caml* and *Macrourus whitsoni* combined shall not exceed 409 tonnes, the by-catch of *Macrourus holotrachys* and *Macrourus carinatus* combined shall not exceed 360 tonnes, and the by-catch of skates and rays shall not exceed 120 tonnes. For the purposes of this measure 'skates and rays' should be counted as a single species.
- 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.
- 4. If, in the course of a directed fishery, the by-catch in any one haul¹ is equal to, or greater than, 5 tonnes for *Channichthys rhinoceratus*, 3 tonnes for all *Macrourus* spp. combined, or 2 tonnes for *Lepidonotothen squamifrons*, or 2 tonnes of *Somniosus* spp., or 2 tonnes of skates and rays, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles² of the location where the by-catch limit is exceeded for a period of at least five days³. The location where the by-catch limit is exceeded is defined as the path⁴ followed by the fishing vessel.
- 5. If, in the course of a directed fishery, the by-catch in any one haul¹ of any other by-catch species for which by-catch limitations apply under this conservation measure is equal to, or greater than, 1 tonne, then the fishing vessel shall not fish using that method of fishing at any point within 5 n miles² of the location where the by-catch exceeded 1 tonne for a period of at least five days³. The location where the by-catch exceeded 1 tonne is defined as the path⁴ followed by the fishing vessel.
 - ¹ For the purposes of this conservation measure, for a longline, each haul applies to a single longline regardless of how contiguous sections of gear are connected.
 - ² 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.
 - ³ The specified period is adopted in accordance with the reporting period specified in Conservation Measure 23-01, pending the adoption of a more appropriate period by the Commission.
 - ⁴ For a trawl, the path is defined 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. For a longline or a pot line, the path is defined from the point at which the first anchor of a set was deployed to the point at which the last anchor of that set was deployed.

		55-05
Conservation Measure 33-03 (2020) ^{1,2}	Species	by-catch
Limitation of by-catch in new and exploratory fisheries	Area	various
in the 2020/21 seeson	Season	2020/21
III the 2020/21 season	Gear	all

22 02

- 1. This conservation measure applies to new and exploratory fisheries in the 2020/21 season, except where specific by-catch limits apply. Directed fishing shall not take place in the 2020/21 season in Statistical Divisions 58.4.1 and 58.4.3a.
- 2. The catch limits for all by-catch are set out in Annex 33-03/A. Within these catch limits, the total catch³ of by-catch, excluding individuals released alive in any small-scale research unit (SSRU), group of SSRUs or research block for which a specific catch limit (including a zero catch limit) is in place as defined in relevant conservation measures, shall not exceed the following limits:
 - skates and rays: 5% of the catch limit of *Dissostichus* spp.
 - Macrourus spp.: 16% of the catch limit for Dissostichus spp.
 - all other species 16% of the catch limit for *Dissostichus* spp.
- 3. For the purposes of this measure '*Macrourus* spp.' and 'skates and rays' should each be counted as a single species.
- 4. On all vessels, all skates and rays must be brought on board or alongside the vessel to be checked for tags and for their condition to be assessed. Recaptured tagged skates and rays, as per Conservation Measure 41-01, Annex 41-01/C, paragraphs 2(vii) and (ix), should not be re-released. Unless otherwise specified by scientific observers, all other skates and rays caught alive and with a high probability of survival should be released alive, by vessels, by cutting snoods, and when practical, removing the hooks, and the number should be recorded and reported to the Secretariat.
- 5. If the by-catch of any one species is equal to, or greater than, 1 tonne in any one haul or set⁴, then the fishing vessel shall move to another location at least 5 n miles⁵ distant. The fishing vessel shall not return to any point within 5 n miles of the location where the by-catch exceeded 1 tonne for a period of at least five days⁶. The location where the by-catch exceeded 1 tonne is defined as the path⁷ followed by the fishing vessel.
- 6. If the catch of *Macrourus* spp. taken by a single vessel in any two 10-day periods⁸ in any SSRU, group of SSRUs or research block for which a specific catch limit (including a zero catch limit) is in place exceeds 1 500 kg in each 10-day period and exceeds 16% of the catch of *Dissostichus* spp. by that vessel in that SSRU, group of SSRUs or research block for which a specific catch limit (including a zero catch limit) is in place in those periods, the vessel shall cease fishing in that SSRU, group of SSRUs or research block for which a specific catch limit (including a zero catch limit) is in place in those periods, the vessel shall cease fishing in that SSRU, group of SSRUs or research block for which a specific catch limit (including a zero catch limit) is in place for the remainder of the season.
 - ¹ Except for waters adjacent to the Kerguelen and Crozet Islands
 - ² Except for waters adjacent to the Prince Edward Islands
 - ³ Total green weight caught, excluding individuals released alive.
 - ⁴ For the purposes of this conservation measure, for a longline, each haul applies to a single longline regardless of how contiguous sections of gear are connected.
 - ⁵ 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.

33-03

- ⁶ The specified period is adopted in accordance with the reporting period specified in Conservation Measure 23-01, pending the adoption of a more appropriate period by the Commission.
- ⁷ For a trawl, the path is defined 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. For a longline, the path is defined from the point at which the first anchor of a set was deployed to the point at which the last anchor of that set was deployed.
- ⁸ A 10-day period is defined as day 1 to day 10, day 11 to day 20, or day 21 to the last day of the month.

Annex 33-03/A

Subarea/	Research	Dissostichus spp.	I	By-catch catch limit	
division	block	catch limit (tonnes)	Skates and rays (tonnes)	Macrourus spp. (tonnes)	Other species (tonnes)
48.6	486_2	112	6	18	18
48.6	486_3	30	2	5	5
48.6	486_4	163	8	26	26
48.6	486_5	263	13	42	42
58.4.1	5841_1	138	7	22	22
58.4.1	5841_2	139	7	22	22
58.4.1	5841_3	119	6	19	19
58.4.1	5841_4	23	1	4	4
58.4.1	5841_5	60	3	10	10
58.4.1	5841_6	104	5	17	17
58.4.2	5842_1	60	3	10	10
58.4.3a	5843a_1	19	1	3	3
88.2	882_1	192	10	31	31
88.2	882_2	186	9	30	30
88.2	882_3	170	9	27	27
88.2	882_4	128	6	20	20
88.2	SSRU H	128	6	20	20
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Table 1: By-catch catch limits for new and exploratory fisheries in 2020/21.

Conservation Measure 41-01 (2020)^{1,2} General measures for exploratory fisheries for *Dissostichus* spp. in the Convention Area in the 2020/21 season

	41-01
Species	toothfish
Area	various
Season	2020/21
Gear	longline, trawl

The Commission 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 small-scale research unit (SSRU) shall cease when the reported catch reaches the specified catch limit and that SSRU shall be closed to fishing for the remainder of the season.
- 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 midpoint of the path between the start point and end point of the haul for the purposes of catch and effort reporting;
 - (ii) the precise geographic position of a haul/set in longline fisheries will be determined by the centre point of the line or lines deployed for the purposes of catch and effort reporting;
 - (iii) the vessel will be deemed to be fishing in any SSRU from the beginning of the setting process until the completion of the hauling of all lines;
 - (iv) catch and effort information for each species by SSRU shall be reported to the Executive Secretary each day using the Daily Catch and Effort Reporting System set out in Conservation Measure 23-07;
 - (v) the Secretariat shall notify Contracting Parties participating in these fisheries when the total catch for *Dissostichus eleginoides* and *Dissostichus mawsoni* combined in any SSRU is likely to reach the specified catch limit, and of the closure of that SSRU when that limit is reached³. No part of a trawl path may lie within a closed SSRU and no part of a longline may be set within a closed SSRU.
- 4. The by-catch in each exploratory fishery shall be regulated as in Conservation Measure 33-03.
- 5. The total number and weight of *Dissostichus eleginoides* and *Dissostichus mawsoni* discarded, including those with the 'jellymeat' condition, shall be reported.
- 6. Each vessel participating in the exploratory fisheries for *Dissostichus* spp. during the 2020/21 season shall have one scientific observer appointed in accordance with the

41-01

CCAMLR Scheme of International Scientific Observation and, where possible, one additional scientific observer, on board throughout all fishing activities within the fishing season.

- 7. The Data Collection Plan (Annex 41-01/A), Research Plan (Annex 41-01/B) and Tagging Program (Annex 41-01/C) shall be implemented. Data collected pursuant to the Data Collection and Research Plans for the period up to 31 August 2021 shall be reported to CCAMLR by 30 September 2021 so that the data will be available to the meeting of the Working Group on Fish Stock Assessment (WG-FSA) in 2021. Such data taken after 31 August 2021 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.
- 8. Members who choose not to participate in the fishery prior to the commencement of the fishery shall inform the Secretariat of changes in their plans no later than one month before the start of the fishery. If, for whatever reason, Members are unable to participate in the fishery, they shall inform the Secretariat no later than one week after finding that they cannot participate. The Secretariat will inform all Contracting Parties immediately after such notification is received.
 - ¹ Except for waters adjacent to the Kerguelen and Crozet Islands
 - ² Except for waters adjacent to the Prince Edward Islands
 - ³ The closure of fisheries is governed by Conservation Measure 31-02.

Annex 41-01/A

Data Collection Plan for exploratory fisheries

- 1. All vessels will comply with the Daily Catch and Effort Reporting Systems (Conservation Measure 23-07) and Monthly Fine-scale Catch, Effort and Biological Data Reporting Systems (Conservation Measures 23-04 and 23-05).
- 2. The vessel shall ensure that sufficient samples are made available to the on-board observers to enable collection of all data required by the <u>Observer Sampling</u> <u>Requirements¹</u> and those specified for the current season, and as described in the <u>Scientific</u> <u>Observer's Manual Finfish Fisheries¹</u>.
- 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.
 - ¹ Available from the CCAMLR website.

41-01 Annex 41-01/B

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. Except when fishing in Statistical Subareas 88.1 and 88.2, any vessel must operate in accordance with the research activities agreed by the Scientific Committee for 2020/21. Only research hauls shall be deployed during these activities¹.
- 4. To be designated as a research haul:
 - (i) each research haul must be separated² by not less than 3 n miles from any other research haul, distance to be measured from the geographical midpoint of each research haul;
 - (ii) each haul shall comprise: for longlines, at least 3 500 hooks and no more than 5 000 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 Area³ (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.
- 5. In the exploratory fisheries, all data specified in the Data Collection Plan (Annex 41-01/A) of this conservation measure shall be collected for every haul.
- 6. The vessel shall ensure that the observer has access to sufficient samples to enable collection of all data required by the <u>Observer Sampling Requirements</u>³ and those specified in the Data Collection Plan (Annex 41-01/A) for the current season, and as described in the <u>Scientific Observer's Manual Finfish Fisheries</u>³.
 - ¹ Vessels shall prioritise conducting research sets within the designated research blocks. However, in research blocks where access is reduced due to sea-ice, the following procedure shall be applied:
 - (i) in the event that a vessel attempts research fishing in a research block and finds that insufficient area is accessible to conduct research sets, the vessel shall notify the Secretariat, and may attempt to set research sets in a buffer zone up to one fine-scale rectangle wide around the research block, or move to another research block;
 - (ii) if this buffer zone is also inaccessible due to sea-ice, the vessel shall notify the Secretariat, and then the vessel may attempt to set research lines in an extended buffer zone up to two fine-scale rectangles wide around the research block, or move to another research block;
 - (iii) if, during the course of fishing in the buffer zone or the extended buffer zone, sea-ice conditions change such that sufficient area to conduct research sets in the original research block become accessible, then the vessel shall prioritise further research hauls within the original research block;
 - (iv) if the research block, buffer zone and/or extended buffer zone are all inaccessible, the vessel may move to any other designated research block where the catch limit has not been reached.
 - ² In the research activities conducted in 2020/21, 50% of research lines could be set with less than 3 n miles separation.
 - ³ Available from the CCAMLR website.

 Table 1:
 Description of small-scale research units (SSRUs) (see also Figure 1).

SSRU	Boundary line
486A	From 50°S 20°W, due east to 1°30'E, due south to 60°S, due west to 20°W, due north to 50°S.
486B	From 60°S 20°W, due east to 10°W, due south to coast, westward along coast to 20°W, due north to 60°S.
486C	From 60°S 10°W, due east to 0° longitude, due south to coast, westward along coast to 10°W, due north to 60°S.
486D	From 60°S 0° longitude, due east to 10°E, due south to coast, westward along coast to 0° longitude, due north to 60°S.
486E	From 60°S 10°E, due east to 20°E, due south to coast, westward along coast to 10°E, due north to 60°S.
486F	From 60°S 20°E, due east to 20°E, due south to coast, westward along coast to 10°E, due north to 60°S.
486F	From 60°S 10°E, due east to 30°E, due south to coast, westward along coast to 20°E, due north to 60°S.
486G	From 50°S 1°30'E, due east to 30°E, due south to 60°S, due west to 1°30'E, due north to 50°S.
5841A	From 55°S 86°E, due east to 150°E, due south to 60°S, due west to 86°E, due north to 55°S.
5841B	From 60°S 86°E, due east to 90°E, due south to coast, westward along coast to 80°E, due north to 64°S, due east to 86°E, due north to 60°S.
5841C	From 60°S 90°E, due east to 100°E, due south to coast, westward along coast to 90°E, due north to 60°S.
5841D	From 60°S 100°E, due east to 110°E, due south to coast, westward along coast to 100°E, due north to 60°S.
5841E	From 60°S 100°E, due east to 120°E, due south to coast, westward along coast to 110°E, due north to 60°S.
5841F	From 60°S 120°E, due east to 130°E, due south to coast, westward along coast to 120°E, due north to 60°S.
5841F	From 60°S 130°E, due east to 140°E, due south to coast, westward along coast to 120°E, due north to 60°S.
5841G	From 60°S 130°E, due east to 140°E, due south to coast, westward along coast to 130°E, due north to 60°S.
5841H	From 60°S 140°E, due east to 150°E, due south to coast, westward along coast to 130°E, due north to 60°S.
5842A	From 62°S 30°E, due east to 40°E, due south to coast, westward along coast to 30°E, due north to 62°S.
5842B	From 62°S 40°E, due east to 50°E, due south to coast, westward along coast to 40°E, due north to 62°S.
5842C	From 62°S 50°E, due east to 60°E, due south to coast, westward along coast to 50°E, due north to 62°S.
5842D	From 62°S 60°E, due east to 70°E, due south to coast, westward along coast to 60°E, due north to 62°S.
5842E	From 62°S 70°E, due east to 73°10'E, due south to 64°S, due east to 80°E, due south to coast, westward along coast to 70°E, due north to 62°S.
5843aA	Whole division, from 56°S 60°E, due east to 73°10'E, due south to 62°S, due west to 60°E, due north to 56°S.
5843bA	From 56°S 73°10'E, due east to 79°E, south to 59°S, due west to 73°10'E, due north to 56°S.
5843bB	From 60°S 73°10'E, due east to 86°E, south to 64°S, due west to 73°10'E, due north to 60°S.
5843bC	From 59°S 73°10'E, due east to 79°E, south to 60°S, due west to 73°10'E, due north to 59°S.
5843bD	From 59°S 79°E, due east to 86°E, south to 60°S, due west to 79°E, due north to 59°S.
5843bE	From 59°S 79°E, due east to 86°E, south to 60°S, due west to 79°E, due north to 59°S.
5844A	From 51°S 40°E, due east to 42°E, due south to 54°S, due west to 40°E, due north to 51°S.
5844B	From 51°S 42°E, due east to 46°E, due south to 54°S, due west to 42°E, due north to 51°S.
5844C	From 51°S 46°E, due east to 50°E, due south to 54°S, due west to 46°E, due north to 51°S.
5844D	Whole division excluding SSRUs A, B, C, and with outer boundary from 50°S 30°E, due east to 60°E, due south to 62°S, due west to 30°E, due north to 50°S.

continued

Table 1 (continued)

SSRU	Boundary line
586B 586C 586D	From 45°S 44°E, due east to 48°E, due south to 48°S, due west to 44°E, due north to 45°S. From 45°S 48°E, due east to 51°E, due south to 48°S, due west to 48°E, due north to 45°S. From 45°S 51°E, due east to 54°E, due south to 48°S, due west to 51°E, due north to 45°S.
587A 587B	From 45°S 37°E, due east to 40°E, due south to 48°S, due west to 37°E, due north to 45°S. From 45°S 40°E, due east to 44°E, due south to 48°S, due west to 40°E, due north to 45°S.
881A 881B 881C 881D 881E 881F 881G 881H 881I 881J 881K 881L 881L	From 60°S 150°E, due east to 170°E, due south to 65°S, due west to 150°E, due north to 60°S. From 60°S 170°E, due east to 179°E, due south to 66°40'S, due west to 170°E, due north to 60°S. From 60°S 179°E, due east to 170°W, due south to 70°S, due west to 178°W, due north to 66°40'S, due west to 179°E, due north to 60°S. From 65°S 150°E, due east to 160°E, due south to coast, westward along coast to 150°E, due north to 65°S. From 65°S 160°E, due east to 170°E, due south to 68°30'S, due west to 160°E, due north to 65°S. From 68°30'S 160°E, due east to 170°E, due south to coast, westward along coast to 160°E, due north to 68°30'S. From 66°40'S 170°E, due east to 170°E, due south to 70°S, due west to 178°50'E, due south to 70°50'S, due west to 170°E, due north to 66°40'S. From 70°50'S 170°E, due east to 178°W, due south to 73°S, due west to 178°50'E, due south to 70°50'S, due west to 170°E, due north to 66°40'S. From 70°50'S 170°E, due east to 178°50'E, due south to 73°S, due west to 178°50'E, due north to 70°50'S. From 70°S 178°50'E, due east to 178°50'E, due south to 73°S, due west to 178°50'E, due north to 70°S. From 73°S at coast near 170°E, due east to 178°50'E, due south to 80°S, due west to 170°E, northward along coast to 73°S. From 76°S 178°50'E, due east to 170°W, due south to 76°S, due west to 178°50'E, due north to 73°S. From 76°S 178°50'E, due east to 170°W, due south to 80°S, due west to 178°50'E, due north to 73°S. From 76°S 178°50'E, due east to 170°W, due south to 80°S, due west to 178°50'E, due north to 73°S. From 76°S 178°50'E, due east to 170°W, due south to 80°S, due west to 178°50'E, due north to 73°S. From 73°S at coast near 169°30'E, due east to 170°E, due south to 80°S, due west to 178°50'E, due north to 73°S. From 73°S at coast near 169°30'E, due east to 170°E, due south to 80°S, due west to coast, northward along coast to 73°S.
882A 882B 882C 882D 882E 882F 882G 882H 882I 883A 883B 883C 883D	From 60°S 170°W, due east to 160°W, due south to coast, westward along coast to 170°W, due north to 60°S. From 60°S 160°W, due east to 150°W, due south to coast, westward along coast to 160°W, due north to 70°50'S. From 70°50'S 150°W, due east to 130°W, due south to coast, westward along coast to 150°W, due north to 70°50'S. From 70°50'S 140°W, due east to 120°W, due south to coast, westward along coast to 140°W, due north to 70°50'S. From 70°50'S 130°W, due east to 120°W, due south to coast, westward along coast to 130°W, due north to 70°50'S. From 70°50'S 120°W, due east to 110°W, due south to coast, westward along coast to 120°W, due north to 70°50'S. From 70°50'S 110°W, due east to 110°W, due south to coast, westward along coast to 120°W, due north to 70°50'S. From 65°S 150°W, due east to 105°W, due south to coast, westward along coast to 110°W, due north to 70°50'S. From 65°S 150°W, due east to 105°W, due south to coast, westward along coast to 110°W, due north to 70°50'S. From 60°S 150°W, due east to 105°W, due south to 65°S, due west to 150°W, due north to 60°S. From 60°S 150°W, due east to 95°W, due south to coast, westward along coast to 105°W, due north to 60°S. From 60°S 95°W, due east to 75°W, due south to coast, westward along coast to 95°W, due north to 60°S. From 60°S 85°W, due east to 75°W, due south to coast, westward along coast to 95°W, due north to 60°S. From 60°S 75°W, due east to 75°W, due south to coast, westward along coast to 95°W, due north to 60°S. From 60°S 75°W, due east to 75°W, due south to coast, westward along coast to 85°W, due north to 60°S. From 60°S 75°W, due east to 75°W, due south to coast, westward along coast to 85°W, due north to 60°S. From 60°S 75°W, due east to 75°W, due south to coast, westward along coast to 95°W, due north to 60°S.



This is a preliminary version of the conservation measuresfurther checking and verification is to be done by the Secretariat

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.

41-01 Annex 41-01/C

Tagging program for *Dissostichus* spp. and skates in exploratory fisheries

- 1. The responsibility for ensuring tagging, tag recovery and correct reporting shall lie with the Flag State of the fishing vessel. The fishing vessel shall cooperate with the CCAMLR scientific observer in undertaking the tagging program.
- 2. This program shall apply in each exploratory longline fishery, and any vessel that participates in more than one exploratory fishery shall apply the following in each exploratory fishery in which that vessel fishes:
 - (i) Each longline vessel shall tag and release *Dissostichus* spp., continuously while fishing, at a rate specified in the conservation measure for that fishery according to the <u>CCAMLR Tagging Protocol</u>¹.
 - (ii) The program shall target toothfish of all sizes in order to meet the tagging requirements. Only fish suitable to tag using the suitability criteria in the CCAMLR Tagging Protocol shall be tagged and released. The availability of these fish shall be reported by the observer. All released toothfish must be double-tagged. All toothfish that are not tagged must be retained.
 - (iii) The length frequency of tagged toothfish shall reflect the length frequency of the catch². Each vessel shall achieve a minimum tag-overlap statistic³ of 60% for each species of *Dissostichus*. However, for any vessel fishing for *Dissostichus* spp. which meets the required tagging rate, the minimum tag overlap statistic of 60% shall not apply for a species of *Dissostichus* for which less than 30 fish have been tagged.
 - (iv) Releases should cover as broad a geographical area as possible. In regions where both species occur, the tagging rate shall be in proportion to the species and lengths of each *Dissostichus* spp. present in the catch.
 - (v) Members wishing to tag skates are advised to follow the protocols developed during the Year-of-the-Skate.
 - (vi) During the 2019/20 and 2020/21 seasons, each longline vessel operating in Statistical Subarea 88.1 and SSRUs 882A–B shall tag and release by-caught skates according to the CCAMLR Tagging Protocol, as specified in the conservation measure for that fishery. All tagged skates must be double-tagged and released alive.
 - (vii) All toothfish and skate tags for use in exploratory fisheries shall be sourced from the Secretariat.
 - (viii) All toothfish shall be examined for the presence of tags. All skates shall be brought on board or alongside the vessel to be checked for tags and for their condition to be

assessed. Recaptured tagged fish (i.e. fish caught that have a previously inserted tag) shall not be re-released, even if at liberty for only a short period.

- (ix) Recaptured tagged toothfish should be biologically sampled (length, weight, sex, gonad stage) and an electronic time-stamped photograph taken of the tag together with recovered otoliths, detailing the number and colour of the tag.
- (x) Recaptured tagged skates should be identified to the lowest possible taxonomic level and biologically sampled (pelvic length and disc width, weight, sex, gonad stage and caudal thorns for samples in Statistical Subarea 88.1 and SSRUs 882A–B), two electronic time-stamped photographs should be taken, one of the whole skate with tag attached and one close-up of the tag detailing the number and colour of the tag.
- 3. Toothfish that are tagged and released shall not be counted against the catch limits.
- 4. All relevant tag data, and any data recording tag recaptures, shall be reported electronically in the CCAMLR format⁴ to the Executive Secretary (i) by the vessel every month along with its monthly fine-scale catch and effort (C2) data, and (ii) by the observer as part of the data reporting requirements for observer data⁴.
- 5. All relevant tag data, any data recording tag recaptures, and specimens (tags and otoliths) from recaptures shall also be reported electronically in the CCAMLR format⁴ to the relevant regional tag data repository as detailed in the <u>CCAMLR Tagging Protocol</u>^{1,4}.
 - ¹ Available from the CCAMLR website.
 - ² Vessels may implement this requirement by tagging fish at an appropriate rate per number of fish brought alongside the hauler. See the CCAMLR Tagging Protocol for further guidance.
 - ³ The tag overlap statistic (θ) shall be calculated as follows:

$$\theta = \left(1 - \frac{\sum_{i=1}^{n} |P_{i} - P_{c}|}{2}\right) \times 100$$

where P_t is the proportion of all fish tagged in length bin *i*, P_c is the proportion of all fish caught (i.e. the sum of all fish caught and either landed or tagged and released), for 10 cm length bins. In accordance with the CCAMLR Tagging Protocol for exploratory fisheries.

		41-03
Conservation Measure 41-03 (2020)	Species	toothfish
Limits on the fishery for <i>Dissostichus</i> spp. in Statistical	Area	48.4
Subaras 18 1 in the 2020/21 season	Season	2020/21
Subarca 40.4 III uic 2020/21 Scasoli	Gear	longline

- Access 1. Directed fishing shall be by longlines only. The use of all other methods of directed fishing for *Dissostichus* spp. in Statistical Subarea 48.4 shall be prohibited.
 - 2. For the purpose of this fishery, the area open to fishing is defined as that portion of Statistical Subarea 48.4 that lies within the area bounded by latitudes 55°30'S and 57°20'S and by longitudes 25°30'W and 29°30'W, and by latitudes 57°20'S and 60°00'S and by longitudes 24°30'W and 29°00'W.
 - 3. A map illustrating the areas defined by paragraph 2 is appended to this conservation measure (Annex 41-03/A). The portion of Statistical Subarea 48.4 outside that defined above shall be closed to directed fishing for *Dissostichus* spp. in the 2020/21 season.
- Catch limit 4. The total catch of *Dissostichus eleginoides* shall be limited to 27 tonnes.
 - 5. The total catch of *Dissostichus mawsoni* shall be limited to 45 tonnes.
- Season
 6. For the purposes of the fishery for *Dissostichus* spp. in Statistical Subarea 48.4, the fishing season shall be 1 December 2020 to 30 November 2021, or until the catch limits for both species are reached, whichever is sooner. If the catch limit for *Dissostichus mawsoni* is reached prior to the closure of the fishery, the area south of latitude 57°20'S shall be closed. If the catch limit for *Dissostichus eleginoides* is reached prior to the closure of the fishery, the area north of 58°00'S shall be closed.
- By-catch
- 7. The by-catch of finfish shall not exceed 3.6 tonnes for skates and rays and 11.5 tonnes for *Macrourus* spp.
- 8. The by-catch of finfish shall trigger a move-on rule if the catch of skates and rays exceeds 5% of the catch of *Dissostichus* spp. in any one haul or set, or if the catch of *Macrourus* spp. reaches 150 kg and exceeds 16% of the catch of *Dissostichus* spp. in any one haul or set. If the move-on rule is triggered, then the fishing vessel shall move to another location at least 5 n miles¹ distant. The fishing vessel shall not return to any point within 5 n miles of the location where the move-on rule was triggered for a period of at least five days². The location where the move-on rule was triggered is defined as the path³ followed by the fishing vessel.
- 9. For the purpose of these by-catch limits, '*Macrourus* spp.' and 'skates and rays' shall each be counted as a single species.
- Mitigation 10. Fishing in Statistical Subarea 48.4 shall be carried out in accordance with the provisions of Conservation Measure 25-02.

41-03

- 11. Any vessel catching a total of three (3) seabirds shall immediately be required to set longlines at night only (i.e. during the hours of darkness between the times of nautical twilight⁴)⁵.
- Observers 12. Each vessel participating in the fishery for *Dissostichus* spp. in Statistical Subarea 48.4 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.

Data: catch/effort

- 13. For the purpose of implementing this conservation measure, the following shall apply:
 - (i) the Five-day Catch and Effort Reporting System set out in Conservation Measure 23-01;
 - (ii) the Monthly Fine-scale Catch and Effort Data Reporting System set out in Conservation Measure 23-04. Data shall be reported on a haul-by-haul basis. For the purposes of Conservation Measure 23-04, the target species are *Dissostichus eleginoides* and *Dissostichus mawsoni*, and 'by-catch species' are defined as any species other than *Dissostichus* spp.

Data: biological

- 14. Fine-scale biological data, as required under Conservation Measure 23-05, shall be collected and recorded. Such data shall be reported in accordance with the CCAMLR Scheme of International Scientific Observation.
- Tagging program
- 15. Each vessel taking part in the fishery for *Dissostichus* spp. in Statistical Subarea 48.4 shall undertake a tagging program in accordance with the CCAMLR Tagging Protocol. The following additional provisions shall apply:
 - (i) fish should be tagged at an average rate of five fish per tonne of green weight catch throughout the season;
 - (ii) fish should be tagged that have been caught across as broad a range of depths within the designated area as practicable;
 - (iii) fish of a range of total lengths should be tagged.

Environmental protection

- 16. Conservation Measure 26-01 applies.
 - ¹ 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.
 - ² The specified period is adopted in accordance with the reporting period specified in Conservation Measure 23-01, pending the adoption of a more appropriate period by the Commission.
 - ³ For a longline or a pot, the path is defined from the point at which the first anchor of a set was deployed to the point at which the last anchor of that set was deployed.

41-03

- ⁴ The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time (UTC).
- ⁵ 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).

Annex 41-03/A

Statistical Subarea 48.4 – The fishery as defined in paragraph 2. Latitudes and longitudes are given in degrees, and the dashed lines indicate latitudes $57^{\circ}20$ 'S and $58^{\circ}00$ 'S (refer paragraph 6).



J		
		41-04
Conservation Measure 41-04 (2020)	Species	toothfish
Limits on the exploratory fishery for <i>Dissostichus mawsoni</i>	Area	48.6
in Statistical Subaras 48.6 in the 2020/21 sasson	Season	2020/21
III Statistical Subarca 40.0 III tile 2020/21 Season	Gear	longline

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02:

Access	1.	Fishing for <i>Dissostichus mawsoni</i> in Statistical Subarea 48.6 shall be limited to the exploratory longline fishery by Japan, South Africa and Spain. The fishery shall be conducted by Japanese, South African and Spanish flagged vessels using longlines only. No more than one vessel per country shall fish at any one time.
	2.	This fishery shall be subject to the conditions in Conservation Measure 41-01, Annex 41-01/B. For the purpose of this fishery, the area open to fishing is defined by the research blocks in Annex 41-04/A.
Catch limit	3.	The total catch of <i>Dissostichus mawsoni</i> in Statistical Subarea 48.6 in the 2020/21 season shall not exceed a precautionary catch limit of 568 tonnes applied as follows:
		Research block $48.6_2 - 112$ tonnes Research block $48.6_3 - 30$ tonnes Research block $48.6_4 - 163$ tonnes Research block $48.6_5 - 263$ tonnes.
Season	4.	For the purpose of the exploratory longline fishery for <i>Dissostichus mawsoni</i> in Statistical Subarea 48.6, the 2020/21 season is defined as the period from 1 December 2020 to 30 November 2021.
By-catch	5.	The by-catch in this fishery shall be regulated as set out in Conservation Measure 33-03.
Mitigation	6.	The exploratory longline fishery for <i>Dissostichus mawsoni</i> in Statistical Subarea 48.6 shall be carried out in accordance with the provisions of Conservation Measure 25-02.
	7.	Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight ¹) ² .
Observers	8.	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 the fishing period.
Data: catch/effort	9.	For the purpose of implementing this conservation measure in the 2020/21 season, the following shall apply:

41-04

- (i) the Daily Catch and Effort Reporting System set out in Conservation Measure 23-07;
- (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 23-04. Fine-scale data shall be submitted on a haul-by-haul basis.
- 10. For the purpose of Conservation Measures 23-07 and 23-04, the target species is *Dissostichus mawsoni* (any *Dissostichus eleginoides* caught shall be counted towards the overall catch limit for *Dissostichus mawsoni*) and 'by-catch species' are defined as any species other than *Dissostichus* spp.
- Data:
biological11.Fine-scale biological data, as required under Conservation Measure 23-05,
shall be collected and recorded. Such data shall be reported in accordance
with the CCAMLR Scheme of International Scientific Observation.
- Research 12. Each vessel participating in this exploratory fishery shall conduct fishery-based research in accordance with the Research Plan and Tagging Program described in Conservation Measure 41-01, Annex 41-01/B and Annex 41-01/C respectively.
 - 13. Toothfish shall be tagged at a rate of at least five fish per tonne green weight caught.
- Environmental protection
- 14. Conservation Measure 26-01 applies
 - 15. There shall be no offal³ discharge in this fishery.

Conservation Measures 22-06, 22-07 and 22-08 apply.

- ¹ The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time (UTC).
- ² Wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).
- ³ 'Offal' is defined as bait and by-products from the processing of fish and other organisms, including parts or sections of fish or organisms which are by-products of processing.

Annex 41-04/A

Research blocks

Research block 48.0	6_2 coordinates
54°00'S	01°00'E
55°00'S	01°00'E
55°00'S	02°00'E
55°30'S	02°00'E
55°30'S	04°00'E

56°30'S	04°00'E
Research block 48	8.6 2 coordinates (continued)
56°30'S	07°00'E
56°00'S	07°00'E
56°00'S	08°00'E
54°00'S	08°00'E
54°00'S	09°00'E
53°00'S	09°00'E
53°00'S	03°00'E
53°30'S	03°00'E
53°30'S	02°00'E
54°00'S	02°00'E
51 00 5	02 00 2
Research block 4	8.6.3 coordinates
64°30'S	01°00'F
66°00'S	01°00'E
66°00'S	04°00'F
65°00'S	04°00'E
65°00'S	07°00'E
64°30'S	07 00 E
04 30 3	07 00 E
Pasaarch block /	R 6 1 coordinates
68°20'S	
08 20 S	10 00 E
08 20 5	13 00 E 12800/E
69°30'S	13°00 E
09 30 S	10 00 E
09 45 5	
09°45 S	
69°00'S	06°00 E
69°00'S	10°00'E
D 111 1 4	
Research block 4	3.6_5 coordinates
/1°00'S	15°00'W
71°00'S	13°00'W
70°30'S	13°00'W
70°30'S	11°00'W
70°30'S	10°00'W
69°30'S	10°00'W
69°30'S	09°00'W
70°00'S	09°00'W
70°00'S	08°00'W
69°30'S	08°00'W
69°30'S	07°00'W
70°30'S	07°00'W
70°30'S	10°00'W
71°00'S	10°00'W
71°00'S	11°00'W
71°30'S	11°00'W
71°30'S	15°00'W

41-04

		41-05
Conservation Measure 41-05 (2020)	Species	toothfish
Limits on the exploratory fishery for <i>Dissostichus mawsoni</i>	Area	58.4.2
in Statistical Division 58 4.2 in the 2020/21 season	Season	2020/21
In Statistical Division 58.4.2 in the 2020/21 season		longline
		U

41 05

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02, and notes that this measure would be for one year and that data arising from these activities would be reviewed by the Scientific Committee:

- Access
 1. Fishing for *Dissostichus mawsoni* in Statistical Division 58.4.2 shall be limited to the exploratory longline fishery by Australia, France and Japan. The fishery shall be conducted by two (2) Australian and one (1) Japanese vessel using longlines only¹.
 - 2. This fishery shall be subject to the conditions in Conservation Measure 41-01, Annex 41-01/B. For the purpose of this fishery, the area open to fishing is defined by the research block in Annex 41-05/A.
- Catch limit 3. The total catch of *Dissostichus mawsoni* in Statistical Division 58.4.2 in the 2020/21 season shall not exceed a precautionary catch limit of 60 tonnes applied as follows:
 - SSRU A 0 tonnes SSRU B – 0 tonnes SSRU C – 0 tonnes SSRU D – 0 tonnes SSRU E Research block 58.4.2_1 – 60 tonnes.
- Season
 4. For the purpose of the exploratory longline fishery for *Dissostichus mawsoni* in Statistical Division 58.4.2, the 2020/21 season is defined as the period from 1 December 2020 to 30 November 2021.
- Fishing operations
 5. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Division 58.4.2 shall be carried out in accordance with the provisions of Conservation Measure 41-01, except paragraph 6.
- By-catch 6. The by-catch in this fishery shall be regulated as set out in Conservation Measure 33-03.
- Mitigation 7. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Division 58.4.2 shall be carried out in accordance with the provisions of Conservation Measure 25-02.
 - 8. Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight²)³.

41-05

Observers	9.	ach vessel participating in the fishery shall have at least two scientist bservers, one of whom shall be an observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on boar proughout all fishing activities within the fishing period.	fic ith ard
Research	10.	ach vessel participating in this exploratory fishery shall condu- shery-based research in accordance with the Research Plan and Taggi rogram described in Conservation Measure 41-01, Annex 41-01/B a nnex 41-01/C respectively.	ıct ng nd
	11.	oothfish shall be tagged at a rate of at least five fish per tonne green weig aught.	ght
Data: catch/effort	12.	or the purpose of implementing this conservation measure in the 2020/ eason, the following shall apply:	21
) the Daily Catch and Effort Reporting System set out in Conservati Measure 23-07;	on
		 the Monthly Fine-scale Catch and Effort Reporting System set out Conservation Measure 23-04. Fine-scale data shall be submitted or haul-by-haul basis; 	in n a
		ii) fishing vessels undertaking research in accordance with Conservati Measure 24-01 shall report data in accordance with the requirements and (ii) above.	on (i)
	13.	or the purpose of Conservation Measures 23-07 and 23-04, the targe becies is <i>Dissostichus mawsoni</i> (any <i>Dissostichus eleginoides</i> caught she counted towards the overall catch limit for <i>Dissostichus mawsoni</i>) a by-catch species' are defined as any species other than <i>Dissostichus</i> spr	get all nd 5.
Data: biological	14.	ine-scale biological data, as required under Conservation Measure 23-0 nall be collected and recorded. Such data shall be reported in accordance ith the CCAMLR Scheme of International Scientific Observation.)5, ice
Environ- mental	15.	onservation Measure 26-01 applies.	
protection	16.	onservation Measures 22-06, 22-07 and 22-08 apply.	
		France is a member of the multi-Member proposal submitted under Conservation Measure 21-02. However, in accordance with the requirements of Conservation Measure 21-02, paragraph 10, France will not issue a fishing authorisation in Statistic Division 58.4.2 for the 2020/21 season. The exact times of nautical twilight are set forth in the Nautical Almanac tables for relevant latitude, local time and date. A copy of the algorithm for calculating the times is available from the CCAMLR Secretariat. All times, whether for sel operations or observer reporting, shall be referenced to Coordinated Universal Ti (UTC). Wherever possible, when night setting, setting of lines should be completed at le	ion ion cal the ese hip me
		three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels	s).

41-05 Annex 41-05/A

Research blocks

Research block 58.4.2_1 coordinates

66°00'S	70°00'E
67°30'S	70°00'E
67°30'S	76°00'E
66°00'S	76°00'E.

Conservation Measure 41-06 (2020) Limits on the exploratory fishery for *Dissostichus eleginoides* on Elan Bank (Statistical Division 58.4.3a) outside areas of national jurisdiction in the 2020/21 season 41-06SpeciestoothfishArea58.4.3aSeason2020/21Gearlongline

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02:

- Access 1. Fishing for *Dissostichus eleginoides* on Elan Bank (Statistical Division 58.4.3a) outside areas of national jurisdiction shall be limited to the exploratory fishery using longlines only. Directed fishing shall not take place in 2020/21.
 - 2. This fishery shall be subject to the conditions in Conservation Measure 41-01, Annex 41-01/B. The area open to fishing is defined by the research block in Annex 41-06/A.
- Catch limit 3. The total catch of *Dissostichus eleginoides* on Elan Bank (Statistical Division 58.4.3a) outside areas of national jurisdiction in the 2020/21 season shall not exceed a precautionary catch limit of 19 tonnes applied as follows:

Research block 58.4.3a_1 – 19 tonnes.

- Season
 4. For the purpose of the exploratory longline fishery for *Dissostichus eleginoides* on Elan Bank (Statistical Division 58.4.3a) outside areas of national jurisdiction, the 2020/21 season is defined as the period from 1 December 2020 to 30 November 2021, or until the catch limit is reached, whichever is sooner.
- By-catch 5. The by-catch in this fishery shall be regulated as set out in Conservation Measure 33-03.
- Mitigation 6. The operation of this fishery shall be carried out in accordance with Conservation Measure 25-02 so as to minimise the incidental mortality of seabirds in the course of fishing.
 - 7. Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight¹)².
- Observers 8. Each vessel participating in this fishery shall have at least 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 period.

Data:
catch/effort9.For the purpose of implementing this conservation measure in the 2020/21
season, the following shall apply:

41-06

- (i) the Daily Catch and Effort Reporting System set out in Conservation Measure 23-07;
- (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 23-04. Fine-scale data shall be submitted on a haul-by-haul basis.
- 10. For the purpose of Conservation Measures 23-07 and 23-04, the target species is *Dissostichus eleginoides* (any *Dissostichus mawsoni* caught shall be counted towards the overall catch limit for *Dissostichus eleginoides*) and 'by-catch species' are defined as any species other than *Dissostichus* spp.

Data:
biological11.Fine-scale biological data, as required under Conservation Measure 23-05,
shall be collected and recorded. Such data shall be reported in accordance
with the CCAMLR Scheme of International Scientific Observation.

- Research 12. Each vessel participating in this exploratory fishery shall conduct fishery-based research in accordance with the Research Plan and Tagging Program described in Conservation Measure 41-01, Annex 41-01/B and Annex 41-01/C respectively.
 - 13. Toothfish shall be tagged at a rate of at least five fish per tonne green weight caught.
 - 14. Conservation Measure 26-01 applies.

Environmental protection

- 15. Conservation Measures 22-06, 22-07 and 22-08 apply.
 - The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time (UTC).
 - ² Wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).

Annex 41-06/A

Research blocks

 Research block 58.4.3a_1 coordinates

 56°00'S
 65°00'E

 57°30'S
 65°00'E

 57°30'S
 73°00'E

 56°00'S
 73°00'E.

Conservation Measure 41-07 (2020) Limits on the exploratory fishery for *Dissostichus mawsoni* on BANZARE Bank (Statistical Division 58.4.3b) outside areas of national jurisdiction in the 2020/21 season

	41-07
Species	toothfish
Area	58.4.3b
Season	2020/21
Gear	longline

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02:

- Access 1. Fishing for *Dissostichus mawsoni* on BANZARE Bank (Statistical Division 58.4.3b) outside areas of national jurisdiction shall be limited to longlines only.
- Catch limit 2. The total catch of *Dissostichus mawsoni* on BANZARE Bank (Statistical Division 58.4.3b) outside areas of national jurisdiction in the 2020/21 season shall not exceed a precautionary catch limit of 0 tonnes applied as follows:

SSRU A - 0 tonnes SSRU B - 0 tonnes SSRU C - 0 tonnes SSRU D - 0 tonnesSSRU E - 0 tonnes.

- Season
 3. For the purpose of the exploratory longline fishery for *Dissostichus mawsoni* on BANZARE Bank (Statistical Division 58.4.3b) outside areas of national jurisdiction, the 2020/21 season is defined as the period from 1 December 2020 to 30 November 2021, or until the catch limit is reached, whichever is sooner.
- By-catch 4. The by-catch in this fishery shall be regulated as set out in Conservation Measure 33-03.
- Mitigation 5. The operation of this fishery shall be carried out in accordance with Conservation Measure 25-02 so as to minimise the incidental mortality of seabirds in the course of fishing.
 - 6. Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight¹)².
- Observers 7. Each vessel participating in this fishery shall have at least 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 period.
- Data:
catch/effort8.For the purpose of implementing this conservation measure in the 2020/21
season, the following shall apply:

41-07

- (i) the Daily Catch and Effort Reporting System set out in Conservation Measure 23-07;
- (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 23-04. Fine-scale data shall be submitted on a haul-by-haul basis.
- 9. For the purpose of Conservation Measures 23-07 and 23-04, the target species is *Dissostichus mawsoni* (any *Dissostichus eleginoides* caught shall be counted towards the overall catch limit for *Dissostichus mawsoni*) and 'by-catch species' are defined as any species other than *Dissostichus* spp.
- Data:
biological10.Fine-scale biological data, as required under Conservation Measure 23-05,
shall be collected and recorded. Such data shall be reported in accordance
with the CCAMLR Scheme of International Scientific Observation.
- Research 11. Each vessel participating in this exploratory fishery shall conduct fishery-based research in accordance with the Research Plan and Tagging Program described in Conservation Measure 41-01, Annex 41-01/B and Annex 41-01/C respectively.
 - 12. Research shall be conducted in accordance with Conservation Measure 24-01.
 - 13. Toothfish shall be tagged at a rate of at least five fish per tonne green weight caught.

Environmental protection

- 14. Conservation Measure 26-01 applies.
 - 15. Conservation Measures 22-06, 22-07 and 22-08 apply.
 - ¹ The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time (UTC).
 - ² Wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).

		41-09
Conservation Measure 41-09 (2020)	Species	toothfish
Limits on the exploratory fishery for <i>Dissostichus mawsoni</i>	Area	88.1
in Statistical Subaraa 88.1 in the 2020/21 saasan	Season	2020/21
III Statistical Subarea 00.1 III tile 2020/21 season	Gear	longline

11 00

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02:

- Access
 1. Fishing for *Dissostichus mawsoni* in Statistical Subarea 88.1 shall be limited to the exploratory longline fishery by Australia, Japan, Republic of Korea, New Zealand, Russia, Spain, Ukraine and the UK. The fishery shall be conducted by a maximum in the season of two (2) Australian, one (1) Japanese, five (5) Korean, three (3) New Zealand, one (1) Russian, one (1) Spanish, five (5) Ukrainian and three (3) UK flagged vessels using longlines only.
- Catch limit 2. In accordance with Conservation Measure 91-05, paragraph 28, the precautionary catch limits for Statistical Subarea 88.2 small-scale research units (SSRUs) A–B are included in the catch limits in this paragraph.

The total catch of *Dissostichus mawsoni* in the 2020/21 season shall not exceed a precautionary catch limit of 3 140 tonnes applied as follows:

(i) all areas outside the Ross Sea region marine protected area and north of 70°S, which in Statistical Subarea 88.1 include SSRU A and SSRUs B, C and G –

597 tonnes

(ii) all areas outside the Ross Sea region marine protected area and south of 70°S, which in Statistical Subarea 88.1 include SSRUs G, H, I, J and K -

2 072 tonnes

(iii) Special Research Zone of the Ross Sea region marine protected area -

406 tonnes.

- 3. A discrete research catch limit of 65 tonnes has been set aside in the 2020/21 season as follows:
 - (i) for the Ross Sea shelf survey notified by New Zealand under Conservation Measure 24-01, to be undertaken by the vessel San Aotea II 65 tonnes

This research catch limit is fixed and shall not be modified by any overrun of the individual or combined SSRU catch limits for target or by-catch species in Statistical Subarea 88.1.

Season

4. For the purpose of the exploratory longline fishery for *Dissostichus mawsoni* in Statistical Subarea 88.1, the 2020/21 season is defined as the period from 1 December 2020 to 31 August 2021.

41-09

- Fishing operations 5. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Subarea 88.1 shall be carried out in accordance with the provisions of Conservation Measure 41-01, except paragraph 6.
- By-catch 6. The by-catch limits for Statistical Subarea 88.2 SSRUs A–B are included in the by-catch limits in this paragraph. This paragraph also applies to Statistical Subarea 88.2 SSRUs A–B.

The total by-catch¹ in the 2020/21 season shall not exceed a precautionary catch limit of 154 tonnes of skates and rays, and 485 tonnes of *Macrourus* spp. Within these total by-catch limits, individual limits will apply as follows:

(i) all areas outside the Ross Sea region marine protected area and north of 70°S, which in Statistical Subarea 88.1 include SSRU A and SSRUs B, C and G –

30 tonnes of skates and rays, 96 tonnes of *Macrourus* spp., 30 tonnes of other species

(ii) all areas outside the Ross Sea region marine protected area and south of 70°S, which in Statistical Subarea 88.1 include SSRUs G, H, I, J and K -

104 tonnes of skates and rays, 317 tonnes of *Macrourus* spp., 104 tonnes of other species

(iii) Special Research Zone of the Ross Sea region marine protected area -

20 tonnes of skates and rays, 72 tonnes of *Macrourus* spp., 20 tonnes of other species.

For the purposes of this paragraph '*Macrourus* spp.' and 'skates and rays' should each be counted as a single species.

During the 2020/21 season all live skates up to 15 per line shall be tagged in accordance with the CCAMLR tagging protocol and following the requirements of CM 41-01, Annex 41-01/C. Vessels may tag more than 15 skates per line and may also tag skates with a low probability of survival, provided the condition of the skate is recorded along with the tag number. In respect to any skates tagged, the species, disc width and injury category shall be recorded along with the tag numbers.

On all vessels, all skates and rays must be brought on board or alongside the vessel to be checked for tags and for their condition to be assessed. Recaptured tagged skates and rays, as per Conservation Measure 41-01,

		Annex 41-01/C, paragraphs 2(vii) and (ix), should not be re-released. Unless otherwise specified by scientific observers, all other skates and rays caught alive and with a high probability of survival should be released alive, by vessels, by cutting snoods, and when practical, removing the hooks, and the number should be recorded and reported to the Secretariat.
		If the by-catch of any one species is equal to, or greater than, 1 tonne in any one haul or set ² , then the fishing vessel shall move to another location at least 5 n miles ³ distant. The fishing vessel shall not return to any point within 5 n miles of the location where the by-catch exceeded 1 tonne for a period of at least five days ⁴ . The location where the by-catch exceeded 1 tonne is defined as the path ⁵ followed by the fishing vessel.
		If the catch of <i>Macrourus</i> spp. taken by a single vessel in any two 10-day periods ⁶ in any SSRU exceeds 1 500 kg in each 10-day period and exceeds 16% of the catch of <i>Dissostichus</i> spp. by that vessel in that SSRU, the vessel shall cease fishing in that SSRU for the remainder of the season.
Mitigation	7.	The exploratory longline fishery for <i>Dissostichus mawsoni</i> in Statistical Subarea 88.1 shall be carried out in accordance with the provisions of Conservation Measure 25-02.
	8.	Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight ⁷) ⁸ .
Observers	9.	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 the fishing period.
VMS	10.	Each vessel participating in this exploratory longline fishery shall be required to operate a VMS at all times, in accordance with Conservation Measure 10-04.
CDS	11.	Each vessel participating in this exploratory longline fishery shall be required to participate in the Catch Documentation Scheme for <i>Dissostichus</i> spp., in accordance with Conservation Measure 10-05.
Research	12.	Each vessel participating in this exploratory fishery shall conduct fishery-based research in accordance with the Research Plan and Tagging Program described in Conservation Measure 41-01, Annex 41-01/B and Annex 41-01/C respectively. The setting of research hauls (Conservation Measure 41-01, Annex 41-01/B, paragraphs 3 and 4) is not required.
	13.	Toothfish shall be tagged at a rate of at least one fish per tonne green weight caught in each SSRU.

41-09

41-09

Data: catch/effort

- 14. For the purpose of implementing this conservation measure in the 2020/21season, the following shall apply:
 - the Daily Catch and Effort Reporting System set out in Conservation (i) Measure 23-07;
 - (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 23-04. Fine-scale data shall be submitted on a haul-by-haul basis.
 - For the purpose of Conservation Measures 23-07 and 23-04, the target 15. species is Dissostichus mawsoni (any Dissostichus eleginoides caught shall be counted towards the overall catch limit for Dissostichus mawsoni) and 'by-catch species' are defined as any species other than Dissostichus spp.
- 16. Fine-scale biological data, as required under Conservation Measure 23-05, biological shall be collected and recorded. Such data shall be reported in accordance with the CCAMLR Scheme of International Scientific Observation.

Environmental protection

Data:

- 17. Conservation Measure 26-01 applies.
- Conservation Measures 22-06, 22-07, 22-08 and 22-09 apply. 18.
 - 1 Total green weight caught, excluding individuals released alive.
 - 2 For the purposes of this conservation measure, for a longline, each haul applies to a single longline regardless of how contiguous sections of gear are connected.
 - ³ 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.
 - The specified period is adopted in accordance with the reporting period specified in Conservation Measure 23-01, pending the adoption of a more appropriate period by the Commission.

For a longline, the path is defined from the point at which the first anchor of a set was deployed to the point at which the last anchor of that set was deployed.

A 10-day period is defined as day 1 to day 10, day 11 to day 20, or day 21 to the last day of the month.

The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time (UTC).

Wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).

		41-10
Conservation Measure 41-10 (2020)	Species	toothfish
Limits on the exploratory fishery for <i>Dissostichus mawsoni</i>	Area	88.2
in Statistical Subaras 88.2 in the 2020/21 season	Season	2020/21
III Stausuvai Subai va 00.2 III ule 2020/21 seasoli	Gear	longline

11 10

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02:

- Access
 1. Fishing for *Dissostichus mawsoni* in Statistical Subarea 88.2 shall be limited in the 2019/20 season to the exploratory longline fishery by Australia, the Republic of Korea, New Zealand, Russia, Ukraine and the UK. The fishery in small-scale research units (SSRUs) C, D, E, F, G, H and I shall be conducted by two (2) Australian, five (5) Korean, three (3) New Zealand, one (1) Russian, five (5) Ukrainian and three (3) UK flagged vessels using longlines only.
- Catch limit 2. The total catch of *Dissostichus mawsoni* in Statistical Subarea 88.2 in the 2020/21 season shall not exceed a precautionary catch limit applied as follows:
 - (i) SSRUs A and B outside the Ross Sea region marine protected area and north of 70°S – included in the catch limit in Conservation Measure 41-09, paragraph 2(i)
 - (ii) SSRUs A and B outside the Ross Sea region marine protected area and south of 70°S – included in the catch limit in Conservation Measure 41-09, paragraph 2(ii)
 - (iii) The part of SSRU A within the Special Research Zone of the Ross Sea region marine protected area – included in the catch limit in Conservation Measure 41-09, paragraph 2(iii)
 - (iv) Research block 1 as defined in Annex 41-10/A 192 tonnes
 - (v) Research block 2 as defined in Annex 41-10/A 186 tonnes
 - (vi) Research block 3 as defined in Annex 41-10/A 170 tonnes
 - (vii) Research block 4 as defined in Annex 41-10/A 128 tonnes
 - (viii) SSRU H 128 tonnes
 - (ix) SSRU I 0 tonnes.

Season

3. For the purpose of the exploratory longline fishery for *Dissostichus mawsoni* in Statistical Subarea 88.2, the 2020/21 season is defined as the period from 1 December 2020 to 31 August 2021.

41-10

- 4. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Subarea 88.2 shall be carried out in accordance with the provisions of Conservation Measure 41-01, except paragraph 6.
- By-catch 5. The by-catch in SSRU H and in each of the research blocks defined in Annex 41-10/A in Statistical Subarea 88.2 in the 2020/21 season shall be regulated as set out in Conservation Measure 33-03.

The by-catch in SSRUs A and B shall be regulated under Conservation Measure 41-09, paragraph 6.

- Mitigation 6. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Subarea 88.2 shall be carried out in accordance with the provisions of Conservation Measure 25-02.
 - 7. Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight¹)².
- Observers 8. 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 the fishing period.
- VMS 9. Each vessel participating in this exploratory longline fishery shall be required to operate a VMS at all times, in accordance with Conservation Measure 10-04.
- CDS 10. Each vessel participating in this exploratory longline fishery shall be required to participate in the Catch Documentation Scheme for *Dissostichus* spp., in accordance with Conservation Measure 10-05.
- Research 11. The activities in SSRUs C, D, E, F, G and H will be conducted under the two-year data collection plan³.

12. Each vessel participating in this exploratory fishery shall conduct fishery-based research in accordance with the Research Plan and Tagging Program described in Conservation Measure 41-01, Annex 41-01/B and Annex 41-01/C respectively. The setting of research hauls (Conservation Measure 41-01, Annex 41-01/B, paragraphs 3 and 4) is not required.

13. Toothfish shall be tagged at a rate of at least three fish per tonne green weight caught in SSRU H and at a rate of at least three fish per tonne green weight in each of the research blocks in SSRUs C–G. Tag-overlap statistics shall be calculated separately for SSRU H; and SSRUs C, D, E, F and G combined.

Tagging in SSRUs A and B shall be in accordance with Conservation Measure 41-09, paragraph 13.

41-10 Data: 14. For the purpose of implementing this conservation measure in the catch/effort 2020/21 season, the following shall apply: the Daily Catch and Effort Reporting System set out in (i) Conservation Measure 23-07; (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 23-04. Fine-scale data shall be submitted on a haul-by-haul basis. 15. For the purpose of Conservation Measures 23-07 and 23-04, the target species is Dissostichus mawsoni (any Dissostichus eleginoides caught shall be counted towards the overall catch limit for Dissostichus mawsoni) and 'by-catch species' are defined as any species other than Dissostichus spp. Data: Fine-scale as required under Conservation 16. biological data, biological Measure 23-05, shall be collected and recorded. Such data shall be reported in accordance with the CCAMLR Scheme of International Scientific Observation. Environ-17. Conservation Measure 26-01 applies. mental protection Conservation Measures 22-06, 22-07 and 22-08 apply. 18. 1 The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time (UTC). Wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels). As set out in SC-CAMLR-XXXIII, paragraph 3.173 (2014).

Annex 41-10/A

Research blocks

Research block 88.	2_1 coordinates
73°48'S	108°00'W
73°48'S	105°00'W
75°00'S	105°00'W
75°00'S	108°00'W
Research block 88.	2_2 coordinates
73°18'S	119°00'W
73°18'S	111°30'W
74°12'S	111°30'W
74°12'S	119°00'W

Research block 88.	2_3 coordinates
72°12'S	122°00'W
70°50'S	115°00'W
71°42'S	115°00'W
73°12'S	122°00'W
Research block 88.	2_4 coordinates
72°36'S	140°00'W
72°36'S	128°00'W
74°42'S	128°00'W
74°42'S	140°00'W.

41-10

This is a preliminary version of the conservation measures-	
further checking and verification is to be done by the Secretari	at

Conservation Measure 41-11 (2020) Species	((1. C 1.
	toothfish
Limits on the exploratory fishery for <i>Dissostichus mawsoni</i> Area	58.4.1
in Statistical Division 58.4.1 in the 2020/21 season	2020/21
Gear	longline

The Commission hereby adopts the following conservation measure in accordance with Conservation Measure 21-02 and notes that this measure would be for one year and that data arising from these activities would be reviewed by the Scientific Committee:

- Access 1. Fishing for *Dissostichus mawsoni* in Statistical Division 58.4.1 shall be limited to the exploratory longline fishery. Directed fishing shall not take place in 2020/21.
 - 2. This fishery shall be subject to the conditions in Conservation Measure 41-01, Annex 41-01/B.

41 11

Catch limit 3. The total catch of *Dissostichus mawsoni* in Statistical Division 58.4.1 in the 2020/21 season shall not exceed a precautionary catch limit of 583 tonnes applied as follows:

SSRU A –	0 tonnes
SSRU B –	0 tonnes
SSRU C Research block 58.4.1_1 -	138 tonnes
SSRU C Research block 58.4.1_2 –	139 tonnes
SSRU D –	0 tonnes
SSRU E Research block 58.4.1_3 –	119 tonnes
SSRU E Research block 58.4.1_4 –	23 tonnes
SSRU F –	0 tonnes
SSRU G Research block 58.4.1_5 –	60 tonnes
SSRU G Research block 58.4.1_6 –	104 tonnes
SSRU H –	0 tonnes.

- Season 4. For the purpose of the exploratory longline fishery for *Dissostichus mawsoni* in Statistical Division 58.4.1, the 2020/21 season is defined as the period from 1 December 2020 to 30 November 2021.
- Fishing operations 5. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Division 58.4.1 shall be carried out in accordance with the provisions of Conservation Measure 41-01, except paragraph 6.
- By-catch 6. The by-catch in this fishery shall be regulated as set out in Conservation Measure 33-03.
- Mitigation 7. The exploratory longline fishery for *Dissostichus mawsoni* in Statistical Division 58.4.1 shall be carried out in accordance with the provisions of Conservation Measure 25-02.
 - 8. Any vessel catching a total of three (3) seabirds shall immediately change to night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight¹)².

41-11

<u></u>		41-11
Observers	9.	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 the fishing period.
Research	10.	Each vessel participating in this exploratory fishery shall conduct fishery-based research in accordance with the Research Plan and Tagging Program described in Conservation Measure 41-01, Annex 41-01/B and Annex 41-01/C respectively.
	11.	Toothfish shall be tagged at a rate of at least five fish per tonne green weight caught.
Data: catch/effort	12.	For the purpose of implementing this conservation measure in the 2020/21 season, the following shall apply:
		 the Daily Catch and Effort Reporting System set out in Conservation Measure 23-07;
		 (ii) the Monthly Fine-scale Catch and Effort Reporting System set out in Conservation Measure 23-04. Fine-scale data shall be submitted on a haul-by-haul basis;
		 (iii) fishing vessels undertaking research in accordance with Conservation Measure 24-01 shall report data in accordance with the requirements (i) to (ii) above.
	13.	For the purpose of Conservation Measures 23-07 and 23-04, the target species is <i>Dissostichus mawsoni</i> (any <i>Dissostichus eleginoides</i> caught shall be counted towards the overall catch limit for <i>Dissostichus mawsoni</i>) and 'by-catch species' are defined as any species other than <i>Dissostichus</i> spp.
Data: biological	14.	Fine-scale biological data, as required under Conservation Measure 23-05, shall be collected and recorded. Such data shall be reported in accordance with the CCAMLR Scheme of International Scientific Observation.
Environ- mental	15.	Conservation Measure 26-01 applies.
protection	16.	There shall be no offal ³ discharge in this fishery.
	17.	Conservation Measures 22-06, 22-07, 22-08 and 22-09 apply.
		¹ The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to Coordinated Universal Time

(UTC).
 ² Wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).

41-11

³ 'Offal' is defined as bait and by-products from the processing of fish and other organisms, including parts or sections of fish or organisms which are by-products of processing.

Annex 41-11/A

2

Research blocks

Research block 58.4	.1_1 coordinates
64°30'S	90°00'E
66°00'S	90°00'E
66°00'S	94°00'E
65°30'S	94°00'E
65°30'S	95°00'E
64°00'S	95°00'E
64°00'S	92°00'E
64°30'S	92°00'E
Research block 58.4	.1_2 coordinates
62°30'S	96°00'E
64°00'S	96°00'E
64°00'S	97°00'E
65°00'S	97°00'E
65°00'S	100°00'E
62°30'S	100°00'E
Desearch block 50	1 2 accordinates
Kesearch block 58.4	112000/E
64°00 S	112°00 E
66°00'S	112°00'E
66°00'S	115°00'E
64°00'S	115°00'E
Research block 58.4	1 4 coordinates
64°30'S	118°00'E
66°00'S	118°00'E
66°00'S	120°00'E
64°30'S	120°00'E
Research block 58.4	.1_5 coordinates
64°30'S	137°00'E
66°00'S	137°00'E
66°00'S	138°00'E
66°30'S	138°00'E
66°30'S	140°00'E
64°30'S	140°00'E

Research block 58.4	.1_6 coordinates
64°00'S	130°00'E
65°30'S	130°00'E
65°30'S	134°00'E
64°00'S	134°00'E.

41-11

		51-04
Conservation Measure 51-04 (2020)	Species	krill
General measure for exploratory fisheries for <i>Euphausia superba</i>	Area	various
in the Convention Area in the 2020/21 season	Season	2020/21
III UIC CONVENIION ATCA III UIC 2020/21 SCASOII	Gear	various

- . . .

The Commission hereby adopts the following conservation measure:

- 1. This conservation measure applies to exploratory fisheries for Antarctic krill (*Euphausia superba*), except for such fisheries where the Commission has given specific exemptions, and only to the extent of those exemptions.
- 2. Fishing in any statistical subarea or division shall cease when the reported catch reaches the specified catch limit¹ and that subarea or division shall be closed to fishing for the remainder of the season. No more than 75% of the catch limit shall be taken within 60 n miles of known breeding colonies of land-based krill-dependent predators.
- 3. In order to give effect to paragraph 2 above:
 - (i) the precise geographic position of a trawl haul will be determined by the midpoint of the path between the start point and end point of the haul for the purposes of catch and effort reporting;
 - (ii) for the purposes of this conservation measure, fishing is defined as any time that fishing gear, conventional trawls, pumped codends and continuous pumping gear are in the water;
 - (iii) the Secretariat shall notify Contracting Parties participating in these fisheries when the total catch of *Euphausia superba* combined in any statistical subarea or division is likely to reach the specified catch limit, and of the closure of that subarea or division when that limit is reached². No part of a trawl path may lie within a closed subarea or division.
- 4. The total green weight of krill caught and lost shall be reported.
- 5. Each vessel participating in the exploratory fisheries for krill during the 2020/21 season shall have one 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.
- 6. The Data Collection Plan (Annex 51-04/A) and Research Plan (Annex 51-04/B) shall be implemented. Data collected pursuant to the Data Collection and Research Plans for the period up to 1 May 2021 shall be reported to CCAMLR by 1 June 2021 so that the data will be available to the meeting of the Working Group on Ecosystem Monitoring and Management (WG-EMM) in 2021. Such data taken after 1 June 2021 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 the Scientific Committee.
- 7. Contracting Parties choosing not to participate in the fishery prior to the commencement of the fishery shall inform CCAMLR of changes in their plans no later than one month before the start of the fishery. If, for whatever reason, Contracting Parties are unable to

participate in the fishery, they shall inform CCAMLR no later than one week after finding that they cannot participate. The Secretariat will inform all Contracting Parties immediately after such notification is received.

- 8. The use of marine mammal exclusion devices on trawls is mandatory.
 - ¹ Unless otherwise specified, the catch limit for krill shall be 15 000 tonnes in any statistical subarea or division.
 - ² The closure of fisheries is governed by Conservation Measure 31-02.

Annex 51-04/A

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 specified in the Observer Krill Trawl logbook and *Scientific Observer's Manual 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 in accordance with Conservation Measure 21-03, Annex 21-03/A, 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 specified in the Observer Krill Trawl logbook and <u>Scientific Observer's Manual Krill Fisheries</u>.
- 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;

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- (iii) be continuously recorded and then electronically archived every five days or whenever the vessel moves between exploratory units, whichever 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 the Working Group on Ecosystem Monitoring and Management (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), a 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

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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 subareas 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:
 - 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 echosounder 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 echosounder 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.

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