

CONSERVATION MEASURE 41-10 (2016)
Limits on the exploratory fishery for *Dissostichus mawsoni*
in Statistical Subarea 88.2 in the 2016/17 season

Species	toothfish
Area	88.2
Season	2016/17
Gear	longline

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 2016/17 season to the exploratory longline fishery by Australia, the Republic of Korea, New Zealand, Norway, Russia, Ukraine, UK and Uruguay. The fishery in small-scale research units (SSRUs) C, D, E, F, G, H and I shall be conducted by one (1) Australian, three (3) Korean, three (3) New Zealand, one (1) Norwegian, three (3) Russian, three (3) Ukrainian, one (1) UK and one (1) Uruguayan flagged vessels using longlines only.
 2. The research pursuant to paragraph 4 to be conducted in SSRUs A and B shall be undertaken by five vessels (one vessel each from Australia, New Zealand, Norway, Russia and the UK), but will not proceed in the 2016/17 season.
- Catch limit
3. The total catch of *Dissostichus mawsoni* in Statistical Subarea 88.2 in the 2016/17 season shall not exceed a precautionary catch limit of 619 tonnes applied as follows:
 - SSRU A – 0 tonnes
 - SSRU B – 0 tonnes
 - SSRUs C, D, E, F and G – 419 tonnes total only in the research blocks as defined in Annex 41-10/A
 - SSRU H – 200 tonnes
 - SSRU I – 0 tonnes.

Within SSRUs C, D, E, F and G no more than 200 tonnes shall be taken in any one research block (defined in Annex 41-10/A).
 4. Notwithstanding the above, a discrete research catch limit of 200 tonnes (50 tonnes per vessel) is required to be set aside from the catch limit established in Conservation Measure 41-09 for the research survey in Statistical Subarea 88.2 SSRUs A and B as set out in Annex 41-10/B. This research catch limit would be required to be deducted from the total catch limit for Statistical Subarea 88.1 and would be required to be fixed and should not be modified.
- Season
5. For the purpose of the exploratory longline fishery for *Dissostichus mawsoni* in Statistical Subarea 88.2, the 2016/17 season is defined as the period from 1 December 2016 to 31 August 2017.

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 41-01, except paragraph 8.
- By-catch 7. The total 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 2016/17 seasons shall not exceed a precautionary catch limit of 10 tonnes of skates and rays, and 32 tonnes of *Macrourus* spp. and 32 tonnes of other species.
- Notwithstanding the above, for the research undertaken in SSRUs A and B under paragraph 4, the by-catch limits shall be 50 tonnes of skates and rays, 32 tonnes of *Macrourus* spp. and 20 tonnes of other species.
- The by-catch in this fishery shall be regulated as set out in Conservation Measure 33-03.
- Mitigation 8. 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.
9. 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 twilight¹²).
- Observers 10. 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 11. 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 12. 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 13. The activities in SSRUs C, D, E, F, G and H will be conducted under the two-year data collection plan³.
14. 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.

15. 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. Toothfish caught during the course of the research in SSRUs A and B described in paragraph 4 shall be tagged at a rate of at least three fish per tonne green weight. Tag-overlap statistics shall be calculated separately for: SSRUs A and B combined; SSRU H; and SSRUs C, D, E, F and G combined.
- Data:
catch/effort
16. For the purpose of implementing this conservation measure in the 2016/17 season, the following shall apply:
- (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.
17. 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:
biological
18. 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
protection
19. Conservation Measure 26-01 applies.
20. 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 As set out in SC-CAMLR-XXXIII, paragraph 3.173 (2014).

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.

BACKGROUND

Australia, New Zealand, Norway, Russia and the UK will undertake a research plan using standardised longline gear to sample the toothfish populations in the northern areas (61°S–66°S) of SSRUs 882A–B. The purpose of the research as requested by the Scientific Committee (SC-CAMLR-XXXII, paragraph 3.76) is to characterise the local toothfish populations found there to better understand stock structure, movement patterns and improve estimation of population characteristics by Ross Sea spatial population models. Additional outcomes of the research relate to mapping the bathymetry of the fishable area, documenting relative abundance of *Dissostichus eleginoides* and *Dissostichus mawsoni*, tagging toothfish for biomass estimation and for stock linkage studies, and collecting information on distribution, relative abundance, and life history of by-catch species.

SPECIFIC OBJECTIVES

1. To utilise the expertise and experience of crew aboard Member vessels to explore, locate fishable habitat and sample toothfish in the northern region of SSRUs 882A–B.
2. To collect information on bathymetry in the northern region of SSRUs 882A–B to characterise the spatial extent of fishable habitat.
3. To document the spatial distribution of toothfish species in the northern area of SSRUs 882A–B, thus providing catch and biological observations to test and improve the functionality of spatial population models (SPMs) of the Ross Sea region.
4. To tag toothfish and collect biological samples to further understand toothfish movement, migration, spawning and stock linkages within Statistical Area 88.

SCIENTIFIC COMMITTEE ADVICE

SC-CAMLR-XXXIII, paragraph 3.221: The Scientific Committee recommended the bathymetry mapping and survey go ahead as an effort-limited ‘prospecting’ phase research design with a maximum of 6 900 hooks per set and 17 250 hooks per cluster of stations, a minimum cluster separation of 10 n miles and a total effort limit of 244 950 hooks set per vessel and a tagging rate of 3 fish per tonne of catch. The Scientific Committee agreed that an upper catch limit of 50 tonnes per vessel deducted from the catch limit from the Ross Sea region was appropriate for the scope of the research and recommended that the Commission consider appropriate options to account for the survey catches, noting that a proposal for this purpose was submitted by New Zealand (SC-CAMLR-XXXIII/09).

RESEARCH LOCATIONS

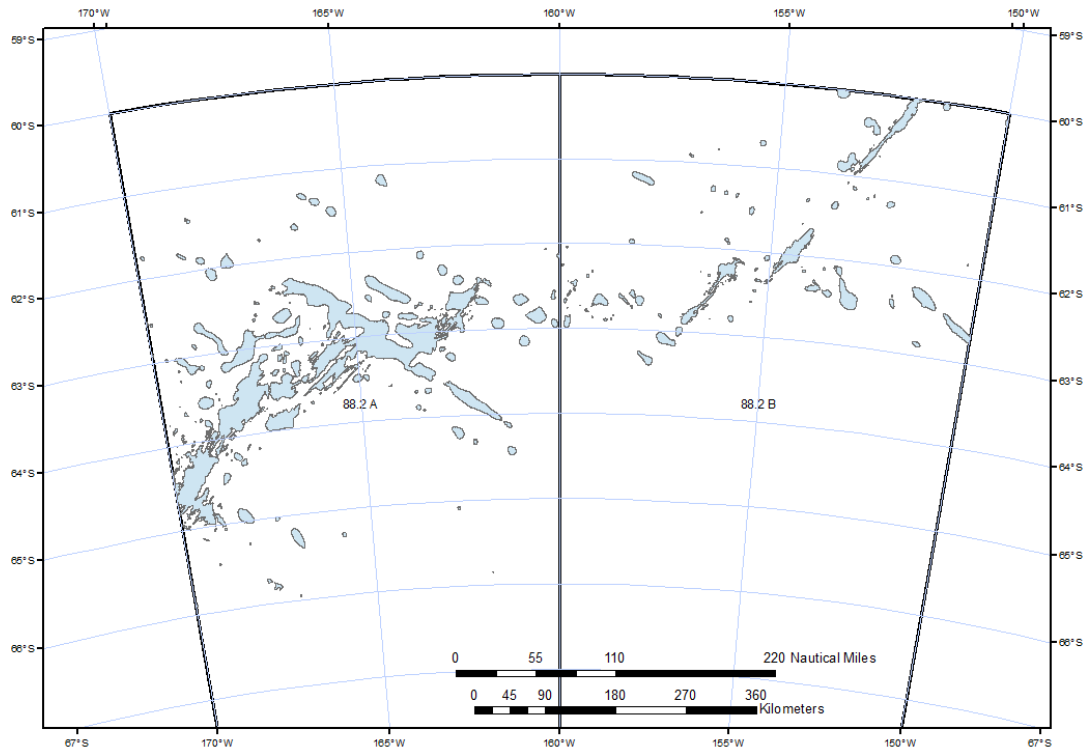


Figure 1: Polygons indicating the areas where depth may be less than 2 500 m in the northern regions of SSRUs 882A–B based on GEBCO (2008) data.

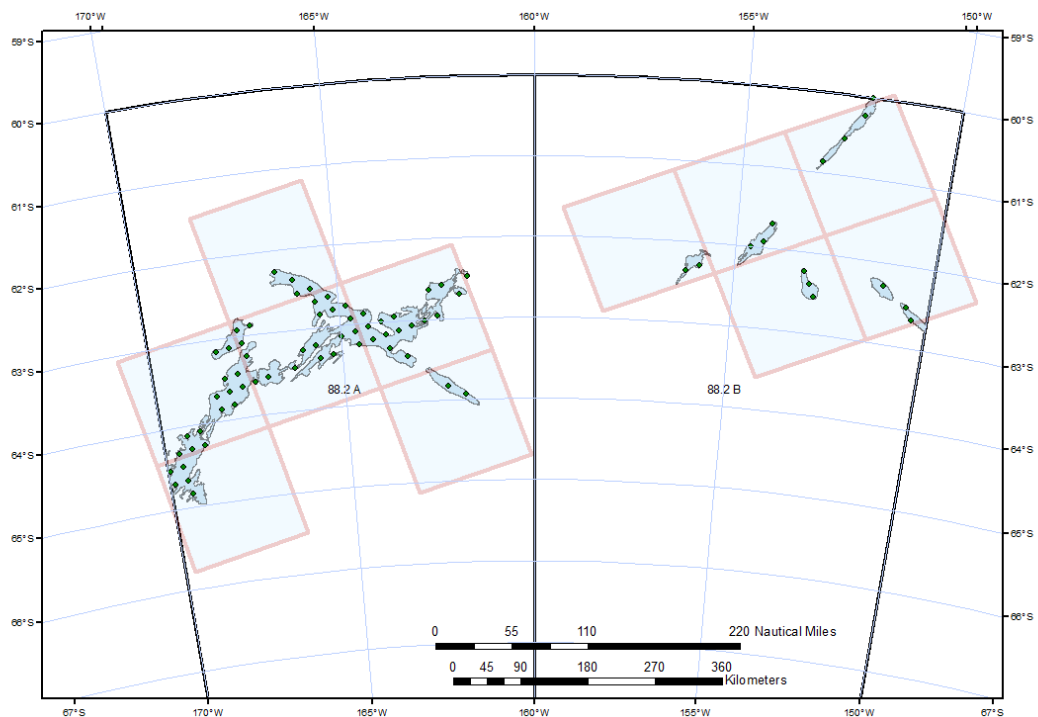


Figure 2: The six largest features in SSRU 882A and five largest areas in SSRU 882B with depth shallower than 2 500 m based on GEBCO bathymetry, and an 18 520 m (10 n miles) grid of points to show spatial scale. Rectangular polygons indicate the research blocks, each approximately 23 500 km² (153 km × 153 km).