12TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 29 January to 2 February 2024

COMM 12 – Prop 22

PROPOSAL TO:

☐ Amend ☒ Create	CMM XX-2024 Conservation and Management Measure for Exploratory Fishing for Toothfish by Australia in the SPRFMO Convention Area

Submitted by: Australia

Summary of the proposal:

Australia submits this proposal for exploratory fishing for Patagonian toothfish (Dissostichus eleginoides) and Antarctic toothfish (Dissostichus mawsoni) in the Macquarie Ridge Continuation Research Block (MRC RB) for the approval of the Commission, in accordance with CMM 13-2021 (Management of New and Exploratory Fisheries in the SPRFMO Convention Area).

The Fisheries Operation Plan (FOP) and impact assessment for this proposal was presented to the Scientific Committee at its 11th meeting (SC11) from 11 to 16 September 2023. Following revisions to incorporate spatial separation in sets, SC11 advised the Commission that the proposal (SC11-DW03_rev3) was acceptable in terms of Articles 2 and 22, CMM 13-2021 (exploratory fisheries), CMM 03-2021 (bottom fisheries), and the Bottom Fishery Impact Assessment Standard (BFIAS, SC11 also approved the data collection plan included in the proposal).

The proposed exploratory fishing is for up to three years, with the second and third years being contingent on toothfish being found in year one. At the conclusion of the three years, Australia will assess the need for a second research plan designed to assess the viability of an ongoing sustainable fishery in the newly proposed MRC RB, on a precautionary and gradual basis according to the best available science.

The proposed total allowable catch for the first year is 40 tonnes, which will allow the gathering of scientific information in an area that has very little or no data on toothfish. Each set will be limited to 5,000 hooks and tagging of toothfish will be implemented consistent with relevant conservation measures in force in Conservation of Antarctic and Marine Living Resources (CCAMLR). This proposal also includes: requirements for the fishing vessel that will be authorised to undertake the fishery; data collection, monitoring and reporting obligations; requirements for vulnerable marine ecosystems (VMEs), and mitigation measures for marine mammals, seabirds and other species of concern including sharks and skates.

Objective of the proposal:

The main objective of the exploratory fisheries survey will be to establish whether Patagonian and/or Antarctic toothfish are in the area and, if:

- Patagonian toothfish are captured, how closely they are related to the Macquarie Island toothfish population

- Antarctic toothfish are caught, how closely they are related to the CCAMLR population found in the adjacent 88.1 area.

This will be achieved through the collection of biological information and tagging data of the target species.

Secondary objectives are to provide the SPRFMO SC, Australian science organisations and fisheries managers with new information on areas adjacent to Australian exclusive economic zones. This will be achieved through fishery dependant data collection by implementing a research plan that samples bycatch species, VMEs and other oceanographic data.

Has the proposal financial impacts or influence on the Secretariat work?	☐ Yes ☒ No
Ref: **COMM12-PROP22**	Received on: 8 December 2023

CMM XX-2024

Conservation and Management Measure for Exploratory Fishing for Toothfish by Australia in the SPRFMO Convention Area

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING Article 22 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the Convention) which provides that a fishery that has not been subject to fishing or has not been subject to fishing with a particular gear type or technique for ten years or more shall be opened as a fishery or opened to fishing with such gear type or technique only when the Commission has adopted cautious preliminary Conservation and Management Measures (CMMs) in respect of that fishery and, as appropriate, non-target and associated or dependent species, and appropriate measures to protect the marine ecosystem in which that fishery occurs from adverse impacts of fishing activities;

RECOGNISING Articles 3(1)(a)(i) and (ii) of the Convention, which call on the Commission, in giving effect to the objectives of the Convention, to adopt CMMs that take account of international best practices and protect the marine ecosystem, particularly ecosystems with long recovery times following disturbance;

FURTHER RECOGNISING Articles 3(1)(b) and (2) of the Convention which call on the Commission to apply the precautionary approach and an ecosystem-based approach to fishery resources under the mandate of the Convention;

NOTING the conservation value of relevant SPRFMO CMMs which will apply to activities anticipated to be undertaken pursuant to this measure, including, inter alia, CMM 13-2021 (Exploratory Fisheries) on the Management of New and Exploratory Fisheries in the SPRFMO Convention Area, CMM 03-2023 (Bottom Fishing) on the Management of Bottom Fishing in the SPRFMO Convention Area and CMM 09-2017 (Seabirds) on Minimising Bycatch of Seabirds in the SPRFMO Convention Area;

AGREEING that new and exploratory fisheries should not be permitted to expand faster than the acquisition of information necessary to ensure that the fishery can and will be developed in accordance with the principles set out in Article 3 of the Convention;

RECOGNISING Article 22(2) of the Convention, which calls on the Commission to adopt preliminary measures that ensure that any new fishery resource is developed on a precautionary and gradual basis until sufficient information is acquired to enable the Commission to adopt appropriately detailed CMMs;

NOTING the discussions held at the eleventh meeting of the Scientific Committee on the proposal from Australia for an exploratory toothfish fishery (SC11-DW03_rev3);

FURTHER NOTING that in its eleventh meeting report, the Scientific Committee:

1. *noted* Australia's proposal and its Fisheries Operation Plan for an exploratory demersal longline fishery for toothfish;
2. *recognised* the cautious, exploratory nature of the proposal;
3. *recognised* the scientific benefits of the proposed data collection, especially for understanding the distribution, movement, spawning dynamics, and stock structure of toothfishes and supporting the Commission for the Conservation of Antarctic and Marine Living Resources (CCAMLR) stock assessment models for toothfish;
4. *approved* the Data Collection Plan included in the proposal;
5. *advised* the Commission that the proposal is acceptable in terms of Articles 2 and 22, CMM 13-2021 (exploratory fisheries), CMM 03-2021 (bottom fisheries), and the Bottom Fishery Impact Assessment Standard (BFIAS).

ADOPTS the following CMM in accordance with Articles 8, 20 and 22 of the Convention.

Objectives

1. To provide for exploratory bottom longline fishing for toothfish in the Convention Area for the purpose of obtaining scientific data to support the following objectives:

   a) to explore the presence and distribution of Antarctic and Patagonian toothfish in likely suitable habitat in the SPRFMO Convention Area, specifically, in the newly proposed Macquarie Ridge Continuation Research Block (MRC RB) through the collection of biological information and tagging data;

   b) to understand if Patagonian toothfish occurring in the MRC RB are biologically related to the Macquarie Island toothfish population and if Antarctic toothfish occurring in the MRC RB are biologically related to the Conservation of Antarctic and Marine Living Resources (CCAMLR) population found in the adjacent 88.1 area;

   c) to provide the SPRFMO Scientific Committee, Australian science organisations and fisheries managers with new information on adjacent areas to Australian exclusive economic zones (EEZs) through fishery dependent data collection by implementing a research plan that samples bycatch species, accidental catches, vulnerable marine ecosystems (VMEs) and other oceanographic data;

   d) to establish baseline data on bycatch of marine mammals, seabirds, sharks, skates and rays and other species of concern in the MRC RB and to build future monitoring mitigation, as required under paragraphs 12 and 26 of CMM 13-2021 (Exploratory Fisheries); and

   e) to undertake tagging activities on toothfish to enable future studies on the migration of toothfish as well as a preliminary stock assessment, including any other elements suggested by the SPRFMO Scientific Committee.

Definitions

2. For the purposes of this CMM:

   a) “toothfish” means Patagonian toothfish (*Dissostichus eleginoides*) and Antarctic toothfish (*Dissostichus mawsoni*);
   b) “bottom longline” means standardised integrated weight bottom longline gear as specified in the CCAMLR Fishing Gear Library;
   c) “observer” means any observer from a national observer programme or service provider accredited according to the provisions of CMM 16-2023 (Observer Programme).

Application

3. This CMM applies to exploratory fishing for toothfish as described in SC11-DW03_rev3 “Australia proposal for New Exploratory Fishery (AUS)”.

4. None of the obligations in this CMM exempt a Member or CNCP from complying with any Convention obligation or any other CMMs adopted by the Commission.

Details and specification of exploratory fishing activities

5. Exploratory Fishing for toothfish, using the bottom longline method, may be conducted in the exploratory fishing research block in Table 1.

Table 1: corner coordinates of the Macquarie Ridge Continuation Research Block (MRC RB), area ~55,257km², with a fishable depth between 600-2500m, equating to 19% of the total fishable area ~10,370km²

Latitude	Longitude
Boundary of Macquarie Island EEZ	157°E
60°S	157°E
60°S	163°E
Boundary of Macquarie Island EEZ	163°E

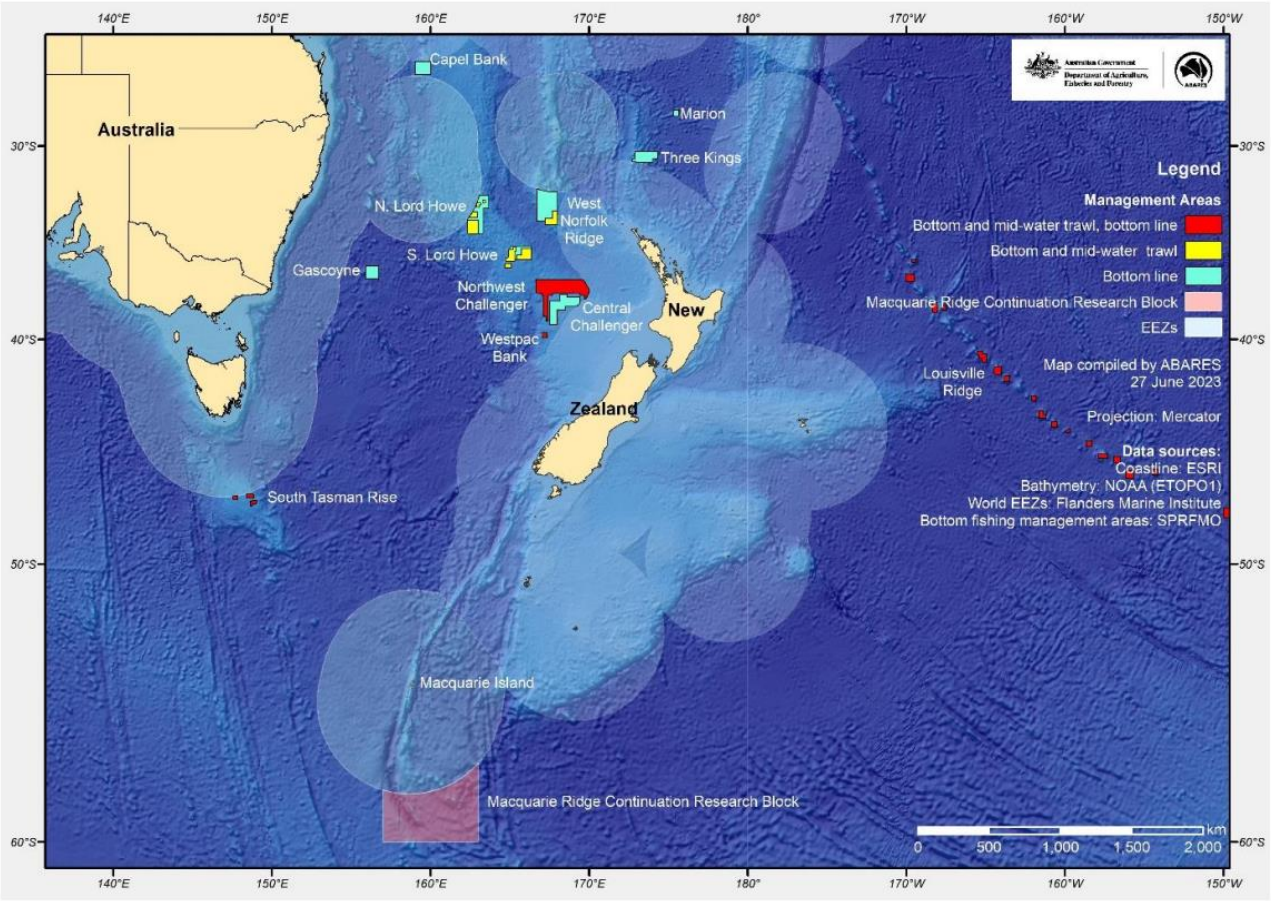

Figure 1: Proposed exploratory area in the Macquarie Ridge Continuation Research Block (MRC-RB).

Duration, Effort limits and total allowable catch

6. The proposal provides for up to three years of survey to occur, with the second (2025) and third (2026) years being contingent on toothfish being found in year one (2024). At the conclusion of the three years, Australia will consider the need for a second research plan, designed to assess the viability of establishing a fishery in the MRC RB, on a precautionary and gradual basis according to the best available science.
7. Fishing may occur in conjunction with a trip to the adjacent Macquarie Island Toothfish Fishery (within Australian EEZ). As such, fishing may occur in April, August or September.
8. The annual toothfish total allowable catch (TAC) shall not exceed 40 tonnes (greenweight), unless the Commission revises the TAC at its annual meeting based on advice of the Scientific Committee. Fish that are tagged and returned alive to the sea shall not be counted against this limit.
9. Fishing operations shall further be limited to a maximum of 5,000 hooks per line.

10. Catch shall be recorded on a set-by-set basis and fishing operations shall cease in the first year (2024) once the limit in paragraph 8 has been caught or if any of the bycatch limits described in SC11-DW03_rev3 are reached.
11. As the catch limit is approached, the following measures will be used, as appropriate, to constrain the retained catch within the limit:
    a) shorter lines will be set;
    b) a seawater tank will be maintained on board such that live fish in good condition can be retained in case they need to be tagged and returned alive to stay within the catch limit; and
    c) the tagging rate may be progressively increased.
12. Fishing operations shall be limited to depths between 600 m and 2,500 m to avoid any impact on benthic ecosystems in shallower waters.

Management Measures

13. Fishing pursuant to this measure shall only take place in accordance with SC11-DW03_rev3 "Australia proposal for New Exploratory Fishery (AUS)".
14. Because of the likelihood of shared stocks of toothfish, fishing pursuant to this measure shall be conducted to the extent possible with relevant measures in force in CCAMLR.
15. If Australia conducts three years of exploratory fishing under this CMM, Australia shall provide information collected to the Scientific Committee to assist it in providing future recommendations to the Commission about continued exploratory fishing proposals in this area or incorporating the area into management under CMMs 03-2023 and 03a-2023.
16. To ensure that there are no risks of cumulative impacts on VME as per paragraph 22 of CMM 03-2023, line set positions will not overlap previous line setting positions that fishing year without review of the VME indicator species catch and evidence from seabed video monitoring.
17. All lines shall be set to ensure that each set is at least 1 nautical mile from all other sets that fishing year as measured from the centre point of the line.

Authorised Fishing Vessels

18. The fishing vessel *FV Antarctic Discovery* shall be authorised to undertake fishing pursuant to this measure. In the event the *FV Antarctic Discovery* is unavailable, an alternative fishing vessel of similar capability and capacity shall be authorised by Australia to undertake fishing pursuant to this measure, only after the replacement vessel has been formally notified to the Executive Secretary who will forward that information to all Members and CNCPs.
19. In determining the suitability of an alternative fishing vessel Australia shall consider, inter alia:
    a) the vessel's ability to conduct the exploratory fishing proposed in paper SC11-DW03_rev3;
    b) the master and crew's history and track record in comparable research or exploratory fishing;
    c) the ability of the vessel to provide suitable accommodation, facilities, and operating support for observers on-board;
    d) the ability of the vessel to comply with the applicable mitigation measures to seabirds and marine mammals;
    e) any history of illegal, unreported or unregulated (IUU) fishing by the master, crew or vessel. Consistent with CMM 04-2020 (IUU Vessel List) a vessel on the SPRFMO IUU list, or the IUU list of another competent organization with fisheries management responsibilities, shall not be accepted as an alternate vessel.

Data Collection

20. In undertaking fishing pursuant to this measure, the vessel shall, to the extent possible, collect all the data as set out in the paper submitted to the Scientific Committee (SC11-DW03_rev3) and any further data requested by the Scientific Committee for its annual evaluation and assessment.

21. Any vessel authorised to undertake fishing pursuant to this measure shall be fully capable of complying with SPRFMO data standards and reporting as required under CMM 02-2022 (Data Standards), CMM 03-2023 (Bottom Fishing) and CCAMLR CM 22-07 (2013) related to encounters with potential VMEs. Australia shall submit all data using the CCAMLR C2 catch and effort form for longline to at least the standard required by CMM 02-2022 (Data Standards). In addition, the observer aboard each vessel shall complete, in full, CCAMLR eLongline forms.

22. A minimum tagging rate of three fish of each toothfish species per green weight tonnes retained shall be implemented for consistency with research fishing requirements in the adjacent CCAMLR areas. These rules require a minimum tagging size overlap statistic of 60% once 30 or more toothfish have been successfully released with tags.

Data collection on Marine mammals, seabirds, and other species of concern

23. The following information shall be collected for marine mammals, seabirds, turtles, and other species of concern:

    a) standardised seabird and marine mammal abundance counts shall be undertaken by observers during the setting and hauling of each line;

    b) other opportunistic observations, photography and identification of marine mammals shall be undertaken in collaboration with crew;

    c) the observer shall have a target of observing at least 10% of hooks hauled for marine mammal, seabird and turtle interactions;

    d) multi-camera Electronic Monitoring (EM) systems recording both set and haul operations shall be in use;

    e) all marine mammals, seabirds, turtles, and other species of concern captured shall be identified, and where possible photographs taken of all birds including live birds released and any birds colliding with the ship that can be recovered.

Data collection on vulnerable marine ecosystems (VMEs)

24. All information specified in CMM 03-2023 (Bottom Fishing) relating to bottom fisheries and all data necessary to assess encounters with VMEs shall be collected to enable assessment and monitoring of the distribution of VMEs in the areas fished.

25. Additionally,

    f) the vessel shall record position, depth, type, and quantity of gear loss;

    g) data shall be collected to fill current knowledge gaps as identified in section 6 of SC6-DW09, specifically the insufficient data from demersal longline fisheries to develop a data informed move-on rule for that method;

    h) VME data collection shall help develop VME maps for the SPRFMO area as required under CMM 03-2023;

    i) environmental data shall be collected (e.g. conductivity, temperature, depth) for predictive modelling purposes, as recommended by the BFIAS.

Mitigation measures of Marine mammals, seabirds, and other species of concern

26. A vessel fishing pursuant to this measure shall use the following mitigation measures:

Non-target fish

a) Precautionary catch limits for all bycatch species that shall meet and exceed CCAMLR CM 33-03 2023 and SPRFMO CMM 02-2020 (Data Standard) Annex 14. Once the limit has been reached, fishing shall cease:

   i. Macrourus spp.: 16% of the catch limit for Dissostichus spp.

   ii. Other species: 16% of the catch limit for Dissostichus spp.

Chondrichthyans

b) Precautionary bycatch limits and gear restrictions, including ban on the use of wire traces. Catch limits for all bycatch species shall meet and exceed CCAMLR CM 33-03 2023 and SPRFMO CMM 02-2020 (Data Standard) Annex 14. The total catch of by-catch, excluding individuals released alive, shall not exceed the following limits:

   i. Skates and rays: 5% of the catch limit for Dissostichus spp.

   ii. Other species: 16% of the catch limit for Dissostichus spp.

   iii. Species listed on CMM 02-2020 Annex 14: ban on retention of these species.

Seabirds

c) Mitigation measures shall meet the requirements of CCAMLR CM 25-02 2023 and meet and exceed SPRFMO Annex 1 CMM-09 2017. Specifically for longline operation, the following mitigation measures shall apply:

   i. no offal discharge during fishing operations – dumping of offal shall be prohibited during the hauling and setting of gear. Any dumping of offal that is necessary shall occur well away from fishing grounds in waters deeper than 2,500m;

   ii. integrated weight line – longline vessels shall use integrated weight line with at least 50g/m to sink the line quickly beyond the feeding range of seabirds;

   iii. paired streamer lines – two streamer lines (minimum of 150 m in length) shall be used to deter birds away from gear during line setting and to be attached to the vessel such that each is suspended from a point a minimum of 7 m above the water at the stern, with one streamer line to be deployed on the windward side of the point where the hook-lines enters the water;

   iv. bird excluder device – designed to discourage birds from accessing baits during the hauling of loglines shall be deployed based on the operational characteristics set out in Annex 25-02 of CCAMLR CM25-02 2023.

   v. prohibition on the use of plastic packing bands to secure bait boxes - to prevent ingestion of or entanglement in the debris by seabirds or marine mammals;

   vi. minimisation of lighting – only the minimal fishing vessels lighting necessary for safety shall be used at night to reduce the risks of seabirds colliding with the vessel;

   vii. bird scaring sound cannon; and

   viii. the baiting machine positioned towards the centre of the vessel to enable the line to sink quickly within the downwash of the propeller.

Mammals

d) Due to depredation of toothfish by certain species, such as orcas and sperm whales, vessel operators will seek to avoid interactions with these species which may include steaming more than 90 nautical miles away if these species are observed depredating the line;

e) Vessels shall take all reasonable steps to avoid losing any gear or non-biodegradable items from the boat to reduce entanglement risks with marine mammals.

f) Wildlife interaction reports are required to be completed and submitted within 24 hours of an interaction with a protected species; and

g) A mammal interaction will trigger an evaluation of fishing strategy and location, including a potential move-on rule.

Monitoring

27. A vessel undertaking fishing pursuant to this measure shall carry a scientific observer on-board, as well as a dedicated assistant experienced in at-sea scientific data collection to assist the observer with biological measurement and data collection. Observer data shall be collected in accordance with Annex 7 of the SPRFMO data standards (CMM 02-2022) and shall include gear deployment and retrieval data, catch and effort information, biological data collection, and information on marine mammals, seabirds, and other species of concern.

28. The scientific observer shall record:

a) all relevant biological data as outlined in CMM 02-2022 (Data Standards) to enable the evaluation of existence of the target species in the research area and evaluate the possible impacts of the exploratory fishery on the target stock, associated or dependent species, and marine ecosystems;

b) encounters with VMEs; and

c) the effectiveness of related mitigation measures and how the vessel implements mitigation measures for marine mammals, seabirds, sharks, skates and other species of concern.

29. The vessel shall also be equipped with a tamperproof Automatic Location Communicators that meet SPRFMO standards for vessel monitoring systems (VMS) reporting (every hour) and can respond to polling at any rate if required.

30. EM will be used to monitor all setting and hauling activities, including monitoring of target and by-catch in the hauling bay. The tamper-proof system shall record sensor and video data overlaid with accurate GPS and timeline stamp on the video record.

Review

31. This CMM shall expire following the regular meeting of the Commission in 2027.

32. Pursuant to CMM 13-2021 (Exploratory Fisheries), any further fishing in this fishery shall be undertaken only in accordance with a CMM adopted by the Commission to manage the fishery as an established fishery.