

CMM 14d-2020

Conservation and Management Measure for Exploratory Fishing for Toothfish by Chilean-Flagged Vessels 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 Exploratory Fisheries in the SPRFMO Convention Area; CMM 03-2022 (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 that at its seventh meeting, the Scientific Committee assessed Chile's updated proposal (SC7-DW03_rev3) to conduct an exploratory bottom longline fishing during 2020, 2021, and 2022 for toothfish, limited to 54 tonnes greenweight retained during the first year.

FURTHER NOTING that the Scientific Committee agreed that the approach outlined in the revised Fisheries Operation Plan is likely to ensure that the exploratory fishery is developed consistently with its nature as an exploratory fishery, and consistently with the objectives of Article 2 of the Convention.

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) Map the bathymetry of the fishable area (shallower than about 2500 m) in the FAO Area 87.3 (Pacific South East excluding the coastal States EEZ), document the spatial distribution, catch rates, and relative abundance of Antarctic and Patagonian toothfish in apparently suitable habitat to the north of CCAMLR Area 88.3;
 - b) Characterise the biology, life history and spawning dynamics of toothfish in the area;
 - c) Tag substantial numbers of toothfish for stock linkage and life history studies, and, potentially, for use in a multi-area CCAMLR stock assessment model and for biomass estimation;
 - d) Take samples for further genetic studies to know if the same population is found in the South of Chile and on the Atlantic side;
 - e) Collect information on distribution, relative abundance, and life history of bycatch and other associated or dependent species;
 - f) Provide occurrence information on marine mammals, seabirds, turtles, sharks and other species of concern.

Definitions

2. For the purposes of this measure:
 - a) “toothfish” means both Patagonian toothfish (*Dissostichus eleginoides*) and Antarctic toothfish (*Dissostichus mawsoni*);
 - b) “bottom longline” means trotline gear as specified in the CCAMLR Gear Library, with the inclusion of “Cachaloteras” to reduce interaction with marine mammals and eliminate interaction with seabirds¹.

Application

3. This measure applies to exploratory fishing for toothfish as described in SC7-DW03_rev3 “Chile exploratory fishing for Patagonian toothfish within the SPRFMO Area”.
4. None of the obligations in this measure 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. Fishing for toothfish, using the bottom longline method, may be conducted in the exploratory fishing strata identified in Table 1 below.

¹ Description and diagram available in <https://www.ccamlr.org/en/node/105097> and https://www.ccamlr.org/en/system/files/gear_diagrams/105097-globalpesca-i-trotline.png.



Table 1: Corner positions for the four exploratory research boxes.

Block	1	2	3	4
NW	42°52'S; 98°28'W	58°21'S; 96° 00'W	59° 00'S; 75°00'W	54° 00'S; 95°00'W
NE	42°52'S; 96°00'W	58°21'S; 93°47.6'W	59° 00'S; 73°00'W	54° 00'S; 92°00'W
SE	43°30'S; 96°00'W	59° 00'S; 96° 00'W	60° 00'S; 70°00'W	55° 00'S; 92°00'W
SW	43°30'S; 98°28'W	59° 00'S; 96°60'W	60° 00'S; 75°00'W	55° 00'S; 95°00'W

6. The first trip of this exploratory fishing may occur anytime during 2020 with a maximum of two trips each year.
7. The Scientific Committee will review results each year at its annual meeting and advise the Commission on progress, including whether any stock indicators show sustainability concerns and what, if any, additional measures might be required to restrict the potential bycatch of deepwater sharks or other non-target species.

Total Allowable Catch

8. The annual toothfish total allowable catch (TAC) shall not exceed 54 tonnes (greenweight) in 2020. The TAC for 2021 and 2022 shall not exceed 54 tonnes unless the Commission sets a higher TAC, taking into account any advice from the Scientific Committee and the previous year's performance and data collected during the same period.
9. Fish that are tagged and returned alive to the sea shall not be counted against the limit set out in paragraph 8. The 2020 catch limit of 54 tonnes will allow the collection of a relevant amount of scientific information and will also allow an adequate number of tagged fish to be returned to the sea, which will be calculated based on the same methodology used in nearby CCAMLR exploratory fisheries.
10. The catch limit was determined based on a design approach with the following considerations:
 - a) A minimum of four research blocks should be surveyed each calendar year for a maximum of 3 fishing days (15 000 hooks per day) in each one, ice and weather permitting. A catch limit of 13.50 tonnes per block to ensure geographic spread if catch rates are high in one or more of them, meaning that if this catch is met in a shorter time the vessel will stop fishing and move to the next location.
 - b) A maximum of 9 sets of 5,000 hooks each, will be deployed in each research block fished;
 - c) A maximum combined catch limit of 54 tonnes live weight yearly.
11. Catch and effort shall be monitored on a shot-by-shot basis and fishing operations will cease once the limits in paragraph 8 have been caught.
12. The companies and crews of the proposed vessels shall have experience working to restrictive catch limits and use intensive monitoring of catch retained. As the catch limit of 54 tonnes is approached, the following measures to constrain the retained catch within the relevant limit(s) shall be considered:
 - 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 to meet the catch limit.
13. Fishing activity undertaken pursuant to this measure will not be considered to be a precedent for future allocation decisions.



Authorised Vessel

14. The vessel *Globalpesca II* shall be authorised to undertake fishing pursuant to this measure. In the event that *Globalpesca II* is unavailable, an alternative vessel of similar capability and capacity shall be authorised by Chile to undertake fishing pursuant to this measure only after the replacement vessel has been formally notified to the Executive Secretary, in accordance with paragraph 23 of CMM 13-2021 (Exploratory Fisheries), who will forward that information to all Members and CNCPs.
15. In determining the suitability of an alternate vessel Chile shall consider, *inter alia*:
 - a) the vessel's ability to conduct the exploratory fishing proposed in paper SC7-DW03_rev3 "Chile exploratory fishing for Patagonian toothfish within the SPRFMO Area";
 - 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;
 - d) the ability of the vessel to maintain rigorous mitigation of risks to seabirds, marine mammals and turtles;
 - e) any history of Illegal, Unreported or Unregulated (IUU) fishing by the vessel. A vessel on the SPRFMO IUU list or the IUU list of another competent regional fisheries management organisation shall not be accepted as an alternate vessel.

Management Measures

16. Fishing pursuant to this measure shall only take place in accordance with SC7-DW03_rev3 "Exploratory fishing for Patagonian toothfish within the SPRFMO Convention Area".
17. Because of the possibility of shared stocks of toothfish, fishing pursuant to this measure shall, as far as possible, be conducted consistent with relevant measures in force in the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Area. In this regard, the following rules shall apply:
 - a) no more than 5,000 hooks shall be set in a line;
 - b) no more than 15,000 hooks shall be set in per fishing day;
 - c) A minimum tagging rate of three fish of each *Dissostichus* species per green weight (live weight) tonne shall be implemented. The length frequency of tagged toothfish shall reflect the length frequency of the catch. The minimum tag-overlap statistic shall achieve 60% once 30 or more *Dissostichus* of a species have been successfully released with tags, following the rules of CCAMLR CM 41-01/C (2019).
18. If 250 kg or more of deep-water sharks (all species in class *Chondrichthyes* combined on a line) are caught, then no further lines will be set within 10 nautical miles of the location of that line until the information from that voyage has been reviewed by the Scientific Committee.

Data Collection

19. In undertaking fishing pursuant to this measure the vessel shall, to the extent possible, collect all the data as set out in the document submitted to the Scientific Committee (SC7-DW03_rev3) and any further data requested by the Scientific Committee for its annual evaluation and assessment, including impacts on the benthic environment, if any.



20. Any vessel authorised to undertake fishing pursuant to this measure shall be fully capable of complying with SPRFMO data standards and reporting and to CCAMLR CM 22-07 (2013) related to encounters with potential vulnerable marine ecosystems (VMEs). Chile will submit all data at least to the standard required by CMM 02-2022 (Data Standards). In addition, the government designated observer aboard each vessel shall complete, in full, the CCAMLR fine-scale catch and effort data form C2 for longline fishing using standard FAO codes.

Marine Mammals, Seabirds, Turtles, and other Species of Concern

21. A vessel fishing pursuant to this measure shall use the following mitigation methods:

- a) the vessel shall use trotlines with “Cachalotera” with a maximum of 5,000 hooks per set;
- b) there shall be no dumping of offal while lines are being set or while lines are being hauled;
- c) discarding shall take place only at the end of a haul or while steaming; and no biological material shall be discarded for at least 30 minutes before the start of any set or during any set;
- d) discarding may only take place from the opposite side of the vessel from the hauling position;
- e) the Cachalotera system shall be used all the time to avoid incidental interactions with seabirds;
- f) promptly release of sea turtles, in a manner that causes the least harm to the extent practicable;
- g) at least one crew member will have training in techniques for handling and release of turtles to improve survival after release.

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

- a) at least one standardised seabird and marine mammal abundance count shall be made at the rear of the vessel during the setting of each line and again during the hauling of each line;
- b) other opportunistic observations, photography and identification of marine mammals shall be undertaken in collaboration with the crew;
- c) the observer shall have a target of observing 25% of hooks hauled for marine mammal, seabird and turtle captures, and for comparison with a sample of recorded video observations;
- d) at least 50% of hooks hauled shall be viewed on recorded video after the voyage;
- e) all marine mammals, seabirds, turtles, and other species of concern captured shall be identified, and photographs taken of all live birds released and any birds colliding with the ship that can be recovered;
- f) all dead birds shall be retained for formal identification and necropsy.

23. All information specified in CMM 03-2022 (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 marine ecosystem in the areas fished.

Monitoring

24. A vessel undertaking fishing pursuant to this measure shall carry an observer, 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 the SPRFMO Observer data standard and shall include gear deployment and retrieval data, catch and effort information, biological data collection, and information on marine mammals, seabirds, reptiles and other species of concern.



25. In addition to carrying an observer, a vessel undertaking fishing pursuant to this measure shall be equipped with a video monitoring and recording system to be located over the hauling position to ensure that all hauled lines and hooks are observed or recorded on video. All recorded footage must be provided to the Chile Fisheries and Aquaculture National Service (Servicio Nacional de Pesca y Acuicultura, Sernapesca) at the end of the voyage for analysis and storage.
26. The vessel shall also be equipped with several tamperproof Automatic Location Communicators that meet SPRFMO standards for VMS reporting (as per CMM 06-2020 (Commission VMS), at least every 1 hour) and can respond to polling at any rate if required.

Review

27. This CMM shall expire following the regular meeting of the Commission in 2023. Notwithstanding, this CMM may be revised and updated by the Commission in 2021 and 2022 taking into account any advice or recommendation from the Scientific Committee.
28. The exploratory fishery to which this CMM applies may be extended through the development of a new CMM, pursuant to CMM 13-2021 (Exploratory Fisheries) or any other CMM that the Commission adopts that outlines a framework for the management of exploratory fisheries in the SPRFMO Area.