

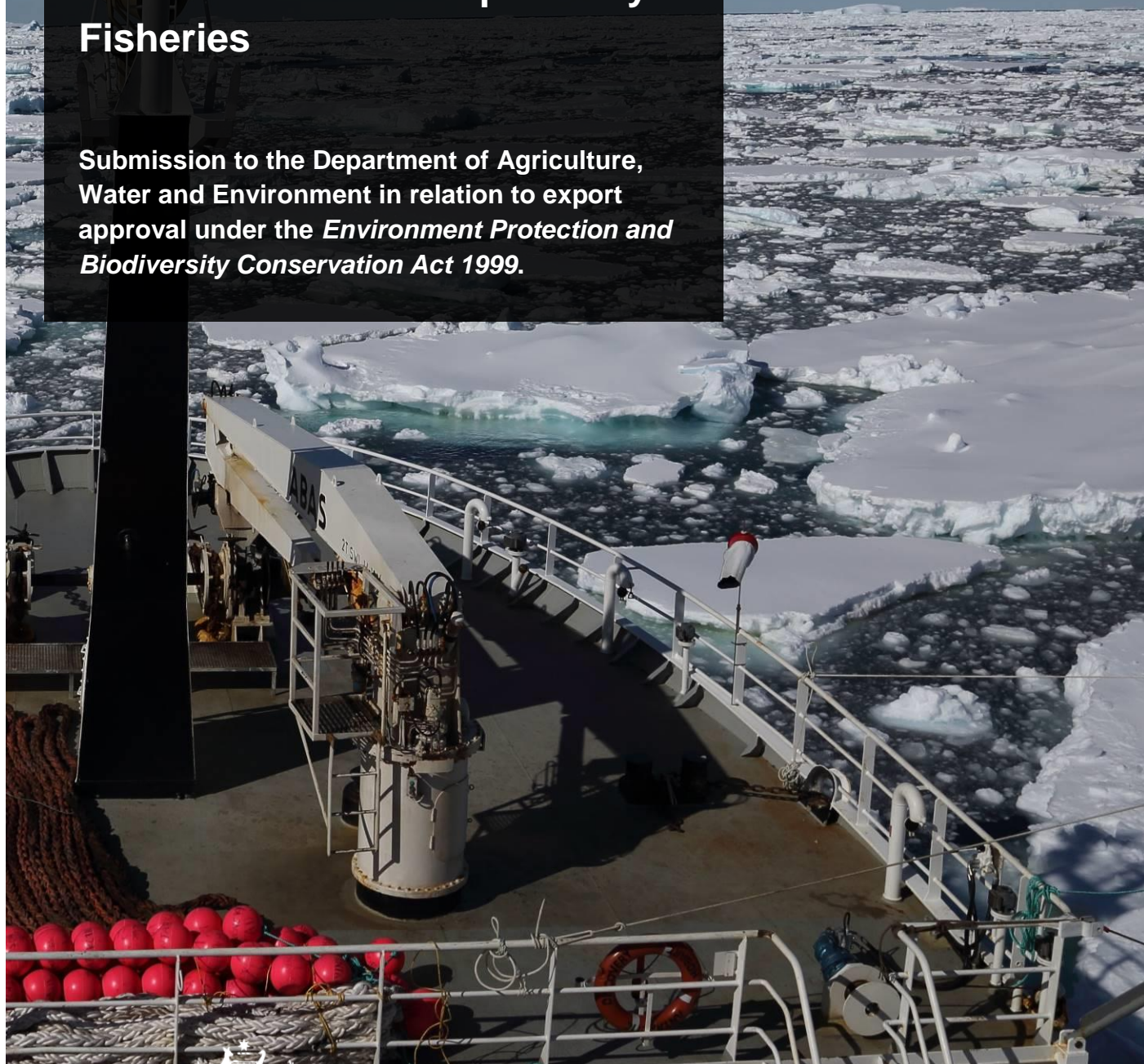


Australian Government

Australian Fisheries Management Authority

CCAMLR New and Exploratory Fisheries

Submission to the Department of Agriculture, Water and Environment in relation to export approval under the *Environment Protection and Biodiversity Conservation Act 1999*.



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Cover photo taken by Jarrad James, AFMA Observer

1 Introduction

This report covers operations by Australian vessels in New and Exploratory fisheries in waters within the area of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

1.1 Description of the fishery

The fisheries primarily target Antarctic Toothfish (*Dissostichus mawsoni*) using demersal longlines in East Antarctica (Statistical Divisions 58.4.1, 58.4.2), and the Ross Sea (Statistical Subareas 88.1 and 88.2) of CCAMLR Convention Area (see Figure 1). Recognising that these fisheries are accessed by multiple CCAMLR members countries, this submission refers to the operations by Australian licenced vessels operating participating in CCAMLR New and Exploratory fisheries.

An overview of CCAMLR and its definitions of New and Exploratory fisheries is provided in AFMA's Guide to CCAMLR New and Exploratory Fisheries, available for download at https://www.afma.gov.au/sites/default/files/final_guide_to_ccamlr_new_and_exploratory_fisheries_2020.pdf

Extensive fishery reports describing total catch by all members (including bycatch), data collection, research and stock assessments are available to download at <https://www.ccamlr.org/en/publications/fishery-reports>

The Ross Sea fishery is certified by the Marine Stewardship Council. Comprehensive information on this fishery is available in the MSC assessment documentation on the [MSC website](#).

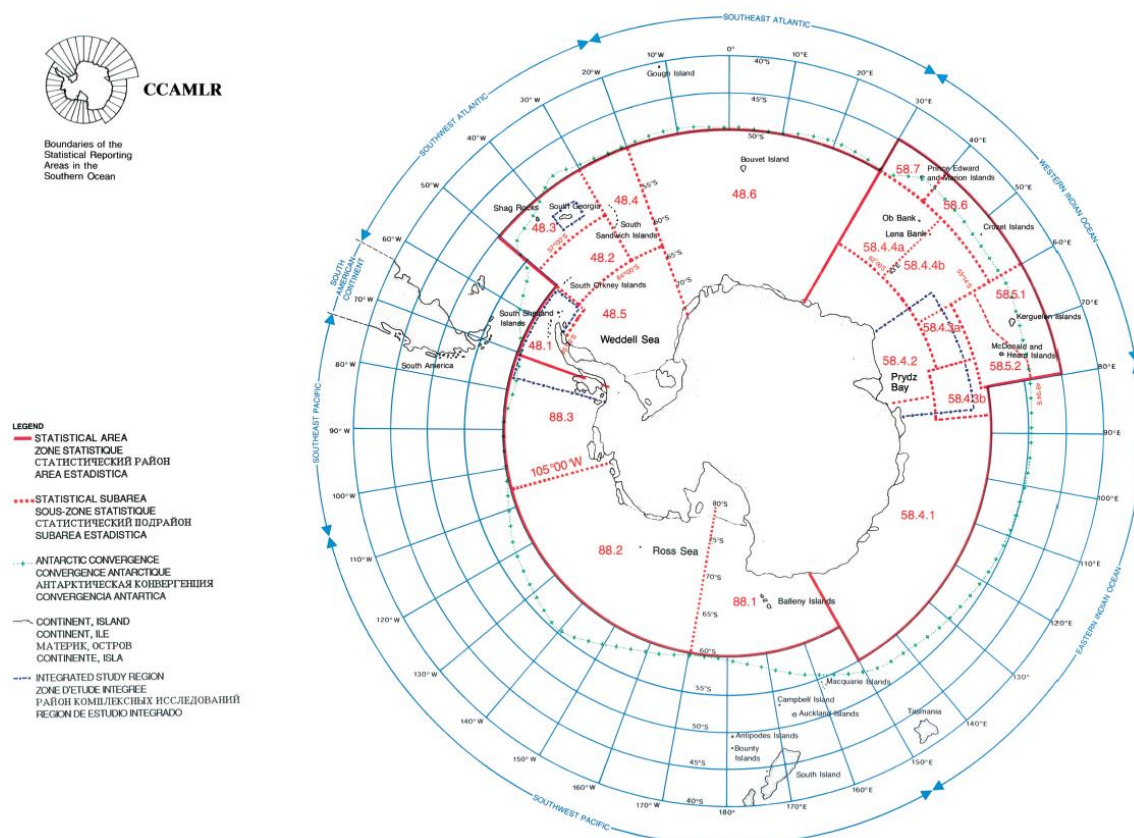


Figure 1 Location of the Statistical Divisions within the CCAMLR Convention area

1.2 Target species

Antarctic toothfish (*D. mawsoni*)

Less is known about Antarctic toothfish compared to Patagonian toothfish, although their biology appears similar. Antarctic toothfish is endemic to the seas around Antarctica (circumpolar at latitudes generally higher than 55° South) and is distributed all around the Antarctic Continent on the continental shelf and slope and to some extent seaward. The distribution boundary between the two toothfish species is generally not well defined, and the two species are occasionally caught in the same area, such as on BANZARE Bank. Antarctic toothfish is an epibenthic species that is usually caught near the bottom in depths of 600-2000 m.

Reflecting its higher latitude distribution, Antarctic toothfish has antifreeze proteins in its blood and tissues, whereas Patagonian toothfish does not.

Fisheries for Antarctic toothfish have been slower to develop than those for Patagonian toothfish, principally because of the much more difficult conditions for exploration and fishing in the high latitudes. A fishery began in the Ross Sea in 1998, initially by New Zealand longliners but in recent years vessels from several CCAMLR Member nations have participated. Antarctic toothfish is the dominant species in CCAMLR New and Exploratory fisheries, as it comprises nearly all of the toothfish catch outside areas of national jurisdiction. Patagonian Toothfish are generally caught within areas of national jurisdiction.

1.3 Bycatch species

All fish other than the target species are considered bycatch species by CCAMLR. The primary bycatch species taken have been skates and rays (rajids) and grenadiers (macrourids). Bycatch limits are generally a ratio of the toothfish allowable catch (macrourids) or fixed quantities (rajids and other bycatch), with the exception Statistical Subarea 88.1 where an assessment is conducted for for macrourids. Bycatch limits are detailed in [CM 33-03](#) each season.

Operators are required to keep fish bycatch on-board in order to limit possible interactions with marine mammals and seabirds. All retained bycatch is either frozen or processed into fish meal. Live skates, sponges, crabs and coral maybe returned to the ocean as these species have a high chance of survival and they do not attract seabirds and marine mammals when discarded. North of 60°S, where large sharks and skates are occasionally caught, they may also be returned to the sea as they cannot be landed safely.

1.4 Fishing methods employed

The principal fishing method used in New and Exploratory fisheries is demersal longlining.

Demersal longlining

The autoline (or Mustad) system is most commonly used by 'Norwegian-style' vessels and typically has a simple configuration (see Figure 2). Essentially, the system consists of a single, long 'backbone' or 'main-line' (usually 9–12 mm diameter), containing several thousand, short (~400 mm), evenly-spaced 'branch-lines' (or 'snoods') each with a baited hook on the terminal end. Each snood is attached via a collar to the main-line in a manner that allows the snood to rotate 360° around the main-line, as well as 360° about a swivel. Snoods are spaced 1–2 m apart (typically every 1300 mm).

The longline is normally stored in several 'magazines' on board the vessel, each containing 1000–1200 m of ready-hooked longline. A typical magazine might contain 950–1200 hooks. Magazines can be joined in sequence to create the desired length of longline.

Line setting is a relatively straightforward procedure. Typically, one end of the longline is drawn from the hauling room at the stern of the vessel. The other end is attached to a marker flag, radio beacon and buoys that are thrown overboard to designate the outer limit of the longline. Heavy grapnel anchors (40–100 kg) that have been attached to the line at a point several hundred metres below the buoys cause the longline to rapidly submerge and eventually grab onto the ocean floor. This 'down-line' (the initial length of the longline from the buoys to the anchors) does not contain hooks.

The anchors stabilise one end of the longline. The vessel then steams away from the fixed end of the longline at 2–10 knots, causing the central, hook portion of the longline to be paid out from the stern of the vessel. Each hook passes through an automatic baiting machine (where hooks are baited with about 90% success) before they enter the water.

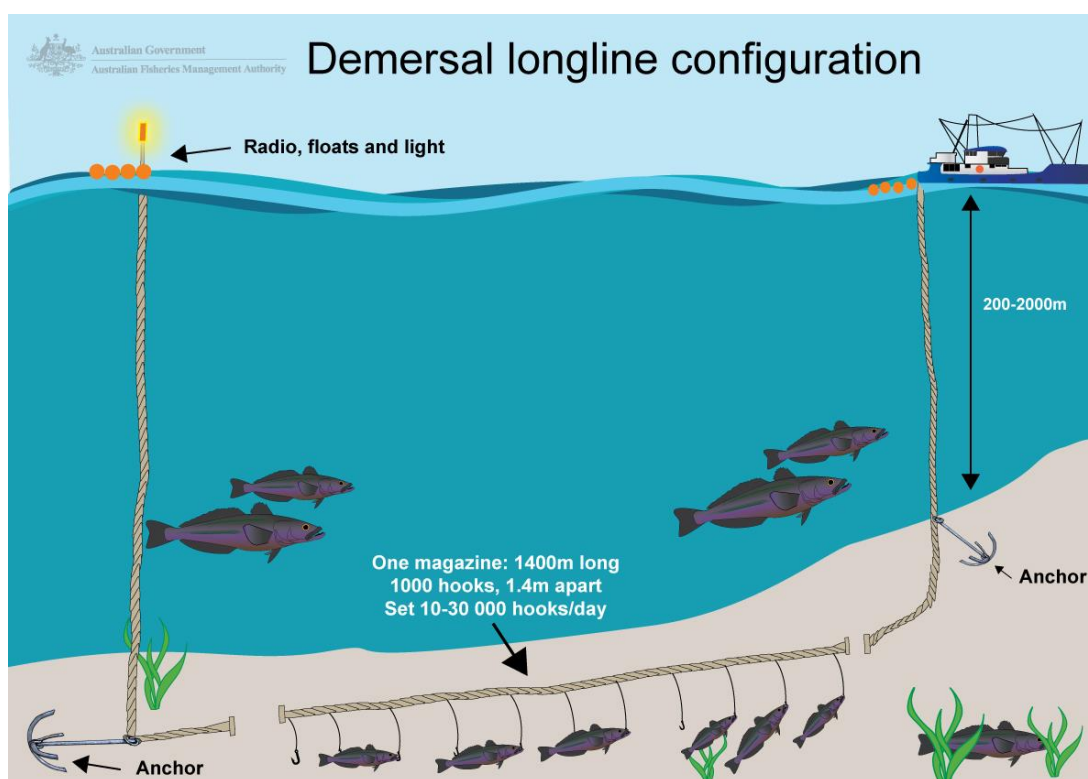


Figure 2 Demersal longline configuration

Autoline vessels deploy negatively buoyant longlines. Weights or floats may be clipped to the longline at various intervals along the line during setting to alter the sink rate of the line. The longline is then gradually set on the ocean floor (often following topographic features as identified from an on-board GPS). A second set of grapnels stabilises the proximal end of the longline. Currently Australian vessels are using integrated weight line (9.5–12 mm diameter) with an internal lead core of 50 grams/metre used to sink the line.

The bottom-set hooks are then left to attract toothfish for up to 24 hours. The vessel then travels slowly (1–2 knots) towards the distal end of the longline, steadily hauling the longline back onto the vessel (Smith 1998; Blackwell et al. 2000).

More information on the auto long-line system is available at the [CCAMLR Gear Library](#).

1.5 Allocation between sectors

There is no allocation between sectors in New and Exploratory fisheries, however catch limits are divided into small scale research units within each Subarea or Division. The fisheries operate as competitive catch limits which allow for a number of nominated vessels from CCAMLR member countries to fish the limit set for the particular CCAMLR statistical area. In circumstances where a specific program of research is approved by CCAMLR, a research allocation can be made to ensure other fishing activities do not interfere with the research.

1.6 Governing legislation/fishing authority

Operations by Australian vessels in CCAMLR New and Exploratory fisheries are managed by AFMA under the *Fisheries Management Act 1991*.

1.7 Status of export approval/accreditation under EPBC Act

CCAMLR Statistical Divisions 58.4.1 and 58.4.2 were declared an approved Wildlife Trade Operation (WTO) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 24 December 2015. This approval will expire on 27 November 2020.

CCAMLR Statistical Subareas 88.1 and 88.2 were declared an approved Wildlife Trade Operation (WTO) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 4 December 2014. This approval was due to expire on 31 October 2019 but was extended until 27 November 2020 pending submission of this report.

2 Management

Australia implements CCAMLR's Conservation Measures for New and Exploratory fisheries through permit conditions. General requirements include:

- carrying at least two scientific observers, one of which must be appointed in accordance with the CCAMLR Scheme of International Scientific Observation (SISO), to monitor environmental interactions, collect information on the fishery and the fishing boat's operations;
- complying with a comprehensive set of reporting requirements to ensure that impacts of fishing are kept to a minimum and are closely monitored;
- undertaking research as required in order to provide for assessments of future harvest controls and the potential environmental impacts of exploratory operations in the CCAMLR area;
- the use of an AFMA approved vessel monitoring system.

CCAMLR Conservation Measure [41-01](#) (General measures for exploratory fisheries for *Dissostichus spp.* in the Convention Area in the 2019/20 season) describes further general requirements specific to exploratory fisheries. Fishery-specific requirements are also prescribed in CCAMLR conservation measures for each Statistical Division/Subarea.

Conservation Measure 41-11	Limits on the exploratory fishery for <i>Dissostichus mawsoni</i> in Statistical Division 58.4.1 in the 2019/20 season
Conservation Measure 41-05	Limits on the exploratory fishery for <i>Dissostichus mawsoni</i> in Statistical Division 58.4.2 in the 2019/20 season
Conservation Measure 41-09	Limits on the exploratory fishery for <i>Dissostichus mawsoni</i> in Statistical Subarea 88.1 in the 2019/20 season

2.1 Target species

Output controls are the primary means of controlling the level of catch in CCAMLR New and Exploratory fisheries and are set as annual precautionary catch limits for target and some bycatch species. CCAMLR New and Exploratory fisheries operate on a competitive basis, permitting for a number of vessels from CCAMLR member countries to fish the catch limit set for the particular CCAMLR statistical area (commonly referred to as an Olympic TAC).

Each year CCAMLR prescribes the catch and bycatch limits which apply to New and Exploratory fisheries. Catch limits are prescribed in CCAMLR conservation measure applying to the Statistical Division/Subarea.

Conservation measures are also developed to prescribe which members may fish based on their nominations to target a particular species in an area using an accepted fishing method.

Members are required to nominate their intent to fish prior to the fishing season, and nominations are reviewed by the relevant working group and the SC. The CCAMLR Secretariat monitors the catch taken by various vessels against the catch limit and is responsible for closing the fishery once the catch limit is reached.

2.2 Environmental protection measures

Input controls are also used to minimise bycatch and the impact on the broader marine environment. The key conservation measures relevant to the New and Exploratory fisheries include:

Conservation Measure 21-02	Exploratory Fisheries
Conservation Measure 22-06	Bottom fishing in the Convention Area;
Conservation Measure 22-07	Interim measure for bottom fishing activities subject to Conservation Measure 22-06 encountering potential vulnerable marine ecosystems in the Convention Area;
Conservation Measure 22-08	Prohibition on fishing for <i>Dissostichus</i> spp. in depths shallower than 550 m in exploratory fisheries;
Conservation Measure 22-09	Protection of registered vulnerable marine ecosystems in subareas, divisions, small-scale research units, or management areas open to bottom fishing;
Conservation Measure 26-01	General environmental protection during fishing;
Conservation Measure 33-03	Limitation of by-catch in new and exploratory fisheries in the 2019/20 season;
Conservation Measure 91-05	Ross Sea region marine protected area.

Key elements of these Conservation measures include:

- fishing depth restrictions, CCAMLR Conservation Measure 22-08 prohibits fishing for toothfish species in waters shallower than 550 m, as a measure to protect benthic communities from the impacts of demersal fishing;
- 'move-on' provisions such that vessels are required to move away from certain areas should a defined level of bycatch be taken in one fishing shot. These exist for general bycatch, *Macrourus* spp. and vulnerable marine ecosystem indicator units;

- conservation measures 22-06 and 22-07 specifically apply to bycatch of sessile benthic invertebrates in New and Exploratory fisheries which may indicate the presence of Vulnerable Marine Ecosystems (VME). Vessels are required to measure the volume of all sessile invertebrate bycatch for each section (~1200 m) of longline as it is retrieved, and if more than 10 L is retained on any single segment, CCAMLR may close the areas around where the invertebrates were caught until an assessment of the presence and extent of any VMEs has been performed by the SC. If a VME is registered under CM 22-09, all bottom fishing activities are prohibited in the defined subarea. In the Statistical Divisions 58.4.1 and 88.1, two defined subareas have bottom fishing restrictions.

2.3 Measures to minimise seabird interactions

Conservation Measure [25-02](#) (Minimisation of the incidental mortality of seabirds in the course of longline fishing or longline fishing research in the Convention Area) stipulates the requirements for mitigating seabird bycatch. Operators must:

- retain fish offal to minimise the attraction of seabirds and marine mammals to the boat;
- use internally weighted longlines with an integrated weight of at least 50g/m.
- deploy a streamer line during longline setting.
- deploy a bird exclusion device (BED) in high risk areas to discourage birds from accessing baits during the hauling of longlines.
- ensure that the amount of light showing from the boat does not exceed the amount necessary for the safe operation of the boat;
- change to night fishing night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight) if three (3) or more seabirds are caught by longline.

2.4 A statement of the performance of the fishery against objectives, performance indicators and performance measures

There is no Australian Management Plan for CCAMLR New and Exploratory fisheries as they are high seas fisheries under the control of an international body, CCAMLR. AFMA directly monitors its permit conditions that are implemented in the New and Exploratory fisheries Permit conditions.

Compliance with the Conservation Measures is assessed each year at the CCAMLR meetings. Further information on the CCAMLR compliance assessment process can be found on the [CCAMLR website](#).

2.5 Compliance risks present in the fishery and actions taken to reduce these risks

There are a range of measures to monitor and ensure compliance with Fishery Permit conditions. This regime has provided AFMA with a high level of confidence that operators are compliant with management arrangements. The measures in place to monitor and ensure compliance with management arrangements include:

- A requirement to provide prior notification when entering and exiting from the fishery area. This notifies AFMA of when the vessel intends to enter and exit the area of the fisheries, and therefore when fishing activity in the region is anticipated.

- A requirement to provide prior notification of the intention to tranship fish or any other goods or persons between vessels. In addition to prior notification, operators are required to seek approval from AFMA for the transshipment of any fish prior to doing so. Such transshipments must be observed and verified by an observer.
- A requirement to use a VMS, which enables monitoring of the movement of vessels within the Fishery. Information collected through the VMS includes the vessel's location and course.
- The presence of two observers on-board all voyages, which allows for monitoring and recording of all catch by an independent person. Observers are also able to monitor an operator's compliance with management arrangements, in particular input controls and environmental management measures.
- The requirement to fulfil obligations under the Catch Documentation Scheme (CDS) for the unloading and export of all toothfish product (in accordance with [CM 10-05](#) Catch Documentation Scheme for *Dissostichus spp.*)
- Port monitoring of all catch unloads by authorised personnel. This further verifies catch records maintained by the observer, reported by the vessel's Master and ensures compliance with CCAMLR CMs.
- The completion of shot-by-shot logbooks and provision of that data to CCAMLR and AFMA.

2.6 Illegal Unreported and Unregulated fishing

A description of IUU fishing is provided in each of the individual [fishery reports](#) on the CCAMLR website.

A number of measures have been adopted by CCAMLR to combat IUU fishing on the high seas, complementing actions taken by CCAMLR members with toothfish fisheries in their EEZs (such as Australia (see below), France, the United Kingdom and South Africa) and on the high seas (such as New Zealand and Australian patrols). These measures include: authorised and IUU vessel lists; VMS; transshipment controls; requirements regarding the carriage of observers; a Catch Documentation Scheme for toothfish; high seas and port inspection procedures; and a compliance evaluation procedure which assesses CCAMLR Members' compliance with CCAMLR CMs.

2.7 Consultation processes

CCAMLR

The consultation process through CCAMLR for accessing new and exploratory fisheries is described in Section 3 of [AFMA's New and Exploratory Fishing Guide](#).

CCAMLR meets annually in Hobart for a period of two weeks commencing in October. The working groups and committees meet either prior to or concurrently with CCAMLR. At these meetings Members examine, among other things, the previous year's fishing activities within the CCAMLR Area, data collected, scientific research and applications for New and Exploratory fisheries. Members also review conservation measures which, among other things, regulate fishing activities including setting the TAC and any other requirements of operators in the fishery, based on the best available science.

CCAMLR relies on a number of committees to provide it with advice on which to base its decisions. Decisions at CCAMLR are made by consensus. Committees include:

- the Scientific Committee (SC), which is established under the Convention, with three working groups: Fish Stock Assessment (WG-FSA), Ecosystem Monitoring and Management (WG-EMM) and Statistics, Assessments and Modelling (WG-SAM);
- the Standing Committee on Administration and Finance (SCAF); and
- the Standing Committee on Implementation and Compliance (SCIC).

Australian government consultative forums

Extensive consultation is undertaken by the Australian Government to develop a national position on CCAMLR issues. These positions are developed in consultation with stakeholders, mainly through meetings of the CCAMLR Consultative Forum (CCF). The CCF is convened by the DAWE and includes representatives from government and non-government organisations, including industry, and meets three times a year.

SouthMAC is the relevant domestic Management Advisory Committee for the fisheries and includes representation from AFMA, AAD, CSIRO, conservation and industry. SARAG is the key domestic scientific assessment group for the fisheries and includes representation from AFMA, AAD, CSIRO, industry and expertise based scientists.

Recent discussion topics and minutes from these committees can be found at SouthMAC and SARAG are available for download at <https://www.afma.gov.au/fisheries/committees/sub-antarctic-management-advisory-committee-southmac> and <https://www.afma.gov.au/fisheries/committees/sub-antarctic-resource-assessment-group>

2.8 Demonstration of compliance with TAP's, recovery plans and relevant domestic and international agreements

AFMA presents information on the performance against the *Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018)* at the annual TAP Stakeholder meeting, convened by the Australian Antarctic Division. As vessels participating in the fisheries are required to cover two observers, monitoring rates exceed those required by the TAP. No seabirds have been reported as killed by fishing gear in these fisheries.

3 Research and Monitoring

3.1 Research results

Research needs are prescribed in [CM 41-01](#) (2019 - General measures for exploratory fisheries for *Dissostichus* spp. in the Convention area). The CM includes a data collection plan, a research plan and tagging program. Specific fish tagging rates are prescribed in the individual Conservation Measures.

The results of research are incorporated in the annual stock considerations, which are submitted to CCAMLR and peer reviewed by the CCAMLR Scientific Committee when assessing New and Exploratory fisheries. A description of research activities is provided in the individual [fishery reports](#) on the CCAMLR website.

3.2 Monitoring programs

Each vessel participating in the New and Exploratory Fisheries must carry two observers, including at least one observer accredited in accordance with the CCAMLR SISO. All AFMA observers deployed in the New and Exploratory fisheries are SISO accredited.

The observer functions and tasks are described in Annex I of the [SISO](#) text.

Additional information on the specifics of data collection in the [Observer Manual](#) for finfish fisheries. A data collection plan for the exploratory fisheries is established in [CM 41-01](#) (2019 - General measures for exploratory fisheries for *Dissostichus* spp. in the Convention area).

In 2019/20, an electronic monitoring system was installed on a trial basis on an Australian vessel operating in Divisions 88.1 and 88.2. This system was identical to those used in Australian domestic fisheries and comprised of four cameras viewing and recording video data from the hauling station, factory and setting areas. This system was installed to determine the capacity of the system for independent monitoring in the AFMA managed toothfish fisheries going forward.

4 Catch data

4.1 Catch data for target species and bycatch

The total seasonal catch of key-commercial and bycatch species, by Statistical Division and fishing method, is published annually in the CCAMLR Statistical Bulletin which can be accessed via the [CCAMLR website](#).

Table 1. Total annual catches by Australian vessels in CCAMLR New and Exploratory Fisheries (tonnes)

Species name	2014/2015 Total	2015/2016 Total	2016/2017 Total	2017/2018 Total	2018/2019 Total	2019/2020 Total
Antarctic toothfish	213.37	50.51	240.34	261.22	221.41	255.35
Rat tails, Grenadiers	11.84	22.03	16.19	27.93	12.51	2.26
Whitson's grenadier				10.61		0.49
Icefishes	2.93	0.50	0.73	3.24	1.51	0.60
Violet cod	1.54	0.10	0.82	1.10	0.87	0.69
Caml Grenadier				1.28		1.32
Patagonian toothfish		0.61	0.59	0.66	0.10	0.08
Moray cods	0.30	0.31	0.08	0.36	0.03	0.07
Dewitts icefish				0.58		0.32
Skates and rays	0.05	0.05	0.11	0.17	0.02	0.01
Sea stars	0.23	0.01	0.05	0.00	0.01	0.02
Eared seals and sea lions						0.25
Squids				0.16		0.00
Plunderfish		0.04	0.00	0.02		0.00
Octopus	0.00	0.01	0.03	0.00	0.00	0.00
Antarctic rockcods, noties nei	0.02	0.00		0.00	0.00	0.03
Invertebrates						0.04
Echinoderms				0.02		
Anemones			0.00	0.01		0.00
Stone crab	0.00		0.01		0.01	
Ridgescale grenadier				0.01		
Scaly rockcod			0.00		0.01	
Maccain's Skate				0.01		
Silicieous Sponge				0.00	0.01	

Species name	2014/2015 Total	2015/2016 Total	2016/2017 Total	2017/2018 Total	2018/2019 Total	2019/2020 Total
Slender scalyhead			0.00	0.00		
Smalleye moray cod				0.01		
Grey rockcod		0.00	0.00			
Marbled plunderfish					0.00	
Gorgonians				0.00	0.00	0.00
Hydrocorals					0.00	
Eelpouts		0.00	0.00	0.00		
Sea squirt				0.00	0.00	0.00
Pencil Spine Urchin				0.00	0.00	0.00
Abyssal Grenadier				0.00		
Soft Corals				0.00		
Unknown species			0.00			
Sea Cucumber				0.00		
Unicorn icefish			0.00			
Short snouted lancetfish			0.00			
Sponge						0.00
Trematomus spp				0.00		
Sea Pens				0.00		0.00
Black Corals				0.00		
Sea Spider			0.00			
Sea Lily				0.00		
Glass Sponge				0.00		
Stony Corals						0.00

Table 2. Total catch by Australian vessels in CCAMLR New and Exploratory Fisheries by fishing area (tonnes)

[illegible]

	2014/15	2015/16	2016/17			2017/18				2018/19			2019/20	
	88.2	58.4.1	58.4.1	88.1	88.2	58.4.1	58.4.2	88.1	88.2	58.4.2	88.1	88.2	58.4.2	88.2
Echinoderms						0.01	0.01							
Anemones				0.00	0.00	0.00	0.01						0.00	
Stone crab	0.00			0.00	0.01						0.00	0.01		
Ridgescale grenadier						0.00	0.01							
Scaly rockcod			0.00								0.00	0.01		
Maccain's Skate						0.00	0.01							
Silicieous Sponge						0.00	0.00			0.01				
Slender scalyhead			0.00			0.00	0.00							
Smalleye moray cod						0.00	0.01							
Grey rockcod		0.00	0.00											
Marbled plunderfish										0.00				
Gorgonians						0.00	0.00			0.00			0.00	
Hydrocorals										0.00				
Eelpouts		0.00	0.00			0.00	0.00							
Sea squirt						0.00	0.00			0.00			0.00	
Pencil Spine Urchin						0.00	0.00			0.00			0.00	
Abyssal Grenadier						0.00	0.00							
Soft Corals						0.00	0.00							
Unknown species				0.00	0.00									

	2014/15	2015/16	2016/17			2017/18				2018/19			2019/20	
	88.2	58.4.1	58.4.1	88.1	88.2	58.4.1	58.4.2	88.1	88.2	58.4.2	88.1	88.2	58.4.2	88.2
Sea Cucumber						0.00	0.00							
Unicorn icefish				0.00	0.00									
Short snouted lancetfish				0.00	0.00									
Sponge													0.00	
Trematomus spp						0.00		0.00	0.00					
Sea Pens						0.00	0.00						0.00	
Black Corals							0.00							
Sea Spider			0.00											
Sea Lily						0.00	0.00							
Glass Sponge						0.00	0.00							
Stony Corals													0.00	

4.2 Total catch of key-commercial species taken in other fisheries

The key-commercial species, *D. mawsoni* and *D. eleginoides*, are taken in other CCAMLR areas. However the stocks in these fisheries are considered to be different to the stocks in Statistical Subareas 58.4.1 and 58.4.2 and Statistical Subareas 88.1 and 88.2.

4.3 Effort data

Table 3. Total effort by Australian vessels in CCAMLR New and Exploratory Fisheries by fishing area (no of hooks).

	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
58.4.1	-	344,355	123,250	408,250	-	-
58.4.2	-	-	-	140,250	175,000	205,000
88.1	-	-	33,150	293,250	40,800	-
88.2	697,850	-	347,225	41,750	539,325	653,225

The total seasonal catch and effort, by Statistical Division and fishing method, is published annually in the CCAMLR Statistical Bulletin can be accessed via the [CCAMLR website](#).

5 Status of target stock

The most recent assessment of stock status for the fisheries is provided in the [ABARES Fishery Status Report](#), a summary of which is provided below.

Table 4. ABARES Status Assessment of the CCAMLR Exploratory Toothfish Fisheries

Status	2017		2018		Comments
Biological status	Fishing mortality	Biomass	Fishing mortality	Biomass	
Division 58.4.1, toothfish (<i>Dissostichus mawsoni</i>)	Not subject to overfishing	Uncertain	Not subject to overfishing	Uncertain	No estimate of current biomass available.
Division 58.4.2, toothfish (<i>Dissostichus mawsoni</i>) a	-	-	Not subject to overfishing	Uncertain	No estimate of current biomass available.
Subarea 88.1, toothfish(<i>Dissostichus mawsoni</i>)	Not subject to overfishing	Not overfished	Not subject to overfishing	Not overfished	Most recent estimate of biomass is above the limit reference point under the CCAMLR harvest strategy. The TAC is conservative relative to current biomass.
Subarea 88.2, toothfish(<i>Dissostichus mawsoni</i>, <i>D. eleginoides</i>)	Not subject to overfishing	Not overfished	Not subject to overfishing	Not overfished	Most recent estimate of biomass is above the limit reference point under the CCAMLR harvest strategy. The TAC is conservative relative to current biomass.

Source: [ABARES Fishery Status Report 2019](#) accessed 15 July 2020.

6 Interactions with protected species

Protected species interactions across the New and Exploratory fisheries are very rare. One seal (unidentified) was killed in CCAMLR Statistical Subarea 88.2 in January 2020 as a result of interactions with fishing gear.

7 Impacts of the fishery on the ecosystem in which it operates

7.1 Nature of impacts on the ecosystem

A discussion of ecosystem implications and effects for Statistical Subareas 88.1 and 88.2 is provided in the individual fishery reports on the [CCAMLR website](#).

The CCAMLR management approach incorporates ecosystem components. Information on predators, prey and the environment are collected simultaneously and submitted to the CCAMLR Scientific Committee for the preparation of advice to the SC. This information is then incorporated into the management arrangements for each Statistical Division.

The information collected is extremely accurate in terms of the:

- Recording of the spatial and temporal distribution of fishing effort.
- Quantifying of the total catch composition.
- Quantifying environmental interactions, including those with seabirds and marine mammals.

A continuing issue at CCAMLR is in relation to bottom fishing and VMEs. In 2009, [CM 22-06](#) (Bottom fishing in the Convention Area) was modified to require the submission of preliminary assessments of impacts of bottom fishing to the SC and CCAMLR three months prior to the annual meeting.

Additionally, [CM 22-07](#) (Interim measure for bottom fishing activities subject to CM 22-06 encountering potential VMEs in the Convention Area) continues to apply to New and Exploratory fisheries in the high seas areas and specifies the actions to be undertaken if a VME is encountered. Broadly a risk area will be closed within a radius of 1 nautical mile if 10 kilograms or 10 litres of benthos is brought up on a longline segment (1000 hooks or 1200 metres of line).

Catches of benthic organisms and substrate are quantified by independent observers and recorded methodically. Samples of these organisms along with other bycatch are retained and forwarded to the AAD and CSIRO or appropriate museums for identification. The vessel logbooks and observer database also record the actual time and depth at which the vessel's fishing gear was in contact with the substrate.

Observers also collect stomach samples from toothfish and some bycatch species, which assists in the understanding of trophic linkages in the CCAMLR region.

Observers and crews of licensed fishing vessels also collect information on IUU fishing vessels operating in the region through direct observations and, indirectly, through the recovery of longline fishing gear discarded or lost by these vessels. Observers also report on compliance by Australian vessels with MARPOL and additional waste management requirements.

7.2 Management action taken to reduce impacts and results of such action

The management of the fisheries are based on CCAMLR's ecosystem management principles with additional controls imposed by AFMA. The following management actions are in place to minimise impacts to ecosystems:

- A nil offal discharge policy, to avoid provisioning to wildlife and to avoid the attraction of wildlife.
- Restrictions on plastic packaging bands, avoiding any possible impact these bands may have on wildlife.
- A requirement that all plastic is burned and that plastic residue must not be discarded at sea.
- A restriction on the discharge of poultry products or brassicas to avoid the introduction of avian diseases and non-native plants.
- Ongoing assessment of benthic impacts.

8 Recommendations to the Australian Fisheries Management Authority on the ecologically sustainable management of the New and Exploratory Fisheries

Statistical Subareas 88.1 and 88.2

Recommendation	Level of Achievement as at July 2020	Deadline
1. The Australian Fisheries Management Authority (AFMA) to ensure that all relevant Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) conservation measures are implemented for the operation of Australian vessels in the CCAMLR Ross Sea exploratory toothfish fishery (exploratory fishery for <i>Dissostichus</i> spp. in Statistical Subareas 88.1 and 88.2).	Operations in the Fishery since the 2014/15 season have conformed with CCAMLR requirements.	As required
2. AFMA to inform the Department of any intended material changes to the management arrangements for Australian operations in the CCAMLR Ross Sea exploratory toothfish fishery (exploratory fishery for <i>Dissostichus</i> spp. in Statistical Subareas 88.1 and 88.2).that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act</i> 1999 decisions are based.	No amendments to the management arrangements made since the 2014/15 season affect the criteria on which the EPBC Act decisions are based.	As required

Recommendation	Level of Achievement as at July 2020	Deadline
3. The Australian Fisheries Management Authority to ensure that reports are produced and presented to the Department of the Environment annually as per Appendix B of the Guidelines for the Ecologically Sustainable Management of Fisheries – 2 nd Edition. (Note: published fishery annual reports and protected species reports may constitute some or all the reporting referred to in Recommendation 3.)	Completed with the submission of this report.	As required

Statistical Divisions 58.4.1 and 58.4.2

Recommendation	Level of Achievement as at July 2020	Deadline
1. The Australian Fisheries Management Authority (AFMA) to ensure that all relevant Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) conservation measures are implemented for the operation of Australian vessels in the CCAMLR Exploratory Fisheries in Statistical Divisions 58.4.1 and 58.4.2)	Operations in the Fishery since the 2014/15 season have conformed with CCAMLR requirements.	As required
2. AFMA to inform the Department of any intended material changes to the management arrangements for Australian operations in the CCAMLR Exploratory Fisheries that may affect the assessment against which Environment Protection and Biodiversity Conservation Act 1999 decisions are made.	No amendments to the management arrangements made since the 2014/15 season affect the criteria on which the EPBC Act decisions are based.	As required

Recommendation	Level of Achievement as at July 2020	Deadline
<p>3. The Australian Fisheries Management Authority to ensure that reports are produced and presented to the Department of the Environment annually as per Appendix B of the Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition. (Note: published fishery annual reports and protected species reports may constitute some or all the reporting referred to in Recommendation 3.)</p>	<p>Completed with the submission of this report.</p>	<p>As required</p>