Australian Government

Australian Fisheries Management Authority

Application for assessment of the Macquarie Island Toothfish Fishery for approval under the *Environment Protection and Biodiversity Conservation Act 1999*

Securing Australia's fishing future

www.**afma**.gov.au

Application for assessment of the Macquarie Island Toothfish Fishery under the *Environment Protection and Biodiversity Conservation Act 1999*

Contents

1. INTRODUCTION 3

2. THE FISHERY 3

2.1 Description of the fishery 3
2.2 Fishing methods and gear 5
2.3 Target and byproduct species 6
2.4 Value of the fishery 6

3. MANAGEMENT REGIME 6

3.1 Description of the management regime 6
3.2 Consultation processes 7
3.3 Performance against objectives, performance indicators and performance measures 8
3.4 Controlling the level of harvest 8
3.5 Harvest strategy 8
3.6 Recovery strategies for overfished stocks 8
3.7 Enforcement of the management arrangements 9
3.8 Mitigating impacts on the wider ecosystem 10
3.9 National policies, plans and strategies 11
3.10 Changes since the previous assessment 13

4. MONITORING AND DATA COLLECTION 13

4.1. Data collection, data validation and data monitoring programs 14

5. STOCK ASSESSMENTS 16

5.1 Key target and byproduct species 16
5.2 Distribution and spatial structure of key stocks 16
5.3 Estimates of total removals 16

6. BYCATCH 17

6.1 Bycatch composition 17
6.2 Risk assessment on the effects of fishing on bycatch 17
6.3 Bycatch mitigation measures 17
6.4 Indicator bycatch species 18
6.5 Management actions 18

7. PROTECTED SPECIES AND THREATENED ECOLOGICAL COMMUNITIES 19

7.1 Fishery impacts on protected species and communities 19
7.2 Mitigating risks to protected species 19
7.3 CITES-listed species 21

8. ECOSYSTEM 21

8.1 Ecosystem management actions 21
8.2 Management responses 22
8.3 Marine bioregional plans 22

9. RESEARCH 22

10. PROGRESS AGAINST CURRENT CONDITIONS 23

11. REFERENCES 1

APPENDED DATA TABLES 1

APPENDIX 1 – RETAINED CATCH DATA (TARGET AND BYCATCH SPECIES) 1
APPENDIX 2 – DISCARDED CATCH DATA (TARGET AND NON-TARGET SPECIES) 3
APPENDIX 3 – PROTECTED SPECIES INTERACTION DATA 4
APPENDIX 4 – FISHING EFFORT 5

1. Introduction

This submission has been produced to enable the Department of Climate Change, Energy, the Environment and Water (DCCEEW) to assess the Commonwealth Macquarie Island Toothfish Fishery (MITF) management arrangements against the Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition and the requirements set out in relevant sections of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The MITF was declared an approved Wildlife Trade Operation (WTO) under the EPBC Act on 10 November 2005 and has been re-approved four times. The current WTO accreditation expires on 9 October 2026.

2. The fishery

2.1 Description of the fishery

The MITF lies in the waters adjacent to the sub-Antarctic Australian territory of Macquarie Island and is located outside the Antarctic Convergence, approximately 1,500 km southeast of Hobart, Australia. The fishery extends from 3 nautical miles offshore to the edge of the 200 nautical mile Australian Exclusive Economic Zone around the Islands or to the maritime boundary with New Zealand in the northeast (**Figure 1a**). Large areas of the fishery are also designated marine reserve zones (**Figure 1b**). Primary landing ports for this fishery are Port Louis (Mauritius) and Hobart (Australia).

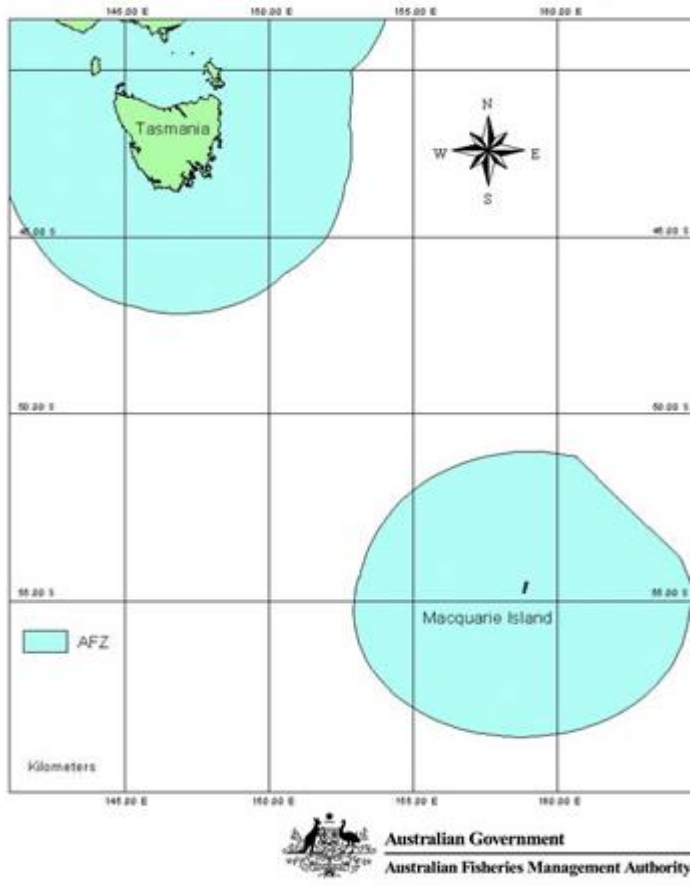


Figure 1a: Location of Macquarie Island

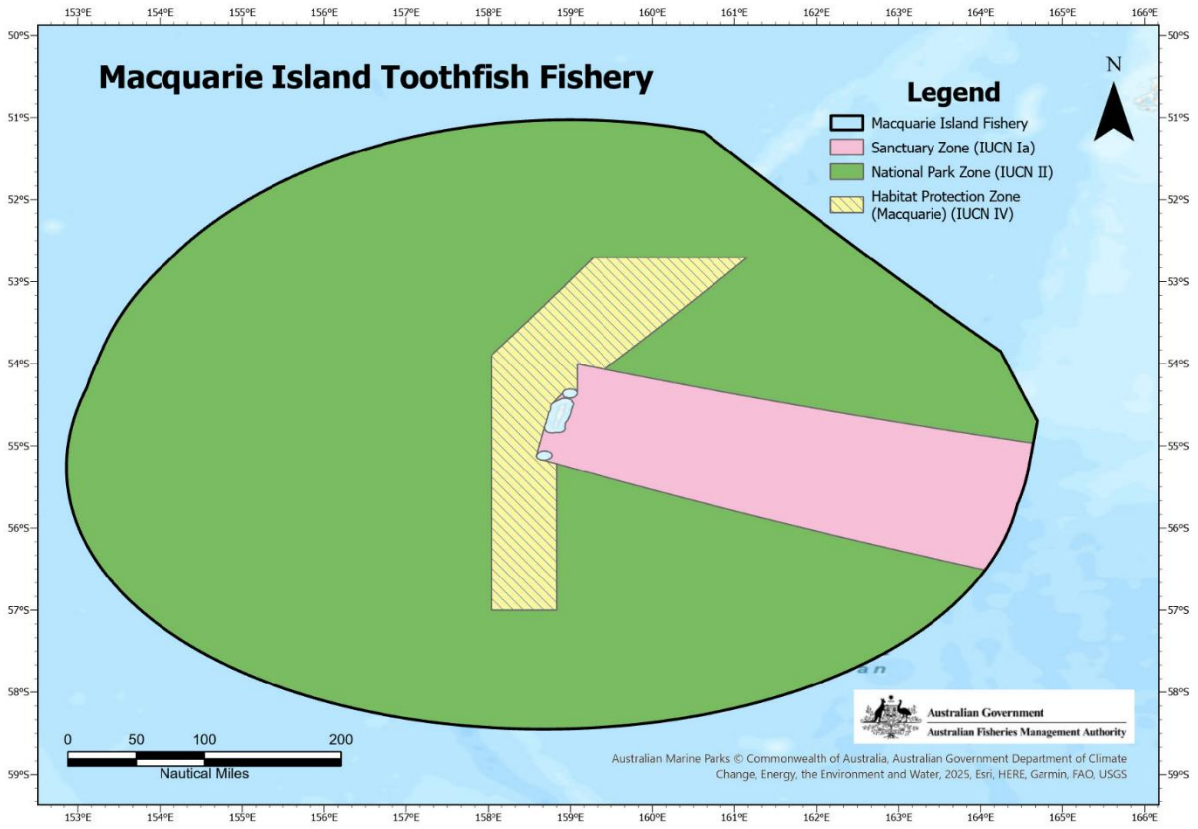


Figure 2b: Macquarie Island Toothfish Fishery with marine reserve areas

The MITF was first certified as sustainable by the Marine Stewardship Council (MSC) on 29 May 2012 and was most recently re-assessed as sustainable in December 2022. The latest assessment, along with the annual surveillance audits, can be found here.

A summary of the fishery characteristics is available in **Table 1**.

Table 1. Overview of the MITF

Fishery at a glance	
Target species	Patagonian toothfish, *(Dissostichus eleginoides)*
Fishing Methods	Demersal longline
Fishing Season	12 month season beginning on 15 April each year
No. of Concessions in 2025	2
No. of active vessels in the 2024/25 season	1
Main Markets	Frozen – Australia, China, Japan, United States, eastern Europe
Major Ports	Hobart (Tasmania, Australia), Dunedin (New Zealand), and Port Louis (Mauritius).
Stock Status of target species	Not subject to overfishing, not overfished*

Fishery at a glance	
Management Plan	*Macquarie Island Toothfish Fishery Management Plan 2006* (the Management Plan) was implemented on 3 April 2006.
Management Regime	The MITF is managed through output controls in the form of individually transferrable quotas which are allocated as Statutory Fishing Rights (SFRs) under the Management Plan. Prior to the commencement of each season (15 April), AFMA determines a Total Allowable Catch (TAC) of Patagonian toothfish for the fishery. Each SFR entitles the holder to receive an equal portion of the TAC. The TAC is set through consultation with AFMA's relevant advisory bodies. Through a combination of SFR conditions, directions and regulations, AFMA implements a range of other obligations to manage the broader impacts of fishing on the marine environment (for example requiring bycatch mitigation measures to be implemented) and to support effective monitoring (for example, requiring Vessel Monitoring Systems (VMS)).
Management of broader impacts	AFMA's management of broader impacts comprises monitoring and data collection programs, implementing management measures to mitigate bycatch and endangered, threatened and protected species (ETP) interactions, supporting relevant research and undertaking ecological risk assessments (ERAs). In line with AFMA's Fisheries Management Paper 14 - AFMA's approach to Ecological Risk Assessments and Management (Sep 2024), AFMA consults with its advisory bodies on Ecological Risk Management responses to identified high risks. The most recent ERA for the MITF was completed in 2026.
Consultative Mechanism	The Sub-Antarctic Resource Assessment Group (SARAG) and Sub-Antarctic Management Advisory Committee (SouthMAC) are the relevant advisory bodies for the MITF. SARAG provides scientific advice on matters relevant to the MITF and SouthMAC provides advice on issues relating to the management arrangements of the MITF. AFMA will also consult directly with SFR holders and/or other stakeholders from time to time, as appropriate.
International obligations and management	The MITF does not fall within the conventional area of CCAMLR or any Regional Fisheries Management Organisation.

*Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) Fishery status reports 2025

2.2 Fishing methods and gear

Demersal longlining is currently the only method used in the MITF. The longline 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 (see **Figure 2**). Automatic baiting machines are used. 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 between 1000–1200 m of ready-hooked longline. A typical magazine can contain between 950–1200 hooks. Magazines can be joined in sequence to create the desired length of longline.

Lines contain a marker flag, radio beacon and buoys (marked with vessel identification) attach to one end to designate the outer limit of the longline. Heavy grapnel anchors (40–100 kg) 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.

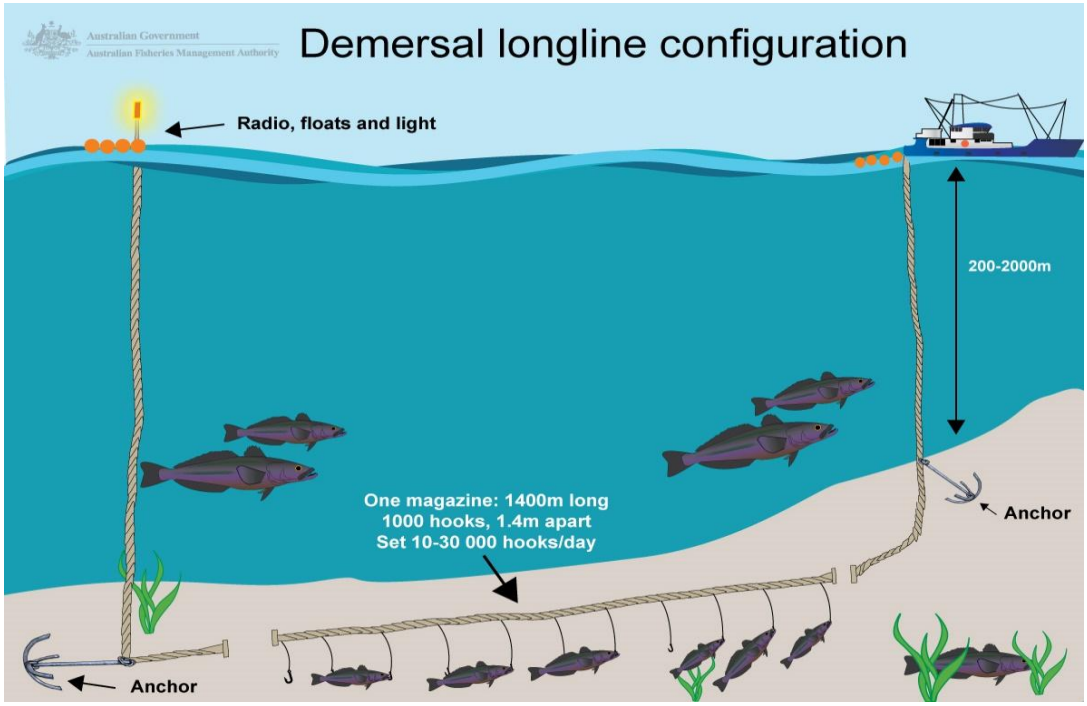


Figure 3. Demersal longline configuration

2.3 Target and byproduct species

Patagonian toothfish (*Dissostichus eleginoides*) is the only permitted target species for this fishery. Grenadiers are occasionally retained as byproduct species. **Appendix 1** lists all the catch data in the MITF from the 2021/22 season to the 2025/26 season.

2.4 Value of the fishery

ABARES classifies the GVP of MITF catch as confidential. This is due to the small number of boats operating in the fishery.

3. Management regime

3.1 Description of the management regime

Commonwealth fisheries are administered by AFMA under the *Fisheries Management Act 1991* (FMA), *Fisheries Administration Act 1991* and *Fisheries Management Regulation 2019*. In line with the FMA,

AFMA determined the *Macquarie Island Toothfish Fishery Management Plan 2006* (the Management Plan). SFRs have been granted under the Management Plan. To fish in the MITF a person must hold a minimum of 25.5% of SFRs for the fishery, effectively limiting participation to three boats, and use the boat that is nominated for those rights[1]. AFMA publishes an updated list of concession holders on the AFMA website each fishing season.

SFRs are subject to conditions. Through a combination of SFR conditions, directions and regulations, AFMA implements a range of other obligations to manage the broader impacts of fishing on the marine environment (for example requiring bycatch mitigation measures to be implemented) and to support effective monitoring (for example to support the implementation of VMS).

Each fishing season, AFMA publishes a booklet compiling all the relevant management arrangements for the MITF, which includes relevant legislation, regulations, the determinations and directions made under the Management Plan, the current SFR conditions and information on the marine reserve and territorial waters. The booklet is available on the AFMA website.

Copies of current conditions can be found on the AFMA Website

3.2 Consultation processes

AFMA consults with a range of stakeholders when making key decisions about the fishery and developing fisheries management arrangements. Consultation is primarily undertaken through the Sub-Antarctic Resource Assessment Group (SARAG) and Sub-Antarctic Management Advisory Committee (SouthMAC). Where appropriate, AFMA undertakes direct consultation with SFR holders and the public.

SouthMAC and SARAG include representation from AFMA, the Australian Antarctic Division (AAD), Commonwealth Scientific and Industrial Research Organisation (CSIRO), industry, conservation, and independent scientific members. Casual observers, together with invited participants, also attend the SARAG meetings. Minutes from SARAG and SouthMAC meetings are publicly available on the AFMA website (SARAG past meetings, SouthMAC past meetings).

The main function of RAGs is to review scientific data and information and provide advice to AFMA on the status of fish stocks, sub-stocks, species (target and non-target species), the economic status of the fishery and the impact of fishing on the broader marine environment. Further information on the roles and responsibilities of AFMA's RAGs is available in Fisheries Administration Paper 12.

The main function of MACs is to provide advice to AFMA on the preparation of management arrangements, the operation of the relevant fishery and reporting to AFMA on scientific, economic and other information on the status of fish stocks, sub-stocks, species (target and non-target species) and the impact of fishing on the broader marine environment. Further information on the roles and responsibilities of AFMA's MACs is available in Fisheries Management Paper 1.

[1] Part 3, section 12 of the Management Plan.

3.3 Performance against objectives, performance indicators and performance measures

A statement of the performance of the MITF against its objectives, performance indicators and performance measures is made annually in AFMA's Annual Report. A copy of the 2024-25 Annual Report can be found on AFMA's website.

3.4 Controlling the level of harvest

Output controls are the primary means of controlling the level of catch in the MITF, specifically TACs per fishing year (commencing on 15 April each year), with quota that is allocated across SFRs. In determining TACs AFMA considers reference points for Patagonian toothfish that are appropriate for maintaining an ecologically sustainable fishery and consults with and considers the views of SARAG and SouthMAC.

Catch limits for target species are generally set and determined every second year. The TACs for Patagonian toothfish for the 2026/27 and 2027/28 seasons are summarised in Table 2.

Table 2. MITF TAC for the 2026/27 and 2027/28 fishing seasons

Season	TAC (t)
2026/27	404
2027/28	404

3.5 Harvest strategy

The MITF is managed in line with the Commonwealth Harvest Strategy Policy (CHSP) and the Australian Government Guidelines for the Implementation of the Policy (the Guidelines, 2018; harvest strategy policy and guidelines). The CHSP provides a framework for the development of harvest strategies for key commercial species taken in Australia's Commonwealth fisheries and outlines processes for monitoring and assessing the biological and economic conditions of commercial fish species in relation to fishery specific reference levels (a reference point or points); and pre-determined rules that control fishing activity according to the biological and economic conditions of the fishery (as defined by monitoring or assessment). These rules are referred to as harvest control rules or decision rules.

To date, the MITF has been managed in line with the Heard Island and McDonalds Islands Fishery (HIMIF), due to their similarity in nature. The HIMIF and MITF have unique, separate stock assessments but the MITF has adopted the decision rules and target reference points in use for the HIMIF; those applied by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). CCAMLR decision rules for toothfish (for non-data limited fisheries) state that catches should be calculated to aim for a spawning biomass at the end of a 35-year projection period which is 50% of the initial spawning biomass. The MITF has an integrated stock assessment (see Section 5.1) which is used to calculate TACs which meet this objective.

3.6 Recovery strategies for overfished stocks

There are no recovery strategies in the MITF. Patagonian toothfish is currently assessed as not overfished and not subject to overfishing (see Section 5.1).

3.7 Enforcement of the management arrangements

AFMA's compliance and enforcement program is ultimately designed to maintain the integrity of fisheries management arrangements and protect Australia's fishing resources. AFMA seeks to achieve a level of compliance consistent with its legislative objectives by maximising voluntary compliance and creating effective deterrents to non-compliance.

The main functions of the compliance program include:

- ensuring compliance with AFMA's domestic fisheries management measures;
- ensuring licensed boats comply with fishing conditions within the Australian Fishing Zone (AFZ);
- ensuring that there are no unlicensed foreign boats operating in the AFZ;
- managing port access for foreign boats; and
- surveillance and apprehension of foreign boats fishing illegally in the AFZ.

The National Compliance and Enforcement Program is conducted via the use of a risk-based approach, which enables AFMA's resources to be targeted to the areas where they are most needed and where they will prove most effective. It involves a series of steps to identify and assess non-compliance risks and then apply appropriate enforcement actions to mitigate these risks. Risk-based compliance has a range of benefits:

- **improved compliance outcomes** – AFMA can tailor or target compliance measures to effectively deal with the most significant non-compliance risks;
- **efficiency gains** – AFMA can tailor or target compliance measures to the most significant risks, ensuring resources are concentrated in the areas where they are most likely to improve compliance outcomes; and
- **greater industry support for compliance programs/measures** – risk management processes are widely understood by the fishing industry and the community as a whole.

In addition to the risk-based approach, it is essential that AFMA maintains a general deterrence program. By maintaining a presence at fishing ports (and at sea), AFMA discourages those members of the fishing community who do not wish to comply with the rules and regulations. It also reassures those who are complying that non-compliant activity is likely to be detected. Further, AFMA officers can assist those wishing to comply (but not knowing how) by providing advice and/or instructions on operators' responsibilities

The measures in place to monitor and ensure compliance with management arrangements include:

- **Integrated Computer VMS:** used to continuously monitor fishing operations and the movement of boats in and out of ports and entries into closed areas. It allows AFMA to contact vessels whose reports are overdue and to ensure that the vessel and VMS is working in accordance with the conditions imposed on SFRs. Temporary reporting schedules may be arranged for a vessel whose VMS has stopped working, or the vessel may be directed to return to port.

- **Port inspections**: All MITF vessels are subject to inspections upon entry to port and must provide AFMA with at least 72 hours' notice prior to entry to port. Unloading of toothfish cannot commence until an AFMA authorised inspector is present. Inspections include monitoring of all catch, to further verify catch reporting, as well as monitoring compliance with all other management arrangements and conditions.
- **Catch Documentation:** All catch unloaded or transhipped must be accompanied by an accurately completed *Dissostichus* Catch Document (DCD). DCDs are issued by AFMA and allow any State to verify that the catch on board is consistent with that documentation. This is a strong compliance measure as it is a trade barrier to IUU product entering the market.
- **Education and Communication**: An integral part of the National Compliance and Enforcement Program is the development and delivery of communications and education strategies to assist industry in understanding their legislative obligations. By engaging with industry, encouraging compliance and deterring non-compliance, the education and communication strategy is utilised for operators who are willing to comply but may need some assistance.

AFMA enforces compliance through legislative frameworks, including penalties and sanctions such as fines, licence suspensions, or prosecution. Offending vessels or individuals may face penalties or seizure of catch for severe violations. Identified compliance issues are addressed promptly through enhanced surveillance, targeted inspections, and increased industry engagement. Emerging risks are assessed annually to adapt the compliance regime to evolving challenges in fisheries management.

3.8 Mitigating impacts on the wider ecosystem

A key element of AFMA's strategy to pursue the ecological aspect of Ecologically Sustainable Development is the implementation of Ecological Risk Assessments (ERAs) for all fisheries managed by AFMA. These assessments evaluate the impacts of fishing on various components of the marine environment and adopt an ecosystem-based assessment approach. The ERAs facilitate the prioritisation of research, data collection, monitoring needs, and management actions for fisheries, to evaluate and address risks posed by fishing activities on various ecosystem components ensuring they are managed sustainably and efficiently.

The 'Ecological Risk Assessment for the Effect of Fishing' (ERAEF) was developed collaboratively by CSIRO Oceans and Atmosphere (now CSIRO Environment) and AFMA (Hobday et al., 2007, 2011a). The ERAEF provides a hierarchical framework for thoroughly assessing the ecological risks associated with fishing, evaluating impacts on five revised ecological components: key commercial species, secondary commercial species, byproduct and bycatch species, protected species, habitats, and ecological communities (AFMA 2024, see also Fisheries Management Paper 14 - AFMA's Approach to Ecological Risk Assessments and Management).

The risk assessments examine key commercial species, byproduct and bycatch species, protected species, habitats, and communities. The assessments utilise a hierarchical approach that includes Level 1 (Scale Intensity Consequence Analysis (SICA)) and Level 2 (Productivity Susceptibility Analysis (PSA)) and sustainability assessment for fishing effects analyses. Level 2 PSA is a semi-quantitative analysis of the risk posed by fishing to all individual species, habitats and communities identified in the scoping. The PSA analysis does not take into account management measures currently in place in

fisheries, which can potentially over-estimate the actual risk to some species. A residual risk analysis can then take into account this constraint using guidelines developed by AFMA.

Updating of ERAs is guided by a stepped process whereby Management Advisory Committees (MACs) will review reassessment triggers every four years within a five-year cycle and provide advice to AFMA's Ecological Risk Management Steering Group (ERMSG) as to the need to update their ERA or seek approval to maintain their existing ERA for another 5 years. Noting the possibility of exceptional circumstances an ERA can be updated at any time in consultation with MACs.

The most recent ERA undertaken for the MITF was completed in 2026. No species were identified as high risk. No Level 2 analysis was triggered for any ecological component as all risk scores were ≤2 following Level 1 analysis. The full MITF ERA reports are available on the AFMA website.

3.9 National policies, plans and strategies

A range of national threat abatement plans, recovery plans, policies and international agreements are relevant to the MITF. The MITF management arrangements align, and where necessary support the implementation of, these national policies, plans and strategies.

3.9.1 Commonwealth Fisheries Harvest Strategy Policy

The MITF is managed in line with the Commonwealth Fisheries Harvest Strategy Policy and associated implementation guidelines. For further information see section 3.5 Harvest strategy above.

3.9.2 Bycatch species

The key objective of the Commonwealth Fisheries Bycatch Policy (CFBP) is to "minimise fishing-related impacts on general bycatch species in a manner consistent with the principles of Ecologically Sustainable Development and with regards to the structure, productivity, and biological diversity of the ecosystem"[2]. To provide assistance to Australian Government entities (principally AFMA) in interpreting and implementing the requirements of the CFBP the Australian Government has also created Guidelines for the implementation of the CFBP 2018.

A coordinated effort involving all stakeholders is necessary to address bycatch effectively, so the National Bycatch Policy (separate to the CFBP) emphasises cooperative management between Commonwealth and state authorities in reducing bycatch. AFMA coordinates and liaises with State and Territory Fisheries where applicable and appropriate.

The MITF is managed in line with CFBP. AFMA's approach and initiatives have evolved over time but broadly fall into the following categories which are described elsewhere in this report:

- monitoring and reporting requirements (see sections 4.1 and 6.1);
- gear limitations and mitigations measures (see section 6.3);
- periodic industry education to improve bycatch handling and identification (see section 7.2); and
- research to improve bycatch reduction and mitigation (see section 9)

The Australian sub-Antarctic Fisheries Bycatch and Discarding Workplan documents AFMA's approach and initiatives with respect to bycatch in the MITF. An updated Sub-Antarctic Bycatch Strategy is

[2] Department of Agriculture and Water Resources 2018

currently being finalised (designed to be consistent with the overarching AFMA Bycatch Strategy and requirements of FMP 14) and is expected to be published in early 2026.

3.9.3 Protected Species

Seabirds

The incidental catch (or bycatch) of seabirds during oceanic longline fishing operations is listed under the EPBC Act as a key threatening process (since 1995). As a result, the Australian Government has in place a threat abatement plan titled *Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018)* (seabird TAP). The ultimate aim of the seabird TAP is to achieve a zero bycatch of seabirds, especially threatened albatross and petrel species, in all longline fisheries. Recognising the availability of current mitigation methods, the objective of the current seabird TAP is to further reduce the seabird bycatch and bycatch rate during oceanic longline fishing operations in the Australian Fishing Zone.

The seabird TAP specifies a range of measures for AFMA to implement. These include: i) requiring the adoption of proven mitigation measures that ensure the performance criteria for each Commonwealth-managed longline fishery are achieved in all areas and seasons; ii) minimum independent monitoring; and iii) adaptive management if performance criteria are exceeded.

The seabird TAP defines performance criteria as a maximum permissible bycatch rate at or above which a management response is required. The seabird TAP sets seabird bycatch rate performance criteria for each of AFMA's longline fisheries (see Table 4 of the seabird TAP). For the purposes of the criteria a season (fishing season) is defined into two periods: Summer 1 September to 30 April and Winter 1 May to 31 August. AFMA has in place management arrangements that implement obligations under the seabird TAP requirements (see detail under section 7.2) and attends, presents and actively participates in the Seabird TAP Stakeholder Working Group annual meetings.

The then Department of Agriculture and Resources also developed the National Plan of Action for Minimising Incidental Catch of Seabirds in Australian Capture Fisheries (NPOA-Seabirds) in 2018. Measures for assessing success under the NPOA-Seabirds considers the impact of the seabird TAP.

Sharks

Australia's Revised Second National Plan of Action for the Conservation and Management of Sharks (Shark-plan 2) "encourages improved management of shark populations in Commonwealth, state, and Northern Territory waters" (Department of Agriculture Fisheries and Forestry, 2025) and aligns with international commitments, including the International Plan of Action for Conservation and Management of Sharks. Shark-plan 2 provides guidance to resources users (including fisheries) to improve the conservation and management of sharks by concisely detailing issues for shark conservation and management and identifying actions to address these issues. AFMA attends the Shark-plan Representative Group which monitors implementation of Shark-plan 2 and provides updates and progress reports against actions. AFMA compile data, information on management arrangements, programs and projects in response to each specific issue and action detailed in Shark-plan 2. This information is available on the DAFF website. AFMA implements specific measures to related shark bycatch mitigation (see Section 6).

3.10 Changes since the previous assessment

Since the last assessment of the MITF significant management changes include:

Climate Change Adaptation Program

AFMA's Climate Adaptation Program is implementing a range of measures to incorporate climate change information and risks into decision making frameworks, to ensure that management of Commonwealth fisheries is adaptive to the impacts of climate change (AFMA Climate Adaptation Program). Climate and Ecosystem Status Reports have been developed for a range of Commonwealth fisheries, including the MITF. These reports are a useful tool to provide an update or indication on the current state (or health) of the environment or ecosystem, relative to longer-term trends or target states. They provide a way to integrate a variety of diverse data into a simple overview that can be easily communicated, providing managers and stakeholders with up-to-date trends for a specific region or ecosystem.

AFMA has also developed a Climate Risk Framework (CRF) in consultation with key stakeholders as an approach to integrate climate risks into formal decision-making processes at AFMA. In 2025 the AFMA Commission approved the CRF and associated implementation plan. The CRF involves a four-step process that seeks to:

1. Evaluate the overall risk to the species, integrating climate change impacts with the stock's biological status, using the best available information;
2. Identify current science, management or industry measures that offer sufficiently robust responses to the full spectrum of climate change impacts, both positive and negative;
3. Evaluate the impact of response measures identified at Step 2 and determine the residual risk remaining to the species; and
4. Where necessary, recommend to the AFMA Commission any additional measures needed to respond to climate change impacts.

The Framework was developed through an iterative process, including trial application across several AFMA-managed fisheries. The Trial Implementation Report provides a review of the trial process including revisions made to the Framework during its development and recommendations for implementation. The Sub-Antarctic Fisheries (including the MITF) have been a focus of AFMA's Climate Adaptation Program and were part of the trial application. This included a specific Climate Adaptation Workshop in 2023. In August 2025, the results of trial application of the CRF to the MITF was considered and supported by the Sub-Antarctic Resource Assessment Group (SARAG).

Trial extension of the longline fishing season

Having considered advice from the SARAG and the SouthMAC (SARAG 70 and SouthMAC 43) the AFMA Commission in July 2024 approved the trial of a longline fishing season extension from 1 September to no later than 21 September 2024 in the MITF subject to strict conditions.

The longline season extension is managed through Scientific Permit. If a vessel wishes to fish in the season extension period from 1-21 September, they must apply for, and be approved for a Scientific Permit, subject to additional permit conditions.

General management changes

From the 2024/25 season onwards, AFMA included a condition to "comply with any AFMA direction provided in writing regarding Avian influenza before handling dead or alive birds or marine mammals". Although this does not materially change any obligation relating to seabirds or marine mammals, it does recognise the risk posed by the current outbreak of Highly Pathogenicity Avia Influenza (HPAI) both for human health and regarding the potential spread of the disease.

4. Monitoring and data collection

4.1. Data collection, data validation and data monitoring programs

AFMA have established a range of robust monitoring systems to ensure regulatory compliance and enable the collection of quality data. Monitoring and data collection in the MITF include logbook reporting, a catch documentation scheme, VMS, 100% observer coverage, and vessel inspections.

Catch and Effort forms

Catch and effort forms are completed and returned to AFMA on monthly basis. These mandatory forms contain information on all catch, effort, fishing method, and tagging data. This includes all by-catch and by-product species as well data on tag releases and recaptures. Catch and effort forms also contain wildlife interactions and vulnerable marine ecosystem indicator species interactions, as well as vessel details and gear loss details. Bycatch must be reported to the lowest taxonomic level possible. Further information (including templates) on fishery monitoring and catch and effort forms is available at https://www.ccamlr.org/en/fisheries/fishery-monitoring.

Additional Forms

In addition to catch and effort forms, AFMA also requires vessels fishing in the MITF to complete separate wildlife interaction data forms and gear loss/recovery forms. Wildlife interaction forms include the species, number, life status, and specific details of the interaction. Gear loss/recovery forms include the amount, circumstances, and specific details on the gear either lost or retrieved, including any attempt of retrieval for lost gear. Information on wildlife interactions and gear loss/recovery support AFMA's domestic reporting obligations.

Catch Documentation Scheme (CDS)

The CCAMLR Catch Documentation Scheme (CDS) consists of a suite of documents related to the landing, export, and re-export of toothfish catch. Obligations apply to CCAMLR member States, of which Australia is one, regardless of whether toothfish was caught within the CCAMLR area of waters and therefore apply to the MITF. The *Dissostichus* Catch Document (DCD) is equivalent to the Catch Disposal Record (CDR) used in other domestic Commonwealth fisheries and includes a verified catch weight at landing. The CDS also has compliance and enforcement functions for States landing or importing toothfish. Further information on the CDS is available at https://www.ccamlr.org/en/compliance/catch-documentation-scheme

Vessel Monitoring System

It is mandatory for boats operating in the MITF to have an approved VMS unit installed. Vessel monitoring systems allow relevant authorities to monitor vessel position, course and speed, and to

make sure vessels are operating in compliance with SFR conditions. VMS reporting for vessels operating in the MITF goes to both AFMA and the CCAMLR Secretariat.

Observer data

The MITF has 100% observer coverage, with an AFMA observer and a data collection officer from an AFMA accredited observer provider present on all trips. In the MITF observers record information on general fishing gear and fishing operations. Observers record species and catch rate data on target and bycatch species along with collecting biological data (including weights, lengths, otoliths, sexing, gonad staging and some stomach sampling, tagging of toothfish and skates, conversion factor tests), sample and identify Vulnerable Marine Ecosystem (VME) indicator species, tag fish, conduct Endangered Threatened Protected (ETP) species observations during setting and hauling and record ETP interactions,. Observers also make abundance counts of seabirds and marine mammals within 300 m of the vessel when not undertaking fishing operations and categorise any interaction with the gear or vessel from those of a minor nature to those causing death. This monitoring program allows for monitoring of wildlife and interaction trends through time, as well as understanding trophic and ecosystem linkages. Observers also monitor the deployment and use of seabird mitigation measures. Additional information on AFMA's observer program can be found on the AFMA website.

Electronic Monitoring

Electronic monitoring (EM) cameras were installed on Australian vessels operating in the MITF for initial operational testing as early as 2019/20. There is now a trial project underway through AFMA's Electronic Monitoring Project. The aim of the trial is to understand the feasibility and applications of using EM as an independent data collection and logbook data validation tool in the Southern Ocean Fisheries (SOF). Objectives include:

i. To deploy electronic monitoring systems on three commercial fishing vessels operating in the SOF to collect required fishing data for a period of up to one year.
ii. To determine to what extent EM can be used to collect and verify current data requirements as previously identified by the fishery/SARAG.
iii. To undertake a cost analysis for the use of EM and supplementing data collection programs to collect required fishery data in the SOF.
iv. To determine the potential of artificial intelligence machine learning (AIML) applications in the SOF.

This trial is ongoing.

Tagging programs

Vessels operating in the MITF are part of a toothfish tagging program, which facilitates tagging of toothfish for general research, population dynamics and stock assessment purposes. This data feeds directly into stock assessments (see Section 5.1) for the MITF.

MITF vessels also engage in tagging of skates and rays. Observers follow CCAMLR tagging protocols when tagging these species.

5. Stock assessments

5.1 Key target and byproduct species

An integrated stock assessment for Patagonian toothfish in the MITF is conducted by CSIRO and considered by SARAG every two years. Stock assessments include catch and effort data, tagging data, and age and length data. Outputs of the stock assessment are used to calculate a TAC using the CCAMLR harvest control rules for toothfish described above (see section 3.5).

The most recent (2025) stock assessment for Patagonian toothfish estimated the overall stock spawning biomass at 0.66 relative to unfished levels, above the target reference point of B_{50} and slightly lower than the 2023 assessment (as expected in a fish down phase towards the target).

Patagonian toothfish is assessed by ABARES as having a biomass which is not overfished and not subject to overfishing.

Table 3. Stock status of MITF Patagonian toothfish

Year	Stock Assessment	ABARES
2025	0.66 (0.60-0.73 95% CI) 2025 assessment	Not overfished, not subject to overfishing Fishery status reports 2025
2023	0.73 (0.66-0.81 95% CI) 2023 assessment	Not overfished, not subject to overfishing Fishery status reports 2023
2021	0.85 (0.78-0.92 95% CI) 2021 assessment	Not overfished, not subject to overfishing Fishery status reports 2021

5.2 Distribution and spatial structure of key stocks

Patagonian toothfish at Macquarie Island is considered a single, distinct stock, not related to other toothfish populations in the Southern Ocean. Genetic studies (e.g. Appleyard, Ward & Williams 2002) have found high heterogeneity between Macquarie Island, Heard Island and McDonald Islands, and South Georgia. Toothfish tagging programs (e.g. Williams et al. 2002) also indicate that there is a single stock in the MITF, with tagging data generally indicating that toothfish is a relatively sedentary species.

5.3 Estimates of total removals

The total catches compared to TACs for the MITF for the 2021/22 to 2025/26 fishing seasons are shown in Table 4. There is no traditional or recreational catch in the MITF and the populations for this species is considered closed, so these catches represent total removals.

Table 4. Retained toothfish catch (t) vs TAC (t) from 2021/22 to 2025/26

	2021/22		2022/23		2023/24		2024/25		2025/26	
	Catch	TAC	Catch	TAC	Catch	TAC	Catch	TAC	Catch	TAC
Patagonian toothfish	455	555	439	635	457	635	410	468	467	468

6. Bycatch

6.1 Bycatch composition

Fishers have mandatory reporting requirements to record all byproduct, bycatch and discards (see Section 4) during fishing. Observers also monitor catch limits for target and bycatch species. In the MITF all bycatch is retained until macerated and disposed of outside the fishery area. Only tagged, live fish are released overboard, resulting in zero discards of whole fish. The MITF has 100% observer coverage providing independent validation of catch and effort (see Section 4). **Appendix 1** lists all the catch data in the MITF for the last 5 seasons.

6.2 Risk assessment on the effects of fishing on bycatch

The most recent ERA for the MITF, completed in 2026, identified no high risks across any of the ecological components assessed. Protected species were assessed at the Level 2 PSA, with no species identified as high risk. Since all other components included in the ERA were assessed to be at low risk at the Level 1 SICA further risk assessment was not undertaken. The full set of ERA reports is available on the AFMA website. For additional information on the ERA process see section 3.8 above.

6.3 Bycatch mitigation measures

All fish other than Patagonian toothfish are considered bycatch in the MITF. The primary bycatch species considered are skates and rays (Rajidae) and grenadiers (Macrouridae). Management of the MITF aims to mitigate and, where possible, reduce bycatch during fishing operations in line with AFMA's objectives and obligations relating to bycatch (see section 3.9.2). Along with bycatch and discarding strategies, this is done through a suite of mitigation and management measures, with specific operational elements detailed below.

Catch limits

All bycatch species in the MITF are subject to a catch limits which AFMA monitor each year. In the MITF catch limits are set by AFMA at 50t for any bycatch species, in line with CCAMLR's approach and as per SARAG 45 (2012) advice.

The species level limits for were originally set in 1999 (SAFAG 5), following the CCAMLR approach of setting a 50t limit for each species where no assessment has been carried, and applying a 200t aggregate limit in addition to the individual species limits[3]. This was reviewed in 2012 with SARAG 45 recommending that it was appropriate to adopt the CCAMLR approach of setting a 50 t catch limit for each bycatch species, and there was no need to retain an overall limit of 200 t.

SARAG 73 (August 2025) considered bycatch trend analyses conducted by CSIRO in 2025 to guide recommendations on bycatch TACs and considered that there had been no significant increase in bycatch for any species, or any trends to indicate current catch limits be amended.

[3] At the time, SAFAG were of the view that as long as there was no deliberate targeting of any one of these bycatch species the 200t limit is expected to be sustainable.

Gear Specifications

Gear limitations designed to reduce bycatch are implemented and enforced through permit conditions and include:

- **Line Weighting:** fishers must use internally weighted longlines with an integrated weight of at least 50g/m. Line weighting is a standard practice in longline fishing proven to effectively position baited hooks below the diving range of seabirds. Weighting facilitates the prompt sinking of baited hooks, reducing the likelihood of seabird interactions.
- **Streamer lines:** fishers must deploy paired streamer lines during longline setting as it creates a physical and visual barrier around the area where longlines are set, preventing seabirds from accessing the baited hooks.
- **Bird Exclusion Device:** A bird exclusion device (BED) must be deployed, to the extent allowed by prevailing weather conditions, as it also creates a barrier around baited hooks during hauling to reduce bird interactions.

Additional mitigation measures

Skate and Rays

There are several measures specific to skates and rays in place in the MITF. These include conditions which facilitate skate tagging, such as the requirement to check skates for tags and retain recaptured tagged skates for the observer. Operators must assess the condition of all skates and rays to determine likely survivability and must release all skates and rays with a high probability of survival. Specific handling guides, ID guides, and education materials have been developed by AFMA and CCAMLR for these species.

Shark release

MITF SFR conditions contain specific obligations requiring the release of all live sharks taken as bycatch, especially juveniles and gravid females (where reasonably possible).

6.4 Indicator bycatch species

There has been no need to use a by-catch species as an indicator species to inform a broader assessment of fishing in the MITF. AFMA incorporates data on bycatch species into the management of the MITF directly (see catch limits above) rather than as indicators.

6.5 Management actions

Data Collection

Mandatory reporting, verified through observer reports (see Section 4) and enforced through compliance arrangements (see Section 3.7) underpin AFMA's bycatch management actions. Bycatch is reported to species level, where possible.

Bycatch handling

It is the responsibility of fishers to handle bycatch species correctly to maximise the chance of survival. Improper handling practices can significantly reduce survival rates and negatively impact the long-term sustainability of these species. Mistreatment of bycatch is prohibited. Mistreatment is defined

as any action taken or omitted that could likely result in death, injury, or distress to any bycatch species. These requirements are implemented and enforceable through permit conditions.

To assist fishers, AFMA has developed a range of bycatch handling guides to help ensure that fishers use best practice when handling their bycatch. These guides help fishers understand the importance of bycatch handling and provide helpful information on handling techniques and in understanding fishers obligations.

Species ID and Guidebooks

AFMA create, manage and update identification guides and information guidebooks for a range of species, including seabirds, sharks, rays, and some fish. CCAMLR have also produced educational materials for a range of species which also occur in the waters around Macquarie Island. Collecting accurate data on bycaught and released individuals, especially if they are endangered, threatened or protected, allows ongoing improvement and monitoring of these species. Observers are provided with multiple resources for species identification applicable to MITF.

Research

AFMA supports, funds and engages in research to reduce interactions and improve outcomes for bycaught species. For further detail see Section 9.

7. Protected species and threatened ecological communities

7.1 Fishery impacts on protected species and communities

All concessional holders must ensure that, as far as practicable, there is no interaction with a protected species under the EBPC Act during a fishing trip (section 70 of the Fisheries Management Regulations 2019). All interactions with listed species must be recorded (see Section 4). Protected species (identified under the EPBC Act) with which the MITF may interact with include seabirds, cetaceans, and seals. Appendix 3 summarises interaction data for Australian vessels between 2021-2025.

In accordance with the Memorandum of Understanding between AFMA and the Department of the Environment and Heritage AFMA reports quarterly on interactions with protected species on behalf of Commonwealth fishing operators to DCCEEW. These reports are publicly available on AFMA's website (AFMA ETP quarterly reports).

AFMA conducts ERAs periodically to evaluate the impact of fishing activities on marine species, habitats, and communities. The findings from these assessments are used to prioritise management, research, data, and monitoring requirements of the fishery. The ERA process is detailed in Section 3.8 and ERA results are detailed in Section 6.2.

7.2 Mitigating risks to protected species

AFMA most commonly manages bycatch and wildlife interactions at a species group level which are designed to address bycatch objectives for groups of related species (e.g. turtles, sharks, birds, cetaceans). The mitigation and management measures above in Sections 6.3 and 6.5 of this report apply across multiple species groups. Species which are not endangered, threatened and protected (ETP) thereby also benefit from the mitigation measures and management actions which cover ETP

species. This approach also allows for consistent management across fisheries and consideration of cumulative risks, as well as being efficient and cost-effective approaches to managing bycatch.

Seabirds

All seabirds are protected under the EPBC Act. Any interaction with a seabird in the MITF must be reported to AFMA within 24 hours. The management settings to manage seabirds' interactions across Commonwealth fisheries are comprehensive. In the longline sector of the MITF, performance is measured against the seabird TAP performance criterion of 0.01 seabirds per 1000 hooks (see section 3.9).

The following measures apply to fishing in the MITF:

- **limited longline seasons –** in the MITF longline operations are limited to a 'core' season of 15 April to 31 August, with a season extension trial for the period 1-21 September currently underway. This reduces interaction risk at times of peak bird activity;
- **no offal discharge** - dumping of offal is prohibited in the MITF and must be discharged outside of Australian waters;
- **night setting** – line setting can only occur during the hours of darkness between the times of nautical twilight.
- **integrated weight line** – must use internally weighted longlines with an integrated weight of at least 50g/m;
- **paired streamer lines** – streamer lines must be used, which scare seabirds away from gear during line setting;
- **bird excluder device** – or 'brickle curtain' (designed and developed by Australian Longline Pty Ltd) must be deployed to discourage seabirds from accessing baits during line hauling;
- **prohibition on the use of plastic packaging bands** - to prevent ingestion of or entanglement in the debris by seabirds or marine mammals; and
- **minimisation of lighting** – when fishing at night, to reduce the risk of seabirds colliding with or being attracted to the boat.

Macquarie Island is listed as critical habitat for seabirds. As such longlining in the MITF is subject to stringent conditions, additional to the criteria and actions required in the seabird TAP. In addition to the measures above, a limit of one seabird killed by fishing gear is in place for wandering albatross, black-browed albatross, grey headed albatross, grey petrels or soft-plumaged petrels.

These limits have been retained since the approval of longlining in the MITF. Limits apply on a per vessel basis. Therefore, if one of these species is killed as a result of an interaction with fishing gear, the vessel is required to immediately cease fishing in the MITF for the remainder of the season. Any gear remaining in the water is allowed to be retrieved.

Marine Mammals

All cetaceans and a number of seals are protected under the EPBC Act. SFR conditions require that all offal and discards must be retained and macerated on-board to reduce the risk of attracting marine mammals to the vessel during fishing operations. In the event of a marine mammal bycatch event,

carcasses must be discharged in a manner that does not attract mammals (or seabirds) to the vessel. Interactions with these species are rare events, but should they occur SFR conditions require as much assistance as is practicable be given to mammals which are alive or injured, and that assistance is provided to observers to enable photographs or any other data collection if the mammal is dead. Interactions must be reported to AFMA within hours of the incident in the MITF. A prohibition on the use of plastic packaging bands, to prevent ingestion or entanglement, by seabirds or marine mammals is also in place.

7.3 CITES-listed species

The MITF interacts with species that are listed under the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), Appendix II. A summary of interactions with these species is detailed in Appendix 3.

The implications of a CITES Appendix II listing include that:

- a positive CITES non-detriment finding (NDF) must be made by Australia's CITES Scientific Authority (DCCEEW) certifying that the harvest of the species will not be detrimental to its survival in the wild
- a CITES export permit issued by Australia's CITES Management Authority under the EPBC Act is required
- listed species must be sourced from a fishery with an approved WTO declaration that is current at the time of harvest.

MITF operators do not retain or export any CITES-listed species.

As described above in Sections 6.3, 6.5, and 7.2 AFMA has mitigation and management measures in place relevant to all CITES Appendix II taxa taken in the fishery and have arrangements in place to effectively monitor ongoing take and compliance with the mitigation measures (see Sections 3.7 and 4 above).

8. Ecosystem

8.1 Ecosystem management actions

The 2026 MITF ERA is the most recent assessment of the potential impact of the MITF upon marine habitats and ecological communities. The assessment was carried out under Level 1 of the ERAEF framework which applies a SICA assessment in relation to Habitats and Communities. That assessment determined that:

- Habitats results – quantitative results not currently available
- Ecological Communities results – moderate potential impact to benthic habitats exists due to the presence of weighted lines (however, line weighting protects against the greater risk to seabirds).

It is worth noting that the large extent of the Macquarie Island Marine Park, with most area completely protected from fishing (see Section 8.3 and Figure 1b), is likely to mitigate the effects of fishing on habitats and ecological communities surrounding the island.

8.2 Management responses

The results of the most recent assessments indicate the impacts of the fishery on habitats and communities as low risk, and there are measures detailed in the Management Plan and SFR conditions relating to specific potential environmental impacts. These include:

- take all reasonable steps to avoid losing any gear or other non-biodegradable items from the boat, and reporting requirements about lost and/or retrieved items;
- ensure no poultry or brassicas are discharged from the boat;
- must not discharge offal within the area of the fishery
- plastic packaging bands used to secure bait boxes are prohibited, and any other packaging bands are cut once removed (so they don't form a continuous loop) and burned in the onboard incinerator at the earliest opportunity.

8.3 Marine bioregional plans

The Macquarie Island Marine Park covers the area of the MITF and is part of the South-east Marine Parks Network, managed under the EPBC Act by DCCEEW.

The original marine park was declared in 1999, before becoming part of the South-east Marine Parks Network in 2007, and then expanded in 2023 following a review. The new South-east Marine Parks Network Management Plan came into operation on 13 February 2025, with the total area of the network now equalling 465, 465 km^2. Under a class approval, commercial fishing using pelagic longline is authorised in the Multiple Use and Habitat Protection zones of the South-east Marine Parks Network.

9. Research

AFMA administers an annual budget for research that is prioritised and scoped through fishery advisory committees, which provide advice to the AFMA Research Committee (ARC). The ARC, in alignment with AFMA's Five Year Strategic Research Plan 2023-28, plays a strategic role in providing advice to the AFMA Commission on major fishery and cross-fishery research issues; the strategic direction for research relevant to AFMA's information needs; and recommending research priorities and projects for potential funding through the Fisheries Research and Development Corporation (FRDC).

Research priorities in the MITF are considered on an annual basis, and the Antarctic Fisheries Five Year Strategic Research Plan 2026-2030 provides a framework that identifies the key strategic research needs to support AFMA's management goals. The SARAG and SouthMAC play a crucial role in identifying research priorities, assessing research proposals, and reviewing the outcomes of relevant research—both for essential stock assessment-type research and other management-related research projects.

Key strategic MITF research priorities funded through the ARC or FRDC are described in Table 6.

Table 6: Current and recently completed research projects in MIT Fishery

Research project	Status	Principal Investigator	Purpose
Macquarie Island toothfish stock assessment 2019, (2021, 2023, 2025)	Ongoing	Rich Hillary	To support the annual total allowable catch determination for Patagonian toothfish, undertaken biennially.
Southern Ocean IPA: Environmental and ecosystem drivers of catch efficiency within Australia's subantarctic Patagonian Toothfish (*Dissostichus eleginoides*) fisheries Project ID: 2019-169	Completed	Ryan Downie	To develop a high-resolution oceanographic tool to map historical oceanographic data on the Kerguelen Plateau and Macquarie Ridge, to define toothfish foraging habitats, to investigate how historic bioacoustic data collected on-ground and by IMOS BASOOP can be used for seabed habitat classification in the Kerguelen Plateau and Macquarie Ridge regions and to combine environmental, ecological and economic covariates and catch histories to characterise variations in catchability.
Southern Ocean IPA – Impact of environmental variability on the Patagonian Toothfish (*Dissostichus eleginoides*) fishery Project ID: 2018-133	Completed	Stuart P. Corney	Commercial in confidence
Science to support Australia's Southern Oceans Fisheries 2021-2023 Project ID: 2020-095	Completed	Philippe Ziegler	Commercial in confidence
Science to support Australia's Southern Oceans Fisheries 2024-2028 Project ID: 2023-173	Current	Philippe Ziegler	Commercial in confidence

10. Progress against current Conditions

The MITF was last assessed by the DCCEEW under section 303FN of the EPBC Act 1999 to be an approved Wildlife Trade Operation (WTO) in October 2016. In accordance with this approval, a single condition was made for the fishery's continued operation. Below is a summary of the progress and status in addressing these conditions (Table 7).

Table 7. Progress on conditions since the last assessment.

Condition	Due Date	Progress against the condition
Condition/Recommendation] 1: It is important that reports be produced and presented to the Department of the Environment and Energy annually in order for the performance of these fisheries to be monitored and assessed throughout the life	Annually	Reports have been submitted to DCCEEW.

Condition	Due Date	Progress against the condition
of the approval. Export approval is therefore contingent on AFMA producing and presenting a report on each of the fisheries it has management responsibility for to the Department of the Environment and Energy annually as per Appendix B of the Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition.		

11. References

Appleyard, SA, Ward, RD & Williams, R 2002, Population structure of Patagonian toothfish around Heard, McDonald and Macquarie Islands, Antarctic Science, vol. 14, pp. 364–73, DOI: 10.1017/S0954102002000238, accessed 2 May 2024.

Bessell-Browne, P. and Hillary, R. (2025) Integrated stock assessment for Macquarie Island Patagonian toothfish using data up to and including 2024. Technical paper presented to the SARAG, 18-19 August 2025, Hobart, Australia

Bessell-Browne, P. and Hillary, R. (2023) Integrated stock assessment for Macquarie Island Patagonian toothfish using data up to and including 2022. Technical paper presented to the SARAG, 22-23 August 2023, Hobart, Australia

Bessell-Browne, P. and Hillary, R. (2021) Integrated stock assessment for Macquarie Island Patagonian toothfish using data up to and including 2022. Technical paper presented to the SARAG, 5-6 May 2021, Hobart, Australia

Department of Agriculture, Fisheries and Forestry. (2025). Sharks and Rays. Retrieved from https://www.agriculture.gov.au/agriculture-land/fisheries/environment/sharks.

Department of Agriculture and Water Resources. (2018). Commonwealth Fisheries Bycatch Policy. Commonwealth of Australia. Retrieved from Department of Agriculture, Fisheries and Forestry: https://www.agriculture.gov.au/agriculture-land/fisheries/environment/bycatch/review.

Department of Agriculture and Water Resources 2018, Commonwealth Fisheries Harvest Strategy Policy, Canberra, June. Retrieved from Department of Agriculture, Fisheries and Forestry: https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/domestic/hsp.pdf

Hobday AJ, Bulman CM, Williams A, Fuller M, (2011a), Ecological Risk Assessment for Effects of Fishing on habitats and communities . FRDC Report 2009/029. Fisheries Research and Development Corporation and CSIRO Marine and Atmospheric Research.

Hobday AJ, Smith A, Webb H, Daley R, Wayte S, Bulman C, Dowdney J, Williams A, Sporcic M, Dambacher J, Fuller M, Walker T, (2007), Ecological risk assessment for the effects of fishing: methodology. Report R04/1072 for the AFMA.

Williams, R, Tuck, GN, Constable, AJ & Lamb, T 2002, Movement, growth and available abundance to the fishery of Dissostichus eleginoides Smitt, 1898 at Heard Island, derived from tagging experiments, CCAMLR Science, vol. 9, pp. 33–48, accessed 2 May 2024.

Appended Data Tables

APPENDIX 1 – Retained catch data (target and bycatch species)

To mitigate impacts on the ecosystem and limit protected species interactions there are prohibitions on offal discharge, which include bycatch. Retained species below therefore include bycatch and target species. Total and Grand Total sums are rounded due to account for bycatch values less than 1 tonne.

Appendix Table 1. Retained species for Australian flagged vessels in the MITF for seasons 2021/22 – 2025/26. Weights reported in tonnes (t). Values below 1 tonne are approximate.

Standard fish name	Sum of retained wt (t)					
	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Quota species						
Patagonian toothfish	455	439	457	410	467	**2,228**
Non-quota / bycatch species						
Anemones	<1	<1	<1			**~ 1**
Antarctic rockcods		<1	<1		<1	**~ 1**
Antarctic toothfish		73	216			**289**
Basket stars	<1	<1		<1		**~ 1**
Basketwork eel	<1	<1		<1	<1	**~ 1**
Blackbelly lantern shark			<1			**<1**
Blobfish	2.64	<1				**~2.64**
Chimaeras, etc. nei	<1		2.01	1.8	<1	**~3.81**
Conger eels	<1					**<1**
Cusk Eels	<1		<1	<1	<1	**~ 1**
Cutthroat eels nei	<1		<1	<1	<1	**~ 1**
Deepwater dogfish	<1	<1		<1	<1	**~ 1**
Gorgonians	<1	<1	<1	<1		**~ 1**
Grey rockcod	<1		<1	<1	<1	**~ 1**
Icefish		<1	<1			**~ 1**
Invertebrates	<1	<1	<1	<1	<1	**~ 1**
Lefteye flounder		<1			<1	**~ 1**
Moray cods	<1	<1	<1	<1	<1	**~ 1**
Patagonian cod	<1	<1	2.7	1	<1	**~3.7**
Plunderfish	<1					**<1**

Standard fish name	Sum of retained wt (t)					
	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Rat tails, Grenadiers	5.3	15.4	21.9	7.3	8	**57.9**
Sea cucumbers	<1		<1			**~ 1**
Sea pens		<1	<1			**~ 1**
Sea squirt		<1	<1			**~ 1**
Sea stars	<1	<1	<1	<1		**~ 1**
Sheefish	<1					**<1**
Skates and rays			<1	<1	<1	**~ 1**
Stone crab	1	1.1	<1	<1	<1	**2.1**
Stony corals	<1	<1	<1	<1		**~ 1**
Violet cod	2.6	9	17	9	7	**44.6**
Grand Total	**~470**	**~541**	**~721**	**~434**	**~485**	**~2,651**

APPENDIX 2 – Discarded catch data (target and non-target species)

There are no discards in the MITF, with only live fish released overboard (see Section 6 above). Appendix Table 2 shows the number of individuals released alive in the MITF over the past ten seasons (2016/17 – 2025/26).

Appendix Table 2. Released individuals from Australian flagged vessels in the MITF for seasons 2016/17 – 2025/26

Standard fish name	Sum of individuals released alive										
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Quota species											
Patagonian toothfish	905	727	930	1,071	1,093	932	927	1,004	885	891	**9,365**
~Antarctic toothfish							182	656			**838**
Non-quota species											
Blobfish		8									**8**
Grenadiers	1	4									**5**
Porbeagle shark	6		4					1	4		**15**
Skates and rays							26	11	24	1	**62**
Sleeper shark	2		3		1			8		5	**19**
Stone crabs	35	1,075	1,448	1,230							**3,788**
Grand Total	**949**	**1814**	**2385**	**2301**	**1094**	**932**	**1135**	**1680**	**913**	**897**	**14100**

APPENDIX 3 – Protected species interaction data

Appendix Table 3 details the ETP interactions across the MITF for the past five years (2021-2025). AFMA publishes quarterly ETP interaction reports on the AFMA website.

Appendix Table 3. ETP interactions in the MITF.

Species and year	No. of animals			CITES listed
	Alive	Dead/injured	Total	
Porbeagle				**YES**
2021		**11**	**11**	
2022	**1**	**1**	**2**	
2024	**3**	**1**	**4**	
Black-browed albatross				**NO**
2023	**1**		**1**	
White-chinned petrel				**NO**
2023		**1***	**1**	
Southern royal albatross				**NO**
2022		**1**	**1**	
Southern giant petrel				**NO**
2022	**1**		**1**	
2024	**1**		**1**	
2025	**1**		**1**	
Cape petrel				**NO**
2022		**1**	**1**	
Grand Total	**8**	**16**	**24**	

*listed as unknown fate

APPENDIX 4 – Fishing effort

Appendix Table 4. Demersal longline fishing effort data for MITF for year 2016-2025

Gear and year	No of boats	No of hooks
Demersal longline		
2016	1	2,267,297
2017	1	2,296,220
2018	1	2,026,880
2019	1	1,797,020
2020	1	1,992,827
2021	1	2,246,552
2022	1	2,452,517
2023	1	2,560,350
2024	1	1,533,256
2025	1	1,622,500