



Australian Government

Australian Fisheries Management Authority



**Joint
meeting of the
Southern
Antarctic
Resource
Assessment
Group (SARAG)
and Management
Advisory
Committee
(SouthMAC)
FINAL MINUTES**

17 FEBRUARY 2023

SUB- ANTARCTIC RESOURCE ASSESSMENT GROUP (SARAG) and SUB – ANTARCTIC MANAGEMENT ADVISORY COMMITTEE (SouthMAC)

CHAIR: Mr Bruce Wallner

Date: 17 February 2023

Venue: Videoconference

Attendance

Members

Dr Cara Miller, Scientific Member SARAG
Dr Tim Ward, Scientific Member SARAG
Dr Rich Hillary, Scientific Member SARAG
Brad Milic, Industry Member SARAG
Rhys Arangio, Industry Member SARAG, SouthMAC
Malcolm McNeill, Industry Member SouthMAC
Dr Lyn Goldsworthy, Conservation Member SouthMAC
Danait Ghebregabhier, AFMA Member SARAG
Selina Stoute, AFMA Member SouthMAC
Claire Wallis, Executive Officer SARAG, SouthMAC

Observers

Trent Timmiss, ABARES
Simone Retif, AAD
Jonathon Barrington, AAD
Bailey Bourke, AAD
Martijn Johnson, Industry

Introduction

Agenda item 1 - Preliminaries

1.1 Welcome and Apologies

The joint meeting of the Sub-Antarctic Resource Assessment Group (SARAG) and the Sub-Antarctic Management Advisory Committee (SouthMAC) was opened at 2:30pm on 17 February 2023 by the Chair, Mr Bruce Wallner. The Chair welcomed members and observers to the meeting. The Chair, on behalf of all members and observers, acknowledged the Traditional Owners of the land on which the meeting occurred and paid respects to Elders past, present and emerging.

The following members and invited participants were noted as apologies:

- Dr Rachel Baird, Chair, SouthMAC
- Dr Philippe Ziegler, Scientific Member, SARAG, SouthMAC
- Dr Heather Patterson, Invited Participant, SARAG
- Dr Pia Bessell-Browne, Invited Participant, SARAG
- Lihini Weragoda, AAD Member, SouthMAC



1.2 Declarations of interest

All interests were carried as previously declared (see Table 1 in [Attachment A](#)) with the following new members and observers to advise the Executive Officer directly of any potential conflicts of interest for inclusion in the meeting records:

- Dr Tim Ward
- Simone Retif
- Danait Ghebregabhier

The Chair noted that industry, as the proponents of the proposal to review the seabird management measures in the Fishery, hold a vested interest in the outcomes of any review and that should be recorded.

Agenda item 2 – Industry proposal to vary seabird management arrangements in the Macquarie Island Toothfish Fishery

The meeting noted the agenda paper provided by AFMA ([Attachment B](#)).

Discussion

Opening statements by industry members described the history of the Macquarie Island Toothfish Fishery (MITF) and current arrangements whereby Austral Fisheries Pty Ltd and Australian Longline Fishing Pty Ltd fish under a shared arrangement with a single vessel and a long-term aim of full TAC exploitation. Industry expressed views that currently the fishery is under-caught in part due to limitations on fishing activity linked to management arrangements.

Industry reported observing an increase in toothfish catchability on the fishing grounds at the end of the longline fishing season in recent years. The meeting heard that industry considers missed late season catch a potential financial risk to the company. Industry expressed the view that night setting arrangements limit their ability to explore the fishery while increasing risk of fishing gear loss.

Industry observed that no birds have been caught on longline fishing gear in the MITF since the gear type was introduced (in 2007), and that the current vessel and mitigation settings exceed best practice recommendations from ACAP. Given this performance history, industry initiated this discussion seeking to improve efficiencies in the fishery.

With regards to the industry proposal to consider the option relating to marine park access for research purposes, the group agreed that it would not be discussed as it was outside the scope of AFMA advisory groups. Industry clarified that the proposal preceded the review of the MITF MPA and potential changes to the regulatory environment.

The group noted advice from AAD that the precautionary arrangements at MITF under the Seabird Threat Abatement Plan (TAP) are exemplary in terms of scope which has resulted in exemplary effect and performance, with this performance reflected in sustainability accreditations achieved by the fishery. The AAD provided advice that the TAP is currently under review with a workshop to occur in April, providing an opportunity to initially explore any



flexibility that might be possible within the updated TAP prior to reviewing the current seabird bycatch management measures in the MITF. The group heard that due to the heightened conservation concerns about the seabird breeding populations on Macquarie Island, the MITF has the most precautionary seabird bycatch mitigation measures, including measures that are considered best practice by ACAP (simultaneous use of tori lines, line weighting and night setting). These are further complemented by an absolute mortality limit for five bird species of conservation concern and area and seasonal closures.

The group noted advice from AAD that the Australian Government had recently announced a nature positive approach to government decision-making, particularly in its relevance to environmental considerations.

Proposal 1 – Increase to the absolute seabird mortality

The group noted the options in the proposal for discussion by industry included total mortality for the five listed bird species in the MITF be increased from 1 to 3 birds annually, in alignment with fishery management settings in the Heard Island and McDonald Islands (HIMI) fishery (noting that HIMI does not have listed bird species and the absolute mortality limit applies to seabirds more generally during the season extension period).

The group heard that the MITF initially started as a trawl fishery, followed by the introduction of longline gear through amendment of the management plan. Contingent on allowing the use of longline gear, a position was agreed between government, NGOs and industry. The group acknowledged the ongoing importance of Macquarie Island as crucial breeding habitat for threatened albatrosses and petrels in Australia's jurisdiction. Concern regarding the impact of bycatch events on the five seabird species persists, and the group noted differences in their populations from 2007-2022 (Attachment B). Particular concern exists regarding the ongoing decline of the only recognized population of wandering albatross in Australia's jurisdiction due to their biennial breeding cycle, low (and declining) population numbers (3-10 breeding pairs) and the negative impact of pair-bond disruption on breeding success if any mortalities were to occur. Industry noted that wandering albatross was the least likely to interact with weight integrated longline and expects data from Southern Ocean toothfish operators would support this.

The group heard that the only species where there is emerging evidence of a population recovery over the past fifteen years is the grey petrel, linked to the success of terrestrial vertebrate pest eradication programs. The remaining populations appear to have remained stable, without showing evidence of recovery, except for the wandering albatross population which continues to decline.

Industry reflected their view that the consequence of the single bird trigger being reached is significant. The view was expressed that their track record has proven that the vessels have performed well, having never killed a bird in this fishery, but sometimes accidents happen even with world class mitigation measures in place. For industry to be closed out of the fishery due to an accidental mortality while deploying measures known to work is viewed as extreme. The group acknowledged industry's success to date in avoiding seabird mortalities due to fishing gear interactions and proposed that a response mechanism for defined accidents might be a possible approach for further consideration for the future.



The group considered whether trigger limits might reflect species abundance and noted advice that SARAG previously reviewed limits against conservation status, determining that species specific limits should not be pursued, and the situation has not changed since the last RAG discussion.

In terms of other emerging threats to seabird breeding populations on Macquarie Island, the group heard that the spread of avian influenza type A (H5N1) is a current global issue and has already been detected in other sub-Antarctic and southern hemisphere locations, despite ACAP protocols being in place on prevention of viruses accessing breeding sites and biosafety.

Recommendation - Having considered the most recent and updated advice on the status of seabirds and the risks to seabird populations associated with increased interactions, members agreed there was no basis at this time to increase the total seabird mortality limit for the five species from 1 to 3. The group noted the recovery of the grey petrel, and that the TAP review process would be considering the status of seabird populations which may inform the seabird species that the absolute limit continues to apply to.

Proposal 2 - Season Extension

The group noted the industry proposal to increase the season duration both before and after the current season dates (currently 15 April – 7 September). Participants expressed views that, having an existing precedent at HIMI for extending season dates, this may be an amendment that could be more easily explored. The group heard that incremental change, as in the past, is necessary due to significant increases in seabird abundance through the Austral spring and sustained high seabird abundance into the Austral fall, noting that the grey petrel (as a winter breeder) is more active in the Austral winter. The group noted advice from industry that a season extension into September would be more appealing than an earlier season start.

The group noted scientific advice on the importance of exploring quantitative relative risk and data-based assessments of trial outcomes. Participants discussed approaches taken in HIMI on season extensions and noted a CCAMLR paper outlining criteria established for the purposes of the HIMI season extension trials, which included minimum hook numbers requiring to be set in order for the trial to conclude. Members noted that a second CCAMLR paper on temporal seabird risk at HIMI was developed by the AAD, which identified that interaction risk is an order of magnitude lower in July compared to the Austral spring (September-October). Moving into a season extension will increase risk of interaction, and any changes to mitigation methods should ideally be implemented one at a time so they can be clearly assessed.

The group heard that AFMA observers have historically undertaken seabird counts as part of their protocols, though these data will likely not cover the new trial periods. It was noted that seabird observation protocols may have been amended since 2020 due to COVID, and, in the event of a season extension trial, AFMA may need to resume observer seabird observations during the extension period.

Action – AFMA to advise on the nature and extent of historical observer seabird abundance and consider the resumption of seabird abundance counts by observers.



Recommendation - Noting the prior development and use of methodologies to assess the impacts of season extensions in the HIMI fishery, the group supported further investigation of this option. The group agreed that any amendments should be evidence based and supported by a quantitative assessment of risk. Depending on the results of this assessment, a trial season extension with clear performance measures may be considered.

Action - AFMA to distribute the CCAMLR papers on season extensions and seabird risk in HIMI.

Proposal 3 – Removal of night-setting only arrangement

The group noted the proposal by industry to explore varying the night-setting requirement in the MITF, which has been in place since the opening of the fishery to longline gear. Several members expressed reservations regarding varying night-setting arrangements, noting that night-setting is recommended by ACAP as one of 3 best practice measures in combination with tori-lines and minimum line weighting. The group heard that night-setting limits the overlap between fishing operations with times when the majority of seabird species are active.

Industry explained that the interest in adjustments to night-setting restrictions is to increase flexibility on setting gear. For example, being able to set with the tide, which may sometimes require pushing past dawn or prior to dusk. Industry clarified that their interest is not to be able to set “all day” and understood there would need to be compliance arrangements in place. Members heard that a clearer understanding of what is meant by “flexibility” or “occasional use” would be helpful, and this might be considered further through development of an incremental, criteria-based approach as a first step. Industry was asked to quantify what anticipated difference in catch a 1-2 hour increase in setting time, for example, might make available during the June-August period.

Action – Industry to provide estimate of benefits provided by extended night setting or increase in day setting proportions in June-August

Further discussion noted advice from the ABARES observer that albatross presence is expected to be significantly reduced in June-August as foraging locations shift northerly and further offshore as described in another CCAMLR paper. Some participants suggested that a daylight setting trial might be able to be considered lower risk in June-August. The group noted the increasing abundance and risk to seabirds in the Austral spring correlated with reduced fishing hours as day length increases. Participants noted advice from AAD that the breeding cycle for wandering albatrosses extends for over a year and birds are still present during the Austral winter. Additionally, the grey petrel is a winter breeding species at Macquarie Island. The group noted that based on this, changes to allow daylight setting may begin to impact birds still present.

The group referred again to the lack of seabird abundance data for September, and noted that for the Austral winter, daytime seabird abundance estimates would be needed to provide a basis for management decisions about shifting to day fishing.

The group noted that step-wise approaches should also be considered in the event of exploring amendments to seabird bycatch mitigation measures.



Recommendation - Noting the discussion and concerns on risks associated with changes to night setting measures, the group agreed that further details are required from industry on the level of flexibility required and the benefits to be achieved. The group further noted that any amendments should be step-wise, evidence based and supported by a quantitative assessment of risk. Depending on the results of this assessment, an amendment to night setting restrictions with clear performance measures may be considered as a trial.

Action - AFMA distribute the CCAMLR paper on seabird tracking around Macquarie Island.



Action Items

Action Item #	Action	Party Responsible
1	AFMA to distribute the CCAMLR papers on season extensions and seabird risk in HIMI	AFMA
2	AFMA to distribute the CCAMLR paper on seabird tracking around Macquarie Island.	AFMA
3	AFMA to advise on the nature and extent of historical observer seabird abundance and consider the resumption of seabird abundance counts by observers.	AFMA
4	Industry to provide estimate of benefits provided by extended night setting or increase in day setting proportions in June-July	Industry



ATTACHMENT A

Name	Membership	Declared interests
Bruce Wallner	Chair, SARAG	No pecuniary or other potential interests that might compromise his duties as the Chairperson of SARAG.
Dr Cara Miller	Scientific member, SARAG	Member of the Fisheries team within the Southern Ocean Ecosystems Program at the AAD and has no pecuniary or other interests in the sub-Antarctic fisheries.
Dr Rich Hillary	Scientific member, SARAG	Employed by CSIRO and is the Principal Investigator of the Macquarie Island Toothfish Fishery (MITF) stock assessment. He is a member of AFMA's Southern Bluefin Tuna Management Advisory Committee (SBTMAC) and Tropical Tuna RAG. Dr Hillary advised that he has no pecuniary interests in the sub-Antarctic fisheries.
Dr Tim Ward	Scientific member, SARAG	<p>Institute Marine and Antarctic Studies, University of Tasmania, Associate Professor, Fisheries Scientist</p> <p>AFMA Small Pelagic Fishery Resource Assessment Group, Scientific Member</p> <p>AFMA Research Projects (SPF Monitoring, Blue Mackerel Spawning Fraction), Principal Investigator</p> <p>Natural Environment and Resources, Tasmania (Developmental Tasmanian Sardine Fishery), Scientific Advisor, Principal Investigator</p> <p>South Australian Marine Scalefish Fishery Management Advisory Committee, Independent Conservation Scientist, Member</p> <p>Pelamis Pty Ltd (Environmental Consulting Company), Director</p>
Brad Milic	Industry member, SARAG	General Manager, Operations, at Australian Longline Fishing Pty Ltd (ALFPL) which holds various fishing rights in, and operates vessels in, the sub-Antarctic fisheries and New and Exploratory fisheries under the jurisdiction of CCAMLR.
Rhys Arangio	Industry member, SARAG, SouthMAC	<p>Employed by Austral Fisheries P/L (Austral Fisheries) as the Senior Manager of Environment and Policy. Austral Fisheries owns Statutory Fishing Rights (SFRs) in the Australian sub-Antarctic fisheries, which include waters under the jurisdiction of CCAMLR. Noting no changes since the last meeting, Mr Arangio is the Executive Officer of COLTO, as well as being a member of SouthMAC. He was not aware of any investigation or prosecution action by AFMA against his Company, nor of any legal action taken by his Company against AFMA, and has an interest in all agenda items.</p>

Danait Ghebrezgabhier	AFMA member	AFMA employee, no interests pecuniary or otherwise.
Claire Wallis	Executive officer	AFMA employee, no interests pecuniary or otherwise.
Trent Timmiss	Invited Participant	Employee of the Department of Agriculture, Fisheries and Forestry and works on the Australian Bureau of Agricultural Resource Economics and Sciences (ABARES) Fishery Status Reports, and is Head of Delegation to SIOFA and SPRFMO Scientific Committees, which consider toothfish. Mr Timmiss noted that he had no pecuniary interest in the sub-Antarctic fisheries.
Selina Stoute	AFMA Member, SouthMAC	AFMA employee, no interests pecuniary or otherwise.
Malcolm McNeil	Industry Member, SouthMAC	Managing Director of ALFPL which holds various fishing rights in, and operates vessels in, the sub-Antarctic fisheries and New and Exploratory fisheries under the jurisdiction of Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). Mr McNeill is the Chair of the Ross Sea Industry Client Group. Mr McNeill remains a member of Sub-Antarctic Management Advisory Committee (SouthMAC) and Board member of the Coalition of Legal Toothfish Operators (COLTO). Mr McNeill was not aware of any investigation or prosecution action by AFMA against his Company or of any legal action taken by his Company against AFMA.
Dr Lyn Goldsworthy	Conservation Member, SouthMAC	Recently completed a PhD and holds an Associate position at the Institute for Marine and Antarctic studies and the University of Tasmania. Dr Goldsworthy also conducts contract work for the Antarctic and Southern Ocean Coalition (ASOC) and Deep-Sea Conservation Coalition (DSCC). Dr Goldsworthy has no pecuniary interest in sub-Antarctic fisheries.
Jonathon Barrington	Invited attendee, AAD	Mr Barrington is an employee of the AAD with responsibilities for Seabird Conservation. Mr Barrington attends international meetings related to Antarctic fisheries and conservation of seabirds in Antarctica and the Southern Ocean. He has no pecuniary interest in Antarctic and sub-Antarctic fisheries and his salary is not dependent on research collaborations between AAD, industry, or others. Mr Barrington is Australia's Representative to the Agreement on the Conservation of Albatrosses and Petrels, Member of its Advisory Committee, and subsidiary Working Groups.
Simone Retif	Observer, AAD	Employed by the Australian Antarctic Division and her colleagues conduct the HIMI Stock Assessment. Ms Retif attends international meetings related to Antarctic fisheries and holds no pecuniary interest in Antarctic

		fisheries. Ms Retif's salary is not dependent on research collaboration between AAD, Industry or others.
Bailey Bourke	Observer, AAD	Employee of the AAD and her colleagues conduct the HIMI stock assessment. Ms Bourke attends international meetings related to Antarctic fisheries and has no pecuniary interest in Antarctic fisheries and her salary is not dependent on research collaborations between AAD, industry or others.
Marty Johnson	Industry Observer	Employee of Australian Longline Fishing Pty Ltd (ALFPL). Mr Johnson is the Sustainability and Operations Coordinator of ALFPL which holds various fishing rights in, and operates vessels in, the sub-Antarctic fisheries and New and Exploratory fisheries under the jurisdiction of CCAMLR. Mr Johnson is not aware of any investigation or prosecution action by AFMA against ALFPL or any litigation entered in to by ALFPL.

ATTACHMENT B

Joint meeting of the Southern Antarctic Resource Assessment Group (SARAG) and Management Advisory Committee (SouthMAC)

17 February 2023, 2:30pm – 4pm, Videoconference

Industry proposal to vary seabird management arrangements in the Macquarie Island Toothfish Fishery

Recommendation

1. The joint meeting **NOTE**:
 - i. The discussion paper submitted by Australian Longline Fishing Pty Ltd and Austral Fisheries to AFMA on 21 October 2022 (**Attachment A**) to be presented by Mr Brad Milic from Australian Longline Pty. Ltd.
 - ii. A background document prepared by the Australian Antarctic Division outlining the status of Macquarie Island as critical seabird habitat and updated information on the status of seabirds on the Island (**Attachment B**) to be presented by Mr Jonathon Barrington from the Australian Antarctic Division.
 - iii. Feedback received to date from SARAG and SouthMAC members on the industry proposal.
 - iv. That the Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018) (the [Seabird TAP](#)) is due for review in 2023.
 - v. Industry's proposal to consider the option relating to marine park access for research purposes should be discussed with the Parks Australia Division of the Department of Climate Change, Energy, the Environment and Water and is out of scope for this meeting.
2. That the joint meeting:
 - a. **DISCUSS** the industry proposal in light of the information available on the current conservation status of seabirds on Macquarie Island, history of seabird encounters in the fishery, Seabird TAP requirements and AFMA's legislative objectives; and
 - b. **PROVIDE PRELIMINARY ADVICE** on the changes proposed by industry, including areas of further consideration that may be required to assess the proposal.

Discussion

3. AFMA has convened this joint meeting of SARAG and SouthMAC, as well as a subject matter expert to consider industry's proposal to vary the current seabird bycatch mitigation measures in the MITF.
4. As detailed in the discussion paper submitted by Australian Longline Fishing Pty Ltd and Austral Fisheries, the proposed variations are to:
 - a. increase the absolute seabird mortality limit for the five listed albatross and petrel species from 1 to 3;
 - b. remove the night setting only condition;

- c. extend the fishing season to start prior to 15 April and end in late September or October.
5. Industry advised that the proposed changes are aimed at improving operational efficiency by providing industry the flexibility to tailor their fishing operations to weather conditions and changes to the temporal availability of toothfish. The industry proposal notes that their proposed increase of the absolute seabird mortality limit would bring the MITF in line with longlining requirements in the Heard and McDonald Island Fishery (HIMI) (industry's proposal notes, however, that the requirement in the HIMI applies to seabirds more generally and only during the season extension period).
6. To date, fishing operations in the MITF have been successful in avoiding seabird interactions with fishing gear, including mortalities (see section below: *Seabird interactions and encounters*). This track record has previously given AFMA the confidence to review some management arrangements to allow industry more flexibility, for example extensions of fishing seasons (see section below: *Previous arrangements relating to season extensions in the MITF*).
7. AFMA management also recognises that industry's good track record is likely attributed in large part, to the application of best practice seabird mitigation measures (see section below: *Seabird mitigation measures in MITF*) and is mindful that changes away from best practice may result in increased seabird interactions. This includes with seabirds listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) (Attachment B)*. AFMA management understands that Macquarie Island is a critical habitat for threatened seabird species (**Attachment B**).
8. AFMA notes that 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 TAP is to seek to further reduce the seabird bycatch and bycatch rate during oceanic longline fishing operations in the Australian Fishing Zone. The current TAP is due for review in 2023.
9. AFMA is seeking preliminary advice from members on the changes proposed by industry, including areas of further consideration that may be required to assess the proposal. To assist members, the meeting has been convened by AFMA to provide members an opportunity to consider information available on the current conservation status of seabirds on Macquarie Island, history of seabird encounters in the fishery, Seabird TAP requirements, AFMA's legislative objectives and to seek further information as necessary from industry. It is also an opportunity for industry to gain an understanding of any key issues or concerns held by members.

Feedback received to date from SARAG and SouthMAC members

10. AFMA sought initial feedback on the industry proposal from SARAG and SouthMAC members on 6 December 2023. Comments received to date include:
 - suggestion for AFMA/AAD to provide some further briefing on population estimates of birds in the area (e.g. recent trends) and activity levels by time of year to help assess risk and determine if loosening current regulations is appropriate.
 - proposed changes potentially come with some risk and should be undertaken on a carefully monitored trial basis.
 - suggestion to consider the proposed changes following the review of the Seabird TAP due in 2023.

- recommendation for a SARAG discussion on the proposal:
 - on the need to understand the conservation status and biological implications of individual mortalities.
 - the timeline and/or sequence of undertaking the proposed changes
- options relating to marine park access for research purposes are out of scope and should be discussed with Park's Australia.

Seabird mitigation measures in the MITF

11. The MITF is a sub-Antarctic fishery that, while not located in the CCAMLR Convention Area, is managed in alignment with CCAMLR requirements where relevant.
12. Seabird mitigation measures are required when deploying longline gear and are outlined in the Seabird TAP (see **Attachment D** below for a summary extract). The requirements are implemented through Statutory Fishing Right (SFR) conditions.
13. The simultaneous use of branch line weighting, night setting and bird scaring lines is recommended by the Agreement on the Conservation of Albatrosses and Petrels (ACAP) as the most effective way to reduce seabird bycatch in pelagic longline fisheries. Australia is party to ACAP.
14. In addition to the incidental seabird bycatch rates prescribed in the Seabird TAP, AFMA has implemented absolute seabird mortality limits as follows:
 - i. MITF - A vessel must cease fishing for the remainder of the fishing season if its fishing gear catches and kills any of the five named albatross and petrel species. For the purposes of this measure, streamer lines and BEDs do not count as fishing gear. The five seabirds are:
 - Wandering albatross;
 - Black-browed albatross;
 - Grey-headed albatross;
 - Grey petrel;
 - Soft-plumaged petrel.
 - ii. HIMI (longline) - A vessel must cease fishing for the remainder of the fishing season extension period if it catches 3 seabirds.
 - iii. HIMI (mid-water trawl) - A vessel must cease fishing during daylight hours if it catches and kills 3 or more seabirds by mid-water trawl gear in a fishing season. The vessel may only fish using mid-water trawl gear during the hours of darkness between the times of nautical twilight (i.e. during the period after nautical dusk and before nautical dawn) for the remainder of that season.

Previous arrangements relating to season extensions in the MITF

15. The MITF is open to trawl and longline gears, with the longline method restricted to the period 15 April - 7 September each year.
16. The AFMA Commission has previously considered and agreed to extend the MITF fishing season for longlining to allow earlier starts. The season end date was also extended to 7 September in 2018. In making this decision, the AFMA Commission recognised the good track record of past fishing operations

with no seabird interactions and that seabird monitoring on-board fishing vessels would continue during the additional week. They also noted that the Australian Antarctic Division had been consulted on the request and had raised no concerns.

Seabird interactions and encounters

17. A summary of the seabird encounters for the MITF since 1996 is provided in **Attachment C** below. Seabird encounters other than interactions with fishing gear are reported in quarterly protected species interaction reports that are available on the AFMA website.
18. It should be noted that, to date, there have not been any seabird mortalities as a result of interacting with fishing gear in the MITF.

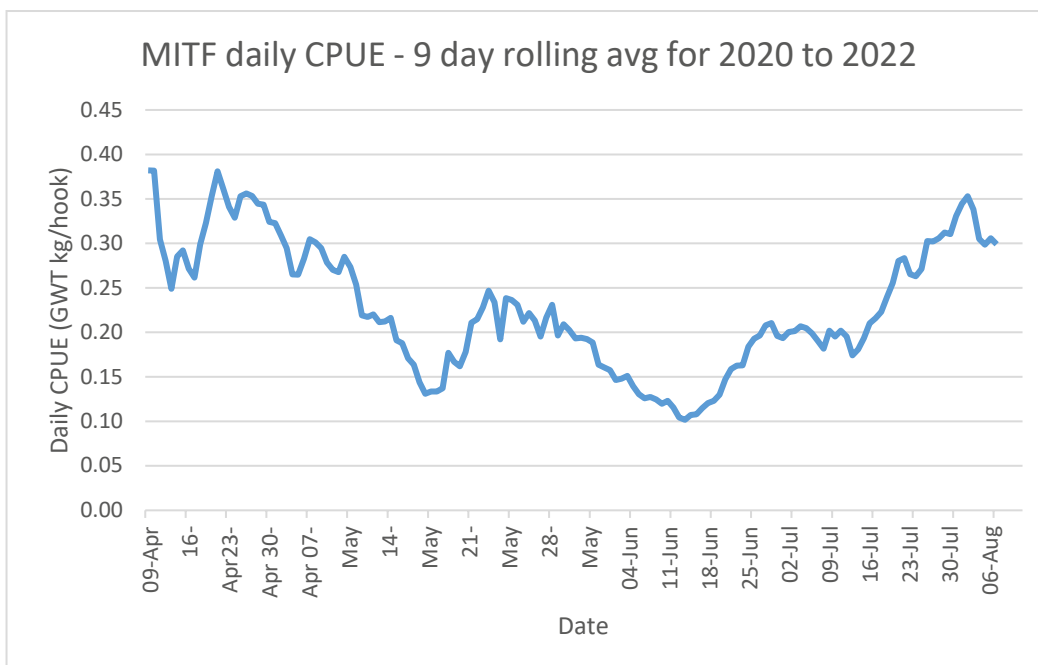
Macquarie Island Toothfish Fishery discussion paper

The 2022 Macquarie Island Toothfish Fishery (MITF) season has again shown large variability in catch rates during the season. The industry operating in this fishery consider there are management changes that could allow the Australian Government to better achieve its objectives under the *Fisheries Management Act 1991* (FMA), increasing efficiency of operations without further impact on fishery sustainability and to the marine environment.

Introduction

The 2022 fishing season in the MITF showed large variability in catch rates of Patagonian toothfish with a Catch Per Unit Effort (CPUE) rate of 0.16 kg/hook during the first voyage. During the second voyage, the CPUE was 0.17 up until 19 August, which then rapidly increased to 0.43 in the area known as the Aurora Trough for the remainder of the fishing season (7 September).

Past fishing seasons at MITF show a similar pattern with increased catch rates late in the season, highlighted in the below graph of average catch rate per day (2020 to 2022) averaged over nine days to smooth the line. This increase is also seen in some, but not all, other years.



These increased catch rates towards the end of the season suggest the temporal availability of toothfish plays an important role in AFMA achieving its the FMA objectives:

“ensuring the exploitation of fishery resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ecologically sustainable development (which include the exercise of the precautionary principle), in particular the need to have regard to the impact of fishing activities on non-target species and the long term sustainability of the marine environment”, and

“maximising the net economic returns to the Australian community from the management of Australian fisheries”.

The industry understands that these objectives need to be weighed against other objectives pursued by the Australian Government under the FMA, including:

ensuring that the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ecologically sustainable development (which include the exercise of the precautionary principle), in particular the need to have regard to the impact of fishing activities on non-target species and the long term sustainability of the marine environment

ensuring accountability to the fishing industry and to the Australian community in AFMA's management of fisheries resources, and

ensuring, through proper conservation and management measures, that the living resources of the AFZ are not endangered by over-exploitation.

To achieve these objectives, specifically around the protection of seabirds, AFMA implemented various regulations consistent with the principles of ecologically sustainable development, including the precautionary principle. These regulations include:

- Setting between twilight dusk and twilight dawn only,
- Implementing a one-seabird trigger limit for our vessels to be removed from the fishery, if one of the below species is caught by the fishing gear:
 - Wandering albatross;
 - Black-browed albatross;
 - Grey headed albatross;
 - Grey petrel; or
 - Soft-plumaged petrel.
- 100% observer coverage monitoring compliance with these regulations,
- A vessel monitoring system (VMS),
- Regular logbook reporting, and
- More recently, 100% electronic monitoring coverage.

Antarctic Discovery

The Antarctic Discovery currently operates in the MITF under a joint venture between Australian Longline Fishing and Austral Fisheries, which covers all of the quota rights set for this fishery.

The vessel Antarctic Discovery has a proven ability to not impact any seabird species, having never caught and killed a seabird of any species with its fishing gear nor has its fishing gear interacted with any of the five main species of concern, in the MITF since it first entered the fishery in April 2016. Further, across all toothfish fisheries, the vessel has only ever killed one seabird with its fishing gear; a White Chinned Petrel, in the Heard Island and McDonald Islands Fishery in 2019 while operated by Australian Longline Fishing.

Further, neither the Avro Chieftain nor the Janas, both of which have operated at various times in the MITF by Australian Longline Fishing since the longlining trial began in 2007, have ever caught a seabird with their fishing gear.

In this instance AFMA's application of the precautionary principle should be reviewed in line with the pursuit of efficient and cost effective fisheries management.

Options for discussion

We believe some arrangements could be reviewed to improve the efficiency of the fishery without any increased impact on seabird species or populations.

1. SFR condition 11 in 2022 management arrangements

It is of concern to industry that one unlucky accident could see a vessel removed from the fishery when since 2007, it has proven that it will not destructively impact seabird populations by causing multiple seabird mortalities with its fishing gear.

Due to the temporal availability of fish in the fishery, the removal of a vessel would be a disproportionate response from an accidental interaction with a seabird.

We request AFMA increase the trigger for removal of a fishing vessel from one seabird (of the five listed species) caught and killed by fishing gear to a cumulative total of three¹ seabirds from the list. This would provide us some protection if an unlucky incident did occur and it would show recognition that industry now has a proven track record over 15 years to have never caught and killed a seabird in this fishery with its fishing gear.

2. SFR Condition 8 in 2022 management arrangements

The night setting condition on our vessels currently causes a significant loss in efficiency and restricts maximising our economic yield, while also increasing the risk of losing fishing gear.

To explain the impact of the night setting rules we have included the below information:

- When planning on moving fishing areas the skipper must take into consideration the distance to move and weather forecast to make sure they can steam to the new grounds with time to set the fishing gear before twilight. If the weather is poor and they can't get there in time, they will lose the opportunity to set gear, resulting in up to about 16 hours of lost fishing time.
- When the vessel arrives at a new ground, they are unable to set a small amount of gear to test the area for fish availability, tidal currents or foul ground because they have to set enough gear before nautical dawn, to have gear to haul through to twilight dusk, otherwise they will have to sit around unproductively. If the grounds aren't productive they must rush to try to haul all the gear to make it to another area and then set gear before twilight dawn again. If any of the timing is out, the vessel can be sitting around all day waiting for twilight dusk.
- In strong tidal flows, setting with the tide increases the chance of retrieving the fishing gear as it causes fewer tangles and therefore fewer catch points for the lines to become fouled and stuck. When racing the clock to get the gear in the water before twilight dawn it isn't always possible to steam back and shoot all lines with the tide.

If the vessel could set a couple of test lines to test an area and then be allowed to move on without having to wait until night time to set again, it would allow better flexibility to find and target more productive fishing ground and lose less fishing gear. The impact of the current management arrangement is reduced catching opportunities, as we can be forced to fish less productive areas or have to sit around waiting for night to be able to set the gear, resulting in reduced catch and financial losses.

¹ This would make the arrangement consistent with the total catch limit for seabirds in the season extension (SFR condition 3 in the 2022 management arrangements) for the Heard Island and McDonald Islands Fishery.

Removing the night setting only arrangement would help reduce gear loss in high current areas as we could shoot fewer or shorter lines when testing an area. It would also make recovering fishing gear more efficient due to fewer tangles. Given a seabird trigger condition would remain, it would still be in industry's best interest to act conservatively with respect to setting times, but this would provide important flexibility.

3. Season limitations

We understand the season dates are based on the potential risk of incidents from increased bird activity before and after the season. Season extensions for longlining in the MITF have occurred in the past allowing earlier starts (including 15 April to 30 April, and the first week of April in 2020 due to COVID) and a season end date extension to 7 September.

We believe there is sufficient evidence of the Antarctic Discovery's ability to not catch seabirds. An extension to the season for prior to 15 April and past 7 September, into late September and October, would significantly maximise the catching potential, especially due to the past catch history showing increased availability of fish to the fishery late in the season. This would allow the Australian Government to better meet the objectives of the *Fisheries Management Act 1991*. Once again, as a seabird trigger rule would remain, this would provide security against AFMA's conservation objectives with regard to seabirds.

4. Marine Park

The MITF has a large marine park that includes a habitat protection zone and a sanctuary zone, immediately adjacent to some of the main fishing areas. The large nature of the park causes both an issue with availability of toothfish to the MITF and also limits the fishable areas in the fishery, when the fishery already has a limited footprint.

Allowing access to some parts of the marine park to allow for research based data collection would improve understanding of the ecosystem, the benthic flora and fauna, the fish stock and the benefits of the marine park protection to the community.

The 2022 Marine Stewardship Council reassessment of the MITF highlighted that the marine park may not adequately protect some taxa and recommended benthic surveys and evaluation should be updated regularly to determine whether the marine park provides comprehensive, adequate and representative protection of vulnerable benthos.

The 2022 fishing season set a total allowable catch (TAC) of 635 tonnes. Industry nearly maximised allowable fishing days but fell short of catching the TAC by almost 200 tonnes. This could raise questions regarding the stock assessment model output and reality, which could be better answered if data could be collected on toothfish from inside the marine park area.

The industry is willing to assist the Australian Government to undertake research projects to collect data and use benthic cameras while conducting fishing activities within the marine park.

Discussion

As operators in the MITF, we request that AFMA reviews the discussion points raised in this paper, with the aim to review and simplify the current suite of regulations to reduce operational and cost burdens for industry, as outlined in AFMA's 2020-21 Corporate Plan. We would be happy to meet with AFMA to discuss this proposal in more detail.

Seabird species of concern in the Macquarie Island Toothfish Fishery

Macquarie Island as critical habitat for albatross species

Macquarie Island was listed as critical habitat for albatross species: *Diomedea exulans* (Wandering Albatross) and *Thalassarche chrysostoma* (Grey-headed Albatross) on 1 July 2002 by the Australian Government. The habitat provided by Macquarie Island is used by the seabird species to provide essential life cycle requirements. This remote subantarctic island constitutes the only suitable breeding habitat under Australian jurisdiction and is habitat that is critical to the survival of the species in Australian waters. Albatrosses are extremely site-faithful, and the populations currently breeding on Macquarie Island are unlikely to breed elsewhere in Australia. The breeding populations are very small and are critical for maintaining the genetic diversity necessary for ensuring the viability of the species.

Establishment of Macquarie Island Toothfish Fishery

Establishment of longline fishing in the Macquarie Island Toothfish Fishery was contentious. Environmental stakeholders involved in implementing the threat abatement plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing argued that a longline fishery not be developed within the Exclusive Economic Zone (EEZ) around Macquarie Island, based on a recognition that longline fishing was widely recognised as a significant cause of declines in seabird populations. Stakeholders were concerned that some of the seabird populations on Macquarie Island were at critically low levels, were recovering from previous exploitation, and the loss of even very small numbers of birds from these populations could compromise their recovery.

Total closure to fishing was identified as the preferred option for the Macquarie Island EEZ, given the risk of longline fisheries to breeding seabirds, especially the very small Wandering Albatross population. The loss of a single Wandering Albatross would have a catastrophic impact on the threatened breeding population at Macquarie Island, as it would result in breeding failure that year for the breeding pair, and likely for many years thereafter, unless and until the surviving adult was able to pair bond again.

Highly precautionary seabird bycatch condition

Recognising these heightened conservation concerns, the Australian Fisheries Management Authority has been highly precautionary about what levels of seabird bycatch can be tolerated in the longline fishery at Macquarie Island. Fishing using the longline method was only allowed by AFMA as recently as 2007. A strict seabird bycatch condition applies to the following albatross and petrel species that breed at Macquarie Island: *Diomedea exulans* (Wandering Albatross), *Thalassarche chrysostoma* (Grey-headed Albatross), *Thalassarche melanophris* (Black-browed Albatross), *Procellaria cinerea* (Grey Petrel), and *Pterodroma mollis* (Soft-plumaged Petrel). The holder of a concession to fish in the Macquarie Island Fishery must immediately cease fishing for the remainder of the season if they catch any of these bird species.

The present condition is less onerous than that which applied initially. Initially, fishing would halt if any of the affected species was caught by longline fishing gear. The condition now applies individually to concession holders operating in the fishery. The condition applies if one seabird of the listed species is caught, including instances where the bird is dead (whether landed on the fishing boat or not), and released alive and injured. The condition does not apply where the bird is released alive and uninjured.

Seabird bycatch mitigation measures

Longline fishing proceeds under robust seabird bycatch mitigation measures, based, in part, on measures complementary with conservation measures recommended as best practice by the Agreement on the Conservation of Albatrosses and Petrels (ACAP), and/or adopted by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The following seabird conservation measures apply to the longline fishing method in the Macquarie Island Toothfish Fishery: season closures, area closures, use of integrated line weighting (a minimum sink rate must be achieved), use of paired bird scaring lines (specifications must be adhered to), night setting, use of a bird exclusion device (designed to discourage birds from accessing baited hooks during hauling where the prevailing weather conditions allow), and retention of offal.

Conservation status of seabird species

The Wandering Albatross, Grey-headed Albatross, Black-browed Albatross and Grey Petrel and Soft-plumaged Petrel are all internationally listed species under ACAP and the International Union for Conservation of Nature (IUCN).

The Wandering Albatross, Grey-headed Albatross, Black-browed Albatross and Soft-plumaged Petrel are all nationally listed threatened species under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) and endangered species under the Tasmanian *Threatened Species Protection Act 1995* (Tas) (TSP Act). The Grey Petrel is also listed as endangered under the TSP Act (Table 1).

The status of the breeding seabird populations on Macquarie Island has changed during the timeframe of the Macquarie Island Toothfish Fishery (Table 2). Monitoring of the status of albatrosses and petrels at Macquarie Island began in 1994-95, and long-term population trends are available for most breeding populations.

Conservation threats

At sea incidental mortality from interactions with longline fisheries remains a major conservation threat to Wandering Albatross, Grey-headed Albatross and Black-browed Albatross, and Grey Petrel. Grey-headed Albatross, and Black-browed Albatross also continue to face incidental mortality in trawl fisheries. Soft-plumaged Petrel may be disoriented by artificial light sources including fishing vessels.

Feral species of rabbit, rat and house mouse have recently been eradicated at Macquarie Island (with feral cat and Weka populations eradicated previously). The seabird species may benefit from the eradication of feral species at Macquarie Island, particularly as a consequence of elimination of predation, and the recovery of the vegetation habitat. The Chicks continue to be vulnerable to accumulation of anthropogenic marine debris (all species), and fishery-related debris, such as ingestion of discarded hooks (except for Soft-plumaged Petrel). Research is underway to assess the potential for climate change impacts on seabird species breeding at Macquarie Island, but this has not yet been quantified. Any potential recovery of the seabird species following the eradication of feral species on Macquarie Island will take years to decades to become apparent, due to the population demographics of the affected species.

Table 1. Listing under domestic and international arrangements

Species	Listing under EPBC Act (Cth)	Listing under TSP Act (Tas)	Listing under ACAP	Listing by IUCN
<i>Diomedea exulans</i> (Wandering Albatross)	Vulnerable	Endangered	Yes	Vulnerable
<i>Thalassarche chrysostoma</i> (Grey-headed Albatross)	Endangered	Endangered	Yes	Endangered
<i>Thalassarche melanophris</i> (Black-browed Albatross)	Vulnerable	Endangered	Yes	Near Threatened
<i>Procellaria cinerea</i> (Grey Petrel)	Not listed	Endangered	Yes	Near Threatened
<i>Pterodroma mollis</i> (Soft-plumaged Petrel)	Vulnerable	Endangered	No	Least Concern

Table 2. Information about breeding populations in Australian jurisdiction

Species	Breeding population in 2006-2007 (breeding pairs)	Breeding population in 2021-2022 (breeding pairs)	Other breeding populations in Australian jurisdiction	Population trend
<i>Diomedea exulans</i> (Wandering Albatross)	10-15	3-10	No	Declining. Species breeds biennially.
<i>Thalassarche chrysostoma</i> (Grey-headed Albatross)	65-100	58-114	No	Stable. Species breeds biennially.
<i>Thalassarche melanophris</i> Black-browed Albatross)	40-50	42-51	Bishop and Clerk Islets, and Heard Island	Stable. Species usually breeds annually (75%).
<i>Procellaria cinerea</i> (Grey Petrel)	70	227-302	No	Increasing Species breeds annually in winter.
<i>Pterodroma mollis</i> (Soft-plumaged Petrel)	1	Unknown	Maatsuyker Island	Unknown. Species breeds annually.

Attachment C - Summary of seabird encounters for the MITF since 1996, including interactions with fishing gear**Interactions with Fishing Gear (Seabird TAP)**

Year	Date	Fishery	Gear Type	Species	Quantity	Details (please provide specific details about how the incident occurred)	Dead, not landed on board	Dead, landed on board	Alive, not landed on board, released injured	Alive, landed on board, released uninjured
2022	19-May	MITF	LLS	MBX (Giant Petrels nei)	1	Bird jumped over bird mitigation curtain while hauling, tried to eat liver from a antimoria (ANT) when its foot became entangled in a snood, the bird shook its foot a couple of times at water level and flew away.	0	0	1	0

Seabird-Vessel Encounters (Non- Seabird TAP)

Year	Date	Fishery	Gear Type	Species	Quantity	Details (please provide specific details about how the incident occurred)	Dead, not landed on board	Dead, landed on board	Alive, not landed on board, released injured	Alive, landed on board, released uninjured
1996		MITF	Trawl	Prion	1	Bird found on deck with broken wing	0	1	0	0
1996		MITF	Trawl	Prion	1	Bird found on deck with broken wing	0	1	0	0
2002	3-Dec	MITF	Trawl	Imperial Shag	1	Landed on bow of boat	0	0	0	1
2003	25-Feb	MITF	Trawl	Petrel spp.	1	Found dead dead main engine exhaust	0	1	0	0
2012	26-Jul	MITF	LL	Southern Royal Albatross	1	Collision with mast of vessel	0	1	0	0
2016	7-May	MITF	IWL	MAH (Hall's Giant Petrel)	1	Landed on deck and released by observer	0	0	0	1
2016	18-May	MITF	IWL	MAH (Hall's Giant Petrel)	1	Landed on deck and released by observer	0	0	0	1
2016	24-May	MITF	IWL	SHAG	1	Landed on deck and released by observer	0	0	0	1
2016	25-May	MITF	IWL	Grey headed albatross (DIC)	1	High speed collision with vessel. Suspected broken wing.	0	1	0	0

Year	Date	Fishery	Gear Type	Species	Quantity	Details (please provide specific details about how the incident occurred)	Dead, not landed on board	Dead, landed on board	Alive, not landed on board, released injured	Alive, landed on board, released uninjured
2016	16-Aug	MITF	IWL	Southern Royal Albatross (DIP)	1	Landed on deck released alive uninjured by observer	0	0	0	1
2019	22-Jun	MITF	IWL	DIP (Southern Royal Albatross)	1	Landed onboard Released Alive Uninjured by AFMA Observer and Crew.	0	0	0	1
2019	23-Jun	MITF	IWL	MAI (Antarctic Giant Petrel)	1	Landed onboard Released Alive Uninjured by AFMA Observer.	0	0	0	1
2019	27-Jul	MITF	IWL	DIX (Wandering Albatross)	1	Landed on Fwd Deck Released Alive Uninjured By 1st Mate, as Poor weather conditions made it unsafe for Observer to continue trying, Observer seen release.	0	0	0	1
2019	30-Jul	MITF	IWL	MBX (Giant Petrels nei)	1	Landed on Deck, Released by Crew Alive Uninjured	0	0	0	1
2019	30-Jul	MITF	IWL	DAC (Cape Petrel)	1	Landed on Deck, Released by Observer Alive Uninjured while steaming between lines .	0	0	0	1
2021	25-May	MITF	LLS	Southern royal albatross	1	Bird appears to have collided with vessel, collision appears to have broken its neck.	0	1	0	0
2022	8-Jun	MITF	LLS	DIP (Southern Royal Albatross)	1	Bird flew into Mast then dropped to the deck dead, Observer notified Immediately, Crew assisted Observer in bagging it up to freeze and retain onboard.	0	1	0	0
2022	2-Jul	MITF	IWL	Daption capense (Cape Petrel)	1	Bird found dead due to collision on forecastle deck.	0	1	0	0

Summary of seabird bycatch mitigation measures in Antarctic and sub-Antarctic longline fisheries (see Table 1 on page 8 and 9 of the Seabird TAP)

Mitigation	Antarctic Fishery	Heard Island and McDonald Islands Fishery	Macquarie Island Toothfish Fishery
Bird scaring line (tori line)	√	√ (2 tori lines)	√ (2 tori lines)
Line weighting	√	√	√
Night setting	√ (if limit exceeded)	Undertaken	√
Offal management	√	√	√
Bird exclusion devices	Encouraged	√	√
Hook-shields			
Deck lighting	√	√	√
Observers	√	√	√
Electronic monitoring			
Season closures*	√	√	√
Area closures*	√	√	√
Performance criteria	√	√	√
Absolute number limits	√	√	√

* Where closure of an area or season is for seabird conservation purposes, as opposed to fishery management purposes.