Australian Government
Australian Fisheries Management Authority

# Sub-Antarctic Fisheries Management Advisory Committee (SouthMAC)

## FINAL MINUTES

## SOUTHMAC 46 (VIDEO CONFERENCE)

## 5 NOVEMBER 2026

**SUB-ANTARCTIC FISHERIES MANAGEMENT ADVISORY COMMITTEE (SouthMAC)**

**CHAIR**: Geoff Richardson

**Date:** 5 November 2026

**Venue**: Video Conference, 1300-1600 AEDT.

# Attendance

| Name | Position |
|---|---|
| **Members** | |
| Geoff Richardson | Chair |
| Lyn Goldsworthy | Conservation Member |
| Rhys Arangio | Industry Member |
| Malcolm McNeill | Industry Member |
| Philippe Ziegler | Scientific Member |
| Liz Brierley | AAD Member |
| Selina Stoute | AFMA Member |
| **Executive Officer** | |
| Rachel Downes | Executive Officer |
| **Observers** | |
| Danait Ghebrezgabhier | Manager, Antarctic Fisheries, AFMA |

# Introduction

## Agenda item 1 – Preliminaries

### 1.1 Welcome and apologies

1. SouthMAC 46 was opened at 1:01pm AEDT on 5 November 2026 by the Chair, Geoff Richardson. The Chair acknowledged the Traditional Owners of the land on which each participant was attending and paid respects to their Elders past, present and emerging.
2. SouthMAC **NOTED** that no apologies have been received.
3. Members **NOTED** that the meeting was being recorded for the purpose of developing the meeting minutes.

### 1.1 Declaration of interests

4. Interests declared at the meeting are documented in Attachment A.
5. The Chair invited all members and observers to declare any potential conflicts of interests with any of the agenda items for the meeting. The Chair noted the industry members have a potential conflict of interest with respect to Agenda Items 4.1, 4.2 and 4.3. In response, the Chair proposed that the industry members be included in the discussions of each of those items but not participate in the formation of any recommendations. This approach was supported by the industry members and all other members.
6. The Chair also noted the industry members may have a potential conflict of interest with Agenda Item 5, however proposed to proceed with the item without any changes to participation. The Chair noted that he would remain open to changing that approach if required during the discussion.

### 1.3 Adoption of agenda

7. The agenda (Attachment B) was adopted without amendment.

## Agenda item 2 – Actions arising from previous meetings

8. SouthMAC **NOTED** that there were no current action items arising from its previous meetings.

## Agenda item 3 – Member updates

### 3.1 Member update

9. SouthMAC **NOTED** the following verbal updates:

*Industry Member (Australian Longline Fishing)*

10. The Antarctic Aurora fished in East Antarctica (Division 58.4.2) for the 2025/26 season. Catch rates in Box 1 were as expected, but Box 2 was frozen over and unfishable.

11. The Antarctic Aurora started longlining at HIMI in the longline season extension. The vessel incidentally caught seven white-chinned petrels in their first day of fishing, four upon setting and three found while hauling the remaining lines in the water to cease fishing. Having been excluded from the season extension, the vessel held position at HIMI until the opening of the core season on 1 May.

12. Exclusion from the season extension at HIMI meant that catch rates were high to catch all the quota in a substantially shorter season. The higher catch rates were due to focusing on catch volume, not necessarily targeting bigger fish. Crew have reported plenty of small fish all over, even in areas where fish haven't been for many years. Good size fish have been reported in shallower areas while some smaller fish have been reported in deeper waters.

13. The Antarctic Discovery completed one trip at MITF. Catch rates have been good and consistent. Due to tidal movement, the vessel moved to different fishing grounds on the inside of the ridge and noticed a decrease in fish size with different fishing grounds. The skipper then focused on setting more lines in the northern area.

14. Observations at MITF have been different to usual seasons. The sea surface temperature has been warmer for longer compared to last season. Current flows were stronger for the first part of the season. Fish numbers have been different to previous season, with more in the north and less in the south. In the south currents at times made areas unfishable. In the north, currents were as expected. Across the fishery catches were more consistent but with no days of high catch rates.

15. The industry member thanked everyone who has helped throughout the busy year, in particular with updating the HIMI Patagonian toothfish stock assessment and achieving CCAMLR outcomes.

*Industry Member (Austral Fisheries)*

16. The Austral Odyssey first trip began fishing at Williams Ridge in SIOFA before entering the HIMIF for the start of the longline season extension on 1 April. The vessel incidentally caught three white-chinned petrels and was excluded from the longline extension season. The vessel returned to Williams Ridge before returning to HIMIF for gear recovery before starting the core HIMI longline season on 1 May.

17. The RSTS began on 1 March and concluded at the end of March. The survey was productive with similar catches to the past years.

18. The Cape Arkona began longlining for toothfish on 1 April at the start of the longline extension season. The vessel incidentally caught three white-chinned petrels and was excluded from the longline extension season. The vessel switched to trawling and proceeded to alternate between targeting toothfish and icefish until the start of the core HIMI longline season began on 1 May. Trawling occurred at Gunnari Ridge and Evitas Patch which are the only fishable areas where trawling is permitted outside of the Marine Reserve.

19. The Cape Arkona exceeded the 2t skate limit twice in the trip where the vessel abided by the move-on rule in accordance with SFR Conditions. Due to the move-on rule provision of moving 5nm for 5 days, the icefish fishery is effectively shut for 5 days once the move-on rule has been triggered due to the small icefish fishing ground area. The Cape Arkona undertook gear recovery during this period.

20. During the total period of icefish fishing (24 days), the vessel had 29 interactions with porbeagle sharks which is unprecedented. The skipper made modifications to the net (Bastard net) to reduce porbeagle interactions by reducing the headline height, while also trying to float the net to reduce skate bycatch. Due to operational constraints changing the net, the vessel fished for both toothfish and icefish with the Champion net.

21. The Cape Arkona finished the season with around 430t icefish and 330t of commercially trawled toothfish.

22. Longline catch rates reflected the past 5 years. The longline fishery has observed many smaller fish coming through.

23. The Austral Odyssey had a very successful first season with Austral happy with its overall performance including fuel efficiency, ability to fish through weather, and crew comfort.

24. The Industry member reiterated the importance of the ability to trawl in the HIMI Fishery, noting the impact of the current seabird bycatch limits in the longline extension season. Maintaining access to trawling is of great importance to Austral.

*Scientific Member*

25. The Scientific member advised that as a matter of priority, now that the 2026 CCAMLR meetings have finished, AAD are progressing the RSTS transition plan as discussed at SARAG 74 and SARAG 75.

### 3.2 AFMA update

26. SouthMAC **NOTED** the written update provided by AFMA (Attachment C), in particular:

    a) The AFMA Climate Risk Framework (CRF) is being implemented across Commonwealth fisheries in stages which includes ensuring climate risk assessments are incorporated into the development of advice and that the CRF is used to guide the identification of adaptation measures and inform management responses. Draft species assessments for the HIMI Fishery and MITF were considered at a CRF Working Group meeting held on 24 July 2026. However, these assessments have been postponed awaiting the outcomes of the Futures of Seafood (FoS) project (FRDC project 2023-092). Draft species assessments for the HIMI Fishery and MITF stocks will now be progressed in 2027, once FoS outcomes are published.

    b) The HIMI Marine Reserve was reviewed in 2024 resulting in new zoning boundaries that took effect on 24 January 2025. A new management plan for the reserve was open to public comment from 28 September – 28 October 2026. Responses to public comments will be made before the end of the year and the final plan is expected to be determined early next year. As approximately 50% of RSTS stations now fall within IUCN Ia, II and IV zones, work has commenced to develop a plan to transition fisheries management arrangement away from relying on annual survey sites within the IUCN Ia, II zones as part of the RSTS. The AAD is leading the development of the transition plan, including the preparation of permit applications to continue to undertake the existing RSTS during that time. As part of the transition plan, the AAD are looking to explore alternate stock assessment methods and potentially alternate data collection methods. SouthMAC members made the following statements:

        - The industry member (Austral) expressed their disappointment in the outcomes of the change in interpretation in managing the HIMI Marine Reserve, highlighting that the RSTS information collected by industry has provided much of the understanding of what we know about the marine reserve and that removing scientific survey access to these grounds hugely impacts the icefish fishery. The member also noted that alternate survey methods are complex and have many variables to consider, including the immense cost and need for considering who is funding the intended transition plan and future research.
        - The conservation member highlighted the need for the phase in plan to be both ambitious and realistic.
        - The AAD member noted the importance of considering how the transition plan aligns with the objectives of the upcoming HIMI Marine Reserve Management Plan and to ensure this achieved by the end of the transition period.

    c) In the first two weeks of April 2026, 13 white-chinned petrel were caught across three boats longlining in the HIMI Fishery, which was within the longline season extension (1-30 April and

15 September – 30 November). This triggered a significant management response in line with the SFR conditions for the fishery, resulting in all vessels ceasing longlining until 1 May, and being excluded from the fishery from 15 September-30 November. This level of longline seabird bycatch is highly unusual for the fishery. AFMA, in consultation with industry and other experts, collected information on what factors may have contributed to the incidental bycatch. SARAG 74 considered this issue in May 2026 and noted that April presents significant higher risk to seabirds than September-November. AFMA is looking into management arrangements to consider if the current arrangements accurately reflect the risk profile of the fishery and will be consulting on this with SARAG and SouthMAC next year.

27. SouthMAC noted the draft climate and ecosystem status report cards for the HIMI Fishery and the MITF. SouthMAC **RECOMMENDED** to clearly label the yearly observations reported in the status reports as 'anecdotal'.

## Agenda Item 4 – Total Allowable Catches for the Heard Island and McDonald Islands Toothfish Fishery

### 4.1 – Patagonian Toothfish TAC

28. SouthMAC **NOTED:**

    a) SARAG's recommendation to set the Patagonian toothfish TAC at 2,812t for the 2026/27 and 2027/28 fishing years for the HIMI Fishery;

    b) SARAG's advice on how it has considered potential climate change impacts on the fishery in making its recommendation, including the climate and ecosystem status reports card considered under Agenda Item 3; and

    c) that at its meeting 26-30 October (CCAMLR-45), CCAMLR agreed to a Patagonian toothfish TAC of 3,043 t for Division 58.5.2 (i.e. HIMI) for the 2026/27 and 2027/28 seasons.

29. SouthMAC **CONSIDERED:**

    a) A new Patagonian toothfish stock assessment has been successfully developed by CSIRO and AAD and accepted by SARAG 75 and CCAMLR as the basis for management advice. The new stock assessment better incorporates the fishery specific data and stock characteristics of Patagonian toothfish in the HIMI Fishery. It has been implemented in Template Model Builder (TMB), rather than Casal2 and incorporates several significant structural changes. The model is spatially structured with two areas, it models known movement of toothfish from the plateau to the shelf, is sex-based, uses a different tag recapture model and, for a range of calculations, it uses length rather than age data.

    b) The catch limit calculated from applying the outputs of the new stock assessment is 3,503 t. This represents a large increase from the 2025/26 fishing year TAC of 2,119 tonnes . In August 2026 at SARAG 75, industry advised that operationally, catches in the range of 2,700 tonnes to 2,900 tonnes are feasible with the current fleet setup and that volatile interannual TAC changes are not preferred.

c) Having regard to the industry advice and work being undertaken to not only refine the stock assessment but to design and test alternative management procedures for the fishery, SARAG 75 recommended that a stepwise approach be taken with the TAC. The SARAG recommended TAC of 2,812t has been set at the mid-point between the current catch limit and the recommended catch limit derived from the application of the CCAMLR decision rule for the 2026/27 and 2027/28 fishing season (3,503t). In making this recommendation, SARAG 75 recognised that the economic, operational, and other relevant factors highlighted by SARAG require careful consideration by SouthMAC noting these issues relate more to management deliberations.

d) CCAMLR-45 agreed to a TAC of 3,043t for Division 58.5.2 (i.e. HIMI Fishery). This level was calculated using a different recruitment estimate in the stock projections for the CCAMLR decision rule (1998 to 2017 instead of 1988 to 2017). The CCAMLR approach was designed to align with previous CCAMLR working group advice on using recent recruitment if there is substantive evidence of a decrease in recent recruitment. Both WG-FSA 2026 and SARAG 75 agree that the exploration of recruitment trends should be undertaken further in the Management Strategy Evaluation (MSE) testing planned for the fishery. Unlike the WG-FSA 2026, SARAG recommended that the entire recruitment series be used in future biomass projections until this work is undertaken.

e) MSE testing is scheduled to begin in 2027 for Patagonian toothfish in the HIMI Fishery.

30. For the purposes of recommending the TAC, the industry members left the meeting.

31. The remaining SouthMAC members **RECOMMENDED** a TAC of 2,812 t for Patagonian toothfish for the 2026/27 and 2027/28 HIMI fishing years on the basis that:

a) the updated 2026 HIMI stock assessment is a robust stock assessment and has been accepted by SARAG 75, WG-FSA 2026, SC-CAMLR 2026 and CCAMLR-45 as an appropriate basis for management advice; and

b) industry's preference for minimising significant TAC changes and advice on current operational capacity.

**4.2 – Mackerel Icefish TAC**

32. SouthMAC **CONSIDERED** the results of the updated mackerel icefish stock assessment 2026 and the following information and advice:

a) SARAG 75 recommended setting a mackerel icefish TAC of 130 t for 2026/27 and 112 t for 2027/28 fishing years for the HIMI Fishery based on the application of the CCAMLR decision rule for mackerel icefish using the results of the updated stock assessment.

b) CCAMLR-45 agreed to a TAC of 130 t for Division 58.5.2 (i.e. HIMI) for the 2026/27 and 112 t for 2027/28 fishing seasons.

c) In recommending a TAC for mackerel icefish in the HIMI Fishery, SARAG 75 considered evidence available in the stock assessment (Appendix C of the stock assessment report)

and agreed there was no evidence for changes in population parameters or processes that could be due to the effects of environmental variability or climate change detected in the mackerel icefish fishery. SouthMAC also **NOTED** the HIMI 2026 Climate and Ecosystem Status reports considered under Agenda Item 3.

33. SouthMAC **NOTED** advice from one member, who is also a SARAG member, that stock assessment scientists at SARAG discussed that the low biomass abundance may reflect the spatial overlap of the survey with mackerel icefish at the time more than the overall stock abundance. This is because mackerel icefish distribution can vary spatially from year to year and as a result may not be adequately sampled in a given year.

34. For the purposes of recommending the TAC, the industry members left the meeting.

35. The remaining SouthMAC members **RECOMMENDED** a TAC of 130t for mackerel icefish for the 2026/27 HIMI fishing year based on the results of the 2026 assessment and application of the CCAMLR decision rule for mackerel icefish.

**4.3 – Bycatch Limits**

36. SouthMAC **CONSIDERED** the following information and advice:

a) SARAG 75 (August 2026) recommended to maintain the current bycatch limits for 2026/27 as shown in **Table 1**.

b) CCAMLR-45 agreed to retain the current bycatch limits for 2026/27.

c) The results of the 2026 RSTS showed that biomass estimates for most bycatch species were similar to the survey averages in recent years. Compared with the last survey, biomass estimates for unicorn icefish showed a decrease in biomass whilst grenadiers showed a slight increase. Biomass estimates of grey rockcod were similar to 2025 whilst estimates for the skates were lower than last year.

d) SARAG 75 considered catches of bycatch species taken in the HIMI Fishery over the past 10 seasons (**Table 2**). SARAG 75 noted that the catches of all species remained well below the bycatch limits.

e) Catch figures for the recently completed 2025/26 season also show bycatch to be well below the current bycatch limits (**Table 2**).

f) The AAD have provided an updated HIMI bycatch assessment schedule (**Table 3**) as part of the HIMI bycatch assessment update (SARAG 75, Agenda Item 9). Under the workplan, an updated, species-specific skate assessment will be delivered at SARAG 76 (scheduled for May 2027). Updated assessments for grey rockcod, unicorn icefish and all grenadier species will be delivered in 2028. As bycatch assessments and outcomes of ongoing research become available, these limits may be adjusted to better reflect sustainable yield at the species level.

**Table 1** Current HIMI Fishery bycatch limits (2025/26 fishing years) and recommended bycatch limits for 2026/27 fishing year

| Species | TAC (tonnes) |
|---|---|
| Caml grenadier (*Macrourus caml*) and Whitson's grenadier *(M. whitsoni)* | 409 |
| Bigeye grenadier (*M. halotrachys*) and Ridge tailed rattail (*M. carinatus*) | 360 |
| Unicorn icefish (*Channichthys rhinoceratus*) | 1,663 |
| Grey rockcod (*Lepidonotothen squamifrons*) | 80 |
| Skates and rays (*Bathyraja* spp.) | 120 |
| All other species (each) | 50 |

**Table 2** HIMI Fishery bycatch from 2015/16–2025/26 fishing years. All catch presented in tonnes. Catch figures are total catch reported.

| Fishing year | Caml & Whitson's grenadier | Bigeye grenadier & ridge tailed rattail | Unicorn icefish | Skates and rays | Grey rockcod | Other | Total |
|---|---|---|---|---|---|---|---|
| **Bycatch limit (t)** | 409 | 360 | 1,663 | 120 | 80 | 50 (per species) | |
| **2015/16** | 79.50 | 217.53 | 127.55 | 49.73 | 3.21 | 42.83 | 520.36 |
| **2016/17** | 90.22 | 235.26 | 110.58 | 75.12 | 2.89 | 39.33 | 553.39 |
| **2017/18** | 103.99 | 252.84 | 38.98 | 48.56 | 3.81 | 38.01 | 486.19 |
| **2018/19** | 104.71 | 249.54 | 152.80 | 79.97 | 1.88 | 45.12 | 634.04 |
| **2019/20** | 48.45 | 59.27 | 236.30 | 43.04 | 4.94 | 44.71 | 436.72 |
| **2020/21** | 62.49 | 145.27 | 80.98 | 48.90 | 2.89 | 29.55 | 370.08 |
| **2021/22** | 43.41 | 111.07 | 167.52 | 80.93 | 3.21 | 30.81 | 436.95 |
| **2022/23** | 48.34 | 129.44 | 45.16 | 28.05 | 2.42 | 26.73 | 280.13 |
| **2023/24** | 50.47 | 97.61 | 5.17 | 8.52 | 4.53 | 29.21 | 195.51 |
| **2024/25** | 31.35 | 79.12 | 25.49 | 24.34 | 0.42 | 18.60 | 179.34 |
| **2025/26** | 25.80 | 53.30 | 39.50 | 33.5 | 0.50 | 8.64 | 161.25 |
| **Total** | 662.94 | 1576.96 | 990.54 | 487.17 | 30.19 | 344.91 | 4092.71 |

**Table 3** Anticipated delivery of progress and delivery against updated assessments for grey rockcod, unicorn icefish, skates and grenadiers for the HIMI Fishery

| Species | January-June 2027 | July-December 2027 | January-June 2028 | July-December 2028 |
|---|---|---|---|---|
| **Grey rockcod** | Data overview | | Assessment exploration | Updated assessment |
| **Unicorn icefish** | Data overview | Assessment exploration | Updated assessment | |
| **Skates** | Updated assessment | | | |
| **Grenadiers (shallow)** | Data overview | Assessment exploration | Updated assessment | |

| | | | | |
|---|---|---|---|---|
| **Grenadiers (deep)** | Data overview | | Assessment exploration | Updated assessment |

37. For the purposes of recommending the bycatch limits, the industry members left the meeting.

38. On the basis that the current species limits remain precautionary, no concerning bycatch trends have been identified and the AAD workplan will provide updated assessments in 2027 and 2028, the remaining SouthMAC members **RECOMMENDED** maintaining the current bycatch limits for the 2026/27 HIMI Fishery fishing year (as listed in **Table 1**).

## Agenda Item 5 – Modification to minimum trawl gear disc size, to account for wear in the HIMI Mackerel Icefish Fishery

39. SouthMAC **RECALLED** that following a successful trial, SARAG71 (August 2024) and SouthMAC44 (November 2024) endorsed the use of ground trawl gear with bobbins that are 400mm in diameter and rock hopper rubber discs that are 200mm in diameter.

40. SouthMAC **NOTED** that the original 2019 gear trial proposal accounted for wear down of 50mm for bobbins but did not account for wear down in rock hopper rubber disc sizes. Industry has requested a similar reduction in minimum size to account for wear in rock hopper rubber disc sizes.

41. SouthMAC **NOTED** that SARAG 74 (May 2026) considered the industry request and supported changes to the HIMI SFR Conditions to account for wear in the rock hopper rubber discs when fishing for mackerel icefish using trawl gear. SouthMAC **NOTED** SARAG 74 advice that the trial lasted several years and would have included wear down of gear during that time, therefore, SARAG's previous considerations and advice would still hold and be scientifically valid when considering the proposed 150mm minimum diameter for rock hopper rubber discs.

42. SouthMAC **NOTED** that SARAG 74 has noted advice from Industry that rock hopper discs cannot be individually replaced on the new net. Instead, entire sections of footrope are replaced when required. At SARAG 74, AFMA proposed that the 150mm limit be given effect by specifying a minimum average size of discs within each footrope section. After further reconsideration of how best to administer the regulation, AFMA now proposes to simply prescribe the minimum size of 150mm. This is in line with how the SFR conditions are currently written.

43. Having regard for SARAG's advice, SouthMAC **ENDORSED** changes to the HIMI SFR Conditions to specify a minimum diameter of 150mm for rock hopper rubber discs to account for wear when fishing for mackerel icefish using trawl gear.

## Agenda Item 6 – Macquarie Island Toothfish Fishery Management Strategy Evaluation project update

44. SouthMAC **RECALLED** that in 2023, SouthMAC supported the Macquarie Island Toothfish Fishery Management Strategy Evaluation (MITF MSE) project (SouthMAC 43). At SouthMAC 45, the MAC supported the continuation of this project under the AFMA Research Application 'Stock assessment and MSE of the Macquarie Island toothfish fishery: 2027-2031'.

45. SouthMAC **CONSIDERED** SARAG's advice on the preferred scenario and objective testing for the MSE as follows:

*Management objectives and settings:*

- retention of current CCAMLR target and limit reference points (50% TRP & 20% LRP) to ensure that the MSE results are relevant to the HIMI fishery;
- noting current total allowable catch variability, test TAC setting frequency at 2, 3 and 4 years;
- application 10-15% maximum change in catch limit;
- Inclusion of under and over catch provisions;

*Uncertainty in OM and robustness tests:*

- robustness to changes in spatial dynamics
- Climate change impacts, tested through time varying biological parameters:
  - primarily through a decline in average recruitment
  - altered growth
  - directional change in the length/weight relationship
  - age-dependent M
- consideration of how recruitment variability is captured in the OM

*Performance measures:*

- Average TACs for different future time periods
- Average annual variation (AAV) in TAC - often expressed as a percentage and the mean percentage change in TAC when a management decision is made
- The potential trade-off between average TAC and AAV - often they are negatively correlated (more flexible MPS can attain higher TACs but do so at the cost of more variability in TAC)
- Proportion of times a TAC decision triggers the maximum change condition

46. SouthMAC **DISCUSSED**

- The new management procedure was expected to be finalised and implemented by the end of 2027 to set the 2028/29 and proceeding fishing year TACs. SARAG will consider the draft MSE outcomes in May 2027, and any additional work recommended by SARAG will be considered in subsequent meetings. Given this timeframe, the implementation of the MITF MSE may be delayed. SouthMAC will be updated as the project progresses.

- Managing both economic and sustainability objectives for the fishery recognising the spatial differences in stock depletion between the north and south of the fishery is a key

feature issue that is being investigated in the management strategy for the MITF. Under the MSE, different scenarios are being explored for managing the variable depletion including, having separate limits or a higher overall target (or limit). CSIRO have provided advice that a three-area model to include the Aurora Trough, alongside the North and South, would not have a material effect on the assessment and subsequent operating model if implemented. Given this advice, SARAG have agreed to continue with a two-area model.

47. SouthMAC **ENDORSED** SARAG's proposed MSE structure, including that SARAG explore control rules that avoid SSB dropping below 20% in any sub-area.

## Agenda Item 7 – Summary of CCAMLR-45 meeting outcomes and revised Conservation Measures

48. SouthMAC **NOTED** the update from the AAD member and other SouthMAC members on the outcomes of CCAMLR-45.
49. Members noted industry's gratitude to the Australian delegation at CCAMLR-45.

## Agenda item 8 – Other Business and next meeting

50. SouthMAC **NOTED** that the November meeting for 2027 would be held Thursday 4 November 2027, with the exact time to be agreed out-of-session.
51. The Chair thanked all SouthMAC members and closed the meeting at 3:33 pm.

# Attachment A

Table 1. Members, invited participants and observer's declarations of interests recorded at SouthMAC 46, 5 November 2026.

| Name | Membership | Declared interests |
|---|---|---|
| Geoff Richardson | Chair | Mr Richardson is the Chair of the Sub-Antarctic Management Advisory Committee (SouthMAC), the Northern Prawn Fishery Management Advisory Committee (NORMAC) and the Torres Strait Prawn Fishery Management Advisory Committee (TSPMAC).<br>Mr Richardson has no interests pecuniary or otherwise. |
| Dr Philippe Ziegler | Scientific member | Dr Ziegler is employed by AAD and is the Fishery scientist responsible for Heard Island and McDonald Islands Fishery (HIMIF) work, including the HIMI stock assessments. Dr Ziegler has no pecuniary interest in the sub-Antarctic and his salary is not connected to any research grants noting that he is a principal and co-investigator on current FRDC projects. Dr Ziegler is also a scientific member of SARAG. |
| Malcolm McNeill | Industry member | Mr McNeill is the Managing Director of 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 Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). Mr McNeill is a member of the Ross Sea Industry Client Group. Mr McNeill remains a 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. |
| Rhys Arangio | Industry member | Employed by Austral Fisheries P/L (Austral Fisheries) as the General Manager of Science 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 SARAG. 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. |

| Name | Membership | Declared interests |
|---|---|---|
| Dr Lyn Goldsworthy | Conservation member | Dr Goldsworthy is an Adjunct Researcher at the Institute for Marine and Antarctic Studies, University of Tasmania, and a Member of the Centre for Marine SocioEcology. Dr Goldsworthy also conducts contract work for the Deep-Sea Conservation Coalition (DSCC) and the Minderoo Foundation. Dr Goldsworthy has no pecuniary interest in sub-Antarctic fisheries. |
| Liz Brierley | AAD member | AAD employee, no interests pecuniary or otherwise. |
| Selina Stoute | AFMA member | AFMA employee, no interests pecuniary or otherwise. |
| Rachel Downes | Executive officer | AFMA employee, no interests pecuniary or otherwise. |
| Danait Ghebrezgabhier | AFMA observer | AFMA employee, no interests pecuniary or otherwise. |

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**Attachment B**

# Sub-Antarctic Management Advisory Committee (SouthMAC)

## Meeting 46 2026 — Thursday 5 November

## Draft Agenda

**Time (AEDT):** 13:00 – 16:00 AEDT
**Location:** Teleconference Microsoft Teams link
**Chair:** Geoff Richardson

| Approx time | Item | Purpose | Presenter |
|---|---|---|---|
| 13:00 (30 mins) | **1. Preliminaries** | | |
| | 1.1 Welcome and apologies | For action | Chair |
| | 1.2 Declaration of interests | For action | Chair |
| | 1.3 Adoption of agenda | For action | Chair |
| | **2. Actions Arising** | For noting | Executive Officer |
| | **3. Member Updates** | For noting | All Members |
| 13:30 (60 mins) | **4. Total Allowable Catches for the Heard Island & McDonald Islands Fishery** | | |
| | 4.1 Patagonian Toothfish TAC | For advice | AFMA Member |
| | 4.2 Mackerel Icefish TAC | For advice | AFMA Member |
| | 4.3 Bycatch limits | For advice | AFMA Member |
| 14:30 (15 mins) | **Break** | | |
| 14:45 (15mins) | **5. Modification to minimum trawl gear disc size, to account for wear in the HIMI Mackerel Icefish Fishery.** | For advice | AFMA Member |
| 15:00 (30 mins) | **6. Macquarie Island Toothfish Fishery Management Strategy Evaluation project update** | For advice | AFMA Member |
| 15:30 (15 mins) | **7. Summary of CCAMLR 45 meeting outcomes and revised Conservation Measures*** | For noting | AAD Member* |
| 15:45 (15 mins) | **8. Other Business and next meeting** | For discussion | Chair |
| 16:00 | **Close of Meeting** | | |

*verbal update

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**Attachment C**

# SouthMAC Meeting 46 — 5 November 2026

## Agenda item 3 Member Updates

**Purpose:** FOR NOTING

**Recommendation**

That SouthMAC:

1. **NOTE** verbal updates from Industry, Conservation and Scientific Members; and
2. **NOTE** the written update from AFMA in this paper, including:
    a. the summary of gear loss and wildlife interactions for the last season at **Attachment A**.
    b. the draft 2026 Climate and Ecosystem Status (CES) Reports for the Heard Island and McDonald Islands (HIMI) Fishery (**Attachment B**) and Macquarie Island Toothfish Fishery (MITF) (**Attachment C**).
3. **PROVIDE** any additional climate or ecosystem observations to be included in the CES Reports.

**AFMA update**

Climate and Ecosystem Status Reports

4. CES Reports are prepared by CSIRO for key Commonwealth and Torres Strait fisheries to support discussions on climate and environmental variables that may influence fisheries.

5. The draft 2026 Climate and Ecosystem Status Reports for the HIMI and MITF (**Attachments B** and **C**) incorporate readily accessible indicators and forecasts of environmental variables relevant to these fisheries and are to be used as contextual information when considering stock assessments and recommending total allowable catches (TACs). They are the fourth status reports for the HIMI Fishery and MITF with the first developed in consultation with SARAG in 2023. The information in the reports is general and preliminary in nature, to support discussion and feedback on more relevant indicators and information. These reports have, and will continue to be, refined over time based on RAG and MAC feedback, and building upon relevant research as it becomes available.

6. AFMA invites SouthMAC to provide any additional climate or ecosystem observations to be included in the CES Reports.

Climate Risk Framework

7. CES Reports are just one element of AFMA's broader Climate Adaptation Program. The Program is implementing a range of measures to incorporate climate change information and risks into decision making frameworks, including the Climate Risk Framework (CRF).

8. AFMA has finalised the CRF following an extensive development and trial process. Endorsed by the AFMA Commission at its September 2025 meeting, the final CRF has been published alongside the Trial Implementation Report, which captures key outcomes and insights from its

trial application across a range of AFMA-managed fisheries, including the MITF. The final CRF and Trial Implementation Report are available on the AFMA website.

9. The CRF is being implemented across Commonwealth fisheries in stages, with an initial focus on higher-risk stocks. It is to be treated as core business by RAGs and MACs. This includes ensuring climate risk assessments are incorporated into the development of advice and that the CRF is used to guide the identification of adaptation measures and inform management responses.

10. With regards to implementation in the HIMI Fishery and MITF, draft species assessments for the HIMI Fishery were considered at a CRF Working Group meeting held on 24 July 2026. However, these assessments have been postponed awaiting the outcomes of the Futures of Seafood (FoS) project (FRDC project 2023-092). Draft species assessments for the HIMI Fishery and MITF stocks will now be progressed in 2027, once FoS outcomes are published.

HIMI Marine Park impact on Random Stratified Trawl Survey

11. The HIMI Marine Reserve was reviewed in 2024 resulting in new zoning boundaries that took effect on 24 January 2025 supported by transitional management arrangements (**Figure 1**). A new management plan for the reserve was open to public comment from 28 September – 28 October 2026 and is expected to be determined early next year. Around 50% of RSTS stations now fall within IUCN Ia, II and IV zones (**Figure 2**). In response to the new arrangements, work has commenced to develop a plan to transition fisheries management arrangement away from relying on annual survey sites within the IUCN Ia, II zones as part of the RSTS.

12. The RSTS has been in place since 1997 and provides critical information for the toothfish stock assessment (particularly on recruitment), the mackerel icefish stock assessment, bycatch management, and ecological/environmental monitoring, especially in the face of climate change. It is the only fishery independent data set available in the HIMI Fishery. For this reason, it is critical that the impacts of removing sites from the RSTS are well understood and alternative arrangements are established where possible to mitigate those impacts.

13. Over the last 18 months, AFMA has sought advice from the SARAG Technical Working Group, and SARAG on the likely impacts of not surveying the IUCN Ia and II zones on the stock assessments for both Patagonian toothfish and mackerel icefish (SARAG 74 and SARAG 75 at **Attachment D**). Short and long-term analysis has been identified by SARAG and preliminary analysis has been undertaken by the AAD. The analyses by the AAD indicate that the resulting reduction in sampling affects the toothfish, icefish and bycatch assessments for the HIMI Fishery to varying degrees (SARAG 75). The most pronounced effect is observed in the mackerel icefish assessment (16.63-59.63% reduction in biomass estimates and 16.9-66.1% reduction in catch limits). While the impact on toothfish abundance signals and length composition was not significant, further testing through Management Strategy Evaluation is required to fully understand the implications for the stock assessment.

14. SARAG 75 agreed that:
    - additional analysis is required before robust advice can be provided on redesign options for the toothfish component of the survey.

- redesign options for icefish are likely to be more complex given the importance of Plateau West and current CCAMLR assessment requirements.
- a MSE would provide the most appropriate mechanism for assessing the full implications of reduced survey coverage for toothfish and icefish assessments and any changes to associated management arrangements.

15. Based on advice from DCCEEW, AAD and AFMA are jointly developing a multi-year (5 year) plan to transition the fishery from relying on data collected by trawl surveys within the IUCN Ia and II zones. The plan will form the basis of permit applications during the period to allow the RSTS to continue during the transition period.

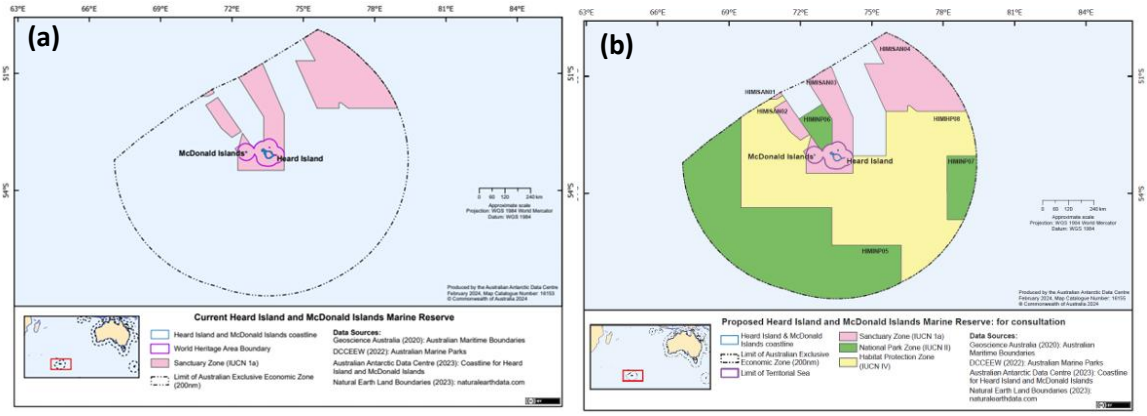



**Figure 1**. HIMI Marine reserve boundaries before (a) and after (b) the 2024 expansion.

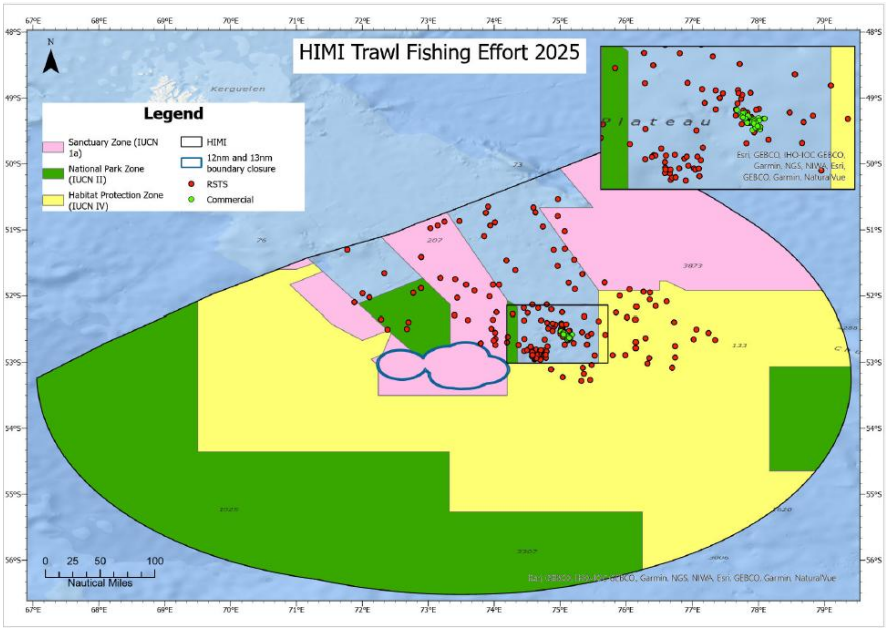



**Figure 2.** HIMI trawl fishing effort during transitional arrangements in 2025. Red points are RSTS trawl effort and green points are commercial trawl effort.

<u>Longline season extension seabird trigger at HIMIF</u>

16. In the first two weeks of April 2026, 13 seabirds were caught across three boats longlining in the HIMI Fishery. This period is within the longline season extension (1-30 April and 15 September – 30 November). All 13 seabirds caught were white-chinned petrels. During the same period, the French Crozet and Kerguelen toothfish fisheries also encountered high numbers of white-chinned petrels. White-chinned petrels are not a listed threatened species under the EPBC Act.

17. This level of longline seabird bycatch is highly unusual for the fishery. On average (past 10 seasons), four seabirds are caught by longline across the entire season in the HIMI Fishery, and mortalities during the season extension have ranged from zero to three in recent years.

18. AFMA, in consultation with industry and other experts, collected information on what factors may have contributed to the incidental bycatch. All required mitigation was deployed, and two observers were onboard each boat. Industry advised they also deployed additional mitigation in efforts[1] to further reduce the risk of additional interactions. AFMA invited Sam Thalmann, Wildlife Biologist with NRE Tasmania to SARAG 74 in May 2026 to provide expert advice on the behaviours and abundance of white-chinned petrels. SARAG 74 also noted a presentation by the industry member (Austral) on the elevated occurrence of white-chinned petrel bycatch in the HIMI Fishery from 2016-2026. SARAG 74 noted the several factors can influence white-chinned petrels foraging drive and intensity, and bycatch interactions:

    - Environmental variables, including ocean productivity and the position of the polar front (noting the latter is variable around the Kerguelen area).

    - White-chinned petrels will forage in the day and night and are one of the most active nocturnal foragers in the procellariform group. They require some light to forage, therefore a small increase in ambient light significantly increases their ability and interest to forage and dive deeply. Bait visibility is affected by the moon phase and time when lines are set, with CCAMLR CM 41-05 (2025) specifying that 'wherever possible, when night setting, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).' Night setting is less effective for this species.

    - White-chinned petrels are very proficient divers. Birds are believed to dive to maximum depth of 16 m with a descent rate maximum of 2.0 ms−1 however recent evidence has shown they can dive up to 25m deep. Line weighting may also be a less effective mitigation measure for this species.

    - The species show a strong detection of and attraction to vessels, with high attendance to vessels following an encounter. Studies have shown that once a white-chinned petrel detects a vessel, foraging patterns change and the bird is unlikely to leave the vessel.

    - The April longline season extension (1-30 April) is within the breeding season, and the September-November longline extension (15 September-30 November) is within the pre-breeding and beginning of the breeding season when petrels are north of the islands and

[1] Some vessels utilised additional (3 or 4, rather than mandatory 2) tori lines, additional line weighting, and night setting.

moving to the Kerguelen area. Given the biological and spatial considerations, the April extension presents an increased interaction risk.

19. Under the management arrangements for the fishery, each boat that fishes in the longline season extension for the fishery, is restricted to a maximum seabird bycatch limit of three. As a result, the three boats were required to cease longline fishing in the HIMI Fishery until the commencement of the core longline season, which is 1 May. Vessels ceased fishing between 5 April 2026 and 12 April 2026. As the season extension also includes the period 15 September to 30 November within the same fishing year, the three vessels are not permitted to longline during that period in 2026.

20. The three-seabird limit has been in place since the first longline season extension trial undertaken, through CCAMLR, for the HIMI Fishery in 2004. Originally put in place to manage a short (two week) extension, several other trials have been undertaken resulting in the current, 3.5-month longline season extension across two periods. The three-seabird catch limit has remained unchanged. The distribution of Patagonian toothfish catches across the 'core' longline season (4.5 months) and the longline season extensions for recent fishing seasons is shown in **Table 1.**

21. Having regard for the long-standing performance of the fishery, increased knowledge of white-chinned petrel behaviour and overlap with the fishery, it is AFMA management's intention to review the seabird trigger arrangements for the fishery in consultation with SARAG and SouthMAC. As a starting point, AFMA management would like to review whether arrangements for each extension period should be independent of the other. Noting the current arrangements are enshrined in a CCAMLR conservation measure, AFMA will work with AAD to progress any recommended changes through CCAMLR.

**Table 1** Proportion of total catch (including trawl) taken during the season extension periods.

| Season | Domestic TAC | Total Catch | Catch proportions | | |
|---|---|---|---|---|---|
| | | | 1-30 April | 15 Sep -30 Nov | Total extension |
| 2020/21 | 3030 | 3018 | 6.53% | 24.94% | 31.48% |
| 2021/22 | 2760 | 2775 | 8.49% | 27.03% | 35.52% |
| 2022/23 | 2510 | 2493 | 13.01% | 30.79% | 43.80% |
| 2023/24 | 2400 | 2407 | 10.73% | 24.07% | 34.80% |
| 2024/25 | 2120 | 2117 | 16.97% | 24.05% | 41.01% |

CCAMLR Exploratory Fishing Applications

22. Two Australian proposals were received for the 2026/27 CCAMLR New and Exploratory fisheries season. The proposals were endorsed by AFMA and presented to the CCAMLR Consultative

Forum (CCF) on 30 April 2026. Notification of these proposals were considered and endorsed at CCAMLR-45. Fishing in the CCAMLR New and Exploratory Fishery will commence on 1 December 2026 for the 2026/27 season.

Sub-Antarctic Fisheries Electronic Monitoring trial

23. The Sub-Antarctic EM trial has been extended until December 2026, with concession holders continuing to voluntarily operate EM systems, including a newly installed system on *Austral Odyssey*. EM data is being routinely collected and provided to CSIRO for artificial intelligence (AI) model training, validation and performance assessment.

24. CSIRO have provided regular progress reports based on reviews of complete fishing trips, enabling assessment of EM data quality, vessel practices and AI model performance.

    a. Preliminary AI validation results continue to show alignment between AI-generated and observer data (counts and length estimates) that are improved by ongoing model refinements.

    b. CSIRO has demonstrated promising capability in bycatch classification, seabird counting, and tori line detection, with further development underway to support future monitoring functions.

    c. AFMA, industry and CSIRO have implemented a range of data quality improvements, including camera maintenance practices, reduced image obstructions and model calibration enhancements.

25. Edge AI equipment (CSIRO-owned laptop) was deployed on the *Antarctic Discovery* in July 2026 while in port at Hobart. Deployment of Edge AI capability supports near real-time EM analysis onboard vessels. CSIRO have been successfully receiving daily reports to test functionality.

26. Drafting of the CSIRO final report and AFMA project report has commenced, with the AFMA report to include cost modelling and implementation options for a range of future monitoring arrangements.

27. AFMA's EM team has commenced planning potential EM implementation pathways, starting in MITF, including consideration of how EM and AI technologies may support observer functions while maintaining fishery monitoring requirements.

28. During the most recent Business Reference Group (BRG) meeting (24 September 2026), members supported AFMA's EM team undertaking further work on future monitoring arrangements, including assessment of observer responsibilities, bycatch monitoring and seabird monitoring requirements prior to tabling an implementation recommendation to SARAG, SouthMAC, and the AFMA Commission in 2027.

Move-on Rule at HIMIF

29. The mackerel icefish move-on rule as per the HIMI conditions 2025/26 (condition 22)[2] has been triggered once during the 2025/26 HIMIF season.

30. The move-on rule as per HIMI condition 23 for the take of 2 tonnes or more of skates and rays per haul has been triggered three times this season in March/April 2026 (once via longline and twice via trawl).

31. All vessels and observers on board notified AFMA of the trigger and moved away from the haul location at least 5 nautical miles to which the area was not fished for five days.

Export approval under the EPBC Act

32. Since SouthMAC 45, AFMA Management have submitted three applications to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) for the assessment of the Heard Island and McDonald Islands, Macquarie Island and High Seas (SIOFA and SPRFMO) fisheries under the EPBC Act. The application is used by DCCEEW to assess the management arrangements for Australia's participation in these fisheries against the Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition and the requirements set out in relevant sections of the EPBC Act.

33. DCCEEW opened the applications by AFMA for public comment each for a period of five weeks. All fisheries were declared eligible for listing on the List of Exempt Native Specimens (LENS) under Part 13A of the EPBC Act for a period of 10 years. The HIMI Fishery was approved until 16 July 2036 and the MITF and High Seas fisheries until 7 October 2036.

34. The LENS listing requires AFMA to inform DCCEEW of any changes to relevant fisheries legislation and/or management arrangements, as well as meeting the condition to provide regular annual reports. The assessment outcomes and conditions can be found on the HIMIF DCCEEW website.

CCAMLR Working Group on the Incidental Mortality Associated with Fishing - Southern Elephant Seals

35. Australia submitted the paper 'Review of southern elephant seal (*Mirounga leonina*) incidental mortality in Division 58.5.2 at Heard Island and McDonald Islands (HIMI), 2007-2025' (**Attachment E**) to WG-IMAF-2026 in June 2026. The paper notes that between 2007 and 2025, there were 93 recorded interactions of southern elephant seals (SES; *Mirounga leonina*) with longline gear in the HIMI toothfish fishery, of which 79 were confirmed mortalities. Since 2007, the number of interactions per year has increased, however when accounting for number of hooks, no increasing trend was identified.

[2] If the concession holder takes in any one haul more than 100 kg of *Champsocephalus gunnari* (mackerel icefish), and more than 10% of *Champsocephalus gunnari* by number are smaller than 240mm total length, the boat nominated to the concession shall: a. move to another fishing location at least 5 nautical miles distant; b. must not set any gear at any point within 5 nautical miles of the location where the catch of small *Champsocephalus gunnari* exceeded 10% for a period of at least five days.

36. The paper showed that interactions were spatially spread out across the entire fished area but occurred most commonly in the shelf area. Haul depths associated with SES interactions were highest around 1,000m depth and less likely in deeper waters. Haul soak times associated with SES interactions were longer than all hauls without interaction, although this was likely to be only a small effect and associated with an exposure effect.

37. Hauls per month were somewhat even between April to November, with a slight increase in interactions in August (late winter/early spring more broadly) when adult SES have moved to foraging at sea after fasting during breeding. Distribution of SES interactions over the months was not found to be statistically different from the monthly distribution of all hauls.

38. WG-IMAF-2026 discussed the paper (paragraph 3.11-3.18) and noted that while there is evidence in the published literature of a recent elephant seals increase on Kerguelen and Crozet Islands, not all members were in agreement of the impact of the fishery on elephant seals in the region. The WG-IMAF requested that the papers stating the fishery has a low impact on the Kerguelen elephant seal populations be made available so that the methodology could be determined.

39. The WG-IMAF also noted paper WG-EMM-2026/81, which highlighted the recent IUCN reassessment of the SES from 'Least Concern' to 'Vulnerable', and the Antarctic fur seal from 'Least Concern to Endangered' because of steep population declines. The remaining Antarctic seal species remain as 'Least Concern'.

Longline fishing season extension trial MITF

40. SouthMAC will recall that at its meeting on 9-10 July 2024, the AFMA Commission approved a trial of a longline fishing season extension from 1 September to no later than 21 September in the MITF subject to specific arrangements. Fishing is yet to occur under the current trial since its approval in 2024. AFMA management will advise when fishing does occur, and report on relevant data collected.

**Attachments**

**Attachment A** – Gear loss and wildlife interactions for previous season

**Attachment B** – Draft 2026 Climate and Ecosystem Status (CES) Reports for HIMI

**Attachment C** – Draft 2026 Climate and Ecosystem Status (CES) Reports for MITF

**Attachment D** – SARAG 75 (August 2026) meeting record

**Attachment E** – Review of southern elephant seal (*Mirounga leonina*) incidental mortality in Division 58.5.2 at Heard Island and McDonald Islands (HIMI), 2007-2025