



Australian Government

Australian Fisheries Management Authority

Small Pelagic Fishery Resource Assessment Group (SPFRAG) Meeting 08

Meeting minutes

24 October 2024

Microsoft Teams

Attendees	Membership
Max Kitchell	Chair
Tim Ward	Scientific Member
Andrew Penney	Scientific Member
Simon Boag	Industry Member
Gerry Geen	Industry Member
Caleb Gardner	Economic Member - <i>Apology</i>
Anissa Lawrence	Conservation Member
Danielle Ghosn	Recreational/Charter Fishing Member
Yvette Lamont	AFMA Member
Alannah Wood	Executive Officer
Matt Koopman	Fishwell Consulting (Marine Mammal Project)
Richard Little	CSIRO (SEA-MES Project)
Tony Muollo	<i>Observer - SPF Concession holder</i>
Sally Weekes	<i>Observer - AFMA</i>
Steve Hall	<i>Observer - AFMA</i>

Day 01			
24 October 2024			
Approximate time	Item	Purpose	Lead presenter
9:30 (15 min)	Agenda item 1. Preliminaries	For noting	Chair
9:45 (30 min)	Agenda item 2. SEA-MES 2.1 Research preliminary findings - Voyages 1 and 2. https://research.csiro.au/sea-mes/	For Noting	Richard Little
10.15 (90 min)	Agenda item 3. Harvest Strategy Review 3.1 Presentation of Outcomes	For Advice	Tim Ward

Day 01			
24 October 2024			
Approximate time	Item	Purpose	Lead presenter
11.45 (30 mins)	Break		
12:15 (60 min)	Agenda item 3. Harvest Strategy Review 3.1 Outcomes and Discussion	For Advice	Tim Ward
13:15 (60 min)	Agenda item 4. Marine Mammal Project 4.1 Presentation of project outcomes and discussion	For Noting	Matt Koopman
14:15 (15 mins)	Agenda item 5. Other Business 5.1 December Meeting	For Noting	Chair
14:30	Meeting close		Chair

The Chair opened the meeting at 9:30am AEST.

Agenda item 1. Preliminaries

1.1 Welcome and apologies

1. The Chair welcomed members and observers and opened the meeting with an Acknowledgement of Country.
2. The Chair introduced the new recreation member Danielle Ghosn and welcomed her to the meeting.
3. The chair advised that Caleb Gardner was an apology for this meeting.

<i>SPF RAG Members</i>	
Max Kitchell	Chair
Tim Ward	Scientific member
Andrew Penney	Scientific member
Simon Boag	Industry member
Gerry Geen	Industry member
Caleb Gardner	Economic Member
Anissa Lawrence	Conservation member
Yvette Lamont	AFMA member
Alannah Wood	Executive officer

Invited Participants	
Matt Koopman	Fishwell Consulting (Marine Mammal Project)
Observers	
Tony Muollo	SPF Concession holder - Observer
Sally Weekes	AFMA Observer
Steve Hall	AFMA Observer

1.2 Declarations of interest

4. RAG members followed the conflict of interest declarations as outlined for [Resource Assessment Groups - Fisheries Administration Paper 12](#). Members and participants reviewed and updated the Declarations of Interest included at [Attachment A](#).
5. Regarding potential conflicts with agenda items, the following interests were declared:
 - Simon Boag declared an interest in Agenda items 2 (Harvest Strategy) and MSE testing item
 - Tony Muolo declared an interest in Agenda items 2 (Harvest Strategy) and MSE testing item

For the MSE testing item the above members will be involved for the discussion but asked to leave for the decision making on exploitation rates.

1.3 Adoption of agenda

6. The RAG agreed to adopt the agenda.

1.4 Minutes of previous meeting

7. The RAG noted the final minutes of the SPFRAG meeting are available on the [AFMA website](#).

1.5 Actions arising from previous meetings

8. The RAG noted the action items from previous meetings and the updates provided by the AFMA member.
9. Actions arising from this meeting (SPFRAG 07) can be found at [Attachment B](#).
 - The RAG endorsed the Draft ERA, the ERA was presented to SEMAC 54 and endorsed providing caveats in relation to uncertainty of outcomes due to limited independent monitoring and changes in the ERA methodology.
 - The removal of the spatial management grids is going through the process to implement these changes and should be finalised and in place by the beginning of the 2025-26 fishing season.
 - The proposed research project *Barriers to investment in the SPF* was not supported by the ARC who provided recommendations in relation to updating the project scope.
 - The proposed research project to *Improve understanding of age growth dynamics and biological variability of the Australian population of Blue Mackerel* was removed from the ARC funding at the SPFRAG June meeting. The project scope will be redeveloped with funding to be sought from a research institution as an honours/PhD project.

Agenda item 2 – (SEA-MES)

10. Rich little introduced the agenda item and presented the following:

- This project is a time series following on from voyages conducted in the 90s covering from Eden to Freycinet along the shelf and upper slope. The current voyages are following the same methodology with some additional monitoring parameters. With the first voyage taking place in July 2023 and the second in May 2024.
- The general view is that the marine ecosystem has experienced and is experiencing significant change. What is clear is that fish species from which ecosystem changes have been inferred, represent only a small part of the ecosystem under pressure, and it is not well understood.
- SEA-MES seeks to answer 3 questions:
 - How much have habitats, fish assemblages and species abundances changed in the southeast ecosystem in 25 years?
 - How do any changes affect the multiple-use management of the region, particularly conservation and biodiversity management of Australian Marine Parks and the hive of activity from fisheries, oil & gas, and renewable energy sectors?
 - What are the implications for marine spatial planning and adaptive management in sectors that use the marine ecosystem and the managers that regulate it?
- More information on this project can be found here <https://research.csiro.au/sea-mes/>

11. Notable findings

- From the initial voyages, Jack Mackerel and Blue Mackerel showed an increase in the recorded catch in the most recent survey compared to that of the original survey.

12. The RAG noted the following:

- The recent surveys were conducted during winter with a large amount of Blue Mackerel caught, given Blue mackerel is predominately a summer species this may indicate potential climate drivers influencing this species.
- Redbait is generally targeted during night fishing with the current survey conducted during daylight hours this may have been a factor in the reduced redbait catch.
- Members queried what the causes of the differing results between the first survey to the current one were and were advised that analysis had not yet been completed.

Agenda item 3 – Harvest strategy

Tim W presented the outcomes of the *Review and refinement of the Harvest Strategy for the Small Pelagic Fishery (Funded by SPFIA) Stage 2: Update MSE* project

13. Regarding reference points:

- Previous work established that the biomass depletion levels associated with maximum sustainable yield (BMSY) for SPF species range between B_{30} and B_{35} and have been shown to be ecologically sustainable in marine ecosystems (Smith et al 2015). It has also been shown that maximum economic yield (B_{MEY}) is equal to maximum sustainable yield (BMSY) equates to B_{40} for SPF species (Pascoe and Hillary, 2016).
- However, these levels are uncertain and therefore it may be more appropriate to use the default values from the current HS that stocks will maintain, on average, a target reference

point of 50 per cent (B_{50}) of unfished levels, with a less than a 10 per cent chance over 50 years of falling below the limit reference point of 20 per cent (B_{20}) of unfished levels.

- These levels are safe from an ecosystem perspective and provide a reasonable yield relative to B_{MSY} , with the Management Strategy Evaluation (MSE) identifying that the current exploitation rates achieve a median depletion of B_{50}
- Stage 2 of the project was to update biological parameters and replicated the MSE carried out by Smith et al.(2015) to refine settings in the HS. The proposed base case (constant) exploitation rates assuming DEPM surveys are carried out every five years.
- The performance indicators that were used to evaluate the performance of the different control rules and the impact of the sensitivity analyses on performance were replicated from Smith et al. (2015).
- Depletion and catch were estimated from the last 5 years of 50-year long simulations, with 1,000 iterations with the probability of biomass falling below a given threshold based on the whole (50 years) time series.
- The sensitivity that had been previously identified as critical was a DEPM survey at a minimum of every five year so that was used and the performance indicators (PI) used for the MSE are;
 1. 50% Probability $< 0.5B_0$ (average over last 20 years)
 2. 50% Probability $< 0.5B_0$ (maximum in any one year)
 3. 10% Probability $< 0.2B_0$ (average over last 20 years)
 4. 10% Probability $< 0.2B_0$ (maximum in any one year)
 5. 50% Probability $< 0.4B_0$ (average over last 20 years)
 6. 50% Probability $< 0.4B_0$ (maximum in any one year)

14. The RAG discussed:

- The aim of the HS is to keep the stock on average at the target reference point with a less than 10% probability of breaching the limit reference point (the harvest strategy policy outlines that this means it can not fall below the limit reference point more than one year out of ten)
- There was some discussion around which of the performance indicators best meets the requirements of the CFHSP. In terms of the target the RAG considered that the 50% Probability $< 0.5B_0$ (average over last 20 years) best met requirements.
- With respect to the LRP, the RAG noted that both the average over the last 20 years and maximum in any one year of falling below $0.2B_0$ were more conservative than what the HSP requires but that both were informative about risk. AFMA outlined that the 10% Probability $< 0.2B_0$ (average over last 20 years) was consistent with the CFHSP requirements.
- Based on this, the RAG agreed to step through the results giving consideration first to the performance measure for achieving the target reference point (50% Probability $< 0.5B_0$ (average over last 20 years), then whether that exploitation rate would also meet the performance measure for the risk of falling below the limit reference point (10% Probability $< 0.2B_0$ (average over last 20 years), but giving consideration also to the 10% Probability $< 0.2B_0$ (maximum in any one year)). The current and proposed ER are shown in table 1.

15. The RAG recommended the following:

16. Red Bait (Eastern and Western)

- To keep the rates consistent between Eastern and Western management zones when setting the exploitation rate.
- The exploitation rate of 12 per cent be adopted for both stocks.

17. Blue mackerel (Eastern and Western)

- That the exploitation rate of 20 per cent be adopted for both stocks.
- In making this recommendation, the RAG considered Smith (2015) had originally recommended 23 per cent for this species but due to some uncertainties regarding adult parameters, the RAG had adopted 15 per cent. The current MSE testing suggested that an exploitation rate of between 18 and 29 per cent was possible however even though the information on blue mackerel had improved significantly, the RAG considered that there was still some uncertainty and that 20 per cent would be appropriate.
- The RAG also noted that the new harvest control rule implemented earlier in the year, combined with the regular updates of the DEPMs ensures that the harvest strategy is a conservative one.

Table 1. Focus of MSE – SPF harvest strategy framework current and proposed maximum exploitation rate.

Species (Sub areas)	Tier 1			Tier 2			Tier 3		
	Proposed Max ER	Current Max ER	Max Seasons	Proposed Max ER	Current Max ER	Max Seasons	Proposed Max ER	Current Max ER	Max Seasons
Sardines	20%	20%	5 seasons	10%	10%	5 seasons	5%	5%	Indefinite
Blue MCK									
Easter	20%	15%	5 seasons	10%	7.5%	5 seasons	5%	3.75%	Indefinite
Western	20%	15%	5 seasons	10%	7.5%	5 seasons	5%	3.75%	Indefinite
Jack MCK									
Eastern	14%	12%	5 seasons	7%	6%	5 seasons	3.5%	3%	Indefinite
Western	14%	12%	5 seasons	7%	6%	5 seasons	3.5%	3%	Indefinite
Redbait									
Eastern	12%	10%	5 seasons	6%	5%	5 seasons	3%	2.5%	Indefinite
Western	12%	10%	5seasons	6%	5%	5 seasons	3%	2.5%	Indefinite

Recommendation 1: Blue mackerel East/West at Tier one the exploitation rate will increase to 20% (currently 15%)

Recommendation 2: Jack mackerel east/west at tier one the exploitation rate will increase to 14% (currently 12%)

Recommendation 3: Redbait East/ West at tier one the exploitation rate will increase to 12% (currently 10%)

18. For the review of the harvest strategy to be finalised the recommendations will be incorporated into the harvest strategy. The updated harvest strategy will be presented to SPFRAG and SEMAC for comment then once approved the Commission will finalise. The presentation outlining the changes to the HS and the minutes from the SPFRAG meetings in 2024 will be included to provide context for SEMAC and the Commission.

Agenda item 4 – Marine mammal

19. Matt Koopman presented the outcomes of the project Annual monitoring, reporting and assessment of marine mammal interactions in the SPF.

20. The project outcomes are intended to provide the basis for recommended modifications to fishing practices and the design or improvement of marine mammal mitigation devices and will inform AFMA's review of the SPF Dolphin Strategy and the SPF Bycatch and Discard Workplan as required.

- The definition of an interaction is any physical contact a person, boat or gear has with a protected species including catching and colliding with any of these species.
- As part of the project the Dolphin Mitigation Plans (DMP) for the SPF were reviewed, these were updated as gear modifications were improved. After the modifications detailed in version ten of the VMP the interaction rates reduced significantly despite the effort staying consistent.
- Through a review of interaction data, it was identified that there was a correlation between the time of year (season) and time of day when the highest numbers of interactions occurred.

21. The RAG noted the following

- Industry acknowledged that they tend to avoid an area in the proximity of Montague Island due to dolphins frequenting this area and a large known seal colony based on the island. Industry confirmed that the close proximity to a seal colony increased the chance of an interaction occurring therefore avoiding these areas had reduced interactions.
- Members requested that the information relating to interactions with seals and dolphins be shown separately to further understand the outcomes from the gear modifications.
- Members queried the congruence of EM capturing all marine mammal interactions within the fishery with Fishwell advising that although the review rate of the EM data is 10% it was verified when compared with logbook reporting that collection of data is accurate.

Agenda item 5 – other business

22. The December meeting was discussed and agreed to still hold the meeting on the 17th with most people able to attend in person.

Close of meeting

23. The Chair thanked attendees for their contribution and closed the meeting at 14.48 AEDST.

Attachment A - Register of interest

Table 2. Members, invited participants and observers declarations of interests.

Name	Membership	Declared interests
Max Kitchell	Chair	No interest, pecuniary or otherwise, in the SPF. Chair of the Southern Bluefin Tuna Management Advisory Committee.
Tim Ward	Scientific Member	Institute Marine and Antarctic Studies, University of Tasmania, Associate Professor, Fisheries Scientist AFMA Research Projects (SPF Monitoring, Blue Mackerel Spawning Fraction II, Jack Mackerel), Principal Investigator Natural Environment and Resources, Tasmania (Developmental Tasmanian Sardine Fishery), Scientific Advisor, Principal Investigator FRDC Tasmanian Sardine Fishery DEPM project South Australian Marine Scalefish Fishery Management Advisory Committee, Independent Conservation Scientist, Member GAB MAC, Independent Conservation Scientist, Member SARAG, Scientific Member. Updated details email 16 May 2024.
Andrew Penney	Scientific Member	Director of Pisces Australis (Pty) Ltd which has a potential interest in research in relation to the SPF.
Simon Boag	Industry Member	Industry member on SERAG and SEMAC Executive Officer, SPFIA. SPFIA engages researchers to undertake projects relevant to the SPF. Undertakes contracts as an independent consultant. Declared 11 June 2024.
Gerry Geen	Industry Member	No interest, pecuniary or otherwise, in the SPF no changes 6 June 2024.
Caleb Gardner	Economic Member	No interest, pecuniary or otherwise, in the SPF. Employee of Institute for Marine and Antarctic Studies (IMAS), which conducts research on a range of fisheries issues including at times the SPF, no change 5 June 2024.
Anissa Lawrence	Conservation Member	No interest, pecuniary or otherwise in the SPF. Director of TierraMar Ltd (trading as OceanEarth Foundation) Chair, Ocean Future Fund Inc. Independent consultant Undertakes contracts for several Conservation NGOs, government departments, non-government agencies and the private sector on a range of fishery related matters

		Conservation member on SPFRAG, SEMAC, SHARKRAG, Spencer Gulf Prawn Trawl RSC and the South Australian Rock Lobster MAC. Advised no changes 16 May 2024.
Steve Hall	AFMA	AFMA – Manager, Small Pelagic, Squid and Scallop Fisheries. No interest pecuniary or otherwise.
Yvette Lamont	AFMA	AFMA – Manager, Small Pelagic, Squid and Scallop Fisheries. No interest pecuniary or otherwise.
Matt Koopman	Fishwell Consulting	Fishwell Consulting undertake research funding applications and research projects for Commonwealth, State and International fisheries agencies and other organisations including fishery associations and private companies. I have no interest in any commercial fisheries.
Ian Knuckey	Fishwell Consulting	Fishwell Consulting undertake research funding applications and research projects for Commonwealth, State and International fisheries agencies and other organisations including fishery associations and private companies. I have no interest in any commercial fisheries.
Tony Muollo	SPF Concession holder	Managing director of; <ul style="list-style-type: none"> • Three Friends Fishing Pty Ltd – fishing vessel operating in SPF • Three Friends Quota Holdings – Quota owner in SPF • Muollo Fishing Pty Ltd – Fishing vessel operating in SPF and quota owner Declared 2 May 2024.
Sally Weekes	AFMA Observer	AFMA – Senior Manager, Demersal and Midwater Fisheries. No interest pecuniary or otherwise.
Alannah Wood	Executive Officer	AFMA – senior management officer, Small Pelagic, Squid and Scallop Fisheries. No interest pecuniary or otherwise.

Attachment B- Action items

Table 3. New action items from SPFRAG08

1.1 Table 2. Previous action items

Complete/Redundant		Underway	Yet to start	Pending	
Meeting No.	Item No.	Action Item	Agency/Person Responsible	Status	
7	4	SPFRAG endorsed the draft ERA report for finalisation.	AFMA/CSIRO	AFMA to progress through MAC and relevant channels to document sign off.	
7	3	SPFRAG recommended the removal of the current catch limits applied to spatial management grids.	AFMA	AFMA to progress this recommendation through internal process.	
7	2	SPFRAG supported the inclusion of HCRS into the Harvest Strategy, based on some minor amendments being made to the text of the draft Harvest Strategy.	AFMA/IMAS	IMAS to incorporate changes into the HS and progress Stage 2 of the project – MSE testing.	
6	3	Prof. Caleb Gardner and Simon Boag to compile a scope for the proposed research project <i>Barriers to investment in the Small Pelagic Fishery</i> .	Members	The ARC did not support this project going to COMRAC at this time. Recommendation	

				have been provided to update the scope for this project.
6	4	A/Prof. Tim Ward and Andrew Penney to compile a scope for a proposed research project to improve understanding of <i>age growth dynamics and biological variability of the Australian population of Blue mackerel.</i>	Members	At the June RAG meeting this project was removed from ARC funding (project scope to be redeveloped). To seek funding from a research institution as an honours/PhD project.

Table 3. Recommendations from meeting 8

Agenda Item	No.	Recommendation
3	1	Blue mackerel East/West: at Tier one the exploitation rate will increase to 20% (currently 15%)
3	2	Jack mackerel east/west at tier one the exploitation rate will increase to 14% (currently 12%)
3	3	Redbait East/ West at tier one the exploitation rate will increase to 12% (currently 10%)