



Australian Government

Australian Fisheries Management Authority

Small Pelagic Fishery Resource Assessment Group/(SPFRAG) Meeting 06

Meeting minutes

7 December 2023

AFMA Offices/Microsoft Teams

Attendees	Membership
Bruce Wallner	Interim Chair
Max Kitchell	Chair - <i>Apologies</i>
Tim Ward	Scientific Member
Andrew Penney	Scientific Member
Simon Boag	Industry Member
Gerry Geen	Industry Member
Prof Caleb Gardner	Economic Member
Vacant	Recreational Member
Anissa Lawrence	Conservation Member
Steve Hall	AFMA Member
Yvette Lamont	Executive Officer
Alice McDonald	AFMA presenter (Climate Change update)
Steph Brodie	CSIRO presenter (Climate Change report)
Kiran Jot	AFMA presenter (Climate Change)
Matt Koopman	Fishwell Consulting (Marine Mammal Project)
Miriana Sporic	CSIRO presenter (ERA)
Sally Weekes	<i>AFMA Observer</i>
Dr John Stewart	<i>State Observer (NSW)</i>
Andrew Warmbrunn	<i>State Observer (Tas)</i>
Rocio Noriega	<i>ABARES Observer</i>
Kurt Davis	<i>ABARES Observer</i>

Day 01

7 December 2023

Approximate time	Item	Purpose	Lead presenter
09:30 (30 min)	Agenda item 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
	1.4 Minutes from previous meeting	For Noting	Chair
	1.5 Actions arising from previous meetings	For Noting	AFMA

Day 01**7 December 2023**

Approximate time	Item	Purpose	Lead presenter
10:00 (45 min)	Agenda item 2. Review of fisheries performance: Update on bycatch and protected species interactions	For Noting	AFMA
10:45 Morning Tea Break (15 mins)			
11:00 (45 mins)	Agenda item 3. Climate change adaptation and ecosystem update	For Discussion	AFMA
11:45 (45 min)	Agenda item 4. Annual Fishery Assessment	For Discussion	Tim Ward
12:30 (60 min)	Agenda item 5. RBC advice for all SPF quota species for the 2023-24 fishing season	For Advice	AFMA
13:30 Lunch Break (30 mins)			
14:00 (45 mins)	Agenda item 6. SPF Annual Research Priorities	For Advice	AFMA
14:45 (30 mins)	Agenda item 7. SPF Harvest Strategy Update	For Noting	AFMA/IMAS
15.15 Afternoon Tea Break (15 mins)			

Day 01

7 December 2023

Approximate time	Item	Purpose	Lead presenter
15:30 (30 mins)	Agenda item 8. SPF Bycatch and Discard Workplan <ul style="list-style-type: none">updated ERA for SPF purse seine sector	For Noting	AFMA/CSIRO
16:00 (30 mins)	Agenda item 9. SPF Dolphin Strategy Review <ul style="list-style-type: none">update on Marine Mammal Interaction Project	For Noting	AFMA/Fishwell
16:30 (15 mins)	Agenda item 10. Other Business <ul style="list-style-type: none">Membership	For Noting	Chair
16:45	Close		Chair

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

Agenda item 1. Preliminaries

1.1 Welcome and apologise

1. The Chair welcomed members and observers and opened the meeting with an Acknowledgement of Country.
2. Membership

<i>SPF RAG Members</i>	
Bruce Wallner	Chair (Stand in)
Max Kitchell	Chair - Apologies
Tim Ward	Scientific member
Andrew Penney	Scientific member
Simon Boag	Industry member
Gerry Geen	Industry member
Caleb Gardner	Invited Participant (previous Economic Member)

Anissa Lawrence	Conservation member
Steve Hall	AFMA member
Yvette Lamont	Executive officer
Invited Participants	
Matt Koopman	Fishwell Consulting (Marine Mammal Project)
Miriana Sporcic	CSIRO presenter (ERA)
Observers	
Sally Weekes	AFMA Observer
John Stewart	State Observer (NSW)
Andrew Warmbrunn	State Observer (Tas)
Rocio Noriega	ABARES Observer
Kurt Davis	ABARES Observer

1.2 Declarations of interest

3. 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](#).
4. Regarding potential conflicts with agenda items, the following interests were declared:
 - Mr Simon Boag declared an interest in Agenda items 4 (Fishery assessment) and 5 (RBC advice)
 - A/Prof Tim Ward – advised that Pelamis Pty Ltd is no longer an active business and declared an interest in Agenda item 6 (SPF Annual Research Priorities).
 - Prof Caleb Gardner declared an interest in Agenda item 6 (SPF Annual Research Priorities)
5. The RAG agreed that Mr Boag should participate in the discussion for agenda items 3 and 4, however should not take part in the formation of any recommendations for agenda item 4.
6. The RAG agreed that A/Prof Tim Ward and Prof Caleb Gardner should participate in the discussion for agenda item 6, however should not take part in the formation of any recommendations.

1.3 Adoption of agenda

7. The RAG agreed to adopt the agenda.

1.4 Minutes of previous meeting

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

1.5 Actions arising from previous meetings

9. The RAG noted the action items from previous meetings and the updates provided by the AFMA member.

10. RAG members requested a copy of the current Interim Management Arrangements (IMAs) which are in place as part of the dolphin strategy within the SPF, this was discussed with industry and will be updated as part of season rollover.
11. Actions arising from this meeting (SPFRAG 06) can be found at [Attachment B](#).

ACTION Item 1: AFMA to provide a copy of IMAs and distribute to members

Agenda item 2 – Review of fishery performance

12. AFMA introduced the agenda item providing an update on bycatch and protected species interactions.
13. SPFRAG noted the following:
 - The table reporting bycatch, byproduct (retained, not SPF) and discards for 5 years of SPF records. The table noted IUCN and EPBC listing status, however it was noted that it is the EPBC Act listings that is relevant to Commonwealth fisheries .
 - Conservation member queried why there was ‘Shark mixed’ reported as discarded given that (in her view) fishers are meant to report to species level. AFMA explained it is likely this category gets used when the fisher or observer may not be able to identify the species. Members noted that AFMA’s ecological risk assessment (ERA) process informs priorities for managing bycatch species. An industry member noted that reporting of discards in the trawl fishery was not required to the species level.
 - Members noted the low number of protected species interactions in the fishery.
 - Members discussed the need to consider mitigation that is being used in the fishery in conjunction with data on interactions so that they can understand the impacts of that mitigation or identify gaps that may need to be considered. The RAG recommended that AFMA provide a summary of mitigation measures implemented or required on vessels that can be considered alongside information on interactions. Ideally it should detail gear modifications, historical mitigation and a link to research that informs any change where it is available.
 - Members noted there is a project underway examining the nature of marine mammal interactions in the fishery and effectiveness of mitigation measures, noting however that data is limited.
 - Members agreed that the bycatch and discard presentation was useful information and supported AFMA providing similar information for other RAGs and MACs.
 - The RAG suggested that for some of the larger species in the bycatch list (i.e. sharks, rays, marlins and sunfish), it may be more useful to report numbers of fish rather than estimated weight. Operators currently report this in estimated weight (kg) making it difficult to interpret the bycatch data.
 - Mr Boag (industry member) raised general concerns in relation to protected species and the amount of time the RAG spent discussing them when interactions were so low, and that time and resources would be better spent on revising the harvest strategy to ensure MSC accreditation can be maintained. If MSC accreditation is lost then the product cannot be sold. In addition, depending on the question being asked regarding the design of mitigation devices specifically, Mr Boag questioned whether the RAG was the appropriate forum for that discussion.

ACTION Item 2: AFMA to clarify with internal observer and EM sections when ‘Shark mixed’ classification is used during reporting.

Agenda item 3 – Climate change adaptation

14. AFMA introduced the agenda item, asking the RAG and attendees to note the program of work being undertaken by AFMA to ensure that climate impacts are routinely incorporated into the management of Commonwealth fisheries, discuss the draft 'Climate and Ecosystem Status Report', and provide feedback regarding the usefulness of the Climate change ecosystem status and what indicators might be important for the SPF.
15. Presentations were given by AFMA Graduate, Kiran Jot, and Steph Brodie (CSIRO), including a climate science summary and preliminary projections for the SPF, and the climate ecosystem status report. The RAG noted the following:
 - Expect distributional shifts for all SPF species due to environmental variability causing species to search for favourable conditions.
 - Strengthening of the East Australian Current is extending further south and bringing warmer waters to the Southern region.
 - The challenges in the assessment (climate ecosystem status report) and a need for robust management of climate change projections due to uncertainty.
 - Climate change is on the agenda across fisheries and internationally. Complex changes have been noted in some fisheries with the impacts highly variable and hard to predict. Climate change can have sudden and immediate impacts that affect the fishery and may be difficult to manage.
 - SharkRAG fishermen recently noted that small pelagics have been found closer to the coast.
 - There is potential correlation (with climate impacts) with a significant boom in Jack mackerel in NZ waters where changes to abundance have been recorded. Jack mackerel are fast growing, short lived, surface dwelling species and are strongly affected by environmental change, impacting on all life history stages which can result in dramatic changes in population distribution.
 - Atlantis projects use assumed environmental conditions and model different conditions to predict how the change will take place. Long term projections should look at the current year's stock noting that stock behaviour can change due to *La Nina* and *El Nino* and other environmental cues.
 - Between Daily Egg Production Method (DEPM) surveys the annual fishery assessment requires CPUE to indicate localised depletion. This indicator should show enough of what the stocks are doing to pick up any changes and what environmental influences may be at work.
 - Spawning area maps are the best indicators over time. There has been little change observed to date however these need to continue to gain a better understanding of any change.
 - Sardine recruitment appears to be consistent. Stocks have been stable and robust since mortality events in early 2000s, however relative abundance and distribution of the quota species has changed over time. Sardines appear to have very high thermal tolerances making it hard to predict abundance and other population dynamics. This complex system for sardine (i.e. with historical changes to distribution and abundance) were noted in the 2000s.
 - The harvest strategy is inclusive of climate change impacts, there are indicators in place between DEPMs which can also be changed if there is cause for concern. Data information needs to be incorporated into the decision making.
 - All vessels that fish have the potential to collect information specifically relevant to the fishery. If operators were accepting of this as an ongoing requirement it would quickly build up databases to track changes in the fishery.

Agenda item 4 – Annual fishery assessment

16. Assoc. Prof. Tim Ward presented the Annual Fishery Assessment including catch and effort data for SPF quota species.

17. Members noted/discussed the following:

- Data for the fishery is spread across multiple institutions including AFMA, SARDI and UTAS. Developing a consolidated database warrants consideration, however there are data ownership complexities that first need to be resolved.
- Blue mackerel and Jack mackerel are targeted predominately for fishmeal and an increasing component of the overall catch of the fishery, the current midwater trawl vessels are likely to continue to target these species.
- There is evidence of seasonal fluctuations in CPUE. Spatial distribution of catch may change over time and be influenced by a range of reasons. Currently species are predominately targeted for oil content (which is known to be variable) however members agreed there was no evidence of localised depletion for any stock.
- Members were keen to ensure that data is representative of the commercial fishery in space and time and noted the need to regularly re-evaluate sampling parameters and spatial reasoning to inform the Harvest Strategy. Providing this information in the presentation to the RAG would give more clarity around whether the sampling regime was representative and help identify if there is a need for a greater number of samples to inform the assessment. It was also noted that the current MSE project will test existing sampling parameters and spatial reasoning methods.
- There was a suggestion for potential for a recreational fishing project (citizen science) to encourage fishers to collect data as a more cost effective alternative. The RAG however acknowledged the subtleties required to catch mature fish and that only a small number of fishers have had success to date.
- Sample collection is currently undertaken by industry. Where targets were not being met the RAG suggested that AFMA work with industry to ensure adequate sample collection.
- Members noted that AFMA monitored the regional catch limits and if triggered, acts accordingly.
- It was suggested that Otolith methodology exchange with NZ could be a project for FRDC, including running an age structure model built into the MSE. This is not currently proposed to be in the MSE model but could be incorporated into the proposal.

Agenda item 5 – Recommended Biological Catch (RBC) advice for SPF quota species

18. The Chair introduced the agenda item seeking RBC advice for all SPF quota species.

19. AFMA asked members to note:

- Redbait west stock will fall to Tier 2 for the 2024-25 season, as the last DEPM survey for this stock was undertaken in 2017-18 and 2023-24 is the 5th season this stock has been at Tier 1 without a new DEPM.

- Subject to any issues being identified by the annual fishery assessment, all other SPF stocks are expected to remain at the same Tier level as 2023-24.
- A DEPM survey is scheduled to be undertaken for Jack mackerel east stocks from late December 2023 to late January 2024. The results will be considered by SPFRAG in 2024 and will determine whether this stock remains at Tier 1 for a further 5 years from the 2025-26 season.
- There is no other new information available on SPF stocks.

20. The RAG further noted the following:

- The Annual Fishery Assessment confirms that there is remarkable consistency over the last years in terms of the age-length frequency distribution and patterns in the CPUE, with practically no fishing in the Western area and no new DEPM surveys between now and last time the RAG met in December 2022.
- There was no new information that would justify a change to the previously agreed spawning biomass for any of the seven stocks; and
- Six of the seven stock remain at the same tier of the SPF Harvest Strategy noting Redbait west will drop from Tier 1 to Tier 2 due to the ageing biomass estimate.

21. Mr Boag, Industry Member, left the room for the formulation of the RBC advice.

22. The Chair asked the RAG to consider the recommended RBCs for SPF quota species outlined in Table 1

Table 1. RBC recommendations for each of the seven SPF stocks for the 2024-25 fishing season.

Species	Spawning Biomass (tonnes)	Exploitation rate (%)	RBC (tonnes)
Australian sardine (<i>Sardinops sagax</i>)	42,724	20%	8,545
Blue mackerel East (<i>Scomber australasicus</i>)	80,000	15%	12,000
Blue mackerel West (<i>Scomber australasicus</i>)	86,500	3.75%	3,244
Jack mackerel East (<i>Trachurus declivis</i> , <i>T. murphyi</i>)	156,292	12%	18,755
Jack mackerel West (<i>Trachurus declivis</i> , <i>T. murphyi</i>)	34,978	6%	2,099
Redbait East (<i>Emmelichthys nitidus</i>)	54,000	10%	5,400
Redbait West (<i>Emmelichthys nitidus</i>)	66,787	5%	3,340

23. SPFRAG considered climate change impacts discussed at agenda item 4, noting it is predicted that increased environmental variability due to climate change will increase variability in the SPF. SPFRAG consider that the annual RBC/TAC setting process enables AFMA to respond to any potential changes in the fishery and that the recommended RBCs are sufficiently precautionary to account for any potential risks currently posed by climate change.

24. The RAG requested further clarification on estimates of known sources of mortality be considered when calculating TACs.

25. SPFRAG supported the recommended RBCs for SPF quota species for the 2024-25 fishing season.

26. The Industry Member returned to the room.

RECOMMENDATION 1: When providing future RBC advice to the RAG, A/Prof Tim Ward and AFMA to provide further detail on known sources of mortality of SPF quota species be considered when calculating TACs, including rational for any estimates.

RECOMMENDATION 2: The SPFRAG supported recommended RBCs for SPF quota species for the 2024-25 fishing season as outlined in Table 1.

Agenda item 6 – SPF Annual research priorities

27. AFMA introduced the agenda item, seeking advice from the RAG on annual research priorities, including providing feedback on:

- the draft 2024-25 Annual Research Statement;
- research proposals received for consideration by the ARC for funding in 2024-25;
- research project priorities for 2025-26; and

28. The Chair discussed potential conflicts of interest for Prof Gardner and A/Prof. Ward. Members agreed that they could stay to contribute to the discussion but would be asked to leave prior to the RAG making recommendations on research proposals and priorities.

29. The RAG noted the following:

Research for consideration by the ARC for funding in 2024-25

- RAG supports DEPMs for the key commercial Eastern stock species to remain at Tier 1 noting however the costs fall to a small industry, although the fishery has potential for growth.
- There has been an increase in costs associated in undertaking the DEPMs at the expense to operators, however, industry members agreed it was a necessity and SPFRAG consider the DEPMs to be of high priority.

Newly identified research priorities for 2025-26

- There was a suggestion for an economic research workshop or equivalent desktop project to investigate options for increasing economic returns within the SPF, including:
 - i. Opportunities for further developing the sardine sub area; and
 - ii. Opportunities to further exploit western stocks and better understanding constraints/barriers to future investment.
- Constraints in the Western area could include interactions with dolphins and sea lions and uncertainty on what fish stocks are available. The Western area appears to have resource limitations and evidence of stocks is needed to encourage investment. WA Fisheries are unlikely to undertake DEPM surveys on SPF quota species or resource investigation and analysis of stocks.

- There was suggestion for further research in better understanding age-growth dynamics and biological variability of the Australian Blue mackerel population, including:
 - the potential to carry out research on the age-growth of Blue mackerel by providing an understanding of the difference between the Australian and New Zealand populations and their biological relationship; and
 - to continue expanding and improving on sampling techniques for larger fish.

30. The SPFRAG agreed to support the two research proposals that are to be considered by the ARC for funding in 2024-25. RAG comments were recorded in the respective assessment forms attached to the agenda paper for the ARC's consideration. The SPFRAG also supported the two newly identified research priorities, which will be developed into detailed scopes for further review by SEMAC and SPFRAG before being considered by the ARC in September 2024 as part of AFMA's annual call for research.
31. Mr Gardner asked an open question about what was holding the development of the SPF back. Mr Boag proposed that the significant and continued focus on ETPs (of which there are very few), and on very low levels of non-listed catch, rather than a focus on research scheduling which supports MSC, was an example of a management barrier on investment.

ACTION 3: A/Prof. Tim Ward and Andrew Penney to compile a scope for a proposed research project to improve understanding of age growth dynamics and biological variability of the Australian population of Blue mackerel.

ACTION 4: Prof. Caleb Gardner and Simon Boag to compile a scope for the proposed research project *Barriers to investment in the Small Pelagic Fishery*.

Agenda item 7 – Harvest Strategy Update

32. The AFMA member introduced the agenda item noting:
- SPFRAG's previous support for the development of HCRs with consideration of the Harvest Strategy limit and target reference points, as high priority research for consideration in AFMA's 2024-25 call for research;
 - When the research scope went to the AFMA Research Committee for its consideration in August 2023, it was recommended that the work also consider whether the current reference points are appropriate for these species, building on any previous work on this issue;
 - Due to the timeframes for MSC conditions, this project is now commencing earlier and will be funded by industry and is being undertaken by IMAS, for which Dr Tim Ward will provide an overview.
33. The SPFRAG noted an update of the research project provided by Dr Ward.
- Industry reiterated the importance of MSC certification to the ongoing operation of the fishery noting the various market demands that the SPF retain accreditation.

Agenda item 8 – SPF Bycatch and discard workplan

34. The AFMA member introduced the agenda item and asked the SPFRAG to note a presentation by Dr Miriana Sporic (CSIRO) on the outcomes of the recently completed ERA for the purse seine sector of the SPF.

35. The AFMA member further explained that there will be an opportunity for SPFRAG and SEMAC to review and endorse the ERA out of session as part of the formal annual review of the Bycatch and Discard Workplan scheduled in early 2024.
36. It was also noted that an updated ERA for the Midwater trawl sub fishery is scheduled to be undertaken in 2024-25.

Agenda item 9 – SPF Dolphin strategy review

37. The AFMA member provided an update on the review of the SPF Dolphin Mitigation Strategy (the Strategy).
38. Fishwell provided an update on the Marine Mammal Project, including:
- The project involves a detailed examination of marine mammal interactions using all sources of data available to identify factors that are common between interactions, that could be used to identify potential technical/operational improvements; and
 - Assist in the development of more informative reporting of interactions, and a way of analysing each interaction on a case-by-case basis.

Agenda item 12 – Other business

39. AFMA raised the matter of Membership, noting the vacant recreational member position. It was advised that AFMA would be doing a round of RAG/MAC appointments in late December 2023/early 2024 that would include vacancies across all AFMA consultative committees.

Close of meeting

40. The Chair thanked attendees for their contribution and closed the meeting at 1825 AEDST.

Attachment A - Register of interest

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

Name	Membership	Declared interests
Mr Bruce Wallner	Interim Chair	No interest, pecuniary or otherwise, in the SPF. Chair of the Sub-Antarctic Resource Assessment Group.
Dr Tim Ward	Scientific Member	<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> <p>Updated via email 20 February 2023.</p>
Dr Andrew Penney	Scientific Member	Director of Pisces Australis (Pty) Ltd which has a potential interest in research in relation to the SPF.
Mr Simon Boag	Industry Member	<p>Industry member on SERAG.</p> <p>Executive Officers to SETFIA, SSIA and SPFIA.</p> <p>SETFIA and SSIA receives funding from AFMA to complete projects under co-management agreements.</p> <p>Undertakes contracts as an independent consultant.</p>
Mr Gerry Geen	Industry Member	No interest, pecuniary or otherwise, in the SPF
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
Ms Anissa Lawrence	Conservation Member	<p>No interest, pecuniary or otherwise in the SPF. Declared via email 7 November 2023.</p> <p>Director of TierraMar Ltd (trading as OceanEarth Foundation)</p> <p>Chair, Ocean Future Fund Inc.</p> <p>Independent consultant</p> <p>Undertakes contracts for several Conservation NGOs, government departments, non-government agencies and the private sector on a range of fishery related matters</p>

		Conservation member on SPFRAG, SEMAC, SHARKRAG, Spencer Gulf Prawn Trawl RSC and the South Australian Rock Lobster MAC
Mr Steve Hall	AFMA Member	AFMA – Manager, Small Pelagic, Squid and Scallop Fisheries- no interest pecuniary or otherwise.
Yvette Lamont	Executive Officer	AFMA – Senior Management Officer, Small Pelagic Fishery. No interest pecuniary or otherwise.
Alice McDonald	AFMA	AFMA – Senior Program Manager, Climate Adaptation. No interest, pecuniary or otherwise, in the SPF
Steph Brodie	CSIRO	CSIRO - Climate Change. No interest, pecuniary or otherwise, in the SPF
Kiran Jot	AFMA	AFMA – Graduate. No interest, pecuniary or otherwise, in the SPF
Miriana Sporic	CSIRO	CSIRO – ERA. No interest, pecuniary or otherwise, in the SPF
Matt Koopman	Fishwell	Fishwell Consulting undertake research funding applications and undertake 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.
Rocio Noriega	Observer	No interest pecuniary or otherwise, in the SPF. Completed confidentiality and declared interest document via email 21 November 2023
Kurt Davis	Observer	No interest pecuniary or otherwise, in the SPF completed confidentiality and declared interest document via email 24 November 2023
Andrew Warmbrunn	State Observer	No interest pecuniary or otherwise in the SPF. Completed confidentiality and declared interest document via email 13 November 2023
Dr John Stewart	State Observer	No interest pecuniary or otherwise in the SPF. Completed confidentiality and declared interest document via email 15 November 2023. Employee of the NSW Department of Primary Industries that manages shared stocks in state waters.

Attachment B- Action items

Table 3. New action items from SPFRAG06

Agenda Item	No.	Action Item	Agency/Person Responsible	Timeframe
1.5	10	ACTION 1: AFMA to provide a copy of IMAs and distribute to members	AFMA	Prior to next meeting
3.	13	ACTION 2: AFMA to clarify with observers and EM when 'Shark mixed' classification is used during reporting.	AFMA	Prior to next MAC meeting
6.	29	ACTION 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	Prior to next meeting
6.	29	ACTION 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	Prior to next meeting