



Australian Government

Australian Fisheries Management Authority

Small Pelagic Fishery Resource Assessment Group (SPFRAG)

SPFRAG 2 Meeting minutes

Date: 07 December 2020

Teleconference

Attendees

Name	Membership
Mr Max Kitchell	Chair
Mr Gerry Geen	Industry member
Mr Andrew Penney	Scientific member
Associate Professor Tim Ward	Scientific member
Professor Caleb Gardner	Economic member
Ms Anissa Lawrence	Conservation member
Ms Sally Weekes	AFMA member
Associate Professor Jeremy Lyle	Invited participant - IMAS
Mr Tony Muollo	Invited participant - Industry
Mr Max Bayly	Executive Officer
Mr Aaron Puckeridge	Observer - AFMA
Ms Frances Seaborn	Observer - DPIPWE
Dr John Stewart	Observer – NSW DPI
Rocio Noriega Tronoso	Observer - ABARES

Meeting Minutes

1. Preliminaries

1.1. Welcome and apologies

The Chair opened the meeting with an acknowledgement country. Members noted the Recreational Member would join the meeting late and the Conservation member would have to leave the meeting briefly at 12:00 PM.

1.2. Declaration of interests

Declarations of interest were received from RAG members prior to the meeting (Attachment A).

Regarding potential conflicts with agenda items, the following interests were declared:

Mr Geen and Mr Muollo declared a conflict of interest for Agenda Item 3 in that they hold concession in the fishery. These participants left the meeting while remaining RAG members discussed their involvement in the discussion and recommendation for this item.

The Chair noted that for SPF species, agreeing the biomass rather than formulating RBC advice, is more open to subjectivity given that the RBC is a direct calculation using the exploitation rate applied to the agreed biomass. For this reason, the RAG agreed that the members with declared conflicts should participate in the discussion for Agenda Items 3.1 and 3.2 given their expertise but leave the meeting prior to the biomass being agreed and remain out for that point and the formation of the RBC advice.

Action Item 1: The RAG suggested re-wording the agenda for future meetings to explicitly make ‘agreeing the biomass’ part of the RBC agenda item to assist managing declared conflicts with this item.

Mr Geen and Mr Muollo re-joined the meeting and the Chair outlined the RAG’s decision concerning their involvement in Agenda Item 3.

1.3. Adoption of agenda

SPFRAG adopted the Agenda (Attachment B).

1.4. Actions Arising

The RAG noted that all actions excluding 1.3, were dealt with under the current agenda or would be addressed at the next meeting.

Regarding Action Item 1.3 - Monitoring requirements for small bycatch, the RAG agreed it could be removed given the RAG had provided advice about appropriate coverage levels and there is currently no driver to review it further.

2. Review of fishery performance

The AFMA member presented catch and effort data, protected species interactions and bycatch data for the 2019-20 Season.

The RAG noted the following key points:

- There was a very small amount of effort in the Western zone
- Fishing in the eastern zone has been consistent
- Sardine catch almost doubled compared to the 2018-19 season but still remained relatively low compared to the TAC
- Catch was significantly below TAC for all SPF stocks
- Peak dolphin interactions occurred between August and October
- The underwater camera project aimed at improving knowledge on dolphin behaviour in the trawl sector of the SPF had been delayed due to COVID-19 but that the first trip is currently being re-scheduled.

The RAG discussed how reporting of protected species interactions could be improved given that currently, only reporting numbers of interactions, leaves out a lot of important information including mitigation being used when interactions occur, life status, historical trends, level of monitoring and management responses etc. This type of information is required in order to provide a greater understanding about interactions as well as for greater transparency.

The RAG agreed that in the absence of the Marine Mammal Working Group (which has been disbanded) that it should consider protected species matters as part of normal process. An annual review of this information could be done as part of the annual review of the ERA triggers (still being developed), with a specific section on protected species. This report should also include species of interest such as sunfish, whale sharks etc. The RAG noted that some species reported in fishing logbooks should have been reported via in the wildlife interaction form.

Action Item 2: AFMA to develop a draft report for protected species interactions that captures a broader suite of information than just interaction numbers (e.g. that includes life status, historical trends, monitoring level, mitigation being used, effort, geographical patterns and management response) for consideration by the RAG at its next meeting. The report could be done as part of or sit alongside the ERA trigger report that is also under development. In addition to protected species, information should also be collated on species of interest such as sunfish.

The Recreational Member joined the meeting at 10:49 AM.

Regarding discard data for the 2019-20 fishing season, the RAG noted:

- the number of species able to be reported since 2017 is smaller compared to the period fishing during 2014-2016 given that the vessel operating in the earlier period was set up differently, providing a very detailed view of the catch as it was sorted onto a conveyer belt and was subject to 100 % observer coverage.
- Some protected species were reported in catch data rather than protected species interactions. The AFMA member noted that this can happen on occasion and that industry education for some species is an ongoing management response as the status of some species is not always evident to fishers.
- Some discarded fish and shark have not been reported to a species level but rather reported under 'mixed fish'. The AFMA member noted fishers are required to report to a species level where possible. The industry member advised the RAG that a gear malfunction resulting in a bag having to be let go before being brought on on-board likely led to the majority of the unidentified fish reported in the 2019-20 season.

3. Annual assessment of SPF stocks and RBC advice

3.1. Blue Mackerel East and sardine new DEPM Results

3.1.1. *Blue Mackerel East DEPM Results*

Assoc. Prof. Tim Ward presented the Blue Mackerel East DEPM survey results. The RAG noted the following key points:

- The spawning area was slightly larger in the 2019 survey (20,387 km²) compared to the 2014 survey (17,911 km²)
- Adult samples were collected however none were actively spawning. The lack of actively spawning adult samples was an issue for the previous DEPM and means that adult parameters used in the biomass calculation are taken from other (similar) species.
- In terms of the analysis, following a review of the South Australia sardine DEPM assessment, fecundity and female weight have been combined to create a single parameter 'relative fecundity' (Parker, 1980), significantly increasing the precision of spawning biomass estimates.
- Due to a lack of adult samples from the previous DEPM, the sex ratio parameter had previously been estimated from South Australian catch data however the 2019 DEPM results provided an alternative estimate of sex ratio.
- The spawning fraction from the 2019 DEPM survey was close to zero and reflects of the lack of large, actively spawning mature females sampled during the survey.

The RAG discussed the following key points:

- Using 450g as the average weight for females might not reflect the true size of females given blue mackerel caught by the Geelong Star, which had a relatively fast trawl speed and a greater ability to catch larger fish, were smaller than 450 grams.

- How best to get large, adult spawning fish to improve sex ratio and spawning fraction estimates. The need to prepare gonads in formaldehyde on board the vessel requires training and is not necessarily something that can be done casually but rather requires scientific personnel to be on board vessels during peak spawning months to collect samples. The expectation is that the larger fish are in the same area the DEPM took place but that the larger fish are faster than the trawls that have been used during these surveys.
- The need to better understand the relationship between the fishable biomass, selected by the commercial gear used in the fishery, and the spawning biomass given that the commercial gear appears not to catch large, spawning fish.

Anissa Lawrence left the meeting at 11:59.

The RAG recommended that collecting large, spawning fish between now and the next DEPM survey in 2024 to inform estimates of spawning fraction and other parameters used in the calculation to estimate spawning biomass and is a very high priority. This priority should be included in the annual research priorities that will be discussed in July.

Action Item 3 – Targeted sample collection of large, spawning blue mackerel to be added to the draft list of research priorities to be considered and recommended by the RAG at its July 2021 meeting.

3.1.2. Sardine DEPM Results

Assoc. Prof. Tim Ward presented the sardine DEPM survey results, noting the following key points:

- The spawning area was smaller in the 2019 survey (14,281 km²) compared to the 2014 survey (22,400 km²)
- No adult surveys were completed for this species and estimates of parameters derived from South Australian Sardine DEPM Surveys (1998 – 2018) were used. It was noted the parameters used in the model are consistent with those used internationally.
- Results from the South Australian Sardine egg surveys indicate little annual variation in the Daily Egg Production, Sex Ratio, Sex Fraction and Relative Fecundity parameters.

The RAG discussed the following key points:

- The slight downward trend in spawning fraction for the South Australian sardine stock could be related to climate change as temperature could negatively affect the ability of sardines to spawn. The downward trend may also be due to a change in the location of adult sampling sites over time. This could have implications for the NSW east coast stock.
- A dedicated adult sampling program for the east coast stock to derive accurate estimates of model parameters would be beneficial however is a lower priority given the Commonwealth catch of sardines is very low.

3.2. Annual Fishery Assessment

Assoc. Prof. Tim Ward presented the Annual Fishery Assessment. A summary of the RAG discussion for each SPF stock is provided at **Appendix A – SPF Species Summary**.

The RAG also discussed the evidence from recent DEPMs suggesting that stock boundaries of jack mackerel, which spawns continuously through Bass Strait, and rebait that has continuous spawning around southern Tasmania, do not follow the current management east/west split which runs longitudinally through the

middle of Tasmania. While ideally management boundaries follow stock boundaries, risk can still be managed. Further, stock boundaries can shift and adjusting management boundaries to shift on short timescales is not practical.

3.3. RBC advice for SPF stocks, including agreeing new biomass estimates

Mr Geen and Mr Muollo left the meeting at the commencement of this Agenda Item

The RAG agreed to new biomass estimates arising from the recently completed DEPMs for blue mackerel east and sardines, and provided advice on the RBCs for 2021-22. A summary of the RAG advice is provided at Appendix A – SPF Species Summary.

The RAG also discussed how the effects of climate change are factored into the assessment and noted that increasing the frequency of surveys improves the ability to track changes in the biomass that may occur as a result of climate change or other factors.

In considering the weekly trends in CPUE for the fishery to monitor for evidence of localised depletion, the RAG agreed that weekly catch figures should be included.

Action Item 4 – Tim Ward to include monthly catch figures to accompany the weekly CPUE graphs presented as part of the Annual Fishery Assessment.

Mr Geen and Mr Muollo re-joined the meeting at the end of Agenda Item 3.3

4. Harvest Strategy Review

4.1. Harvest Strategy Gap Analysis

The AFMA member introduced the Agenda Item seeking RAG advice on whether the SPF Harvest Strategy is consistent with the Commonwealth Harvest Strategy Policy (HSP) or whether further work needs to be done.

The RAG noted:

- AFMA is reviewing all harvest strategies to ensure they are consistent with the HSP. The SPF HS is also due for its scheduled three year review
- To inform the review, AFMA undertook a gap analysis between the SPF HS and the HSP and identified one potential inconsistency - there is no mechanism to adjust catch levels based on where the stock biomass is in relation to its target and limit reference points.
- Subject to RAG advice on the above point, no other substantive changes are being proposed.

The RAG discussed the potential gap identified and agreed that the SPF HS is consistent with the HSP for the following reasons:

- The HSP provides alternative approaches other than a biomass estimate measured against a reference point.
- The SPF HS underwent Management Strategy Evaluation (MSE) testing to ensure that it achieves its objectives that are consistent with the HSP.

The RAG noted that as the fishery develops, options such as that used in the South Australian Sardine Fishery could be explored. In the interim, a metarule could be included that explicitly outlines that the RAG will consider alternative approaches if there is an indication that the biomass is outside of the range tested under the MSE.

Action Item 5: For the RAGs consideration at its July meeting, AFMA to update the SPF HS, including the development of a draft metarule that outlines if the stock moves outside of the range tested under the MSE that the RAG would consider an appropriate response.

4.2. Insights from the assessment of the South Australian Sardine Fishery

Assoc. Prof. Tim Ward provided the RAG with an overview of the South Australian Sardine Fishery Harvest Strategy (SA HS) and how it adjusts in response to changes in biomass.

The RAG noted the key elements of the SA HS included:

- The exploitation rate is reduced as the biomass reduces
- The frequency of DEPM surveys and fishery assessments increase with Tier levels
- It includes a maximum TAC so that even if the biomass estimate increases past a certain point, the TAC will not increase.

The RAG noted that the approach used in the SA Sardine HS is one option that could be considered for the SPF when the fishery develops further.

5. Other Business

No other business was identified for RAG discussion.

6. Dates for next meeting

The next meeting of SPFRAG is scheduled for July 2021. Key topics at the next meeting will include a review of the SPF harvest strategy, ERA triggers and 2022-23 research priorities

Signed (Chairperson):

Date:

Attachments

Attachment A – Declarations of Interest

Declared Interest - Last updated: December 2020	
Members	
Mr Max Kitchell, Chair	No interest, pecuniary or otherwise, in the SPF. Chair of the Southern Bluefin Tuna Management Advisory Committee.
Ms Anissa Lawrence, conservation member	Independent consultant. Director of TierraMar Consulting. Undertakes contracts for a number of Conservation Non-Government Organisations, government departments, non-government agencies and the private sector on a range of fishery related matters. No pecuniary interest. President of the Ocean Future Fund Inc. Conservation member on South Australia Rock Lobster MAC Conservation member on GABMAC Conservation member on SEMAC Conservation member on SPFRAG
Mr Gerry Geen, industry member	A partner in Seafish Tasmania Pty Ltd that holds approximately 60 per cent of the Small Pelagic Fishery (SPF) Jack mackerel Statutory Fishing Rights (SFRs), 70 per cent of the redbait (east) SFRs, 30 per cent of blue mackerel (east) SFRs and significant quota holdings in the western zone. Seafish Tasmania Pty Ltd owns a Southern and Eastern Scalefish and Shark Trawl Boat SFR.
Andrew Penney, scientific member	Director of Pisces Australis (Pty) Ltd which has a potential interest in research in relation to the SPF.
Associate Prof Tim Ward, scientific member	Leader of the pelagic fisheries sub-program in SARDI which undertakes research in the relation to the SPF including Daily Egg Production Method surveys. Conducts research for State fisheries and other jurisdictions. Member of South Australia Sardine Fishery Industry research/management committee.
Prof 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.
Mr Malcolm Poole, recreational member	
Ms Sally Weekes	AFMA – Manager, Small Pelagic and Coral Sea Fisheries - no interest pecuniary or otherwise.
Invited participant	
Dr Jeremy Lyle	Senior Research Scientist, Institute for Marine and Antarctic Studies which undertakes research in relation to the SPF from time to time. Has led several research projects relevant to the SPF and is involved in the assessment of Tasmania's scalefish fishery.
Mr Tony Muollo	Majority SPF quota holder and actively fishing in the fishery. Also involved in other Commonwealth fisheries.
Executive Officer	
Mr Max Bayly	AFMA – Senior Management Officer, Small Pelagic and Coral Sea Fisheries. No interest pecuniary or otherwise.
Observers	
Mr Aaron Puckeridge	Employee of AFMA - no interest pecuniary or otherwise.

Ms Frances Seaborne	No interest pecuniary or otherwise.
Dr John Stewart	No interest pecuniary or otherwise.
Ms Rocio Noriega Tronoso	No interest pecuniary or otherwise.

Attachment B -SPF RAG 2 Agenda

07 December 2020 10:00 AM – 2:30 PM AEDT

Agenda item	Purpose	Paper / presentation	Time (AEDT)
Acknowledgement of country		Chair	Open
1. Preliminaries			20 mins (10:00 – 10:20)
1.1. Welcome and apologies	For information	Chair	
1.2. Declarations of interest	For action	All participants	
1.3. Adoption of agenda	For action	Chair	
1.4. Actions arising	For information	AFMA	
2. Review of fishery performance			
2.1. Update on catch and effort, bycatch and protected species interactions.	For information	AFMA	30 mins (10:20 – 10:50)
3. Annual assessment of SPF stocks and RBC advice	For information	Tim Ward	1 hr 45 min (10:50 – 12:35)
3.1. Blue mackerel east and sardine new DEPM results			
3.2. Annual fishery assessment			
Break ~30 mins~ 12:35 – 1:05)			
3.3. RBC advice for each of the seven SPF stocks	For advice	AFMA	15 mins (1:05 – 1:20)
4. Harvest Strategy Review			
4.1. Gap analysis considering revised Commonwealth Fisheries harvest Strategy Policy and Stewardship Council certification conditions/recommendations	For advice	AFMA	30 mins (1:20 – 1:50)
4.2. Insights from addressing the issue of assessing South Australian Sardine fishery where the stock is in relation to its limit reference point	For information	Tim Ward	30 mins (1:50 – 2:20)
5. Other business	For discussion	AFMA	5 mins (2:20 – 2:25)

6. Dates for Next meeting Proposed - July 2021 to discuss review of harvest strategy, ERA triggers, 2020 research priorities (videoconference).	For discussion	AFMA	5 mins (2:25 – 2:30)
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Attachment C – SPFRAG Action Items

Complete/Redundant			Underway	Yet to start	SPFRAG advice required / for noting		
Meeting	Agenda item reference	No.	Description	Responsibility	Timeframe	Status update	
SPFRAG 01	5.2 Triggers for bycatch and Ecological Risk re-Assessment	1.1	AFMA to prepare a checklist that can be reviewed annually, specific to the SPF, based on the pro-forma detailed in Attachment A of the 'Guidelines for ERA reassessment triggers for Commonwealth Fisheries' and provide back to the RAG for comments out of session.	AFMA	SPFRAG 02	Not complete – deferred to SPFRAG 03	
SPFRAG 01	5.2 Triggers for bycatch and Ecological Risk re-Assessment	1.2	AFMA to include the updated list of bycatch species weight and number of protected species interactions provided as part of the annual update on catch and effort in the fishery, in the ERA checklist.	AFMA	SPFRAG 02	Not complete – deferred to SPFRAG 03	
SPFRAG 02	1.2 Declarations of Interest	2.1	The RAG suggested re-wording the agenda for future meetings to explicitly make 'agreeing the biomass' part of the RBC agenda item to assist managing declared conflicts with this item.	Executive Officer	SPFRAG 03	Update to be provided at SPFRAG 03 - July 2021	
SPFRAG 02	2. Review of fishery performance	2.2	AFMA to develop a draft report for protected species interactions that captures a broader suite of information than just interaction numbers (eg that includes life status, historical trends, monitoring level, mitigation being used and management reponse for consideration by the RAG at its next meeting. The report could be done as part of or sit alongside the ERA trigger report that is also under development. In	AFMA	SPFRAG 03	Update to be provided at SPFRAG 03 - July 2021	

				addition to protected species, information should also be collated on species of interest such as sunfish.			
	SPFRAG 02	3.1. Blue Mackerel East and sardine new DEPM Results	2.3	Targeted sample collection of large, spawning blue mackerel to be added to the draft list of research priorities to be considered and recommended by the RAG at its July 2021 meeting.	AFMA	SPFRAG 03	Update to be provided at SPFRAG 03 - July 2021
	SPFRAG 02	3.3. RBC advice for SPF stocks, including agreeing new biomass estimates	2.4	Tim Ward to include monthly catch figures to accompany the weekly CPUE graphs presented as part of the Annual Fishery Assessment.	Tim Ward	SPFRAG 03	Update to be provided at SPFRAG 03 - July 2021
	SPFRAG 02	4. Harvest Strategy Review	2.5	For the RAGs consideration at its July meeting, AFMA to update the SPF HS, including the development of a draft metarule that outlines if the stock moves outside of the range tested under the MSE that the RAG would consider an appropriate response.	AFMA	SPFRAG 03	Update to be provided at SPFRAG 03 - July 2021