



Australian Government

Australian Fisheries Management Authority

Scallop Resource Assessment Group (ScallopRAG) Meeting 38

Meeting minutes

15 June 2021

11:05-16:45

Microsoft Teams



Bass Strait Central Zone Scallop Fishery Resource Assessment Group (ScallopRAG)

Meeting 38 – 15 June 2021

Agenda

Time (AEDT): 11:00 – 16:30

Location: Microsoft Teams

Chair Name: Brendan Kelaher

Approximate time	Item	Purpose	Lead presenter
11:00 (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	Executive officer
11:30 (15 min)	Agenda Item 2. Fishery update		
	2.1 AFMA Management	For noting	AFMA member
	2.2 State fisheries	For noting	State observers
	2.3 Industry	For noting	Industry members
	2.4 Economic	For noting	Economic member
	2.5 Research	For noting	Scientific member
11:45 (60 min)	Agenda Item 3. 2021 pre-season survey	For noting	Matt Koopman
	3.1 Biomass survey results		
	3.2 Bycatch species results		
12:45 (30 min)	Lunch		
13:15 (15 min)	Agenda Item 4. Seismic schedule for 2021-22	For noting	AFMA member
13:30 (60 min)	Agenda Item 5. 2021 season recommendations	For advice	AFMA member
	<ul style="list-style-type: none">TAC (commercial and doughboy scallop)ClosuresSeason dates		
14:30 (15 min)	Break		
14:45 (30 min)	Agenda Item 6. BSSIA project update	For advice	BSSIA EO
15:15 (1 hrs)	Agenda Item 7. Annual research statement	For advice	AFMA member
16:15 (15 min)	Agenda Item 8. Any other business	For noting	AFMA member
16:30	End of meeting		

The Chair opened the meeting at 11:03

Agenda Item 1. Preliminaries

1.1 Welcome and apologies

1. Professor Brendan Kelaher the Chair, welcomed members and observers to the meeting and made an Acknowledgement of Country paying our respects to this country's First People and Traditional Custodians of the land throughout Australia. Acknowledging Australia's Traditional Custodians of Country and recognising their continued connection to land, waters and community. Paying our respects to them and their cultures and to Elders past present and emerging.
2. The Scallop Resource Assessment Group (the RAG) members noted the Acknowledgement of Country, that the meeting was being recorded and commenced proceedings.

3. Membership

Brendan Kelaher	Chair
Jayson Semmens	Scientific member
Mervi Kangas	Scientific member
Julian Morison	Economic member
Stuart Richey	Industry member
John Cull	Industry member
Heather Johnston	AFMA member/ Executive officer

4. Invited Participants

Don Bromhead	ABARES
Andrew Sullivan	Industry
Matt Koopman	Fishwell Consulting

5. Observers

Lara Ainley	AFMA
Dan Corrie	AFMA

1.2 Declarations of interest

6. The RAG members followed the conflict of interest declarations as outlined in [Fisheries Administration Paper 12 \(FAP12\) – Resource Assessment Groups](#). Members and participants reviewed and updated the Declarations of Interest included at [Attachment A](#).
7. It was noted that for Agenda Item 4 'Seismic Schedule for 2021-22' the RAG as not being asked to provide a recommendation.
8. John Cull, Stuart Richey and Andrew Sullivan declared a potential conflict with Agenda Item 5 '2021 season recommendations'. The members and invited participants with the potential conflict left the meeting while the RAG considered their interest and how they should be managed.
9. The RAG agreed that John Cull, Stuart Richey and Andrew Sullivan could be part of the discussion but should not participate in the forming of the RAG recommendation for Agenda Item 5.
10. Andrew Sullivan, Stuart Richey and Matt Koopman declared a potential conflict with Agenda Item 6 'BSSIA project update'. Andrew Sullivan, Stuart Richey and Matt Koopman left the meeting while the RAG considered their interest and how they should be managed.
11. The RAG agreed that Andrew Sullivan, Stuart Richey and Matt Koopman could be part of the discussion but should not participate in the forming of the RAG recommendation for Agenda Item 6.

12. Jayson Semmens, Julian Morison, Don Bromhead and Matt Koopman declared a potential conflict with Agenda Item 7 'Annual research statement'. Jayson Semmens, Julian Morison, Don Bromhead and Matt Koopman left the meeting with the RAG considered their interest and how they should be managed.
13. The RAG agreed that Jayson Semmens, Julian Morison, Don Bromhead and Matt Koopman could be part of the discussion but should not participate in the forming of the RAG recommendation for Agenda Item 7.

1.2 Adoption of agenda

14. The RAG adopted the [agenda](#) as final.

1.3 Minutes of previous meeting

15. The RAG noted the final minutes of the ScallopRAG 37 meeting on 2 March 2021 are available on the [AFMA website](#) ('Fisheries Management' – 'Committees' - 'Resource Assessment Groups' - 'Bass Strait Central Zone Scallop Fishery Resource Assessment Group').

1.4 Actions arising from previous meetings

16. The RAG noted the action items from previous meetings and the updates provided by the AFMA member at [Attachment B](#).

Agenda Item 2 – Fishery update

17. The Chair introduced the Agenda Item and asked the RAG to note the AFMA Management, state fishery, industry, economic and research updates for the Bass Strait Central Zone Scallop Fishery (BSCZSF).

2.1 AFMA Management

18. The AFMA member provided an update on matters relevant to the management of the BSCZSF:
 - On 20 April 2021, a joint media release announced \$20 million to revolutionise Commonwealth fisheries. This includes the following projects:
 - e-fish: streamlining and integration of data and collection to increase flexibility for operators and reduce the costs of administration; and
 - e-monitoring: improve and expand the existing Commonwealth electronic monitoring into additional Commonwealth fisheries.
 - AFMA is currently developing electronic logbooks (elogs) for the BSCZSF. It is anticipated that software vendors may have them developed before the start of the 2021 fishing season. This would allow those operators who chose to transition to elogs to do so in the coming season.
 - Electronic catch disposal records (CDRs) will also be trialled in the 2021 fishing season, noting due to it being a trial it will not be available to all operators.
 - As of 7 June 2021, Dr Lara Ainley has commenced in the role of manager of the Small Pelagic Fishery, the BSCZSF and Southern Squid Jig Fishery, and will be based in Canberra.

2.2 State fisheries

19. The AFMA member and RAG industry members provided an update on the Victorian scallop (ocean) fishery:
 - During 2019-2020 there were anecdotal reports of a high abundance of commercial-sized scallops raised by industry, with concerns that the restrictive total allowable commercial catch (TACC) would limit potential exploration and development of the fishery.

- The Victorian Fisheries Authority (VFA) and industry agreed to a small low-cost survey of these beds to provide an estimate of scallop abundance.
- The main bed identified (Tarwhine bed) had an estimated biomass of legal sized scallops of 7,876 t, with the 95% confidence interval limits ranging from 4,000 t to 12,000 t, and a mean density of 1.15 individuals/m².
- In accordance with the draft Victorian Scallop Fishery Harvest Strategy and aligning with the [BSCZSF Harvest Strategy](#), a TACC of 979 t has been set for the 2021/22 season.
- The TACC increase from the 2020 season also led to the implementation of a number of provisions such as half of the Tarwhine bed closed to commercial fishing.

20. The RAG industry members provided an update on the Tasmanian scallop fishery:

- The Tasmanian survey is currently underway, with a dredge survey and video survey being undertaken in the White Rock area, dredge survey on the East Coast of Tasmania and an ad hoc industry survey.

2.3 Industry

21. No industry update was provided, with an update on the 2020 fishing season provided at [ScallopRAG 37](#).

2.4 Economic

22. The RAG economic member provided an update that the economic questionnaire had been sent out to operators.

23. The RAG noted that the update to the RAG on the project '*Informing the Bass Strait Central Zone Scallop Fishery Harvest Strategy and TAC setting process with economic data and MEY proxies*' had been postponed to ScallopRAG 39.

2.5 Research

24. The RAG scientific members provided an update:

- The Western Australian Shark Bay scallop fishery is currently closed for spawning until mid- August. There has been some evidence of recovery in the northern part of the fishery. It is yet to be decided if the fishery will open following the spawning closure.
- The Western Australian Abrolhos Island scallop fishery is currently undergoing MSC assessment.
- There has been an infestation of nematodes in Shark Bay, and also to some degree in Abrolhos Island.
- An underwater video survey has been approved for the Tasmanian and Commonwealth fisheries, due to start on 1 January 2022.

Agenda Item 3.1 – 2021 biomass survey results

25. Dr Matt Koopman, Fishwell Consulting, introduced the Agenda Item and asked the RAG to note the results of the 2021 pre-season biomass survey presented. Dr Koopman thanked the owners and crew of the three boats that participated noting their valuable contribution.

26. The RAG noted the following background:

- In accordance with the BSCZSF Harvest Strategy, the Total Allowable Catch (TAC) for commercial scallops will not be increased above 150 t unless a biomass estimate, as determined by the biomass

survey, is able to identify an area or scallop bed containing at least 1,500 t biomass of high density scallops with a minimum size of 85 mm.

- The objectives of the annual biomass survey are to:
 - coordinate a fishery survey to measure the size distribution and calculate biomass estimates to assess the potential for commercial catch rates in the BSCZSF; and
 - inform the assessment of fishery impacts on bycatch.
- The identification of the 2021 survey beds was done in consultation with industry and Fishwell Consulting, with consideration given to previous survey beds, recent commercial catch and exploratory marks provided by industry.
- The Industry Co-Management Committee and the RAG provided advice on the prioritisation of the survey beds, with the final survey plan including 12 beds, which were a mix of known beds and exploratory marks across the regions of the fishery. The RAG also recommended that if the first five exploratory marks at King Island Middle, a bed thought to be declining, yield less than 50 kg per shot on average, then the survey boat should move onto King Island 7 and no biomass estimate to be obtained from King Island Middle.
- In March 2021 AFMA wrote to all concession holders and active operators seeking expressions of interest to participate in the 2021 survey. Four boats were selected by an independent panel based on the terms set out in the call for expression of interest, however due to operational reasons only three boats participated in the survey.

27. Dr Koopman presented the 2021 pre-season biomass survey results, the RAG note the following:

- The 2021 pre-season biomass survey was conducted during May 2021 and aimed to estimate the commercial scallop biomass, discard rate, number of meats per kg, size frequency distribution, density of scallops and bycatch of 12 beds (seven previously surveyed and five new, exploratory beds) across the spatial extent of the fishery.
- Five shots only were conducted at King Island Middle, no scallops were caught in any of these shots so the boat moved onto survey King Island 7.
- For the data analysis it was assumed that there is a 33 per cent dredge efficiency to scale density estimates.
- The 33 per cent dredge efficiency comes from the *2008 Commonwealth Bass Strait Central Zone Scallop Fishery Survey*, which considered previous dredge efficiency studies with 33 per cent being the best average estimate.
- The summary of information collected for each of the beds surveyed during the 2021 BSCZSF annual biomass survey is presented in [Attachment C](#). This includes estimates of biomass (t), percent weight greater than 85 mm, estimated biomass of scallops > 85 mm, density of individuals per square metre, mean size and meat weight per kg.

28. The RAG considered the results of the biomass survey and made the following key points:

- The RAG have previously considered research to update the dredge efficiency, however it has not been a priority in recent years. There may be further information available to update dredge efficiency as a part of the Fisheries Research and Development Corporation (FRDC) underwater video survey project, noting that a change in dredge efficiency may have implications on the biomass estimate time series.

- The catch from the dredge under-represents small scallops, as the dredge is not designed to catch them. However, the presence of small scallops in this survey suggest that they are likely to be present in larger numbers.
- The 2021 biomass survey indicates an increased presence of recruitment across the three surveyed regions of the fishery since the 2019 survey.
- The biomass estimate for JH extended bed decreased since 2019, noting that the area of the bed had been extended since 2019. It is unusual that this bed remains to be predominately juvenile scallops and there is no clear reason as to why the bed is declining.
- The biomass estimate for Blue Dot Extended decreased. It is unlikely that this decrease is due to any migration of scallops due to the typical behaviour of commercial scallops. The increase in dead shell may indicate the bed is declining, however it is hard to track the recruitment from 2019 due to the absence of the 2020 survey.

29. The RAG thanks industry for the efficient survey and Fishwell Consulting for their high quality and timely work.

Agenda Item 3.2 – 2021 bycatch species results

30. The AFMA member introduced the Agenda Item and asked the RAG to consider the results of the bycatch component of the 2021 pre-season biomass survey presented by Dr Koopman and provide advice on any management responses in regard to bycatch and discarding for the 2021 fishing season.

31. The RAG noted the following background:

- The [Commonwealth Fisheries Bycatch Policy](#) (the Bycatch Policy) and the [Guidelines for Implementation of the Commonwealth Fisheries Bycatch Policy](#) (the Bycatch Guidelines) were updated in 2018 and provide a transparent and systematic approach to assessing, managing, monitoring and reporting fisheries bycatch in Commonwealth fisheries based on the precautionary principle.
- AFMA is responsible for implementing the Bycatch Policy through its operational policies and supporting fisheries management strategies (bycatch strategies).
- The [BSCZSF Bycatch and Discarding Workplan 2015-17](#) (current Workplan) describes, where possible, action items aimed at reducing impacts to species from fishing activities and to collect bycatch and discard data for the BSCZSF.
- It is an action of the current Workplan that logbook data, observer data and catch disposal records (CDRs) are monitored to identify gaps in reporting to address inconsistency with data collection and bycatch and discarding data gaps.
- At its 2019 Meeting, the RAG considered options for the most cost effective means of obtaining bycatch and discarding data and made the following recommendations:
 - the annual biomass survey in its current form be used as the primary tool to monitor the impact of fishing on bycatch species in the fishery, as it provides information sufficient to meet the Bycatch Policy requirements;
 - the four species identified as high risk in the Ecological Risk Assessment (ERA) in 2009 be included in the identification guide carried by observers undertaking the biomass survey; and
 - when considering bycatch data, that the four high risk species be presented by year and by bed to allow monitoring through time.

- AFMA has highlighted a review of the Bycatch and Discarding Workplan to be completed in the next 12 to 24 months, however in the interim AFMA proposed, consistent with the 2019 RAG recommendation to use the pre-season survey to monitor the impact of fishing on bycatch species, that:
 - the RAG and ScallopMAC (the MAC) consider the result of the pre-season survey and recommend management responses; and
 - the four high risk species be presented by year and by bed to allow monitoring through time.
32. Dr Koopman presented the bycatch component of the 2021 pre-season biomass survey results, the RAG noted the following:
- For each tow the weight of each species was recorded to the lowest taxonomic level possible.
 - There was one southern blue ringed octopus caught during the 2021 biomass survey, this species was one of the four species identified as high risk in the [BSCZSF ecological risk assessment \(ERA, 2009\)](#)
 - There was one spiny pipehorse caught during the 2021 biomass survey, this species is a listed marine species under the [Environment, Protection and Biodiversity Conservation Act 1999](#) (EPBC Act)
 - There was one Australian handfish caught during the 2021 biomass survey, this is a species of interest.
 - The top five species caught, other than commercial scallop, were ascidians, spider crabs, eleven-arm seastars, sponges and whelks.
33. The RAG considered the results of the bycatch component and made the following key points:
- The RAG supported continuing to using the pre-season biomass survey as an indicator of bycatch in the fishery, as it surveys the spatial extent of the fishery using randomised shots and includes an assessment of bycatch, noting that it may not represent any seasonality of bycatch species.
 - The pre-season biomass survey indicates that the bycatch in the fishery remains at an acceptable level.
 - Should AFMA observers undertake trips during the fishing season, bycatch biomass estimates should be obtained using a similar methodology to the pre-season survey to assist with the validation of the bycatch estimates from the pre-season survey.
 - There may be an opportunity to observe and report on the bycatch caught during commercial shots as a part of the FRDC project 2019-120 'Building industry capacity to lead co-management initiatives within the BSCZSF: training industry to conduct biomass estimate surveys'.

Agenda Item 4 – Seismic schedule for 2021-22

34. The AFMA member introduced the Agenda Item and asked the RAG to consider the schedule of planned seismic activity and consider any potential implications for closures that may be recommended under Agenda Item 6 (2021 season recommendations).
35. The RAG noted the following:
- Seismic activity in the Bass Strait continues to be a concern for BSCZSF industry.

- ScallopRAG ([June 2018](#)) recommended a standing annual agenda item to consider scheduled seismic activity when providing advice on management arrangements, with a particular focus on closures and TACs.
- A research priority was submitted to the FRDC to investigate the impacts of seismic surveys on scallop larvae. This project is on the Commonwealth Research Advisory Committees (COMRACs) list of research priorities however FRDC are waiting on the outcomes of FRDC Project 'Oil and Gas: National coordination -seismic and other issues (2017-186)'.
- The Environment and Communications Reference Committee released the report 'making waves: the impact of seismic testing on fisheries and the marine environment'. The report provides 19 recommendations. AFMA will engage with the process as and when required.
- There is currently one seismic survey which is 'under assessment' by NOPSEMA in the area of the fishery and it overlaps with KI10.

36. The RAG made the following key points:

- The seismic proponent has agreed to fund a before and after control impact (BACI) survey.
- In general, a BACI study looks to detect changes above what is normal in the fishery, meaning it requires the fishery to operate as usual.
- The RAG supported the BACI survey being undertaken.

Agenda Item 5 – 2021 fishing season recommendations

37. The AFMA member introduced the Agenda Item and asked the RAG consider the results of the 2021 biomass survey ([Agenda Item 3.1](#)) and provide advice to the MAC and the AFMA Commission on TACs, closures and season dates for the BSCZSF 2021 fishing season.

38. The RAG noted the following overview of the management framework:

- The [Commonwealth Harvest Strategy Policy 2018](#) (Harvest Strategy Policy) provides a framework for applying an evidence based, precautionary and transparent approach to setting harvest levels in Commonwealth fisheries.
- The objective of the Harvest Strategy Policy is the ecologically sustainable and profitable use of Australia's Commonwealth commercial fisheries resource (where ecological sustainability take priority) through implementation of the harvest strategies.
- The BSCZSF Harvest Strategy achieves this by implementing a tiered approach to setting TACs and closures based on the results of the pre-season biomass survey.
- The intent of the BSCZSF Harvest Strategy is to maintain the stock at sustainable levels by closing sufficient areas of the fishery that contain a high density of spawning size scallops (greater than 85 mm) to promote recruitment, and allows for the remaining areas to be fished within a TAC that represents a sustainable harvest.
- The biomass estimates from the biomass survey will determine whether the fishery can open, either under a Tier 1 or a Tier 2, or remain closed.

2021 commercial scallop TAC

39. The RAG noted the following background:

- Should the biomass estimates demonstrate that the requirements to conduct fishing at either Tier 1 or Tier 2 have been met, then advice will be sought from the RAG and the MAC on setting a TAC for

commercial scallops. The AFMA Commission will consider this advice when making a decision to move to either a Tier 1 or 2 from the default opening.

- Density is important for more synchronised spawning, at 0.2 individuals/ m² it implies that 25 per cent of the scallops are within a distance that allows synchronised spawning.
- At the BSCZSF research workshop in March 2017 it was recommended that for a scallop bed to be considered as having reasonable spawning potential it should have a minimum density of 0.2 individuals/ m². This was adopted by the RAG (meeting 29, 2017) and is now applied annually, so that a density of >0.2 individuals/ m² is considered as the minimum for the purposes of the BSCZSF Harvest Strategy.

40. In formulating its advice, the RAG made the following key points:

- Tier 2 of the BSCZSF Harvest Strategy was the most appropriate approach given the estimated biomass of scallops greater than 85 mm was 56,067 t, noting that this estimate was only for the beds surveyed and not a total estimate of the biomass in the fishery.
- In 2020 the TAC was set at a precautionary level (3,000 t) due to the absence of the pre-season biomass survey and a 4,000 t TAC would provide stability in the fishery, consistent with the 2018 and 2019 TAC levels.
- Based on the commercial catches in 2020, it is unlikely that if the TAC was fully caught it would come from only one region of the fishery. However there needs to be a level of precaution applied, through the TAC and closures, as there could be sustainability concerns if the whole TAC was caught from a single bed.
- If a TAC was to be set only from a sustainability basis, based on the estimated biomass, it could potentially be higher than 5,000 t, recognising the increased recruitment across the regions of the fishery and the decline of some beds.
- Any undercatch in the 2021 fishing season is likely to be due to operational reasons, noting that the TAC has not been fully caught in the last three seasons for this reason.
- Similar to previous years, the research catch allowance (RCA) from the pre-season biomass survey would be subtracted from the TAC.
- The total catch in the BSCZSF is likely to be influenced by the Victorian scallop fishery and, if open, the Tasmanian scallop fishery. Operators will target the best quality scallops across the open fisheries.
- The TAC should not be set at a level which constrains catch and pushes effort into the state fisheries due to operational costs. Alternatively, consideration should be given to the impact of a large increase in the TAC and the impacts this may have on the market price.
- Industry members noted that due to the constraint on the number of boats and processors an increased TAC would be unlikely to impact market price, however there is a limit to the capacity of the domestic market.
- There is limited economic data to help support the TAC setting process.

2021 doughboy scallop TAC

41. The RAG noted the following background:

- The Harvest Strategy allows for a TAC for doughboy scallops to be determined at different levels each year, however as they are not targeted the default TAC of 100 t is typically applied.

- No doughboy scallops have been landed since 2017.

42. In formulating its advice, the RAG made the following key points:

- A 100 t TAC allows for exploration of the fishery and markets, if industry decided to do so.
- Noting the number of doughboy scallop quota statutory fishing rights (SFRs), a reduction in the TAC may limit individual SFR holder's ability to explore the fishery and markets.

2021 area closures

43. The RAG noted the following in background:

- In order for an area/scallop bed to be closed under the Harvest Strategy it must have been surveyed during the biomass survey.
- Any beds closed are closed for the entire fishing season.
- While not defined in the Harvest Strategy, the RAG have previously considered it important that closures represent the spatial extent of the fishery.
- Beds fished that exceed a discard rate of 20 per cent of scallops less than 85 mm will be closed under a voluntary arrangement applied by industry via the Industry Co-Management Committee.

44. In formulating its advice, the RAG noted the following:

- Normally the area closures would be for the whole of a bed, however it is possible to close part of a bed and obtain a biomass estimate for that area.
- Consideration should be given to the long term economics and the value that closed areas provide to the fishery in future seasons.
- When considering closures and spawning potential, a higher density is considered more important than estimated biomass.
- Industry members noted that the 5 hours bed had better quality scallops (meat/kg), while The Hill had a higher density.
- Previous genetic studies have indicated that the scallops in the North of Babel bed are more closely related to the scallop beds on the east coast of Tasmania than the other two surveyed in the Flinders Island area.
- The North of Babel bed is economically important to industry in 2021 and the RAG want to support this where possible.
- Rather than closing all of the North of Babel bed a compromise could be made to close part of the bed in recognition of it being biologically important; and leaving the rest of the bed open to fishing in recognition of it also being economically important.
- Industry members proposed closing the Flinders Island bed, noting it has maintained a biomass since first surveyed in 2015 and while the density is lower than other beds in the Flinders Island area it met the minimum density requirement of 0.2/m².
- A closure of King Island 7 would support protection of recruitment in the King Island area and a closure of King Island 9 would support protection of recruitment and spawning potential due to the density estimate of the bed.

2021 fishing season dates

45. The RAG noted the following background:

- In recent years, the season has commenced in July, after the pre-season survey, and closed on 31 December to protect settling or newly-settled scallop spat.
- The [Bass Strait Central Zone Scallop Fishery Management Plan 2002](#) defines the fishing season to be 'a period determined by AFMA'.

46. In formulating its advice, the RAG noted the following:

- To allow AFMA enough time to prepare for the season roll over there needs to be a minimum of three weeks between the RAG and the MAC meetings and the season opening.
- Industry's preference is for the fishery to open on Saturday 10 July, rather than Monday 12 July to allow operators to land their catch on the Monday.

47. Those members and invited participants who declared a potential conflict left the meeting while the recommendations were being formed.

Recommendations for 2021 fishing season

48. Noting the advice above, the RAG recommended the following:

- the commercial scallop TAC be set at 4,000 t (less research catch allowance);
- the doughboy scallop be set at 100 t
- the following areas be closed:
 - The Hill east (estimated biomass > 85 mm 7,540 t);
 - King Island 7 (estimated biomass > 85 mm 209 t);
 - King Island 9 (estimated biomass > 85 mm 4,725 t);
 - North of Babel A (estimated biomass > 85 mm 1,288 t); and
- the 2021 fishing season open on or as soon thereafter 10 of July 2021 and close on 31 December 2021.

49. Those members and invited participants who declared a potential conflict returned to the meeting.

Agenda Item 6 – BSSIA project update

50. The BSSIA Executive Officer introduced the Agenda Item. The RAG were asked to consider the BSSIA request for 18 t of RCA as part of the FRDC project '2019-120: Building industry capacity to lead co-management initiatives within the Bass Strait Central Zone Scallop Fishery: Training industry to conduct biomass estimate surveys and provide advice on any sustainability risks of surveys being conducted in areas closed in 2020 or areas identified to be closed in 2021'.

51. The RAG noted the following background:

- FRDC project is a two year project, with the focus being educating and training skippers and crew in the use of survey techniques and equipment to enable reliable and quick assessments of scallop beds using the same methods currently used in the biomass survey.
- BSSIA intend to undertake this project under a scientific permit prior to the start of the 2021 fishing season but there is potential that it may occur in-season.

52. In formulating its advice, the RAG noted the following:

- Based on the results of the biomass survey, there is unlikely to be any sustainability issues from allocating an 18 t RCA.
- While the RAG are being asked to provide advice on the request for RCA, the approval is at the discretion of the AFMA Commission or the AFMA Research Committee. In this case the request would be put to the AFMA Commission and if possible a decision would be made prior to the start of the 2021 fishing season.
- The first year is primarily about developing training and engaging with industry, with the second year to be an expansion.
- Industry have been notified about the project being undertaken.

53. Those members and invited participants who declared a potential conflict left the meeting while the recommendations were being formed.

Recommendations

54. The RAG supported the request for 18 t of RCA and recommended that the research be undertaken outside of the areas recommended for closure during the 2021 fishing season.

55. Those members and invited participants who declared a potential conflict returned to the meeting.

Agenda Item 7 – 2022-23 annual research statement

56. The AFMA member introduced the Agenda Item and asked the RAG to provide advice on research priorities for the 2022-23 financial year to be included in the 2022-23 BSCZSF Annual Research Statement.

57. The RAG noted the following background:

- Each year, the RAG are asked to provide advice on upcoming research needs for the fishery, in this instance for potential AFMA/ Fisheries Research and Development Corporation (FRDC) funding in 2022-23 financial year.
- This is required in the context of the BSCZSF Five Year Strategic Research Plan 2017-2021.
- As part of this process, the RAG are asked to prepare an Annual Research Statement and complete a research scope form for each new priority.
- The annual research statement includes consideration of the cost-effectiveness, priority and timeframes for achieving identified priorities.

58. The RAG noted the following regarding research priorities from the 2021-22 BSCZSF Annual Research Statement:

- 2020-2022 Annual Biomass surveys are funded until June 2022.
- Maximum Economic Yield (MEY) project to inform the harvest strategy/ TAC setting process is funded until September 2021.
- The project for the development of ageing techniques for Bass Strait scallops was prioritised as medium in the 2021–22 BSCZSF Research Plan and was not supported by the ARC for funding in 2021–22.
- The analysis of economic data collected in the fishery is funded for 2021-22.
- The impact of seismic surveys on scallop larvae is to be provided to FRDC for consideration in 2021.

- Determining if recruitment is under-represented in biomass surveys and establishing a sampling method for estimating scallop recruitment was not supported by the ARC for funding in 2021–22.

59. The RAG considered the research priorities identified in the 2022-23 BSCZSF Annual Research Statement, making the following key points:

- There is a continued need to undertake the pre-season biomass survey in the fishery; the scope of this priority work needs to clarify that there is a bycatch component to the survey. Given the review of the Harvest Strategy it may be appropriate to only fund this project for one year.
- The analysis of economic data collected in the fishery is important since quantitative and robust economic data would provide useful information to be considered when making TAC recommendations.
- Establishing a sampling method for estimating scallop recruitment is needed to determine if recruitment is under-represented in biomass surveys. Given the linkages to this priority and the underwater video survey project, due to start in 2022, it would be appropriate for this project to put on hold until the underwater video project has been completed.
- The scope of the project to development of ageing techniques for Bass Strait scallops needs to be re-framed to capture the need to validate ageing techniques.
- There is still a need to look at the impacts of seismic surveys on scallop larvae despite other projects being put forward separate to the RAG process regarding scallops.

60. Those members and invited participants who declared a potential conflict left the meeting while the recommendations were being formed.

Recommendations

61. The RAG recommended the following research priorities for consideration of AFMA funding in 2022-23, with the corresponding priority/ranking and feasibility:

- Annual biomass survey including reference to bycatch data; essential priority and high feasibility.
- Analysis of economic data; high priority and high feasibility.
- Development of ageing techniques for Bass Strait scallops; medium priority and medium feasibility.

62. The RAG recommended the following research priorities for consideration of FRDC in 2022-23, with the corresponding priority/ranking and feasibility:

- Impact of seismic surveys on scallop larvae; high priority and high feasibility.

Close of meeting

63. The Chair thanked the RAG for their contribution to the meeting and wished industry all the best in the 2021 fishing season.

64. The meeting was closed at 16:45.

Attachment A- register of interest

Table 1 declared interests

Name	Membership	Declared interests
Brendan Kelaher	Chair	No interest in the fishery pecuniary or otherwise.
Jayson Semmens	Scientific member	Scallop Research Group Leader, Institute for Marine and Antarctic Studies. Organisation is known to submit research funding applications for consideration by ScallopRAG
Mervi Kangas	Scientific member	Department of Primary Industries and Regional Development, WA employee. No interest in the fishery pecuniary or otherwise.
Julian Morison	Economic member	Director, Kuti Co Pty Ltd – SA Pipi quota holder, Director, BDO Advisory (SA) Pty Ltd - current contracts with SA & Qld state governments collecting fisheries economic data, providing economic advice; Member, SA Snapper Management Advisory Committee (PIRSA), Economics member, Shark Resource Assessment Group (AFMA) and Scallop Management Advisory Committee, Member, Economics Working Group (AFMA), Member, Human Dimensions Research subprogram Steering Committee (FRDC), Principal & coinvestigator on several FRDC research projects; Economics member, Total Allowable Fishing Committee (NSW DPI); Economics Member, Trawl Whiting and Spanner Crab Harvest Strategy Working Groups (NSW DPI)
Stuart Richey	Industry member	Holds Commonwealth and State concessions.
John Cull	Industry member	Holds Commonwealth and State concessions.
Heather Johnston	AFMA member/ Executive officer	AFMA employee. No interest in the fishery pecuniary or otherwise.
Matt Koopman	Invited participant, Fishwell Consulting	Fishwell Consulting. We have undertaken the BSCZSF survey since 2015. We also submit research funding applications and undertake research projects for Commonwealth, State and International fisheries agencies and other organisations including fishery associations and private companies. We are regularly engaged by SETFIA to report to numerous seismic exploration companies on fishing catch, effort and value that

		takes overlaps with the proposed seismic testing areas. This included catch and effort from the BSCZSF. Related projects are looking at the effects of the seismic survey off east Gippsland on Danish seine catches, and on scallop densities in Bass Strait. No interest in any commercial fisheries.
Don Bromhead	Invited participant, ABARES	ABARES Employee, on temporary transfer from AFMA. No interest in the fishery pecuniary or otherwise.
Andrew Sullivan	Invited participant, Industry	Executive Officer, Bass Strait Scallop Industry Association
Dan Corrie	Observer, AFMA	AFMA employee. No interest in the fishery pecuniary or otherwise.
Lara Ainley	Observer, AFMA	AFMA employee. No interest in the fishery pecuniary or otherwise.

Attachment B- action items

Complete/Redundant	Underway	Yet to start	Need further advice
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Table 2. Progress of action items from previous meetings

	Meeting #	Agenda Item	No.	Action Item	Agency/Person Responsible	Timeframe	Progress
	36	2	1	AFMA to establish membership for the Harvest Strategy review working group	AFMA	Prior to ScallopRAG 37	Completed at ScallopRAG 37
	36	2	2	AFMA to distribute a terms of reference to the RAG and MAC for the Harvest Strategy review working group	AFMA	Prior to 37	Completed at ScallopRAG 37
	37	2.1	1	Industry members, through AFMA to provide input into the 2021 ABARES fisheries status report	Industry members, AFMA, ABARES	Prior to 2021 ABARES fisheries status report	ABARES has clarified that they do not allow industry to review draft chapters. Industry may provide comment to AFMA on past published editions and AFMA may consider these comments when reviewing draft chapters each year. AFMA requests members provide feedback to AFMA on the fisheries status reports if they have anything of note.
	37	2.1	2	ABARES to provide an update on why the GVP from the 2010-11 financial year is used as a comparison in the fisheries status report.	ABARES	Prior to ScallopRAG 38	2010-11 was the last year that economic survey data is available for the BSCZSF. A survey was attempted in 2019 however was not completed due to limited interest from industry.

Attachment C – Summary of information collected during the 2021 BSCZSF biomass survey

Table 3 summary of table of information collected for each of the beds surveyed during the 2021 BSCZSF annual biomass survey. AB = Apollo Bay, KI = King Island and FI = Flinders Island. Source: Fishwell Consulting.

Area	Bed	Estimated biomass (t)	% weight > 85 mm	Estimated biomass > 85 mm (t)	Density (ind/m ²)	Mean size	Meats/kg (>85 mm)
Apollo	5 Hours	3,627	99.2	3,598	1.745	97	90
	AB2-ext.	818	99.5	814	0.221	106	96
	The Hill	16,137	99.5	15,419	3.167	94	128
	Sub total	20,582		19,831			
Flinders Island	FI	6,477	89.9	5,821	0.602	94	77
	FIN-TS	1,078	95.0	1,023	0.751	97	76
	FIS-NB	5,587	95.5	5,337	1.566	100	71
	Sub total	13,142		12,181			
King Island	JH-ext.	633	23.5	149	0.183	81	114
	KI-10	4,351	95.5	4,154	2.776	92	85
	KI-7	1,473	14.2	209	2.300	78	No scallop over 85 mm in samples
	KI-9	6,367	74.2	4,725	2.820	86	93
	KI-BDE	1,904	90.4	1,721	0.331	90	86
	KI-BDSE	15,550	84.2	13,099	2.928	89	85
	Sub total	30,278		24,055			
	Total		64,002		56,067		