

Scallop Resource Assessment Group (ScallopRAG) Meeting 40

Meeting minutes

7 June 2022

11:00-16:25

Microsoft Teams



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

Meeting 40 – 7 June 2022

Agenda

Time (AEDT): 11:00 – 16:25 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	AFMA member		
11:30 (15 min)	Agenda item 2. Fishery update				
	2.1 AFMA Management	For noting	AFMA member		
	2.2 State fisheries	For noting	Industry members		
	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. 2022 biomass survey results 3.1 Biomass survey results 3.2 Bycatch species results	For noting/ advice	Matt Koopman		

Approximate time	Item	Purpose	Lead presenter		
12:45 (30 min)	Lunch				
13:15 (15 min)	Agenda item 4. Seismic schedule for 2022-23	For noting	AFMA member		
13:30 (60 min)	Agenda item 5. 2022 season recommendations TAC (commercial and doughboy scallop) Closures Season dates	For advice	AFMA member		
14:30 (15 min)	Break				
14:45 (90 min)	Agenda item 6. Research 6.1 Five year strategic research plan 6.2 Annual research statement	For advice	AFMA member		
16:15 (15 min)	Agenda item 7. Any other business	For noting	AFMA member		
16:30 End of meeting					

Agenda Item 1. Preliminaries

1.1 Welcome and apologies

- 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. Apologies were received from Don Bromhead and Dan Corrie, who will join the meeting as soon as possible.

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

Haydn Titterton Executive Officer

Invited Participants

Matt Koopman Fishwell Consulting

Don Bromhead ABARES
Andrew Sullivan Industry

Observers

Dan Corrie AFMA Lara Ainley AFMA

Ross Bromley Atlantis Fisheries

Consulting Group

1.2 Declarations of interest

- The RAG members followed the conflict of interest declarations as outlined in <u>Fisheries Administration</u>
 <u>Paper 12 (FAP12) Resource Assessment Groups</u>. Members and participants reviewed and updated the
 Declarations of Interest included at <u>Attachment A</u>.
- 5. It was noted that for Agenda Item 4 'Seismic Schedule for 2022-23' the RAG as not being asked to provide a recommendation.
- 6. John Cull, Stuart Richey and Andrew Sullivan declared a potential conflict with Agenda Item 5 '2022 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.

- 7. 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.
- 8. 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.
- 9. 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.

1.3 Adoption of agenda

10. The RAG adopted the agenda as final.

1.4 Minutes of previous meeting

11. The AFMA member apologised for the delay in publishing the Minutes from the ScallopRAG 39 meeting on 3 March 2022 and noted that they will be available on the AFMA website as soon as possible.

1.5 Actions arising from previous meetings

12. The RAG noted that there were no action items from previous meetings.

Agenda Item 2 – Fishery update

13. 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

- 14. The AFMA member provided an update on matters relevant to the management of the BSCZSF:
 - The minutes from the ScallopRAG 39 meeting are still being finalised
 - Haydn Titterton is the new Senior Management Officer for the BSCZSF, Southern Squid Jig Fishery (SSJF) and Small Pelagic Fishery (SPF) and is the Executive Officer for ScallopRAG and ScallopMAC.
 Heather Johnston will be departing AFMA on 1 July 2022, and this will be her last ScallopRAG.
 - AFMA provided an update to the Commission on the review of the BSCZSF Harvest Strategy and sought advice on the use of a Fishery Gross Margin (FGM) model as a mechanism to incorporate economic related decision rules in a revised Harvest Strategy.
 - The AFMA Commission will be writing to ScallopRAG and ScallopMAC Chairs regarding the
 Commission decision to discontinue the research regarding use of the FGM model as an economic
 indicator for managing the BSCZSF. The decision was due in part to the limited provision of
 economic data from industry, and the challenges this posed to the development of a representative
 economic model. The potential of the FGM model to influence other factors such as market value
 was also a consideration.
 - AFMA is mandating the use of electronic logbooks (elogs) and electronic catch disposal records
 (eCDRs) across Commonwealth fisheries. Vendors are in the process of developing software and it
 is anticipated to be available in for the BSCZSF in 2022. eCDRs will also be available in the 2022
 fishing season and can be used in parallel to the elogs.

2.2 State fisheries

15. The Victorian scallop fishery opened on 1 April 2022. Some die-off in the fishery has been observed by industry, but overall good catches have been observed.

- 16. The Tasmanian scallop fishery is scheduled to open on 24 June 2022, with a Total Allowable Catch (TAC) of 2500 tonnes.
- 17. Industry is facing operational challenges with crew shortages and the increasing price of fuel.
- 18. Due to the large amount of survey work being conducted in the Tasmanian scallop fishery, industry may face time constraints to catch their Research Catch Allowance (RCA) quota in the BSCZSF. Therefore, ScallopRAG discussed the possibility of providing advice on whether RCA quota should be made available to concession holders in-season noting the following:
 - There are potential benefits of allowing RCA to be caught in-season, as well as pre-season. The
 market advantages of catching RCA pre-season were discussed, as well as the time constraints
 that some operators may face in utilising all of their RCA before the opening of the BSCZSF
 season.
 - Allowing RCA to be caught in-season would provide greater flexibility to operators, whilst not detracting from the market incentives of utilising RCA quota prior to the opening of the season.
 - RCA is subtracted from the commercial scallop TAC, and therefore making the RCA quota available in season would not impact the TAC.
 - Whilst the arrangement to catch RCA in-season may be suitable during high biomass seasons, during periods of low biomass, particularly when the fishery does not open, it should not be possible to utilise RCA for reasons other than the biomass survey or other scientific research.
 - ScallopRAG unanimously supported allowing RCA to be caught in-season, providing that the BSCZSF fishing season opens, and there is a TAC set above 1500 tonnes.
- 19. The Scientific Member provided an update on the Western Australian scallop fishery:
 - Low levels of fishing have occurred overall.
 - A spawning closure is being implemented from the end of June 2022 to the end of August 2022.
 - The Shark Bay quota has been reduced from 130 tonnes in 2021 to 40 tonnes in 2022 due to low levels of abundance. Low levels of recovery have been observed post heatwave in the north of Shark Bay
 - The Abrolhos has seen low recruitment. The fishery has had low levels of recruitment, with the survey index being below the limit reference point, resulting in the fishery remaining closed this year.

2.3 Industry

- 20. The Industry member provided an update on the Tasmanian scallop fishery:
 - Great Oyster Bay is scheduled to open on 24 June 2022 with a TAC of 3,500 tonnes.
 - Video surveys have been conducted throughout areas of the fishery. More survey work is being
 conducted off the North-West coast of Tasmania and will provide a potential backup for the
 East coast should a paralytic shellfish toxin outbreak occur there. Toxin monitoring will occur
 during the Tasmanian scallop fishing season.
- 21. The industry members provided an industry update:
 - Crew shortages and fuel prices are continuing to produce operational challenges to industry.

2.4 Economic

- 22. The economic member provided an update:
 - Concerns were raised about the AFMA Commission decision to discontinue the use of the FGM model as an indicator for the TAC setting process.
 - The objective of the FGM model is not to influence market price, but to maximise net economic return (NER), which aligns with AFMA's objectives.

2.5 Research

- 23. The scientific members provided an update:
 - There are two current Fisheries Research Development Corporation (FRDC) projects currently underway;
 - A stock assessment of scallops using an underwater video survey. A literature review was also undertaken to determine most suitable approach given the scale of the fisheries.
 - A project investigating the impacts of seismic activities on scallops. The project compares different seismic sources and will analyse variation in impacts to scallops.

Agenda Item 3.1 – 2022 biomass survey results

- 24. Dr Matt Koopman, Fishwell Consulting, introduced the Agenda Item and asked the RAG to note the results of the 2022 pre-season biomass survey presented. Dr Koopman thanked the owners and crew of the two boats that participated noting their valuable contribution.
- 25. 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 2022 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 11 beds, which were a mix of known beds and exploratory marks across the regions of the fishery.
 - In March 2022 AFMA wrote to all concession holders and active operators seeking expressions of
 interest to participate in the 2022 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
 two boats participated in the survey.
- 26. Dr Koopman presented the 2022 pre-season biomass survey results:

- The 2022 pre-season biomass survey was conducted during May 2022 and aimed to estimate the commercial scallop biomass, discard rate, number of meats per kg, size frequency distribution, density of scallops and bycatch of 10 beds near Flinders Island, King Island and Apollo Bay.
- One new exploratory bed was also surveyed near Flinders Island. Due to operational issues, only one dredge tow was carried out for this bed.
- Stratified random surveys were conducted for each of the 10 beds.
- For each random tow, the following were recorded:
 - The weight of all catch (including dead shell)
 - The length of at least 35 scallops (where available)
 - Tow details
- For every 5 tows, 10 samples were taken for:
 - gonad staging
 - meat weights
 - length-weight
- For analysis an assumed dredge efficiency of 33 per cent was applied 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 data collected for each of the beds surveyed during the 2022 BSCZSF annual biomass survey is presented in <u>Attachment B</u>. This includes estimates of biomass (t), per cent weight greater than 85mm, estimated biomass of scallops > 85mm, density of individuals per square metre, mean size and meat weight per kg.
- 27. The RAG noted the results of the biomass survey, without providing further comments.

Agenda Item 3.2 – 2022 bycatch species results

- 28. The AFMA member introduced the Agenda Item and asked the RAG to note the results of the bycatch component of the 2022 pre-season biomass survey presented by Dr Koopman and provide advice on any management responses to mitigating bycatch and discarding risks for the 2022 fishing season.
- 29. The AFMA member noted the following background:
 - The <u>Commonwealth Fisheries Bycatch Policy</u> (the Bycatch Policy) and the <u>Guidelines for Implementation of the Commonwealth Fisheries Bycatch Policy</u> (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 <u>BSCZSF Bycatch and Discarding Workplan 2015-17</u> (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, however
 in the interim AFMA proposed, consistent with the 2019 RAG recommendation to use the preseason 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.
- 'Habitat' was an added component to this year's biomass survey, and the RAG should provide advice on whether the risk to habitat should be added as part of the annual biomass survey each year.

30. The RAG noted the following:

- The biomass survey is a random stratified survey and it therefore does not emulate commercial
 fishing. The rates of bycatch observed in the biomass survey are therefore not representative
 of rates observed in commercial fishing, which are considered to be lower due to the fishing
 industry's avoidance of these habitats.
- The quality of the biomass survey in providing bycatch information and habitat forming species was appreciated.
- The rate of bycatch of protected species caught during the biomass survey was extremely low.
- The reason that some species were listed as 'high risk' under the 2009 Environmental Risk Assessment (ERA) is because little data is available on their abundance and distribution. The biomass survey could provide an opportunity to contribute to some of these data shortages and intern inform species risk status under a future species risk assessment.

31. The RAG recommended the following:

- The RAG is confident that there are no major bycatch issues in the fishery, and the RAG
 appreciates the quality of the survey in providing information on bycatch and habitat forming
 species, and understanding how these may change in the future will be important for the RAG
 in future years.
- Whilst habitat species are known to be present within the BSCZSF, with the current levels of
 effort it is unlikely that impacts to these species will change much in the future.

Agenda Item 4 – Seismic schedule for 2022-23

- 32. The AFMA member introduced the Agenda Item and asked the RAG to note the schedule of planned seismic activity for 2022-23. The RAG was not being asked to provide any advice in relation to seismic activities.
- 33. A Senate inquiry has been completed and a summary of the recommendations arising from the inquiry was provided to the RAG.
- 34. Dr Matt Koopman provided an update on the results of the Before-After, Control-Impact (BACI) survey in the BSCZSF:
 - The BACI survey ran from 8 November 2021 to 11 December 2021.
 - 8 impact sites were selected.
 - Seismic activity did not result in increased mortality of scallops in the study area.
 - The density of scallops increased in the 'after' phase of the BACI in both the control site and the impact site.
 - The increase in scallop weight in the 'After' survey was partially attributable to the somatic growth of scallops over the summer period.
 - The increase in scallop number was partially attributable to the growth of smaller scallops making them more available to the selectivity of the dredge.
- 35. The RAG noted the following:
 - The potential impacts from seismic activities may be variable depending on the characteristics
 of the study site, as well as the velocity of the blasts used, which may influence the degree of
 impact between seismic activities in different locations.

Agenda Item 5 – 2022 fishing season recommendations

36. The AFMA member introduced the Agenda Item and asked the RAG to consider the results of the 2022 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 2022 fishing season.

2022 doughboy scallop TAC

- 37. 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.
- 38. 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.

2022 commercial scallop TAC

- 39. The RAG noted the following background:
 - Given the lack of economic data available, the AFMA Commission were comfortable that sustainability be the focus when recommending a TAC.

- Due to the high biomass levels this year, a Tier 2 exploitation rate will be suitable. With a TAC of at least 3,000 t, closures can be implemented without impacting economics of the fishery.
- Industry members indicated that it is unlikely that there will be a large amount of fishing in the BSCZSF this season due to scallop quality in the BSCZSF, and the Tasmanian and Victorian scallop fisheries being open with expected high-quality scallops. Setting the TAC much higher than usual would therefore be difficult to justify.
- Numerous operational challenges including labour shortages and fuel prices are creating difficulties for the fishery which will likely result in less fishing in the BSCZSF this season.
- Maintaining the 2021-22 TAC for the 2022-23 season offers stability for industry.
- Markets are a key driver for industry in this fishery and setting the TAC too high would have implications for this. Setting the TAC higher than the market can absorb would open the management of the fishery to scrutiny.
- There are no sustainability issues with setting the TAC at a similar level to previous years due to the high levels of biomass recorded in the annual biomass survey.
- Currently, industry's maximum fishing capacity in the BSCZSF is approximately 3,500 t.
- Some fisheries have a large change limiting rule built into their harvest strategies which provides stability in TACs from year to year.
- The perception of the fishery is something for the MAC to consider, the RAG should provide advice based on data and sustainability.
- Whilst the total biomass recorded in the biomass survey was lower than last year's total, less beds were surveyed, and the surveys are therefore not directly comparable.
- The RAG considered the merits of a 4,500 t TAC and noted the following:
 - o 138 t of Research Catch Allowance will be deducted from the total TAC.
 - The Eastern and Western regions of the BSCZSF are biologically very different, meaning that a high TAC could potentially be impactful if fishing effort were concentrated in one area.
 - The likelihood of industry having capacity to catch a 4,500 t TAC is extremely low.

2022 area closures

- 40. The RAG noted the following 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 has 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.
- 41. In formulating its advice, the RAG made the following key points:
 - When considering closures and spawning potential, a higher density is considered more important than estimated biomass.
 - 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.
 - A representative system of closures is usually sought to cover the three regions of King Island, Flinders Island and Apollo Bay.

- Last year four beds were closed, including King Island 7, King Island 9, Flinders Island North of Babel A and Apollo Bay Hill East.
- King Island 10 is closest to port and provides a better fishing opportunity that King Island 9 or King Island 7.

2022 fishing season dates

- 42. 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 <u>Bass Strait Central Zone Scallop Fishery Management Plan 2002</u> defines the fishing season to be 'a period determined by AFMA'.
- 43. 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.
- 44. Those members and invited participants who declared a potential conflict left the meeting while the recommendations were being formed.

Recommendations for 2022 fishing season

- 45. Noting the advice above, the RAG made the following recommendations for the 2022 season:
 - The doughboy scallop TAC be set at 100 t
 - The commercial scallop TAC be set at 4,000 t (less research catch allowance)
 - The following areas be closed
 - Apollo Bay The Hill East (estimated biomass 4,587 t)
 - King Island 9 (estimated biomass 4,007 t)
 - Flinders Island North of Babel A (estimated biomass 352 t)
 - Flinders Island The Wreck A North (estimated biomass 897 t).

Agenda Item 6.1 – Five-year strategic research plan

- 46. The AFMA member introduced the Agenda Item. The RAG was asked to note that the five-year strategic research plan expires this year. The RAG was asked to note the comments from ScallopRAG and ScallopMAC at their respective meetings in March 2022 that have been incorporated in the draft five-year strategic research plan. The RAG was asked to provide advice on the amendments to the five-year strategic research plan, and to provide final endorsement of the draft as final.
- 47. The AFMA member detailed the changes made to the 'Fishery stocks, biology and the marine environment' section of the research plan. The RAG had no additional comments and endorsed the changes.
- 48. The AFMA member noted the changes made to the 'Climate change and adaptive management' section of the research plan. The RAG had no additional comments and endorsed the changes.

- 49. The AFMA member noted the changes made to the 'Gear and technology' section of the research plan, noting the addition of 'bycatch reduction and handling' to potential gear technology improvements.
- 50. One industry member noted that industry has the expertise deal with issues of survival and bycatch. The AFMA member noted the potential for discussing co-management arrangements in the future.
- 51. The AFMA member noted the changes made to the 'Economic and social' section of the research plan. The RAG had no additional comments and endorsed the changes.

Recommendations

52. The RAG unanimously supported all changes to the five-year strategic research plan and supported putting the document to the MAC for finalisation.

Agenda Item 6.2 – 2023-24 Annual Research Statement

- 53. The Chair noted that the RAG was being asked to provide recommendations for Agenda Item 6.2, and therefore members with a conflict of interest for this agenda item will be asked to leave the meeting whilst decisions are being formulated.
- 54. The AFMA Member introduced the 2023-24 Annual Research Statement. The RAG was asked to note the research priorities outlined in the research statement, and the scoping documents for the associated research projects.
- 55. The RAG was asked to provide advice on the Harvest Control Rule framework project, noting that there was funding available to include this project in the 2022-23 research year, rather than 2023-24. The RAG noted that this project should be undertaken by an external research provider.
- 56. The RAG was also asked to provide advice on any additional research priorities to be included in the 2023-24 annual research statement.
- 57. The RAG noted that the inclusion of 'habitat' in the scope of the annual biomass survey was a new focus to be included in the scope of the project.
- 58. The RAG noted the importance of the time series of data that the annual biomass survey provides. This data could provide good insights into trends and changes seen in the BSCZSF over previous years. The data could be utilised for a project which retrospectively analyses this data to understand trends in growth and size distribution over time.
- 59. The RAG noted the potential for a separate research project aimed at analysing the time-series of data collected through biomass surveys. A proposed title for the project is 'Population dynamics of scallops: Growth, recruitment, morphology and bed structures.'
- 60. Previous stock structure research of a similar nature has proven valuable in state jurisdictions. Genetic data has limited applications, with the biomass survey data time-series providing an excellent basis for this kind of research. The project would be relatively low cost and valuable to the RAG.
- 61. The Harvest Control Rule framework research project will investigate options for providing guidance in the TAC decision-making process.
- 62. Some dissenting views surrounded the length of time that the Harvest Strategy review has taken, and the additional time that the Harvest Control Rule project will take.
- 63. Members with a declared conflict of interest left the meeting whilst recommendations were made.

Recommendations

64. The RAG recommended the following research priorities for consideration of AFMA funding in 2023-24, with the corresponding cost, priority and feasibility:

- Annual biomass survey including reference to bycatch data; low cost, essential priority and high feasibility
- Population dynamics of scallops: Growth, recruitment, morphology and bed structures; low cost, high priority and high feasibility
- 65. The changes made to the following research scoping documents were adopted by the RAG:
 - Annual biomass survey including target species and bycatch
 - Harvest Control Rule framework

Close of meeting

66. The Chair thanked the RAG for their contribution to the meeting and wished industry all the best in the 2022 fishing season.

The meeting was closed at 16:25.

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	AFMA employee. No interest in the fishery pecuniary or otherwise.	
Haydn Titterton	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
Ross Bromley	Observer, Atlantis Fisheries Consulting Group	Client representative for Marine Stewardship Council BSCZSF.
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 – Summary of information collected during the 2022 BSCZSF biomass survey

Table 2 summary of table of information collected for each of the beds surveyed during the 2022 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/m²)	Mean size	Meats/kg (>85 mm)
Apollo Bay	AB 5 Hours	1,037	97.8	1,014	0.43	97	98
	AB The Hill	14,601	82.5	12,050	2.39	93	158
	Sub total	15,638		13,064			,
Flinders Island	FI North of Babel	1,578	97.8	1,544	0.34	101	54
	FI The Wreck A	1,856	99.1	1,839	0.43	100	52
	FI The Wreck B	1,632	99.4	1,622	0.36	105	48
	Sub total	5,066		5,005			
King Island	KI-10	3,860	82.3	3,178	2.06	95	70
	KI-7	313	46.9	147	0.14	83	91
	KI-9	10,482	38.2	4,007	1.17	87	108
	KI-BDSE	12,707	49.4	6,278	0.97	88	80
	KI-BDE	234	91.4	214	0.05	91	70
	Sub total	27,596		13,824			
Total		48,300		31,893			