



**Australian Government**

**Australian Fisheries Management Authority**

## **Scallop Resource Assessment Group (ScallopRAG) Meeting 42**

**Meeting minutes**

**7 June 2023**

**09:00-16:30**

**Microsoft Teams**

**DRAFT**



Australian Government

Australian Fisheries Management Authority

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

## Meeting 42 – 7 June 2023

---

### Agenda

**Time (AEDT):** 9:00 – 16:30

**Location:** Melbourne / Microsoft Teams

**Chair Name:** Brendan Kelaher

| Approximate time | Item   | Purpose    | Lead presenter    |
|------------------|--|------------|-------------------|
| 9:00 (30 min)    | <b>Agenda item 1. Preliminaries</b>                          |            |                   |
|                  | 1.1 Welcome and apologies                                    | For noting | 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       |
| 9:30 (30 min)    | <b>Agenda item 2. Fishery update</b>                         |            |                   |
|                  | 2.1 AFMA Management  | For noting | AFMA member       |
|                  | 2.2 Industry   | For noting | Industry members  |
|                  | 2.3 State update   | For noting | State             |
|                  | 2.4 Economic   | For noting | Economic member   |
|                  | 2.5 Research   | For noting | Scientific member |
| 10:00 (60 min)   | <b>Agenda item 3. 2023 pre-season survey</b>                 | For advice | Matt Koopman      |
|                  | 3.1 Biomass survey results                                   |            |                   |
|                  | 3.2 Bycatch species results                                  |            |                   |
| 11:00 (15 min)   | <b>Morning Tea</b>   |            |                   |
| 11:15 (60 min)   | <b>Agenda item 4. 2023 season recommendations</b>            | For advice | AFMA Member       |
|                  | 4.1 TAC (commercial and doughboy)                            |            |                   |
|                  | 4.2 Closures   |            |                   |
|                  | 4.3 Season dates   |            |                   |
| 12:15 (45 min)   | <b>Agenda item 5. Harvest Strategy review update</b>         | For advice | AFMA Member       |
|                  | 5.1 Harvest control rules – advice and recommendations       |            |                   |
|                  | 5.2 Incorporating Population Dynamics outcomes & MSE testing |            |                   |

| Approximate time            | Item   | Purpose    | Lead presenter |
|-----------------------------|--|------------|----------------|
|                             | 5.3 Consideration of economics in the management of the BSCZSF | Discussion | Julian Morison |
| 13:00 (30 min)              | Lunch  |            |                |
| 13:30 (45 min)              | <b>Agenda item 8. Research priorities</b>                      | For advice | AFMA member    |
|                             | 8.1 Five year strategic research plan                          |            |                |
|                             | 8.2 Annual research statement                                  |            |                |
| 14:15 (15 min)              | Afternoon Tea  |            |                |
| 14:30 (30 mins)             | <b>Agenda item 9. Climate change</b>                           | For advice | AFMA           |
| 15:00 (30 min)              | <b>Agenda item 10. Any other business</b>                      | For noting | AFMA member    |
| 15:30 <b>End of meeting</b> |  |            |                |

The Chair opened the meeting at 9:00.

## Agenda Item 1. Preliminaries

### 1.1 Welcome and apologies

1. The Chair, Professor Brendan Kelaher, welcomed members, participants, and observers to the meeting.
2. The Scallop Resource Assessment Group (RAG) members noted that the meeting was being recorded and commenced proceedings.

Apologies were received from James Parkinson.

### 3. Membership

|                 |                   |
|-----------------|-------------------|
| Brendan Kelaher | Chair             |
| Jayson Semmens  | Scientific member |
| Don Bromhead    | Scientific member |
| Julian Morison  | Economic member   |
| Stuart Richey   | Industry member   |
| John Cull       | Industry member   |
| Steve Hall      | AFMA member       |
| Yvette Lamont   | Executive Officer |

### Invited Participants

|                 |                                     |
|-----------------|-------------------------------------|
| Matt Koopman    | Fishwell Consulting                 |
| Ross Bromley    | Atlantis Fisheries Consulting Group |
| James Parkinson | DNRE Tasmania – Apology             |
| Alice McDonald  | AFMA Presenter                      |

### Observers

|                 |                                     |
|-----------------|-------------------------------------|
| Sally Weekes    | AFMA                                |
| Renee Pearce    | Atlantis Fisheries Consulting Group |
| Stephanie Blake | ABARES                              |
| Steph Brodie    | CSIRO                               |

### 1.2 Declarations of interest

4. 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](#). Potential conflicts were declared, industry members for Agenda items 4.1 (TAC) and research member for Agenda item 8 (Research priorities).
5. Chair asked members to consider that Industry members were valuable in the discussion regarding the 2023 Season recommendations with the RAG unanimously deciding that Industry members and invited participants would be involved in the discussion but would not be present for the final recommendation.
6. Chair asked members to consider that scientific members were valuable in the discussion regarding the research priorities for 2024-25 with the RAG unanimously deciding members and invited participants with a conflict of interest would be involved in the discussion but would not be present for the final recommendation.

### **1.3 Adoption of agenda**

7. The RAG noted that the ERA results and the bycatch and discard workplan were not completed and the agenda was amended to reflect this. The revised agenda was adopted as final.

### **1.4 Minutes of previous meeting**

8. AFMA advised that the Minutes from the ScallopRAG 41 meeting on 23 March 2023 were distributed to RAG members for feedback prior to finalisation and are available on the AFMA website.

### **1.5 Actions arising from previous meetings**

9. AFMA provided an overview of action items ([Attachment B](#)).
10. The RAG noted that action items from ScallopRAG 41 were combined into new action 5.2 and 5.3.

## **Agenda Item 2 – Fishery Update**

11. 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**

12. AFMA provided an update on matters relevant to the management of the BSCZSF.
13. Industry sought clarification over the EOI process that initially selected four boats however the process was extended, and five vessels were chosen for the survey. AFMA explained that not all active operators had been notified of the initial EOI process. Once this was discovered, the EOI process was extended to give all active operators and concession holders opportunity to submit EOIs. The selection panel agreed to increase the number of boats, from the four boats agreed at ScallopRAG 41, as Fishwell indicated they could accommodate an additional (5<sup>th</sup>) boat and this allowed an equitable representation of industry participation in the survey.
14. Industry requested that AFMA should refine the EOI process so that this does not occur in future and to avoid delays in the start of the pre-season survey. AFMA noted that procedures had been put in place to amend previous errors and confirmed that this had not delayed the pre-season survey, which started in the first week of May as soon as observers were available.
15. Industry members raised concerns over differing VMS software between Commonwealth and state agencies.

### **2.2 State fisheries**

16. Industry provided an update on the Victorian and Tasmanian scallop state fisheries.
17. The 2022-23 season catch was very low with less than 100 tonnes of the 979 tonnes TAC being caught. There was a significant amount of stock die off in both closed and open beds during the 2022 season, with very little effort within the fishery.
18. The Tasmanian scallop fishery is currently carrying out surveys to inform decisions on Total Allowable Catch (TAC) for the 2023 season. The surveys have included video cameras to assess stock availability. The total 2022 catch in the Tasmanian scallop fishery was 3329 t (74% of the 4495 t TAC).

### **2.3 Industry**

19. The Industry members provided further updates on the BSCZSF Tasmanian scallop fishery:
  - Crew shortages and fuel prices are continuing to produce operational challenges to industry;

- There are eight genuine boats that hold quota for all three scallop fisheries therefore operators are selective about fishing areas to provide an economic return to recover costs;
- State fisheries have new VMS requirement that differs from Commonwealth Fishery (AIS) software, industry is looking for consistent monitoring requirements between state and Commonwealth fisheries;
- The Tasmania quota is high and revolves around a good quality saleable product for market with the possibility of market collapse if large quantities of small size product flood the market;
- Bass Strait mainly fished though work carried out around King Island showed poor/low quality scallop of high biomass: and
- Tasmania scallop fishery was closed for five years (between 2016 – 2021) with 2022 being the first season it was opened again which proved to be a successful season.

## 2.4 Economic

20. The RAG noted an update from the economic member, including:

- The recent budget included an increase in funding for biosecurity which will involve a partial (ten percent) contribution from primary industry towards a biosecurity protection levy.
- The rollout of country or origin labelling for the hospitality industry is underway, as part of this process.
- The recent senate enquiry on fisheries quota systems noted the following outcomes (as a result of quota implementation):
  - all fisheries are showing lower GDP but higher profit;
  - TAC and ITQs have resulted advantages and disadvantages for fishery industry; and
  - the character of fishing communities has changed over time.

## 2.5 Research

21. The scientific members provided the following update:

- The Commonwealth Harvest Strategy Policy (HSP) will be under review through 2023-24 with a key focus being a technical review of key barriers and challenges to implementation. It will include a public consultation process. Consideration of changes to the policy are likely to occur as a separate process commencing in mid 2024.
- FRDC has funded a CSIRO project using video for scallop surveys, and includes development of hardware and software and trials of artificial intelligence technology for recognising scallops.

Action/Recommendations

**Action 1:** AFMA Member to enquire with AFMA's VMS section why other State/Commonwealth agencies are using different VMS systems to what is being used by AFMA for commonwealth fisheries (i.e. AIS)

## Agenda Item 3.1 – 2023 biomass survey results

22. Dr Matt Koopman and AFMA member advised RAG of issues with manual input of logbook data not transposing correctly into the AFMA maintained data base. The issue has been identified and is currently being rectified across affected fisheries by the data and licensing team.

23. Dr Matt Koopman noted the following points regarding the 2023 pre-season biomass survey:

- the skippers and crew of the boats that participated in the survey were acknowledged and thanked for their valuable contribution.
- The 2023 pre-season biomass survey was conducted during May 2023 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 near Flinders Island, King Island and Apollo Bay.

- Stratified random surveys were conducted for each of the 12 beds.
- For each random tow, the following were recorded:
  - The weight of all catch (including dead shell and substrate)
  - Measure length of at least 30 scallops (where available)
  - Record bycatch
  - Tow details
- For every 5 tows, 10 samples were taken for:
  - length-weight relationship
  - length-weight-height relationship
  - meat weights
  - gonad staging
- 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 2023 BSCZSF annual biomass survey was presented to the RAG. This includes estimates of biomass (t), per cent weight greater than 85mm, estimated biomass of scallops  $\geq$  85mm, density of individuals per square metre, mean size and meat weight per kg.
- The RAG noted the results of the biomass survey and provided the following comments: The results highlighted that in 8 of the 10 beds re-surveyed from 2021-22, there were significant declines in estimated biomass from the previous survey, and substantially higher levels of dead scallop, signifying widespread die-off of scallops in at least some areas of the fishery. While this was of potential concern, it was also somewhat expected at some point given the dynamic nature of the stock and its past history. In contrast, two new beds were surveyed that had very high levels of biomass.
- Some evidence suggests that growth is dependent on water depth (size decrease with increasing depth) potentially due to currents and food supply.
- Scientific members discussed small sized scallops being underrepresented in the survey as the gear on vessels is designed not to land undersized scallops.

### **Agenda Item 3.2 – 2023 Bycatch species results**

24. Dr Koopman presented the Bycatch species results as part of the 2023 pre-season biomass survey and noted the following:

- Four high risk species identified in the 2009 ecological risk assessment (ERA) were caught during the 2023 biomass survey, including Southern Blue Ringed Octopus, Black and White Seastar, King Island Thick shell-Clam and Pebble Crabs.
- That some of the species listed as high risk in the ERA might be classified as high risk due to a lack of life history data and the risk to these species could be low due to the low interaction rate.

25. ScallopRAG noted the following:

- That the bycatch interaction rates may not be indicative of commercial fishing, as the biomass survey is a stratified random survey and under commercial conditions industry would avoid areas with a high presence of bycatch and debris. An updated ERA for the fishery is due for completion in 2023. This will provide a more informed risk assessment of bycatch species.

- Fishwell will also conduct further analysis of the 2023 survey data to model bycatch levels within the fishery. This work will inform an update of AFMA’s Bycatch and Discard Workplan.
- The pre-season biomass survey indicates that the bycatch in the fishery remains at an acceptable level. The ScallopRAG is therefore comfortable that there are no major bycatch issues in the fishery.
- Whilst habitat species are known to be present within the BSCZSF, based on current levels of effort, the ScallopRAG is comfortable that impacts to these species remain at acceptable levels and are unlikely change in the short to medium future.
- ScallopRAG acknowledged the quality of the survey in providing information on bycatch and habitat forming species and its importance in monitoring this data and understanding how this may change overtime.

## **Agenda Item 4 – 2023 fishing season recommendations**

26. The AFMA member introduced the Agenda Item and asked the RAG to consider the results of the 2023 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 2023 fishing season.

### **Research Catch Allowance (RCA)**

27. ScallopRAG noted that due to factors such as weather and vessel availability, vessels who undertook the biomass survey may not be able to catch their allocated research catch allowance (RCA) before the start of the season, a condition of the scientific permit. Consistent with arrangements in 2022, ScallopRAG supported the RCA being caught pre-season and in-season, in years where the fishery would be open to commercial fishing, and the TAC above 1500 tonnes.

### **2023 doughboy scallop TAC**

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

- The BSCZSF Harvest Strategy (the Harvest Strategy) allows for a TAC for doughboy scallops to be determined at different levels each year, however as this species is not generally targeted the default TAC of 100 t is typically applied;
- A 100 t TAC allows for exploration of the fishery and markets; and
- Considering 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.

### **2023 commercial scallop TAC**

29. In formulating its advice, ScallopRAG noted:

- Tier 2 of the Harvest Strategy was the most appropriate approach given the estimated biomass of scallops greater than 85 mm was 49,044 tonnes. Noting that this estimate is only for the beds surveyed and not a total estimate of the biomass in the fishery.
- The Harvest Strategy does not provide any guidance on how to set the TAC relative to large biomasses. The review of the Harvest Strategy and proposed HCR framework is intended to address this issue.
- Based on sustainability alone, a TAC could be set in excess of 4,000 tonnes based on the results of the biomass survey, noting there was a decline of biomass in all beds that were also surveyed in 2022.
- ScallopRAG discussed the merit of using the previous seasons TAC as a starting point for the TAC discussion.
- ScallopRAG considered TACs higher than 2022, noting that maintaining the 2022 TAC of 4,000 tonnes would provide stability and consistency to industry.



- Consistent with its advice to the AFMA Commission in 2022, the RAG noted that while the BSCZSF harvest strategy is under review, the primary TAC setting consideration should be sustainability.
- Industry members noted that it is unlikely that significant catch will be taken in the BSCZSF in 2023 (similar to 2022 when only 495t was taken) due to expected fishing opportunities in the adjacent State scallop fisheries.
- Any undercatch in the 2023 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. A number of factors are likely to impact the total catch in the fishery in 2023, including fleet capacity, processing capacity, and the Victorian and the Tasmanian state fisheries both being open. With operators targeting the best quality scallops across the open fisheries.
- Based on the past commercial catches, 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.
- Similarly to previous years, the RCA from the pre-season biomass survey would be subtracted from the TAC.

## 2023 spatial closures

30. In formulating its advice, ScallopRAG noted:

- While not defined in the BSCZSF Harvest Strategy, ScallopRAG have previously considered it important that closures represent the spatial extent of the fishery.
- Similarly to 2022, 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. This includes the vicinity of the beds to ports due to the increase in operational costs such as fuel prices.
- 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 beds at the Flinders Island area. Noting the genetic importance of the scallops in this bed, ScallopRAG considered closing this bed.
- A closure of the Flinders Island bed would support protection of recruitment and spawning scallops in the Flinders Island area, noting its long-term reliability in providing density and biomass estimates. It was noted that while fishers have been keen to target this area, there has not been any fishing activity at this site recently, and is unlikely in 2023 due to operational and economic factors (mentioned above)
- There was a higher biomass of scallop 85mm or greater in the shallow areas of the Three Hummocks site (East and West). The beds were replotted incorporating Three Hummocks east and west deep as one bed, and Three Hummocks east and west shallow as the second bed. Three Hummocks Deep was considered for closure due to the smaller size scallops in this bed.
- The suggested spatial closures protect an estimated spawning biomass of 24,065 tonnes of scallops 85 mm or greater (49 per cent of the estimated spawning biomass surveyed; see [Table 1](#))

**Table 1.** Commercial scallop beds suggested for closures in 2023 with biomass (tonnes  $\geq$  85 mm in size) and density(individual/m<sup>2</sup>) of scallops. AB= Apollo Bay, FI= Flinders Island and KI= King Island

| Scallop bed       | Estimated biomass $\geq$ 85mm (t) | Density (individual/m <sup>2</sup> ) |
|-------------------|-----------------------------------|--------------------------------------|
| AB The Hill North | 1,861                             | 0.22                                 |

|                        |               |      |
|------------------------|---------------|------|
| FI                     | 3,224         | 0.31 |
| FI North of Babel      | 107           | 0.02 |
| KI Three Hummocks Deep | 18,873        | 2.86 |
| <b>Total</b>           | <b>24,065</b> | -    |

### 2023 fishing season dates

31. In formulating its advice, ScallopRAG noted:

- AFMA requires a minimum of three weeks between the RAG/MAC meetings and the season opening to prepare for the season rollover;
- the season start date has been 12 July for the last 3 years and industry generally plans towards this opening date;
- Industry's preference is for the fishery to open on Saturday 8 July, rather than Wednesday 12 July to allow operators to land their catch on the Monday; and
- Industry supported an opening date of 8 July, noting that AFMA will need sufficient time to provide 7 days notice to concession holders prior to the opening of the season.

### Climate Change

32. The ScallopRAG also considered information provided at the meeting by AFMA about the expected impact of climate change in Bass Strait – namely increased variability in key indicators and increased water temperature. ScallopRAG considered that the annual biomass survey and TAC setting process enable AFMA to respond quickly to changes in the fishery and that the TAC is sufficiently precautionary to account for any potential risks posed by climate change.

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

### Actions/Recommendations

Noting the advice above, the ScallopRAG made the following recommendations to the MAC and the AFMA Commission regarding arrangements for the BSCZSF 2023 fishing season:

**Recommendation 1:** Consistent with arrangements in 2022, the RCA may be caught pre-season and in-season, in years where the fishery is open to commercial fishing, and the TAC is above 1500 tonnes.

**Recommendation 2:** The doughboy scallop TAC be set at 100 tonnes and the commercial scallop TAC be set at 4,000 tonnes (less RCA)

**Recommendation 3:** The following areas be closed

- Apollo Bay the Hill North (estimated biomass – 1,861 t)
- Flinders Island (estimated biomass – 3,224 t)
- Flinders Island South North of Babel (estimated biomass – 107 t)
- Three Hummocks Deep (estimated biomass 18,873 t)

**Recommendation 4:** the fishing season open on or as soon thereafter 08 of July 2023 and close on 31 December 2023.

## Agenda Item 5 - Harvest strategy review update

34. Advice was sort from the RAG regarding incorporation of the proposed Harvest Control Rules (HCR) framework into the [Harvest Strategy](#), future work to inform the Harvest Strategy including the population dynamics project and the merits of pursuing the development of an economic conditions index to inform management of fishery.
35. The ScallopRAG noted the following:
- AFMA have recommended that the RAG agree to incorporate the proposed HCR framework into the Harvest Strategy, noting that there is ongoing work that will assist, refine and strengthen the harvest strategy in the future.
  - ScallopRAG remains uncertain regarding whether the proposed HCR framework is sufficiently precautionary, noting that it does not scale TACs against different levels of survey biomass, and allows for high levels of fishing mortality under situations of both high and low survey biomass.
  - The current harvest strategy has not been assessed using a management strategy evaluation (MSE) or similar testing/evaluation process so the degree to which its settings meet the HSP requirements are uncertain
  - ScallopRAG proposed that the harvest strategy, including the proposed HCR framework, should be further tested using MSE or equivalent process prior to the implementation of these measures into the harvest strategy.
  - The population dynamics project to be undertaken by Fishwell Consulting, has been approved for funding and will officially commence from 1 July 2023. This project is expected to provide useful information relevant to the ongoing review of the harvest strategy and MSE testing of the HCR framework.
  - The RAG discussed potential gaps in the proposed work and how they may potentially be addressed (either by the project, or other avenues).
36. The Economic member provided a presentation on economic considerations in the management of the BSCZSF and the merits of developing an economic index for the fishery to inform management. The RAG noted the following;
- AFMA has investigated the use of a Fishery Gross Margin (FGM) model to incorporate economic factors in the TAC setting process. However, due to issues in collecting representative economic data for the BSCZSF to support the model, and also because it would constrain factors such as quota lease price and market value, in 2022 the Commission agreed it was beyond the scope of AFMA's economic objectives and decided not to pursue this approach.
  - The proposed economic condition index would inform management of how the fishery is changing over time and monitors the economics of the fishery at a basic level (using publically available data). This will require less data collection than the previously proposed FGM model and avoids data confidentiality issues.
  - The proposed economic conditions index would not directly inform the TAC setting process but rather provide contextual information that can be considered by AFMA when making decisions.
  - This approach is already used in the Eastern Tuna and Billfish Fishery (ETBF).
  - Industry raised concerns that the BSCZSF was a very different fishery to the ETBF and the input provided into an index for the BSCZSF needs to include data relevant to the fishery (For example, a key economic factor for the scallop industry is the recovery of meat per shell). Operators incur the same costs to catch shelled scallops with relatively low cost variability except on price and weight (received from the processor), cost recovery is the main driver for industry.
  - ScallopRAG supported the exploration of developing an economic conditions index to inform management of the fishery.

## Recommendations/Action

**Action 2: ABARES to discuss with CSIRO the feasibility of using MSE or equivalent to test the BSCZSF harvest strategy and proposed HCR framework, to its incorporation into the harvest strategy.**

**Action 3:** Following ABARES discussions with CSIRO (Action 2), AFMA to coordinate next steps for the MSE process (i.e. set up as an AFMA funded research project or independent project) following up discussion in relation to whether population dynamic project can provide information that will inform MSE testing.

**Action 4:** AFMA, ABARES, the ScallopRAG Economic Member and BSCZSF industry to work together to develop a fit for purpose economic conditions index to inform management of the fishery and provide an update of progress at the next ScallopRAG meeting in 2024.

## Agenda Item 5 – ERA Results – postponed to a later date

37. The ScallopRAG noted an update from AFMA on the status of ERAs for the BSCZSF, including that an updated ERA for the fishery is due for completion later in 2023. This, plus bycatch analysis from biomass survey, will provide a more informed risk assessment of bycatch species and inform an update of AFMA's Bycatch and Discard Workplan. AFMA will reconvene with the ScallopRAG to discuss this work later in 2024.

## Agenda Item 6 – Bycatch and discard workplan – postponed to a later date

See above (agenda item 5).

## Agenda Item 8 – Research priorities

38. The AFMA member introduced the Agenda Item and asked the ScallopRAG to note the [BSCZSF Five Year Strategic Research Plan 2022-26, the Annual Research Statement, and sought ScallopRAG's advice on priority research for 2024-25 to be included in the Annual Research Statement.](#)

39. ScallopRAG supported the following priority research projects for inclusion in the [Annual Research Statement and](#) consideration for funding in 2024-25:

### *AFMA funding*

- BSCZSF 2025 annual biomass Survey including target species and bycatch
- Developing a Management Strategy Evaluation (MSE) for the BSCZSF Harvest Strategy (inc. testing of proposed harvest control rules (HCR) framework)

### *FRDC funding*

- Understanding sources of fishing mortality and recruitment estimation in the BSCZSF (inc. incorporating video survey techniques with biomass survey)
- Impact of seismic surveys on larvae

## Agenda Item 9 - Climate Change

40. AFMA provided an overview of its Climate Adaptation Program and general information on predicted climate impacts in south eastern Australian waters relevant to the BSCZSF. ScallopRAG noted that the AFMA Commission has endorsed the introduction of a standing Climate Change agenda item in all AFMA RAG and MAC meetings where TACs are being discussed, and sought feedback from ScallopRAG regarding the draft 'Climate and Ecosystem Status Report' that has been prepared for the fishery.

41. The RAG noted the following.

- Chlorophyll seems to be high and this appears to be correlated with the fishery performing well over last four years perhaps as a result of more food/nutrients being available.

- Concerns were expressed regarding a predicted marine heatwave in August 2023 and its potential impact on adult mortality in the south-eastern waters of Bass Strait around Flinders Island. This is an important area for scallop stocks in the BSCZSF. While it is unknown what impact a heatwave will have on scallop stock, it is well known that scallop beds are highly influenced by temperature.
- AMFA encourage Industry to provide advice on other relevant indicators that could connect environmental drivers.
- Climate change report cards will be developed for each fishery and refined over time. Each report card will be specific to its the fishery, the influences and what is relevant and be used as a tool by RAG and MAC's to provide advice to the Commission. Climate adaptation needs to be considered going forward and included in the annual biomass survey and TAC setting process.
- Considering the information provided by AFMA about the expected impact of climate change in in the area of the fishery, in particular increased variability in key indicators and increased water temperature, ScallopRAG is comfortable that the annual biomass survey and TAC setting process enables AFMA to respond quickly to changes in the fishery and that the TAC is sufficiently precautionary to account for any potential risks currently posed by climate change.

## Agenda Item 10 – other business

42. The Chair called for other business.
43. The AFMA member provided background on the BSCZSF Harvest Strategy Review Working Group (the Working Group) and its Terms of Reference and asked the RAG to consider current membership of the Working Group. It was proposed that Don Bromhead (Scientific Member on ScallopRAG) be offered a membership position noting his recent appointment to the ScallopRAG and that all other members remain unchanged. The proposal was unanimously agreed to by the RAG.
44. The AFMA Member provided an update on remuneration for ScallopRAG members and requested that all claims for reimbursement be received prior to the end of financial year.

**Recommendation 5:** ScallopRAG recommend the appointment of Don Bromhead as a member to the BSCZSF Harvest Strategy Review Working Group.

## Close of meeting

45. The Chair thanked the RAG for their contribution to the meeting and wished industry all the best for the 2023 fishing season.

The meeting was closed at 16:39.

## Attachment A- register of interest

Table 2. 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   |
| Don Bromhead    | Scientific member                        | ABARES Employee, on temporary transfer from AFMA. 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.  |
| Steve Hall      | AFMA member                              | AFMA employee. No interest in the fishery pecuniary or otherwise.  |
| Yvette Lamont   | Executive Officer                        | AFMA employee. No interest in the fishery pecuniary or otherwise.  |
| Matt Koopman    | Invited participant, Fishwell Consulting | Fishwell Consulting have undertaken the BSCZSF annual survey since 2015, this includes catch and effort for the Fishery. Fishwell 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. Recent projects include the Development of a methodology to validate ageing techniques for Bass Strait Scallops. No interest in any commercial fisheries. |
| Ross Bromley    | Invited participant | Client representative for Marine Stewardship Council BSCZSF, Atlantis Fisheries Consulting Group  |
| James Parkinson | Invited participant | DNRET employee. No interest in the fishery pecuniary or otherwise. Did not attend.  |
| Alice McDonald  | Invited presenter   | AFMA employee. No interest in the fishery pecuniary or otherwise.   |
| Sally Weekes    | Observer            | AFMA employee. No interest in the fishery pecuniary or otherwise.   |
| Renee Pearce    | Observer            | Industry representative, Atlantis Fisheries Consulting Group  |
| Stephanie Blake | Observer            | ABARES employee. No interest in the fishery pecuniary or otherwise.   |
| Steph Brodie    | Observer            | CSIRO employee. No interest in the fishery pecuniary or otherwise.  |

## Attachment B – Previous action items and recommendations

Table 2. Action items from meeting 41

| Agenda Item | No. | Action  | Agency/Person Responsible | Timeframe                                      |
|-------------|-----|---|---------------------------|--|
| 2           | 1   | Fishwell Consulting to provide updated mapping polygons following further discussion with Industry on coordinates and details of survey sites and area for exploratory work.  | Fishwell Consulting       | Before 2023 survey start                       |
| 3           | 2   | Investigate/confirm the confidence levels for the estimate of M from the Gwyther and McShane (1998) Port Phillip Bay tagging study (Doug Ferrell).  | Doug Ferrell              | Prior to ScallopRAG42                          |
| 3           | 3   | AFMA to enquire with Fishwell the potential for the Population Dynamics project to inform assumptions on M.   | AFMA                      | Prior to commencement of project (1 July 2023) |
| 3           | 4   | Don Bromhead to discuss with ABARES colleagues regarding options for conducting a MSE to evaluate the key underlying assumptions being proposed for the HCR framework, including to potentially seek advice from Professor Malcolm Hadden with the option of inviting him as an invited guest to the working group to provide input on MSE testing. | Don Bromhead/ABARES       | Prior to ScallopRAG42                          |
| 3           | 5   | AFMA to work with ABARES in establishing proposed MSE or equivalent.  | AFMA/ABARES               | Upon progression of Action item 4              |
| 3           | 6   | AFMA to work with ABARES and industry members in refining options for setting the TAC large change rule reference limits and associated control rules to account for a range of scenarios prior to the next ScallopRAG.   | AFMA/ABARES/Industry      | Prior to ScallopRAG42                          |



|   |   |   |                                     |                                       |
|---|---|---|-------------------------------------|---------------------------------------|
| 3 | 7 | AFMA to seek further advice from ScallopRAG at its next meeting on incorporating appropriate HCRs in relation to setting MYTACs.  | AFMA                                | To be included in ScallopRAG42 agenda |
| 3 | 8 | AFMA to seek further advice internally and discuss potential approaches with ABARES, ScallopRAG economic member Julian Morison, and industry on how best to consider economics in the management of the BSCZSF and at what point. | AFMA/ABARES/Julian Morison/Industry | Prior to ScallopRAG42                 |

**Table 3. Recommendations from meeting 41**

| Agenda Item | No. | Recommendation   | Agency/Person Responsible | Timeframe |
|-------------|-----|--|---------------------------|-----------|
| 2           | 1   | <p>The RAG recommended that the following beds be surveyed during the 2023 survey:</p> <ul style="list-style-type: none"> <li>• King Island 9</li> <li>• King Island 10</li> <li>• Kind Island BDSE</li> <li>• Three hummocks (2 sites)</li> <li>• AB – The Hill North</li> <li>• Flinders Island</li> <li>• FI - The Wreck A</li> <li>• FI - The Wreck B</li> <li>• Flinders Island – North (New)</li> <li>• FI North (The sisters)</li> <li>• FI South (North of Babel)</li> </ul> |                           |           |

## Attachment C – Action items and recommendations

Table 4. Actions from meeting 42

| Agenda Item | No. | Action  | Agency/Person Responsible | Timeframe |
|-------------|-----|---|---------------------------|-----------|
| 2.3         | 1   | AFMA and state representatives to raise/discuss the new state VMS requirement at ScallopMAC and confirm that Commonwealth Fishery (AIS) requirements including software and interface with elogs will be compatible.  | AFMA                      |           |
| 5           | 2   | <b>ABARES to discuss with CSIRO the feasibility of using MSE or equivalent to test the BSCZSF harvest strategy and proposed HCR framework, including its level of precaution and linear relationship of proposed exploitation rates, prior to its incorporation into the harvest strategy.</b>                | AFMA/ABARES/CSIRO         |           |
| 5           | 3   | Following ABARES discussions with CSIRO (Action 2), AFMA to coordinate next steps for the MSE process (i.e. set up as an AFMA funded research project or independent project) following up discussion in relation to whether population dynamic project can provide information that will inform MSE testing. | AFMA/ABARES/CSIRO         |           |
| 5           | 4   | AFMA, the ScallopRAG Economic Member and BSCZSF industry to work together to develop a fit for purpose economic conditions index to inform management of the fishery and provide an update of progress to the next ScallopRAG meeting in 2024.  | AFMA/ABARES/Industry      |           |
| 10          | 5   | AFMA to formalise appointment of new scientific member in consultation with PEER  |                           |           |

Table 5. Recommendations from meeting 42

| Agenda Item | No. | Recommendation | Agency/Person Responsible | Timeframe |
|-------------|-----|----------------|---------------------------|-----------|
|-------------|-----|----------------|---------------------------|-----------|

|    |   |  |      |  |
|----|---|--|------|--|
| 4  | 1 | <p>Consistent with arrangements in 2022, the RCA may be caught pre-season and in-season, in years where the fishery is open to commercial fishing, and the TAC is above 1500 tonnes.</p> <p>Three Hummocks Deep (estimated biomass 18,873 t)</p>   | AFMA |  |
| 4  | 2 | The doughboy scallop TAC be set at 100 tonnes and the commercial scallop TAC be set at 4,000 tonnes (less RCA)   | AFMA |  |
| 4  | 3 | <p>The following areas will be closed for the 2023 season</p> <ul style="list-style-type: none"> <li>• Apollo Bay the Hill North (estimated biomass – 1,861 t)</li> <li>• Flinders Island (estimated biomass – 3,224 t)</li> <li>• Flinders Island South North of Babel (estimated biomass – 107 t)</li> </ul> | AFMA |  |
| 4  | 4 | The fishing season open on or as soon thereafter 08 of July 2023 and close on 31 December 2023.  | AFMA |  |
| 10 | 5 | ScallopRAG recommend the appointment of Don Bromhead as a member to the BSCZSF Harvest Strategy Review Working Group.  | AFMA |  |