

# Great Australian Bight Resource Assessment Group (GABRAG) Minutes of meeting 1

18 September 2024 (Online)

## **Contents**

1	Pi	reliminaries	3
	1.1	Welcome and apologies	3
	1.2	Declarations of interest	4
	1.3	Adoption of agenda	4
	1.4	Minutes of previous meeting	4
	1.5	Actions arising from previous meetings	4
2	N	lanagement, Industry and data updates	5
	2.1	AFMA update	5
	2.2	Industry update	6
	2.3	Data update	7
3	El	ectronic Monitoring update	7
4	Cl	imate and Ecosystem Update	8
5	N	ISC audit and conditions	.10
6	St	ock structure of Ocean Jackets	.11
7	0	range Roughy	.12
	7.1	TAC (Albany and Esperance)	.12
	7.2	Orange Roughy Research Catch Allowance 2025–26	.12
	7.3	Revised GAB Orange Roughy Research Plan	.12
8	0	ther business and action items	.13
9	Fu	uture meeting date	.13
1(	) (I	ose of meeting	12

## **Great Australian Bight Resource Assessment Group (GABRAG) Meeting 1 – 18 September 2024**

Mr Lance Lloyd (the Chair) opened the meeting at 09:03 ACDT.

#### 1 Preliminaries

### 1.1 Welcome and apologies

The Chair welcomed members, invited participants and observers to the meeting and made an Acknowledgement of Country.

The RAG noted the current membership and invited participants attending the meeting (Table 1).

Table 1 - Meeting attendees and apologies

Chair	Mr Lance Lloyd
GABRAG members	Dr Andrew Penney, Scientific Member
	Dr Anthony Moore, Scientific Member
	Mr Neil MacDonald, Industry Member
	Mr Jim Raptis, Industry Member
	Ms Marcia Valente, Industry Member
	Dr Mark Grubert, AFMA Member
	Dr Eriko Hoshino, Economic Member
Invited participants	Dr Geoff Tuck, CSIRO <sup>1</sup>
	Dr Paul Burch, CSIRO
	Dr Euan Provost, AFMA
	Mr Tamre Sarhan, AFMA
	Mr Daniel Corrie, AFMA
	Dr John Stewart, NSW DPIRD <sup>2</sup>
	Ms Rikki Taylor, PhD Candidate, CSIRO/IMAS <sup>3</sup>
Observers	Ms Jennifer Power-Geary, AFMA
	Mr Will Jaggers, AFMA
	Ms Jacqueline Lyons, AFMA
Executive officer	Miss Audrey Kent, AFMA
Apologies	Mr Keith Rowling, Dr Franzis Althaus

 $<sup>^{\</sup>rm 1}$  Commonwealth Scientific and Industrial Research Organisation

<sup>&</sup>lt;sup>2</sup> New South Wales Department Primary Industries and Regional Development

<sup>&</sup>lt;sup>3</sup> Institute of Marine and Antarctic Studies

#### 1.2 Declarations of interest

The RAG members declared conflicts of interest as outlined in <u>Fisheries Administration Paper 12</u>. Members and participants reviewed the Declarations of Interest at <u>Attachment A</u>. For specific agenda items where an interest was declared (**Table 2**), the RAG decided that when management advice was being considered, the relevant members would participate in the discussion but leave the meeting for recommendations.

Table 2. Participation in agenda items where members declared a conflict of interest

Agenda item	Members	Discussion	Recommendation
7.1 Orange Roughy Albany & Esperance TAC for 2025–26	Neil MacDonald, Jim Raptis, Marcia Valente	Yes	No
7.2 Orange Roughy RCA for 2025–26	Neil MacDonald, Jim Raptis, Marcia Valente	Yes	No

#### 1.3 Adoption of agenda

The RAG re-ordered several agenda items and adopted the agenda (at Attachment B) as final.

#### 1.4 Minutes of previous meeting

The RAG noted that the draft minutes of the GABRAG 2 meeting on 22 November 2023 were circulated for member review and are now available on the AFMA page.

#### 1.5 Actions arising from previous meetings

The RAG noted the action items from previous meetings and the updates provided by the AFMA member at Attachment C. The RAG noted the following items:

<u>Action Item 3: November 2023 – Agenda Item 4</u>: GABIA to collate information from fishers regarding any environmental changes in the GAB each year and convey it to GABRAG.

- The RAG noted this action item is underway, and GABIA will summarise information at agenda item 2.2 of GABRAG 1, 2024.
- AFMA recommended closing this action item as climate and ecosystem updates will be presented at future GABRAG meetings as part of the Climate Risk Framework (CRF).
- Members queried if AFMA could develop a template outlining what environmental information operators should record during trips.
- Concerns were raised regarding skipper workload and exploring the use of temperature loggers on vessels to ease workload.
- The RAG recommended GABIA approach the Marine Stewardship Council (MSC) regarding funding to install environmental data loggers on two other otter trawl vessels in the fleet.
- The RAG accepted the recommendation by AFMA to close this action item.

<u>Action Item 6: November 2023 – Agenda Item 5</u>: The GAB Data Working Group to review the information collected through the GABFIS and identify ways that it could be collected by industry. The options proposed by the working group can then be considered by GABRAG.

• The RAG noted this action item is underway, and GABIA will summarise information at agenda item 2.2 of GABRAG 1 2024.

- AFMA recommends closing this action item as the provision of GAB Data Working Group outcomes to GABRAG forms part of the co-management contract between AFMA and GABIA.
- The RAG accepted the recommendation by AFMA to close this action item.

## 2 Management, Industry and data updates

#### 2.1 AFMA update

The RAG noted the update from Mark Grubert relating to the management of the Great Australian Bight (GAB) trawl sector. These included:

- AFMA Staffing GABRAG noted the changes in staffing arrangements for the Demersal and Midwater
  Fisheries Team at AFMA and that Audrey Kent is now the Executive Officer (EO) for GABRAG and
  GABMAC.
- Total Allowable Catch (TAC) settings for the 2024-25 season: The RAG noted the agreed TACs for Bight Redfish and Orange Roughy (Albany and Esperance) for the 2024–25 season (959 tonnes (t) and 50 t, respectively) are identical to those for the previous season. The agreed TAC for Deepwater Flathead was set at 959 t for this season, down from the previous season, based on concerns regarding lower-than-average recruitment in eight of the previous 10 years.
- Great Australian Bight Industry Association (GABIA) Co-management Workshop: AFMA attended the
  GABIA's annual workshop in Port Lincoln on 6 June 2024. The workshop covered TAC changes for the
  new season, the GAB Orange Roughy Research Plan, the Electronic Monitoring (EM) trial on GAB
  vessels, climate change adaption and progress on development of the Multi-Species Harvest Strategy.
  Additionally, a GAB data working group meeting was held and included a presentation on larval fish
  sampling by the South Australian Research and Development Institute (SARDI) and a demonstration of
  the capabilities of the OLRAC e-log system (focus on crew-based data sampling).
- Marine Stewardship Council (MSC) Accreditation: AFMA attended the first annual audit of the Great
  Australian Bight trawl and Danish seine fishery on 29 August 2024. AFMA will continue to assist in
  addressing the single condition and two recommendations relating to the MSC certification of this
  fishery.
- Climate and Ecosystem Update: Dr Stephanie Brodie (CSIRO) has produced the September 2024 edition of the Climate and Ecosystem Update for the SESSF and seeks advice on this document.
- Climate Risk Framework (CRF): Mr Daniel Corrie (AFMA) is coordinating the development of AFMA's
   CRF to be used by Research Advisory Groups (RAGs) and Management Advisory Committees (MACs)
   when considering the impacts of climate change on Commonwealth fisheries. A CRF Working Group
   meeting, covering selected SESSF species (including Bight Redfish), is scheduled for the afternoon of 9
   October 2024.
- Orange Roughy Research Fishing: AFMA issued scientific permits to two vessels to pursue the 200 t base Research Catch Allowance (RCA) for Orange Roughy in the GAB during the 2024–25 season.
   Approximately 20 t of Orange Roughy has been caught so far this season
- *Electronic Monitoring (EM):* A selection of Electronic Monitoring systems has been installed on the otter trawl vessels *Explorer S, Noble Pearl* and *Silver Phoenix*, and the Danish seine vessel *Gail Jeanette III* to compare and contrast the features of each system.
- **Seabird Interactions:** One GAB otter trawl vessel reported nine interactions with albatrosses during a single trip in May 2024. This followed a single interaction with an albatross by a different otter trawl

vessel in April 2024. AFMA is working with industry to identify methods to reduce albatross interactions in the GAB trawl sector.

• **Co-management Agreement:** A three-year co-management contract between AFMA and GABIA has been established.

The RAG discussed the following points regarding the AFMA update on the Deepwater Flathead TAC setting for the 2024-25 season:

- Industry expressed concern with the communication process in relation to the previous year's Commission decision to reduce the Deepwater Flathead TAC from 1,238 t to 959 t, despite RAG advice to set the TAC to 1,209 t.
- Clarification was sought on the formal process of notifying the RAG when a Commission decision deviates from RAG advice. AFMA informed the RAG that it provided a letter to industry members on the Commission's decisions and acknowledged that not all RAG members received the letter.
- Industry expressed concerns with the current biological sampling methods and if they are sufficient to assess recruitment patterns. Discussion ensued regarding the impact of different codend mesh sizes on the size of fish collected and the importance of random sampling.
- The RAG noted that the sampling methods used by crew and low recruitment was discussed at the SESSFRAG data meeting 2024, and recommended the minutes be distributed to the RAG once completed.
- The RAG recommended Paul Burch to work up recent length frequency data for Deepwater Flathead and present data results and methods of assessment to GABRAG 2, 2024.

**Action Item 1:** AFMA to circulate minutes from the 2024 SESSFRAG Data meeting to GABRAG members when available.

**Action Item 2:** Paul Burch (CSIRO) to summarise the recent length frequency data for Deepwater Flathead and present the results to GABRAG 2, 2024.

#### 2.2 Industry update

Neil Macdonald presented the industry update, and the RAG noted the following:

- The GAB was subject to a strong and extended period of cold-water upwelling from November 2023 through to May 2024.
- Catches of both Deepwater Flathead and Bight Redfish have been well above average, and Bight
  Redfish were seen earlier than normal. Data for future assessments may be influenced by this rise in
  catches.
- Due to a number of issues such as breakdowns, re-fits and skipper availability there has been less effort applied in the fishery this year. The Danish seiner has had limited fishing after the skipper left the boat and its engine issues. This vessel will be leaving the fishery.
- All vessels have been provided with the updated Boat Operators Manual (BOM) for 2024/25. Visits to boats will begin soon to meet skippers and crew and review their operations in relation to the BOM.
- Some Orange Roughy research fishing has been undertaken with some reasonable catches taken. An
  initial trial of acoustic surveying has been provided to CSIRO to see if it is a viable tool to use in the
  future.

 The crew based data collection process is now being actively adopted by boats. Size structures for Bight Redfish, Deepwater Flathead and Orange Roughy continue to be collected by crews.

The RAG noted that the large Deepwater Flathead catch would be most likely to suppress the market price for this species. Industry advised that some vessels now apply landing limits for this species.

#### 2.3 Data update

The RAG noted the data update provided by Paul Burch on the changes/issues relating to SESSF data.

The following points were noted:

- A data overview was presented at the SESSFRAG data meeting in August 2024. The RAG was reminded that CSIRO will not be processing AFMA data in 2025. The Integrated Scientific Monitoring Program (ISMP) discard report will not be provided in 2024 due to delays in the ISMP strata review work. Discard estimates for 2023 will be updated in 2025. Silver Trevally will be split into 'Eastern' and 'Western' stocks (consistent with the 2023 assessment).
- There were some minor changes to CDR data for GAB species compared to 2023 are as follows:
  - i. Some data entry errors have been identified, year inputs, and corrected. CSIRO is working with AFMA to correct other errors in the data.
  - GAB CDR data now used for School Shark and Gummy Shark (logbooks used previously).
- Some minor changes to state data for GAB species are as follows:
  - i. Western Australian data received in different format resulting in small changes in catch report tables.
  - ii. Southern Western Australia (WA) catches are now included in total landings for Bight Redfish and School Shark, consistent with stock structure assumptions for those stocks.
- Some minor changes to logbook data were identified after the data meeting including:
  - i. An Ocean Jacket record from July 2023 that was declared as 140 t instead of 140 Kg.
  - ii. A Deepwater Flathead record from July 223 that was declared as 128 t instead of 128 Kg.

The RAG discussed the following points regarding the data update:

- Clarification on the Silver Trevally stock structure. The eastern stock comprises of NSW, Victoria and Bass Strait, and the western stock encompasses everything else, including the GAB catches.
- Cost shares on the Bight Redfish stock assessment as state catches are now part of the stock assessment.
- Catches of Bight Redfish from Western Australia (WA) waters are included in the stock assessment which pushes the TAC up, however in most cases, if the proportion of state catch doesn't change there is very little impact on the assessment. Proportion of WA catch is low, with WA catch being between 10–30 t a year.

## 3 Electronic Monitoring update

The RAG noted updates from Mr Tamre Sarhan and Dr Euan Provost regarding recent progress of the Electronic Monitoring (EM) trial in the Great Australian Bight Trawl Sector (GABTS).

The RAG noted the following points:

- Three out of four vessels have completed trips with observers, and AFMA anticipates the fourth vessel to complete their observer trip in late October.
- ABARES will undertake the comparative analysis of EM footage and observer data.
- The EM team has been exploring the potential of AI to estimate wildlife abundance (to reduce manual review) in collaboration with CSIRO.
- One vessel has stopped fishing in the GAB. The observer trip with EM was already undertaken and the
  data will still be reviewed to inform the trial report. A determination on the EM system recovery from
  the vessel needs to be made. The remaining vessels are awaiting data review.
- The RAG noted that: a) there is currently a high volume of data to review; b) Some cameras have not been cleaned, resulting in data loss; c) Fish lengths are being obscured by fish boxes causing data loss; d) data storage and access has been resolved and e) additional project-specific staff have been hired to increase capacity.
- The RAG viewed a selection of EM footage from different boats showing clean and dirty cameras, and views from different parts of the boat focused on measuring tables and discarding operations. The following points were made:
  - i. Camera cleaning practices need to be simple.
  - ii. Glare is affecting video footage to some degree. Minimising glare should be considered when positioning cameras during future installs.
  - iii. Occasional technical difficulties are unavoidable but have all been resolved to date.
- The final EM report is expected to be completed in late January/early February 2025.

#### GABRAG discussed the following points:

- There is potential for EM data to feed into the ISMP report depending on the outcomes of the comparative analysis by ABARES.
- Cameras need to be cleaned at least once per trip. There are displays in the wheelhouse which show
  the camera view to the crew. The RAG noted that on the trips with observers, the observers are
  cleaning the cameras per shot, and some vendors provide notifications when camera views are dirty.

## 4 Climate and Ecosystem Update

Mr Daniel Corrie (AFMA) introduced this agenda item. The RAG noted the work underway as part of AFMA's Climate Adaptation Program, including the trial application of AFMA's draft Climate Risk Framework for Bight Redfish.

AFMA seeks GABRAGs feedback on the draft Climate Risk Framework (CRF):

- The framework has been refined over the last six months based on stakeholder feedback and input from the CRF Working Group.
- It outlines a risk assessment process with a suite of measures within the science, management and industry adaption pathways to mitigate climate risk.
- The framework involves a four-step process. These are:
  - 1. Consider risk to the species based on climate risk and estimated stock status. The risk matrix allows for both positive and negative impacts of climate change. RAGs and MACs have the

- opportunity to resolve the risk profile for each species/stock based on the best available information.
- 2. Identify whether there is sufficient precaution in the existing science, management or industry adaption.
- 3. Determine the residual risk after considering the adequacy of existing mitigation measures.
- 4. Provide advice to the AFMA commission on any additional measures required to respond to climate risk. Required for every species.

The RAG discussed the following regarding the Climate Risk Framework:

- Under-caught TACs should be considered by the CRF Working Group as a mechanism to mitigate climate risk.
- Challenges associated with climate mitigation relying on uncertain model outputs could have unintended consequences for the fishery.
- There is a need for regular ecosystem modelling, noting concerns with the associated costs.
- AFMA reaffirmed that the CRF is currently in a trial phase and there are no plans to base TACs or other management decisions on the outcomes of this trial. Additionally, uncertainty in model outputs is accounted for in the categorisation of risk profiles.
- The RAG asked AFMA to approach Dr Beth Fulton for advice on which climate factors are most influencing GAB species and what additional data should be collected to future-proof the fishery.
- While the original CRF did have a focus on TAC reductions as a mitigating factor, the revised framework focuses on a broad range of options, including adjusting model parameters or modifying control rules to take account of climate drivers and make informed decisions.

Daniel Corrie sought GABRAG feedback on the draft Climate and Ecosystem Status Report for the SESSF, including updating as necessary, the stakeholder "observations" section noting:

- The purpose of the Climate and Ecosystem Status Reports is to provide contextual information for the RAG's consideration of stock assessments and TAC advice.
- The main points from the report were that:
  - i. Global sea surface temperatures have been at record highs in 2023 and 2024.
  - ii. Moderate-severe marine heatwaves occurred off east Tasmania in 2023/24 summer. Cool water in the GAB and strong Bonney upwelling occurred throughout summer.
  - iii. Chlorophyll-A indicates spring blooms along east coast and south Tasmania. In summer and autumn, high levels of Chlorophyll-A coincide with cool waters along the Bonney coast and GAB.
  - iv. Bonney Coast and GAB had very cool bottom temperatures during the 2023/24 summer.
  - v. Currently we are in a La Niña watch. We have come from and El Niño period, currently sitting in neutral zone, but models are indicating we will enter a cooling period.
  - vi. Forecast of sea surface temperatures anomalies for September-November 2024 indicate warmer conditions across most of the SESSF.
  - vii. During winter, a negative southern annular mode typically increases the likelihood of rainbearing fronts across southern Australia and decreases the chance of rainfall influenced by onshore flow in parts of the east.

Mr Corrie encouraged industry and science members to provide information on any noticeable climate changes in the GAB to the AFMA climate adaptation team.

The RAG encouraged industry to report climate observations from vessels and requested a presentation from Steph Brodie at the second GABRAG meeting to expand and update the status report from a climate scientist perspective.

**Action Item 3:** AFMA to present the outcomes from the October 2024 Climate Adaption Working Group Meeting at GABRAG 2, 2024.

**Action Item 4:** AFMA to approach Dr Beth Fulton (at the October Climate Adaption Working Group Meeting) for advice on which climate factors are most influential on GAB stocks and what additional data needs to be collected to better inform future assessments of these stocks.

**Action Item 5:** AFMA to approach Dr Steph Brodie for an updated climate report and presentation to GABRAG 2, 2024.

#### 5 MSC audit and conditions

Neil MacDonald provided an update on the GAB MSC audit and conditions:

- GABIA thanks AFMA and CSIRO on their participation in the first MSC audit in August.
- The audit report is expected to be released shortly.
- The MSC assessors were pleased with the progress of data gathering in the GAB and the opportunities of EM for the future of the fishery as a management tool.

The RAG noted the MSC condition (a) and audit evaluation (b) as follows:

- a. "By Year 2 demonstrate that information is adequate in the Danish Seine fishery to measure trends and support a strategy to manage impacts on ETP species."
- b. "The audit noted that there had been observer trips on the Danish seine vessel. Further it was noted that under the Electronic Monitoring (EM) trial there was increased coverage of the vessel. These actions meant that the Client Action Plan had been met."

The RAG noted the MSC recommendations (a and b) audit evaluations (c and d) as follows:

- a. "Monitor potential changes to catch composition"
- b. "By-catch improve identification of sponges"
- c. "As the GAB Data Working Group are considering alternative methods for data collection, it was noted at the EM trial provides one option."
- d. "It was noted that the EM trial provides an opportunity for better identification noting that sponges can be difficult to ID. GABIA will consider also seeking further field based guides for sponge ID"

#### The RAG noted the following points:

- GABIA advised that The South Australian Museum has reduced their research function which reduces sponge identification capacity.
- GABIA requested advice on what information should be included in identification manuals/field guides for vessels.
- AFMA advised that an observer on the Silver Phoenix will be delivering sponge and Ocean Jacket samples to the Port Lincoln Science Centre (for storage) within the next 24 hours.

#### 6 Stock structure of Ocean Jackets

Dr John Stewart, Principal Research Scientist with NSW DPIRD, presented the results of the Fisheries Research and Development Corporation (FRDC) project "Identifying biological stocks of Silver Trevally and Ocean Jackets for assessment and management".

#### GABRAG noted the following points:

- The objective of the work was to clarify stock structure of Ocean Jackets nationally by collecting 40 samples per location around the country.
- Results of genetic testing showed significantly distinct populations east and west, with low levels of genetic differentiation within each population.
- Otolith results were highly variable and no identified patterns due to small and irregular shapes.
- Otolith chemistry results supported genetic work of distinction between eastern and western stocks, however edge spots suggested differential habitat use. Within the eastern stocks there are significantly different north and south stocks, representing fine scale population structure. It is recommended more research be conducted to determine if this spatial structuring is significant.
- Conclusion of the study is there are two distinct western and eastern stocks. Western stocks from WA
  to roughly Portland, Victoria and the eastern stocks continuing from Portland to South Queensland.

#### The RAG members noted:

- The limitations of the use of otolith chemistry and its representation of short life snapshot versus a whole life snapshot.
- Some ageing was undertaken out of interest and the largest Ocean Jacket from WA (~75 cm in length) was around seven years old.

**Action Item 6:** AFMA to distribute the final report for the project "Identifying biological stocks of Silver Trevally and Ocean Jackets for assessment and management" to GABRAG members when available.

## 7 Orange Roughy

## 7.1 TAC (Albany and Esperance)

AFMA requested that GABRAG recommend a bycatch TAC for Orange Roughy in the Albany and Esperance Quota Zones for the 2025–26 SESSF season.

The RAG discussed the following:

- One scientific member considered that the 50 t bycatch TAC is too high, particularly for a listed species
  with an unknown population size. The Albany and Esperance Quota Zones are rarely fished, with the
  last reported catch of Orange Roughy from these zones (during the 2015–16 SESSF season) amounted
  to 0.1 t.
- Industry raised concerns about any decrease to the incidental TAC, as it would remove the incentive
  for vessels to fish for other species in the Albany and Esperance zones due to the fear of breaching a
  very low incidental TAC.
- The group noted that the justification for the increase in the bycatch TAC (from 25 t to 50 t) in 2009 is not well documented and requested that AFMA examine historical GABRAG minutes to determine the reasoning behind this decision.

#### 7.2 Orange Roughy Research Catch Allowance 2025–26

Mark Grubert introduced the agenda item and GABRAG noted that:

- Scientific permits were issued to two vessels to fish for Orange Roughy under the Orange Roughy Research Plan (OORP) during the 2024–25 SESSF season.
- The AFMA Commission set a 'base RCA' of 200 t for GAB Orange Roughy for the 2024–25 SESSF season and provisionally approved an additional 200 t RCA (to apply in those areas subject to little or no research fishing) if at least 150 t of the base RCA is caught.
- At the time of writing, approximately 20 t of Orange Roughy has been caught under these permits.

AFMA requested that GABRAG provide advice on an RCA for Orange Roughy in the GABTF (including an triggers) during the 2025–26 SESSF season

- Industry emphasised that operating costs of Orange Roughy fishing in the GAB are high whilst market
  prices for this species are comparatively low. These factors in combination limit the amount of fishing
  effort directed at this species.
- CSIRO will conduct a simulation analysis using the Eastern Zone stock assessment to examine what data is needed to develop an appropriate assessment for data-limited Orange Roughy stocks in early 2025. This analysis will provide guidance on the minimum data requirements, and then a decision will need to be made if there is sufficient data to move forward with an assessment.

## 7.3 Revised GAB Orange Roughy Research Plan

Neil MacDonald provided the existing Orange Roughy Research Plan for the GABTF for the RAG to consider. The following points were noted:

- The Plan will be updated based on any additional comments from the RAG.
- Whilst the plan has been reviewed every five years in the past, the intent now is to review and (where necessary) amend the plan on an annual basis.

- GABIA intends to provide the next iteration GAB Orange Roughy Research Plan to GABRAG before its next meeting.
- Members are asked to provide feedback on the Orange Roughy Research Plan and pass on suggestions to AFMA and GABIA before GABRAG 2.

The RAG made the following recommendations with regard TAC decisions for Orange Roughy during the 2025–26 season:

- To maintain the bycatch TAC of 50 t in the Albany and Esperance Quota Zones, acknowledging that there will be more length and age frequency data available next year to guide the TAC decision making process for 2026–27.
- To maintain the 'base RCA' of 200 t and provisionally approve an additional 200 t RCA (to apply in those areas subject to little or no research fishing) if at least 150 t of the base RCA is caught.

One scientific member had a dissenting view and recommended a reduction in the Albany and Esperance bycatch TAC to either 20 or 25 t as Orange Roughy is a listed species under the EPBC Act. Furthermore, catches since EPBC listing have been low and there is limited data available to determine stock status.

The RAG suggested that a proposal on the economics of fishing in the Great Australian Bight be developed, with Orange Roughy included as one of the focal species.

**Action Item 7:** AFMA to examine historical GABRAG minutes to determine why the Orange Roughy Albany and Esperance TAC was increased from 25 t to 50 t in 2009 and provide the reasoning to the RAG when it next meets.

**Action Item 8:** Members to review the Orange Roughy Research Plan and provide any feedback to AFMA and GABIA before GABRAG 2, 2024.

#### 8 Other business and action items

Rikki Taylor, a PhD candidate with CSIRO/IMAS, gave a brief overview of her work focusing on emerging fish species in the SESSF, particularly those that may benefit from warming oceans. Rikki will provide a more indepth description of her project through a pre-recorded presentation to be played at GABRAG 2, 2024.

Action arising from GABRAG 1, 2024 are summarised in Table 2 below. No other business was discussed.

## 9 Future meeting date

The next meeting of GABRAG is scheduled for 8 November 2024.

## 10 Close of meeting

The Chair thanked RAG members for their contributions and closed the meeting at 14:23 hr ACDT.

Table 1. Action items arising from GABRAG 1, 2024

No.	Agenda Item	Description	Responsible entity	Timeframe
1	2.1	AFMA to circulate minutes from the 2024 SESSFRAG Data meeting to GABRAG when available.	AFMA	GABRAG 2, 2024.
2	2.1	2.1 Paul Burch (CSIRO) to summarise the recent length frequency data for Deepwater Flathead and present the results at GABRAG 2, 2024.		GABRAG 2, 2024.
3	4	AFMA to present the outcomes from the October 2024 Climate Adaption Working Group Meeting to GABRAG 2, 2024.	AFMA	GABRAG 2, 2024.
4	4	AFMA to approach Dr Beth Fulton (at the Climate Adaption Working Group Meeting) for advice on which climate factors are most influential on GAB stocks and what additional data needs to be collected to better inform future assessments of these stocks.	AFMA	GABRAG 2, 2024.
5	4	AFMA to approach Dr Steph Brodie for an updated climate report and presentation to GABRAG 2, 2024.	AFMA	GABRAG 2, 2024.
6	6	AFMA to distribute the final report for the project "Identifying biological stocks of Silver Trevally and Ocean Jackets for assessment and management" to GABRAG members once available on the FRDC website	AFMA	GABRAG 2, 2024.
7	7.1	AFMA to examine historical GABRAG minutes to determine why the Orange Roughy Albany and Esperance TAC was increased from 25 t to 50 t in 2009 and provide the reasoning to the RAG when it next meets.	AFMA	GABRAG 2, 2024
8	7.3	Members to review the Orange Roughy Research Plan and provide any feedback to AFMA and GABIA before GABRAG 2, 2024.	GABRAG	GABRAG 2, 2024.

## Attachment A – Register of Interests

Lance Lloyd	GABRAG Chair
,	Member of GABMAC
	Board Chair, AwF – Aquaculture without Frontiers (Australia) Ltd.
	Director; Lloyd Environmental Pty Ltd.
	Research Fellow; Federation University Australia
	No pecuniary interest.
Andy Moore	No personal pecuniary interest
,	Employed by ABARES – interest in sources of funding for research
	Senior Research Fellow – University of Queensland
	Principal Investigator on the National Recreational Fishing survey
	Co-investigator on school whiting stock structure & biology project
	Scientific member on GABRAG
Andrew Penney	Director of Pisces Australis Pty Ltd, an Australian registered marine/coastal research and management consultancy based in Canberra - interests in any opportunities in this regard.
	Currently Principal Investigator on FRDC Projects Nos 2017-180: Design and implementation of an Australian National Bycatch Report: Phase 1 – Scoping; and 2019-036: Implementation of dynamic reference points and harvest strategies to account for environmentally-driven changes in productivity in Australian fisheries.
	Independent scientific member on the AFMA South East RAG, the Tropical Rock Lobster RAG and the Small Pelagic Fishery RAG. Member of the AFMA ERA Technical Working Group.
	Deputy Scientific Member on the New South Wales Fisheries Total Allowable Fishing Committee Sep 2020 to Sep 2023.
	No shareholding and hold no positions relating to any other companies, including any fishing companies or industry associations.
Eriko Hoshino	Employed by CSIRO, Marine Resource Economics Group
	Adjunct with the University of Tasmania, Tasmanian School of Business and Economics (TSBE) & IMAS
	Principal investigator (PI) on characterising socioeconomic contribution of the tropical tuna fisheries in Indonesia project
	Acquiring funding for research purposes
Jim Raptis	GABRAG and GABMAC Industry Member
	Operates two boats in the GABT Fishery and owns four GABT SFRs as well as quota in the SESSF
	President of GABIA.
Neil MacDonald	Director NMAC(SA) P/L
	ORGANISATION SUPPORT
	Executive officer Great Australian Bight Industry Association (GABIA)
	Executive officer Charter Boat Association South Australia (CBASA)
	Executive officer Southern Fishermen's Association (SFA)
	Executive officer Saint Vincent Gulf Prawn Boat Owner's Association (SCGPBOA)
	Executive officer Marine Scale Net Fishers Association (MSNFA)

	Committee support services South Australian Rock Lobster Management Advisory Committee & Research Sub-Committee (SARLAC)
	Support services South Australian Professional Fishers Association
	COMMITTEE MEMBERSHIP
	Great Australian Bight Management Advisory Committee (AFMA) - Member
	Great Australian Bight Research Advisory Committee (AFMA) - Member
	Gulf St Vincent Prawn Fishery Management Advisory Committee (SVGPBOA) - Member
	Gulf St Vincent Prawn Fishery Research Sub-Committee (SVGPBOA) - Member
	Lakes & Coorong Fishery Management Advisory Committee (LCFMAC) – Member
	Australian Council of Prawn Fisheries - Director
Marcia Valente	Committee Consultant for Silver Phoenix Holdings who hold two GABT SFRs
Mark Grubert	Employed by AFMA. Trawl Manager,
	No pecuniary or other interest.
Audrey Kent	Employed by AFMA, Senior Management Support Officer, EO of GABRAG. No pecuniary or other interest.
Geoff Tuck	Employed by CSIRO. Involved in stock assessments
	Interest in obtaining funding for future research
	Principal investigator (PI) on SESSF stock assessment project
	Project leader CSIRO Marine Visual Technologies project team on automated catch detection and species identification
	Scientific member of SERAG
Paul Burch	Employed by CSIRO, assessment scientist. GBATF Data Working Group. Acquiring funding for research purposes.
Euan Provost	Employed by AFMA. Senior Management Officer, Electronic Monitoring. No interest, pecuniary or otherwise
Tamre Sarhan	Employed by AFMA. Senior Manager Electronic Monitoring program. No interest, pecuniary of otherwise
Jennifer Power- Geary	Employed by AFMA. Senior Management Officer Demersal and Midwater. No interest, pecuniary or otherwise

## Attachment B – Agenda

Start time ACST (duration)	Item	Purpose	Lead presenter/s			
09:00 (30 min)	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			
09:30 (30 min)	<ul><li>2. Management, Industry and data updates</li><li>2.1 AFMA Update</li><li>2.2 Industry Update</li><li>2.3 Data Update</li></ul>	2.1 For NOTING 2.2 For NOTING 2.3 For NOTING	Mark Grubert Neil MacDonald Paul Burch			
10:00 (30 min)	3. Electronic Monitoring Update	For NOTING	Tamre Sarhan			
10:30 (15 min)	Morning Tea					
10:45 (75 min)	<ul><li>4. Climate and ecosystem</li><li>4.1 Climate and Ecosystem Update</li><li>4.2 Climate Risk Framework</li></ul>	For ADVICE	Dan Corrie			
12:00 (15 min)	5. MSC audit and conditions	For NOTING	Neil MacDonald			
12:15 (45 min)	Lunch					
13:00 (20 min)	6. Stock structure of Ocean Jackets	For NOTING	John Stewart			
13:20 (45 min)	<ul> <li>7. Orange Roughy</li> <li>7.1 TAC (Albany and Esperance)</li> <li>7.2 Research Catch Allowance for 2025–26</li> <li>7.3 Revised GAB Orange Roughy Research Plan</li> </ul>	For ADVICE For ADVICE For ADVICE	Mark Grubert Mark Grubert Neil MacDonald			
14:05 (10 min)	8. Other business and action items	For ADVICE	Executive Officer			
14:15 (5 min)	9. Future meeting date/s	For NOTING	Executive Officer			
14:20	Close					

## Attachment C – Progress of Action Items from Previous Meetings

Complete/Redundant Underway Yet to start Advice required

#### Table 2 Progress of action items from previous GABRAG meetings

Meeting & (Agenda Item)	Action item #	Description	Responsible entity	Timeframe	Progress
Dec 2022 (7.0)	2	CSIRO to investigate including Deepwater Flathead catch as a covariate for Bight Redfish in the CPUE standardisation (and vice versa) and generalised linear models (GLMs) during future analyses and sensitivities.	CSIRO	The year before the next Bight Redfish assessment (i.e., 2025)	The next Bight Redfish assessment has been deferred from 2025 to 2026 as part of a large program to re-cast the AFMA stock assessment and data analysis schedule. This change also includes a 4-year MYTAC for Bight Redfish.
Oct 2023 (1.5)	1	AFMA to coordinate the development of a broader 'non-eastern' Orange Roughy data analysis strategy which (among other things) will identify ageing needs for GAB Orange Roughy	AFMA	Early 2025	The data analysis strategy will follow the work proposed by Paul Burch on validating catch and age models and data sources for data-limited Orange Roughy stocks.

#### Table 3 Request from SharkRAG 1, 2023

Meeting & (Agenda Item)	Action item #	Description	Entity Responsible	Timeframe	Progress
SharkRAG	2	AFMA to seek advice from GABRAG regarding the depth distribution of gummy shark catches off South Australia. More specifically, are gummy sharks shifting into deeper waters off this state?	AFMA and GABRAG	As soon as possible	For advice at GABRAG 2, 22 November 2023.