



Australian Government

Australian Fisheries Management Authority

Great Australian Bight Resource Assessment Group(GABRAG)

Meeting 2

8 November 2024

Online

Minutes

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Great Australian Bight Resource Assessment Group (GABRAG)

Meeting 2 – 8 November 2024

Mr Lance Lloyd (the Chair) opened the meeting at 09:40 ACDT.

1 Preliminaries

1.1 Welcome and apologies

The Chair:

- Welcomed members and observers to the meeting.
- Made an Acknowledgement of Country paying respect to the Traditional Owners of the land and waters that the meeting was held on (the *Kurna* people), and further paying respect to the *Mirning* people, whose sea country we fish and study in, and acknowledged all their Elders, past, present, and emerging.

GABRAG (the RAG) members noted the Acknowledgement of Country, that the meeting was being recorded, and commenced proceedings.

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

Table 1 Meeting attendees

Chair	Mr Lance Lloyd
GABRAG members	Dr Andrew Penney, Scientific Member Mr Anthony Moore, Scientific Member Mr Jim Raptis, Industry Member Mr Neil MacDonald, Industry Member Dr Eriko Hoshino, Economic Member Dr Mark Grubert, AFMA Member
Invited participants	Dr Paul Burch, CSIRO Dr Stephanie Brodie, CSIRO Dr Franzis Althaus, CSIRO Ms Rikki Taylor, IMAS/CSIRO Mr Tamre Sarhan, AFMA Dr Euan Provost, AFMA Ms Angela Cao, ABARES Mr Robert Curtotti, ABARES
Observers	Mr Keith Rowling, NMAC (SA)
Exec. officer	Miss Audrey Kent, AFMA

Apologies: Mrs Marcia Valente

1.2 Declarations of interest

The RAG members declared conflicts of interest as outlined in [Fisheries Administration Paper 12](#). Members and participants reviewed the Declarations of Interest at [Appendix A](#). For specific agenda items where an interest was declared (**Table 2**), the RAG decided that when management advice was being considered, the relevant parties 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
5. Research proposal for validating catch and age models and data sources for data-limited Orange Roughy stocks	Neil MacDonald, Jim Raptis, Keith Rowling	Yes	No
6. Research Proposals for 2024–25 and Priorities for 2025–26	Paul Burch, Stephanie Brodie, Franzis Althaus, Rikki Taylor, Andy Moore, Robert Curtotti	Yes	No

1.3 Adoption of agenda

The RAG re-ordered several agenda items and adopted the agenda (at [Appendix B](#)) as final.

1.4 Minutes of previous meeting

The RAG noted that the draft minutes of the GABRAG 1 meeting on 18 September 2024 are currently undergoing internal review and will be circulated once this is complete.

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 [Appendix C](#). It also noted that several action items would be completed during the current meeting.

2 PhD project overview

Rikki Taylor provided a summary her PhD project “*Identifying and assessing emerging fish stocks in a rapidly warming ecosystem*”, in particular the component of her work focusing on Ocean Jackets in the Great Australian Bight.

- The project will:
 - i. Identify emerging stocks within a multi-species, multi-sector fishery in a hot spot of global climate change;
 - ii. Investigate spatio-temporal variability of key biological parameters in data-limited and emerging stocks;
 - iii. Explore the robustness of data-poor to data-moderate stock assessment methods using Management Strategy Evaluation (MSE) to biological parameters that are predicted to change through climate change pressures; and
 - iv. Develop stock assessments for emerging SESSF species of interest.
- Rikki has conducted a Metier analysis on 36 years of logbook data from 1986-2022, a CLARA Clustering analysis and further grouping based on fishery experience and advice.

- A working group identified Ocean Jackets, John Dory and Frostfish as emerging species of interest in the SESSF.
- There are three emerging metiers in the GAB:
 - i. Deepwater Flathead and Bight Redfish;
 - ii. Blue Grenadier and Pink Ling; and,
 - iii. Orange Roughy.
- Changes in the GAB include decreasing Gemfish catches and increasing Ocean Jacket catches. The project will collect biological data (length, sex, age, weight) of candidate species to estimate length and age at maturity.
- The project will also examine changes in the spatial and temporal distribution of candidate species and how this varies with warm water events. Target of 300-500 otoliths and biologicals for each species for each stock (East vs West).
- Sample collection is underway through SEA-MES voyages, the AFMA observer program and GABIA crew-based monitoring.
- AFMA highlighted that it holds fortnightly meetings with CSIRO which includes discussion and support for Rikki's project.

3 Deepwater Flathead and Bight Redfish length data analysis

Paul Burch presented an analysis of length data from Deepwater Flathead and Bight Redfish.

The RAG noted the following points:

- Previous discussions have raised concerns about recruitment of Deepwater Flathead.
- Prior to 2022, crew sampling was undertaken on the retained catch, after discards had been removed leading to potential bias in the stock assessment as selectivity becomes mis-specified.
- The Industry data program now measures fish from the unsorted catch to minimise bias.
- Deepwater Flathead catches by all vessels saw an increase in length frequency in 2023 and 2024.
- There is little evidence to suggest the transition to the T90 net has had a detectable change to the length composition of the catch.
- Sampling for Bight Redfish returned to the desired level in 2024.
- Bias in length sampling of Bight Redfish is not apparent as there is no “knife-edge” change in the length distribution of this species (like there is for Deepwater Flathead).
- Paul Burch asked if the GABIA crew-based data collection program could measure Ocean Jackets instead of Bight Redfish for one year to provide length data for use in an Ocean Jacket assessment in 2026.

The RAG discussed the following points:

- The model is designed to account for fish that escape the net.
- Selectivity on non-randomised data by estimating retention curve and applying it backwards in time.
- The GAB assessments in 2025 and 2026 to visit selectivity parameters, action item already in place from SESSFRAG meeting.

- Data before and after crew re-training (sorted and random catch) are statistically different from fully representative data.
- Industry noted that cod-end meshes shrink over time (which affects selectivity) and that vessels sometimes target areas that host larger Bight Redfish.
- GABIA will discuss the potential switch from measuring Bight Redfish to measuring Ocean Jackets with skippers and asked that Paul Burch develop instructions on measuring Ocean Jackets.
- Industry highlighted that sales for Ocean Jackets have improved in recent years.

Action Item 1: GABIA to discuss the potential switch from measuring Bight Redfish to measuring Ocean Jackets with skippers

Action Item 2: Paul Burch to develop instructions on measuring Ocean Jackets and forward to GABIA.

4 MYTAC Recommendations

Mark Grubert led the discussion on Recommended Biological Catches (RBCs) for Bight Redfish and Deepwater Flathead during the 2025–26 season.

The RAG noted the following points:

- Catch rates of Bight Redfish and Deepwater Flathead have been very good during the current season, but the overall catch will be relatively low due to mechanical issues with two of the three otter trawlers in the fleet and the retirement of the single Danish seine vessel.
- GABIA has requested that the AFMA commission consider a carry-over of up to 50% under catch of Bight Redfish and Deepwater Flathead during the current season into the 2025–26 season due to the abovementioned mechanical issues.
- The Bight Redfish assessment has been brought forward from 2026 to 2025, and so Bight Redfish returns to a 3-year RBC period.
- The Commission decision to reduce Deepwater Flathead TAC for the 2024-25 season due to the Deepwater Flathead assessment showing lower than average recruitment in eight of the last 10 years used in the model.

The RAG discussed the following points relating to Bight Redfish:

- The economic viability of fishing in the GAB is unpredictable as catchability of the target species and market prices vary between years.
- Bight Redfish are long lived species, with natural mortality estimated at 0.10.

All RAG members considered that a temporary increase in the undercatch provision for this species would not adversely impact the stock whilst catches as a proportion of the TAC are modest (as is the case during the current multi-year RBC period). However, one scientific member made the case that the increase in the undercatch provision for this species was unwarranted because catch rates were already higher than previous years with 6 months left of the season, as evidenced by; Bight Redfish catch in a typical season is around 200 t (catch has not exceeded 310 t since 2010) or around 20% of the TAC (around 800-1000 t). GABRAG heard that catch-to-date in 2024-25 was around 13% of the TAC, with 6 months of the season left

of the current season, including March and April, the two highest catch months. The Danish seine vessel doesn't target bight redfish.

GABRAG recommended that the RBC for Bight Redfish be maintained at 994 t for the 2025–26 SESSF season. **The RAG also recommended** (by majority rather than consensus) that GABMAC consider a temporary (1-year) increase (to no more than 50%) in the undercatch provision for this species given the issues experienced by industry during the 2024–25 season.

The RAG discussed the following points relating to Deepwater Flathead:

- The catchability of Deepwater Flathead has increased this season; vessels can catch roughly 2 t a day.
- Natural mortality of Deepwater Flathead is comparatively high (at 0.24) and the stock is at the biomass target.

All RAG members considered that a temporary increase in the undercatch provision for this species would not adversely impact the stock whilst catches as a proportion of the TAC are modest (as is the case during the current multi-year RBC period). However, one scientific member made the case that the increase in undercatch provision for this species was unwarranted because Deepwater Flathead catch in a typical season is 600 t to 700 t (catch has not exceeded 720 t since 2014) or around 50% of the TAC (around 900–1200 t). GABRAG heard that catch-to-date around 35% of the TAC, with 6 months of the season left, including the summer period where catch rates are typically at their highest.

GABRAG recommended that the RBC for Deepwater Flathead be maintained at 940 t for the 2025–26 SESSF season. **The RAG also recommended** (by majority rather than consensus) that GABMAC consider a temporary (1-year) increase (to no more than 50%) in the undercatch provision for this species given the issues experienced by industry during the 2024–25 season.

5 Research Priorities

Mark Grubert led the discussion on research priorities for inclusion in the SESSF Annual Research Statement 2026–27. The RAG noted that AFMA has already identified four research priorities for inclusion in this document. These being:

1. Ageing of SESSF quota species for three years (ending 30 June 2029).
2. Stock assessments and data services for SESSF species for three years (ending 30 June 2029).
3. Review of Tier 1 assessments of SESSF stocks.
4. An evaluation of vessel profitability, market trends and price elasticity in southern Australian trawl fisheries.

The RAG noted that a Tier 1 assessment of Deepwater Flathead will be undertaken during the 2026–27 financial year and that a review of this assessment should not be undertaken in the same year. The Tier 1 assessment of Bight Redfish is therefore the only candidate for review in 2026–27 (at least in terms of stocks from the GAB). GABRAG ranked the four priorities against the cost, priority and feasibility criteria developed by AFMA with the outcomes shown in **Table 3**.

Table 3. GABRAG rankings of four research priorities for potential funding in the 2026–26 financial year

Title	GABRAG ranking		
	Cost	Priority	Feasibility
<i>Ageing of SESSF quota species for three years (ending 30 June 2029)</i>	High	Essential	High
<i>Stock assessments and data services for SESSF species for three years (ending 30 June 2029)</i>	High	Essential	High
<i>Review of Redfish Tier 1 assessment</i>	Low	High	High
<i>An evaluation of vessel profitability, market trends and price elasticity in southern Australian trawl fisheries</i>	Medium	High	High

GABRAG noted that proposals addressing research priorities for the 2024–25 financial year are still in development and asked that these be circulated to members when available. These priorities are:

1. *Ecological Risk Assessments for the otter trawl and Danish seine fleets in the Great Australian Bight Sector* and
2. *Survey of the 60-mile dogfish closure*

GABIA requested that any proposals addressing priority (i) include the Danish seine fleet even though the single Danish seine vessel in the GAB has been retired.

Robert Curtotti explained that ABARES wishes to engage with Industry to conduct another economic survey on the GAB trawl sector. This would involve estimating economic returns, gross value production of fishery, price average of species, costs, fuel use, repairs, maintenance, labour, vessel movement, trade index, efficiency analysis around the fleet and capacity indicators.

Industry expressed concerns about publishing sensitive business information, but Mr Curtotti stressed that information can be presented as trends rather than absolute values. There was general agreement that economic analyses of fisheries are important, and Industry agreed to work with ABARES on such analyses.

Action Item 3: Research proposals for 2025-26 to be circulated to members out of session when available.

6 Climate and Ecosystem Report

Stephanie Brodie led the discussion on the Climate and Ecosystem Report. The RAG reviewed the [Southern and Eastern Scalefish and Shark Fishery Climate and Ecosystem Report 2024](#), with a focus on the Great Australian Bight. The RAG also noted the following points:

- The Climate and Ecosystem Reports are a compilation of recent observations and climate predictions but are not projections of how fish stocks may respond to these events. Beth Fulton’s Atlantis model uses much of the information in these reports to produce projections under different climate or fisheries management scenarios
- There are many studies underway on the effects of climate variability on fish and fisheries. The difficulty here is translating the information from through these studies into management advice. This is where the Climate Risk Framework comes into play.

- The otter trawl vessel *Explorer S* is fitted with a water temperature and depth logger as part of the FRDC Ships of Opportunity Project. Data collected by this vessel may be used in future assessment models for Bight Redfish and Deepwater Flathead, but this is some way off.
- Some international agencies are already incorporating water temperature and nutrient levels into biomass models. The CSIRO assessment team may be able to do similar in future.

7 Climate Adaption - CRF Working Group Outcomes

Dan Corrie led the discussion on the trial application of AFMA's Climate Risk Framework (CRF) to Bight Redfish in the Great Australian Bight Trawl Sector (GABTS).

GABRAG noted the following points:

- The CRF Working Group met with industry representatives, management and scientific stakeholders at a meeting on 9 October 2024 to consider the trial application of the CRF to Bight Redfish.
- The Working Group considered that Bight Redfish has an overall risk status of 'Low', because although the climate risk status is 'High (category 1)' the stock status is 'Well above target'.
- The Working Group recognised that management arrangements (including science and industry measures) are in place for Bight Redfish, but these are specifically implemented to address climate impacts.
- Based on the residual risk, the Working Group recommends that the stock status and climate indicators are closely monitored to ensure a change in the risk profile can be detected.

The RAG discussed the following key points:

- While the framework includes consideration of Dynamic B_0 , Bight Redfish was not considered as part of the FRDC Dynamic B_0 project and there is no information to support further consideration.
- The Climate Risk Framework is designed to complement stock assessment outputs by providing additional insights into the confidence of management decisions, including RAG and MAC advice. This framework aims to enhance the decision-making process without overriding the existing stock assessment procedures.
- Outputs from Atlantis simulations provide insight on potential climate impacts over time. They are not intended as inputs to stock assessments.
- Collecting biological data is important to understand the impacts of climate on productivity as key inputs to stock assessments.
- Industry expressed concern with step 4 of the CRF, where the RAGs and MACs provide advice to the Commission. This arises from the Commission's decision in March 2024 to reduce the Deepwater Flathead TAC below that recommended by GABRAG and GABMAC. While industry is broadly supportive of the framework, it is cautious that the Commission may still go against RAG and MAC advice.
- Contemporary and empirical data is important to reduce uncertainty in model outputs and highlights the importance of continual collection of data.
- AFMA expect to have a CRF trial report for Commission consideration in mid-2025.

GABRAG endorsed the CRF and agreed with the residual risk of 'low' following the example application of the framework to Bight Redfish.

8 Electronic Monitoring Update

Tamre Sarhan and Euan Provost summarised recent progress on the trial of Electronic Monitoring (EM) in the Great Australian Bight Trawl Sector (GABTS). The RAG noted the following points:

- EM data collection coinciding with at-sea observer trips has occurred on all vessels with the exception of the *Explorer S*, which may not fish again during the data collection phase of the project;
- The EM system was removed from the *Gail Jeanette III* in early October 2024;
- The project is now in the 'data review' phase and is expected to be completed by the end of November. GAB specific review protocols have been finalised and are being used by reviewers. Once the review of the trips with at-sea observers is completed, the analysis comparing EM data to that of observers will be undertaken by ABARES;
- The scope of the project remains unchanged; however, the timing of the final report is dependent on the Data Review phase ending on schedule, and ABARES capacity to complete the comparison of Observer versus EM data;

The RAG also noted that camera placement issues have been resolved since GABRAG through repositioning of some cameras. Improved camera cleaning procedures have also improved image quality.

9 Alternative fuels presentation

Allen Haroutonian led the discussion on energy-efficient propulsion systems and alternative fuels.

The RAG noted the Fisheries Research and Development Corporation (FRDC) project "[*Climate Resilient wild catch fisheries*](#)" and the six key points from the report:

1. Future fuels such as hydrogen, methanol and ammonia are not feasible or viable for commercial fishing industry vessel retrofits, now or in future.
2. Fossil diesel and diesel "drop-ins" such as renewable diesel or e-diesel are the only technically feasible options,
3. Diesel "Drop-ins" at 100% substitution rates are currently economically unviable, unless fuel subsidies are introduced.
4. Avoid the trap of mistaking biodiesel for renewable diesel, they are not the same thing.
5. Regular Biodiesel should be absolutely avoided, as you are likely to void your engine warranty and block fuel lines.
6. A Level 3 vessel energy audit should be undertaken before contemplating any investment in a different propulsion system.

The RAG discussed the following points:

- Hydrotreated vegetable oil (HVO) 100 is made from 100% vegetable oil and can be blended with diesel fuel at a 1:4 ratio.
- Hybrid propulsion systems, that combine diesel, and electric motors are an option, but are also expensive.
- The use of a toroidal propeller can result in a 20–30% fuel saving.

Industry noted that fishing in the GAB is not profitable enough to regularly replace propulsion systems or vessels. The Norwegian and North American fishing fleets have been upgraded through support from government subsidies.

10 Summary of upper-slope dogfish monitoring project

Franzis Althaus led the discussion on the upper-slope dogfish surveys conducted in 2022 and 2023 and the research proposal in development to monitor dogfish in the 60-mile closure. The RAG noted the following points:

- The results of the recent surveys on Southern Dogfish and Harrison's Dogfish are summarised in the report "[Implementation of a survey program to monitor recovery of Conservation Dependent Southern Dogfish and Harrison's Dogfish](#)".
- The aims of the proposal currently in development are to:
 - i. Collect baseline information on threatened dogfish species in the 60-mile closure;
 - ii. Undertake genetic analyses to assess population structure and connectivity of Southern Dogfish and Harrison's Dogfish;
 - iii. Assess bycatch of threatened dogfish species since the inception of the Upper Slope Dogfish Management Strategy (USDMS) in 2013; and
 - iv. Conduct a pilot study to determine the viability of environmental DNA as a complementary monitoring method to inform the USDMS.

The RAG noted that Southern Dogfish undertake daily vertical migrations between depths of 200 m and 900 m. Harrison's Dogfish also undertake similar vertical migrations but have a slightly deeper limit (at 1000 m).

Dr Althaus stressed that while there was some flexibility in the design of the project, the survey needs to follow standard procedures to facilitate comparisons with other areas surveyed during the project that was just completed.

The RAG recommended that CSIRO approach the Marine Stewardship Council regarding potential funding to support genetic analysis on Southern Dogfish as they are a bycatch species of Orange Roughy in the Great Australian Bight. The RAG also recommended that, should the work be funded, CSIRO seeks input from a Working Group that includes representatives from AFMA and Industry.

11 GAB Orange Roughy Research Plan

Neil MacDonald led the discussion on the updated Orange Roughy Research Plan for the Great Australian Bight Trawl Fishery. Whilst the plan will be reviewed annually, it no longer has a set timeframe and will be updated as required.

No further comments on the plan were received from GABRAG members following the circulation of the plan on 1 November 2024. It will now be presented to GABMAC and the AFMA Commission for endorsement and approval, respectively.

An assessment on the GAB Orange Roughy stock may be achievable in the near future. However, this depends on the success of two steps: 1) an evaluation of the feasibility and appropriateness of a catch and age based assessment on the GAB Orange Roughy stock and 2) sufficient data and appropriate assumptions around stock structure to support such an assessment.

12 Other business and action items

No other business was discussed. The Executive Officer reviewed the action items arising from the meeting, and these were endorsed by the RAG (Table 4).

13 Future meeting schedule

The RAG noted that a Bight Redfish assessment is scheduled for 2025 and so two GABRAG meetings will be required next year.

14 Close of meeting

The Chair thanked RAG members for their contributions and closed the meeting at 3:54 hr ACDT.

Table 4. Action items arising from GABRAG 2, 2024.

No.	Agenda Item	Action Item	Responsible entity	Timeframe
1	2	GABIA to discuss the potential switch from measuring Bight Redfish to measuring Ocean Jackets with skippers	GABIA	As soon as possible
2	2	Paul Burch to develop instructions on measuring Ocean Jackets and forward to GABIA.	CSIRO	As soon as possible
3	5	Research proposals for 2025-26 to be circulated to members out of session when available.	AFMA	As soon as possible

Appendix A – Register of Interests

Name	Membership	Declared interests
Lance Lloyd	Chair	<ul style="list-style-type: none"> • No interest in the fishery pecuniary or otherwise • Member of GABMAC and SESSFRAG • Board Member, AwF – Aquaculture without Frontiers (Australia) • Director – Lloyd Environmental Pty Ltd. • Research Fellow – Federation University Australia
Andy Moore	Scientific member	<ul style="list-style-type: none"> • No personal pecuniary interest • Employed by ABARES – interest in sources of funding for research purposes • Senior Research Fellow – University of Queensland • Principal Investigator on the National Recreational Fishing survey • Co-investigator on school whiting stock structure and biology project • Scientific member on GABRAG
Andrew Penney	Scientific member	<ul style="list-style-type: none"> • 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.
Jim Raptis	Industry member	<ul style="list-style-type: none"> • 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.
Mark Grubert	AFMA Member	<ul style="list-style-type: none"> • Employed by AFMA. Trawl Manager, No pecuniary or other interest.
Neil MacDonald	Industry member	<p>PECUNIARY INTEREST</p> <ul style="list-style-type: none"> • Director NMAC(SA) P/L <p>ORGANISATION SUPPORT</p> <ul style="list-style-type: none"> • Great Australian Bight Industry Association (GABIA) • Charter Boat Association South Australia (CBASA) • Southern Fishermen’s Association (SFA)

		<ul style="list-style-type: none"> • Saint Vincent Gulf Prawn Boat Owner's Association (SCGPBOA) • Marine Scale Net Fishers Association (MSNFA) • South Australian Professional Fishers Association COMMITTEE MEMBERSHIP <ul style="list-style-type: none"> • Great Australian Bight Management Advisory Committee - Member • Great Australian Bight Research Advisory Committee - Member • Gulf St Vincent Prawn Fishery Management Advisory Committee - Member • Gulf St Vincent Prawn Fishery Research Sub-Committee - Member • Lakes & Coorong Fishery Management Advisory Committee - Member • Australian Council of Prawn Fisheries – Director / Chair • FRDC South Australian Research Advisory Committee – Member • Cost Recovery Implementation Committee - Member Associates <ul style="list-style-type: none"> • Mezzabon Pty Ltd – Marilyn Nobes • Bluefin Consulting – Keith Rowling
Audrey Kent	Executive Officer	<ul style="list-style-type: none"> • Employed by AFMA, Senior Management Support Officer, EO of GABRAG. No pecuniary or other interest.
Geoff Tuck	Invited participant	<ul style="list-style-type: none"> • 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	Invited participant	<ul style="list-style-type: none"> • CSIRO Assessment Scientist • CSIRO representative on the Fisheries Statistics and Information Working Group.
Stephanie Brodie	Invited participant	<ul style="list-style-type: none"> • CSIRO Research Scientist
Euan Provost	Invited participant	<ul style="list-style-type: none"> • Employed by AFMA. No pecuniary or other interest.
Miriana Sporic	Invited participant	<ul style="list-style-type: none"> • CSIRO Assessment Scientist. • Acquiring funding for research purposes. • Project leader CSIRO Ecological Risk Assessments
Pia Bessell-Browne	Observer	<ul style="list-style-type: none"> • CSIRO Assessment Scientist. • PI on FRDC project: Developing a harvest control rule to use in situations where depletion can no longer be calculated relative to unfished levels. • Assessment scientist
Franzis Althaus	Observer	<ul style="list-style-type: none"> • Employed by CSIRO, Research scientist.

Appendix B – Agenda

Start time ACDT (duration)	Item	Purpose	Lead presenter/s
09:00 (20 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 and advice	Rachel Downes
09:20 (10 min)	2. Electronic Monitoring update	For noting	Mark Grubert
09:30 (1 hr)	3. Deepwater Flathead Tier 1 assessment Recommended Biological Catch for 2024–25	For advice	Geoff Tuck
10:30 (15 min)	Morning tea		
10:45 (30 min)	4. Climate and ecosystem update	For noting and advice	Stephanie Brodie
11:15 (15 min)	5. Research proposal for validating catch and age models and data sources for data-limited Orange Roughy stocks	For advice	Paul Burch
11:30 (75 min)	6. Research Proposals for 2024–25 and Priorities for 2025–26	For advice	Mark Grubert
12:45 (10 min)	7. Other business and action items	For advice	Rachel Downes
12:55 (5 min)	8. Future meeting schedule	For noting	Rachel Downes
13:00	Close and lunch		

Appendix C – Progress of Action Items from Previous Meetings

Completed/Redundant	Underway	Yet to start	Advice required
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Table 3. Progress of action items from previous GABRAG meetings

	Meeting details (Agenda Item)	Action item #	Action Item	Entity Responsible	Timeframe	Progress
	December 2022 (7)	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	Prior to GABRAG 1, 2025	<u>Yet to start</u> The next stock assessments for Bight Redfish and Deepwater Flathead were rescheduled to 2025 and 2026, respectively, during the 2024 SESSFRAG Chairs' meeting.
	October 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	<u>Yet to start</u> A data analysis strategy will follow the work proposed by Dr Paul Burch on validating catch and age models and data sources for data-limited Orange Roughy stocks.
	November 2023 (5)	8	AFMA to approach John Stewart for a presentation on the stock structure of Silver Trevally and Ocean Jackets.	AFMA	SESSFRAG Chairs' meeting 2024	<u>Completed</u> John Stewart presented his research on stock structure of Ocean Jackets during agenda item 7 of GABRAG 1, 2024. A presentation on Silver Trevally was not considered necessary for the GAB.
	September 2024 (2.1)	1	AFMA to circulate the minutes from the 2024 SESSFRAG Data meeting to GABRAG when completed.	AFMA	As soon as possible.	<u>Underway</u> The minutes from the 2024 SESSFRAG Data meeting have been compiled and are undergoing internal review.

September 2024 (2.1)	2	Paul Burch (CSIRO) to work up recent length frequency data for Deepwater Flathead and present results and methods of assessment to GABRAG 2, 2024.	CSIRO	GABRAG 2, 2024	<u>Underway</u> Paul Burch will present the length frequency data for Deepwater Flathead during agenda item 2 of GABRAG 2, 2024.
September 2024 (4)	3	AFMA to present the outcomes from the 9 October 2024 Climate Adaption Working Group Meeting to GABRAG 2, 2024.	AFMA	GABRAG 2, 2024	<u>Underway</u> Dan Corrie will present the outcomes of the Climate Adaption Working Group meeting during agenda item 7 of GABRAG 2, 2024.
September 2024 (4)	4	AFMA or Industry to ask Beth Fulton 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/GABIA	GABRAG 2, 2024	<u>Completed</u> Beth Fulton advised that sub-surface sea temperature data would be most beneficial to improving the predictive capabilities of Atlantis. More length and age data for SESSF species would also be useful.
September 2024 (4)	5	AFMA to request that Steph Brodie attend GABRAG 2, 2024 to provide an update on the Climate and Ecosystem Report.	AFMA	GABRAG 2, 2024	<u>Underway</u> Steph Brodie will provide an update on the Climate and Ecosystem Report during agenda item 6 of GABRAG 2, 2024
September 2024 (6)	6	AFMA to distribute the final report for the project <i>"Identifying biological stocks of Silver Trevally and Ocean Jackets for assessment and management"</i> to GABRAG members once published.	AFMA		<u>Yet to start</u> The final report is still in review and is not available on the FRDC website at present.
September 2024 (7)	7	AFMA to examine historical GABRAG/GABMAC minutes to determine why the TAC for Orange Roughy Albany and Esperance was increased from 25 t to 50 t in 2009 and report back to the RAG.	AFMA		<u>Underway</u> AFMA awaiting access to archived RAG and MAC minutes. Orange Roughy TAC was discussed out of session in 2009.

September 2024 (7)	8	CSIRO to present results of historical catch of Orange Roughy and any biological data available to GABRAG in 2025 to assist in making an informed TAC decision for Albany and Esperance Orange Roughy.	CSIRO		<u>Yet to start</u> Work to commence in 2025.
September 2024 (7.3)	9	Members to review the updated Orange Roughy Research Plan and provide any feedback to AFMA and GABIA prior to GABRAG 2, 2024.	GABRAG		<u>Underway</u> To be discussed under agenda item 11.

Table 4. Request from SESSFRAG Data meeting, 2024

Meeting details (Agenda Item)	Action item #	Action Item	Entity Responsible	Timeframe	Progress
SESSFRAG / August 2024 (3)	5	GABRAG to review the discarding and selectivity estimates during the next assessments of Deepwater Flathead and Bight Redfish.	GABRAG	GABRAG 2025/2026	<u>Not yet started</u> The next stock assessments for Bight Redfish and Deepwater Flathead are scheduled for 2025 and 2026, respectively.