



Australian Government

Australian Fisheries Management Authority

Great Australian Bight Resource Assessment Group (GABRAG)

Meeting 1

17 October 2023

Adelaide

Minutes

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Great Australian Bight Resource Assessment Group (GABRAG)

Meeting 1 - 17 October 2023

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

1. Preliminaries

1.1 Welcome and apologise

- The Chair welcomed members and observers to the meeting and made an Acknowledgement of Country paying respect to the Traditional Owners of the land and waters that the meeting was held on (the *Kaurna* 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 future.
- The 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 Dr Anthony Moore, Scientific Member Mr Neil MacDonald, Industry Member Dr Mark Grubert, AFMA Member Mr Jim Raptis, Industry Member Ms Marcia Valente, Industry Member
Invited participants	Dr Geoff Tuck, CSIRO Dr Franzis Althaus, CSIRO Dr Paul Burch, CSIRO Mr Tamre Sarhan, AFMA
Observers	Mr Keith Rowling, NMAC (SA) Mr Euan Provost, AFMA
Executive Officer (EO)	Ms Rebecca Jol, AFMA

Apologies: Eriko Hoshino and Sally Weekes

1.2 Declarations of interest

- The RAG attendees declared conflicts of interest as outlined in FAP 12¹. Members and participants reviewed and updated the Declarations of Interest included at [Attachment A](#).
- The Chair asked those present to disclose any conflicts of interest with items on the agenda.
- Industry members declared conflicts of interest for agenda items 3 (MYTAC working group outcomes), 6.1 (Orange Roughy Research Plan 2023–24) and 6.2 (Orange Roughy TAC Albany and Esperance).

¹ [Fisheries Administration Paper 12](#)

1.3 Adoption of agenda

- The RAG adopted the agenda ([Attachment B](#)) as final.

1.4 Minutes of previous meeting

- The RAG noted that the final minutes of the previous GABRAG meeting (on 6 December 2022) are available on the [AFMA website](#).

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 amendments:

Action Item 10: October 2020 – Agenda Item 2.1: *As an extension component to the ‘non-eastern Orange Roughy data and assessment options’ AFMA to consider which lines of evidence and criteria would be used to consider allowing targeted fishing for non-eastern Orange Roughy stocks.*

- AFMA suggested removing this action noting the completion of Dr Pethybridge’s work on assessment options for non-eastern Orange Roughy stock ‘*Synthesis of information and assessment options for non-eastern Orange Roughy stocks*’ presented at [GABRAG 2, 2022](#).
- A stock assessment for Great Australian Bight (GAB) Orange Roughy is tentatively planned for 2025 (along with Orange Roughy Cascade, managed by SERAG)
- Dr Paul Burch (CSIRO) will provide an overview of the project to validate the assessment model at SERAG 2 and GABRAG 2, 2023.
 - The RAG noted that the assessment approach is to use the Eastern zone assessment and any catch and age data, and then apply sensitivities i.e., borrow or estimate biological parameters from the Eastern zone.
 - The form of the assessment will depend on the amount of age data currently available for GAB Orange Roughy and, if it is insufficient, how much more is required.
- The RAG accepted AFMA’s recommendation to remove this action noting that Paul Burch will provide more information at GABRAG 2.

Action Item 6: October 2022 – Agenda Item 7: *AFMA to include a data analysis strategy for GAB Orange Roughy in the GAB research plan (including a possible time frame). AFMA to work with FAS and CSIRO to provide a stocktake of what Orange Roughy has been aged and to determine what is needed and incorporate into the fish ageing data plan.*

- The RAG noted that this work is in progress.
- AFMA recommended removing this action item and replacing it with the need to develop a broader ‘non-eastern’ Orange Roughy data analysis strategy which would also include Western Orange Roughy and (potentially) Cascade Orange Roughy.
- All three of these stocks require a data analysis strategy and pursuing one for GAB Orange Roughy in isolation would result in duplication.
- The RAG accepted the recommendation by AFMA noting that the updated data analysis strategy needs to be included in the Orange Roughy research plan as agreed to by the RAG.

Action Item 1: December 2022 – Agenda 7.0: *Industry to receive vessel and date information from CSIRO and fill in the information gaps from Orange Roughy historical records of fishing locations. FAS and industry to progress discussions out of session via the GABT data working group.*

- AFMA recommended removing this action item as a similar action item was identified during the 2023 SESSFRAG data meeting that will address this action and merge this data into a larger Orange Roughy analysis strategy.

- The RAG accepted the recommendation by AFMA noting that the Orange Roughy research plan needs to be updated to include the new data strategy.

2. Data, Management, and Industry Updates

2.1 AFMA Update

- The RAG noted updates from AFMA regarding key issues relevant to the management of the Great Australian Bight Trawl Sector (GABTS).
- The following points were noted:
 - **AFMA staffing** GABRAG noted the changes in staffing arrangements for the Demersal and Midwater Fisheries Team at AFMA and that Rachel Downes is now the EO for GABRAG and GABMAC.
 - **Marine Stewardship Council (MSC) accreditation:** AFMA congratulated the Great Australian Bight Industry Association (GABIA) on obtaining MSC certification for the harvest of Deepwater Flathead, Bight Redfish and Gummy Shark. The RAG noted that GABIA have sought funding for MSC marketing and that AFMA have offered assistance with media event to publicise this achievement on 21 November 2023.
 - **Climate change and ecosystem update:** AFMA has been working to better understand the influence of climate change on the Southern and Eastern Scalefish and Shark Fishery (SESSF) and to integrate current assessments of climate sensitivity into management. Alice McDonald (AFMA) will provide the RAG with further updates through a presentation to the second GABRAG meeting in November.
 - **Adoption of the 'SMARP Alternative' stock assessment and data analysis approach:** The Southern and Eastern Scalefish and Shark Fishery Resource Advisory Group (SESSFRAG) met on 30–31 August 2023 and supported a proposal from AFMA to re-cast the stock assessment and data analysis schedule under what is known as the 'SMARP Alternative' approach. The aim of this exercise being to reduce costs associated with stock assessments and data management (across the SESSF) and direct these savings into strategic research and internal data analysis and reporting.

The RAG noted the key changes to the forward plan include:

- Introduction of a **'trigger species'** category for ten low risk or under-caught species/stocks. Current 'trigger level' Total Allowable Catches (TACs) are maintained until catches exceed 75 per cent of the TAC, or six years have passed, at which point an updated assessment and/or adjustments to the TAC are considered.
- For 2024 and 2025, three Tier 1 stock assessments will be postponed, five Tier 4 and two Tier 1 stock assessments will be cancelled², and the data processing, CPUE standardisations and discard estimation in 2025 (only) will also be cancelled.
- From 2026 onwards, Multi-Year TACs (MYTACs) will change to either a **two-year** or a **four-year** period and updates to logbook data processing, CPUE standardisations and data summary reports will be undertaken biennially. Discard estimates will be updated every four years, rather than annually.

² Where a species has moved from annual to biennial assessments, or now managed as a trigger species.

- **Fisheries Research and Development Corporation (FRDC) project 2022-007:** The RAG noted that an environmental data logger/telemetry system will be fitted to the otter-trawl boat *Noble Pearl* as part of FRDC project 2022-007 “Trials of oceanographic data collection on commercial fishing vessels in SE Australia”.
- **Electronic Monitoring:** Trials in the GAB are expected to commence in 2024 (concurrently with the observer program) to evaluate and confirm future EM design needs and requirements. The RAG noted that Tamre Sarhan and Euan Provost will provide GABRAG further information on the EM trial at Agenda Item 5.
- **Co-management Agreement:** Staff shortages have limited progress on the finalisation of a three-year co-management contract between AFMA and GABIA.

2.2 Industry Update

- Industry member, Neil MacDonald (GABIA), provided the RAG members with an Industry update (taken mostly as read).
- The RAG discussed the following points:
 - Weather and environmental conditions in the GAB have been challenging over the past year. The RAG noted images from IMOS showing that the GAB was cooler in 2023 compared to the previous 3 years. Bight Redfish have also had a come-back during this period.
 - Despite some excellent catches, the industry is having difficulties as a result of the present economic situation and the cost/price squeeze. Fuel and other operating costs continue to be a major expense and due to the current financial strain on households, there is a decline in the market for seafood.
 - Boat operating and staffing issues in the GAB fishery will undoubtedly lead to a decline in effort for the 2023–24 fishing period.
 - Mr Jim Raptis (Industry member) highlighted the need for a strategic plan around the future of the wild catch sector, particularly focused on fleet and shore-based infrastructure investment to deliver a sustainable and viable commercial fishery that meets expectations such as decarbonisation under Net Zero targets. The RAG noted:
 - that GABIA have engaged with the AFMA Commission on this issue.
 - that this is an international issue, and many small fisheries are struggling to run a viable fishery.
 - Four boats were granted Orange Roughy research permits. There was very little success when trying to fish the central Western and central Eastern zones. There was evidence of Orange Roughy stocks across these areas however, no aggregations were detected.
 - The RAG noted that continued searching for Orange Roughy aggregations would come with a substantial fuel cost.
 - One industry member suggested that research fishing is happening at the wrong time and noted that historically searching for Orange Roughy during the winter months took place in Albany and Esperance and fishing in the GAB occurred during the Summer.
 - In August 2023, the GABIA was granted MSC certification for the GABTF. GABIA acknowledged the work by AFMA in terms of data collection to meet the MSC conditions, noting the strength of the stock assessment processes as well as the Ecological Risk Assessment (ERA) and historical

Fishery Independent Surveys (FIS). A marketing launch has been scheduled for 21 November 2023 to publicise this accreditation.

- The fishery had only one condition relating to improved understanding of the Danish seine component of the fleet, particularly in its bycatch and TEPS interactions. Consistent with that condition the AFMA observer program will be providing a stronger focus on the Danish seine boat over coming years.
 - In addition, there were two recommendations: 1) Continue to examine the causes and implications for changes in catch composition of fishery-independent surveys; and 2) To identify the small quantity of sponges caught by all UoAs, to increase clarity and confidence.
 - The RAG noted that the latter recommendation was prompted due to a gap in the information on sponges, substrate habitat and vulnerable ecosystems and noted that this recommendation aims to protect unfished areas and undisturbed habitats. The data will contribute to an understanding of bycatch composition and will feed into the ERA process.
 - To meet this recommendation at an Industry level, GABIA aim to include a photography section as part of the voluntary data collection arrangement outlined in the GAB Boat Operator's Manual.
 - GABIA has re-entered into a co-management agreement with AFMA for 2022–23. GABIA were able to progress several key areas of work such as the annual revision of the GAB Boat Operator's Manual and the annual AFMA/GABTF workshop. There was positive feedback from the Industry members involved welcoming the opportunity to engage with AFMA and as result getting more interested and involved in the voluntary data collection arrangement.
- GABIA President and EO met with the current AFMA Commission at its September meeting in Port Lincoln. The committee noted that the current Commission membership has been extended to November 2023.
 - The data working Group met four times addressing key areas including voluntary data, target species (potentially new or no longer caught), manual versus electronic recording of data, and future data needs.
 - AFMA observers and GABIA have engaged with the Danish seine skipper and among other things will investigate Deepwater Flathead size limit variations between the Trawl fleet and Danish seine boats. The RAG noted that the Danish seine operator is using the same mesh size as the trawlers and is working similar grounds and depths as the trawl fleet.

2.3 Data Update

- The RAG noted the update provided by Franzis Althaus of CSIRO Environment, to the 2023 SESSF Assessment and Assessment projects.
- The following points were noted:
 - Each year CSIRO receives an extract of the AFMA fisheries database along with age data from Fish Ageing Services and catch data from relevant states and territories.
 - The changes, corrections and decisions made in the preparation of the 2022 SESSF Data for assessment and management purposes in 2023 were presented to the RAG noting that these

data have been used in the preparation of the draft ISMP Discard report (Attachment A; Deng and Burch 2023), Catch report (Attachment B; Burch et al. 2023), Data Summary report (Althaus et al. 2023) and the CPUE reports (e.g., Sporcic 2023). The Data Summary Report and the CPUE reports are large files and are available from AFMA or CSIRO by request.

- Orange Roughy currently caught in the GAB (ORG) is not under quota, because the quota areas in the GAB (i.e., Albany and Esperance) are not currently fished. Thus, Orange Roughy GAB are reported in 2023 as 'non-quota' species, presenting logbook catches in the reporting tables rather than CDR.
- CSIRO sought advice from GABRAG on how the group would like Orange Roughy catches from the GAB to be reported in future years.
- GABRAG discussed the following points with respect to this request:
 - Orange Roughy research reporting needs to be separate for the assessment to retain the ability to differentiate between research catches and targeted catches.
 - Dr Paul Burch (CSIRO) noted that the clarification regarding CPUE, logbook data and CDR data catches will be considered prior to the Orange Roughy assessments scheduled for 2025.
 - GABRAG noted that for the Catch Report as it stands, Orange Roughy is summarised for all of the GAB, noting that different management arrangements apply within the larger GAB area and could potentially interfere with the stock assessment.
- The RAG agreed to separate the Albany and Esperance quota zone records from the Research Catch Allowance (RCA) in the remainder of the GAB for the 2024 catch report and for the GAB Orange Roughy assessment.

3. MYTAC Working Group Outcomes

- The RAG noted the outcomes of the review of fishery indicator data for Bight Redfish and Deepwater Flathead undertaken by the Multi-Year Total Allowable Catch (MYTAC) Working Group (the working group) and were asked to provide advice on the application of the 994 t RBC for Bight Redfish (as the second year of a 4-year MYTAC) during the 2024–25 SESSF season.
- The RAG noted:
 - Recent Atlantis modelling by Beth Fulton (CSIRO Environment) suggests that Deepwater Flathead may be moderately susceptible to climate change and that Bight Redfish may be highly susceptible to climate change.
 - The AFMA Commission has requested that RAGs take climate change susceptibility information into account when providing advice on Recommended Biological Catches (RBCs) and TACs.
 - The MYTAC Working Group met on 23 August 2023 and reviewed the indicator data for Deepwater Flathead (to be assessed in 2023) and Bight Redfish, and deferred consideration of climate impacts on Bight Redfish to GABRAG.
 - On 30–31 August 2023, the Southern and Eastern Scalefish and Shark Fishery Resource Advisory Group (SESSFRAG), supported AFMA's proposal to change the MYTAC periods for a range of SESSF species (including Deepwater Flathead and Bight Redfish) as part of a broader proposal to re-cast the stock assessment and data-analysis schedule for all SESSF species.

- The next Bight Redfish assessment is now scheduled for 2026, with the MYTAC period being extended from three to four years.
- The next Deepwater Flathead assessment (after the current assessment) is now scheduled for 2028; the MYTAC period for the current assessment will be five years and then four years thereafter.
- That AFMA recommends that the MYTAC period for Bight Redfish is extended from three to four years as part of the abovementioned proposal
- The RAG discussed the following points:
 - Less than 50 percent of the TAC was caught in the previous season due to non-operational reasons such as a small number of active licences and because at least two licences worth of quota is needed to be economically viable.
 - Bight Redfish catches are seasonal, and of less value compared with Deepwater Flathead. Some operators work under a self-imposed trip limit to avoid flooding the market and reducing their market price.
 - The catch of Bight Redfish is more heavily influenced by fuel and crew costs than stock biomass.
 - Deepwater Flathead is the key targeted species in the GAB as it holds its value even when a lot of fish enter the market. GAB operators tend to fish their quota for Deepwater Flathead before targeting other species.
- GABRAG noted that the consistent undercatch of Bight Redfish is not a concern due to the points mentioned above.
- GABRAG noted the potential impacts of climate change on Bight Redfish (as suggested by the Atlantis model) and the significant undercatch in recent years. The RAG supported the application of the 994 t RBC for Bight Redfish during the 2024–25 SESSF season and the extension of the MYTAC period from three to four years.

4. Deepwater Flathead Tier 1 assessment base case development

- Deepwater Flathead was last assessed in 2019. GABRAG (October 2022) recommended maintaining the current RBC of 1,238 t for Deepwater Flathead for the 2023–24 fishing year, extending the MYTAC for one year. GABRAG also recommended scheduling the next stock assessment for 2023, noting that there was no GABFIS in 2023.
- Dr Geoff Tuck (CSIRO) provided the RAG with the results of the preliminary Tier 1 base case for Deepwater Flathead (*Neoplatycephalus conatus*) and requested advice from the RAG on a final base case to be presented at GABRAG 2 (November 2023). The agreed base case will be used to determine the RBC for Deepwater Flathead during the 2024–25 SESSF fishing season.
- The outcomes of the assessment showed the following points:
 - There are reasonably good fits to the CPUE data, length, and conditional age-at-length data.
 - Diagnostics from extending years of recruitment estimation to 2017 showed that the 2017 estimate of recruitment was poorly estimated, with increased variance suggesting there is insufficient data in the model to reliably estimate this parameter. Consequently, recruitment deviations were only estimated to 2016 for the base case.

- The assessment estimates that the projected 2024/25 spawning stock biomass will be 46% of unfished spawning stock biomass (projected assuming 2022/23 catches in 2023/24), compared to 45% at the start of 2020/21 from the 2019 assessment.
- The stock status remains near the target of 43%.
- While the updated assessment generally fits all the data sources well, the fit to the most recent GABFIS points is poor.
- A sensitivity test conducted by including the Danish seine data as a separate fleet. The biomass trajectories and stock status time-series were similar to the preliminary base case model. The assessment estimates that the projected 2024/25 spawning stock biomass will be 42% of unfished spawning stock biomass.
- GABRAG discussed the following points:
 - Recruitment deviations in the last few years have been below the average and climate change was noted as a potential factor for this change. Conversely, the outcomes using Dynamic *Bo* as a measure of current unfished biomass revealed that the stock status trends for Deepwater Flathead were not dissimilar to that of the static *Bo* trajectories indicating that there may not have been a substantial influence of the environment on this stock or its recruitment.
 - The Dynamic *Bo* result was well received by the committee noting that it was a useful application and should become a standard indicator for future assessments.
 - Noting that the next assessment could be five years away, the RAG suggested placing a watching brief on the length and age distribution over the next few years to monitor recruitment and assess any changes.
- Dr Tuck sought advice from the RAG on several improvements that could be made to the base case model, including:
 - To free up the estimation of the length at maximum age for females.
 - To change the last year recruitment from 2017 to 2016
 - To use the alternative Danish seine model as the 2023 base case and separate the Danish seine catches from the Trawl fleet.
- GABRAG discussed the following points:
 - There will be no additional cost to move to a model that separates Danish seine fleet.
 - Recent catches are about half the recommended RBC (approximately 700 tonnes) and biomass is at the target. Concerns were raised about how the model was able to achieve the target given the catches have been lower than the RBC. It was explained that it was likely that the lower than average recent recruitment in combination with lower catches has allowed this to occur. If catches were to increase to the actual RBC and recruitment remained low, then it is likely the stock would decline below target. Conversely, if recruitment increased to average and catches remained lower than the RBC, then the stock biomass would increase above the target.
 - Whether there was a risk associated with the RBC given that the catches have been lower than the RBC over the past 10 years.
 - A decline in stock biomass was noted in 2005 to 2010 after catches were between 1000 and 2000 tonnes. Industry informed the RAG that this decline could be attributed to the presence

of 10 trawlers operating in the fishery at that time (of which four were factory freezer boats) and not a fault in the model.

- GABRAG requested that CSIRO run a recent 10-year average recruitment projection for Deepwater Flathead as a sensitivity.
- GABRAG noted that indicator data for Deepwater Flathead are reviewed on an annual basis through the MYTAC review process and if any issues are identified they are progressed through the relevant RAG for consideration.
- GABRAG supported the changes and modifications to the base case noting that the model accounts for larger fish.
- GABRAG agreed to separate the Danish seine fleet in the assessment model noting that the likelihood profiles and retrospectives are not likely to be very different.
- Andy Moore (ABARES) provided a short presentation detailing some points of concern with the Deepwater Flathead base-case assessment. The concern is that successive assessments suggest the stock is around the target, yet the model recommends taking twice the average catch (last ten years catch). This is likely due to below average recruitment for eight out the last ten years. Historical catches around and above the RBC taken in the mid-2000s resulted in a rapid depletion of the stock.

Actions:

1. CSIRO to run a recent 10-year average recruitment projection for Deepwater Flathead as a sensitivity.

5. Electronic Monitoring Trial

- Tamre Sarhan (Acting Senior Manager – Electronic Monitoring) provided an update on the EM trial in the GABTS and sought advice from the RAG on any potential issues that may arise during the trial.
- The RAG noted the following points:
 - The benefits of EM:
 - Reliable monitoring – not having to rely as heavily on the observer team
 - Adjustable auditing – able to switch on 100% auditing
 - Potential to access the cloud for instant monitoring – allows more adaptive decision making
 - Verified catch composition and discard data – traceability and accountability
 - Meets and verifies changing obligations
 - Suggested monitoring objectives including, but not limited to:
 - Verifying catch composition and discard data
 - Verifying data on the type and number of sessile benthic organisms
 - Verifying data on interaction rates with protected marine species
 - Confirmation of the use of seabird mitigation devices
 - Information on seabird behaviour
 - AFMA project desirables:

- Comparison with observer data and length data, including improved discard data
- Inform best practice and standards and identify roadblocks
- Training data for Artificial Intelligence (AI) – AFMA sees this as fundamental in future proofing the program, requiring less human review, and reducing cost
- In-house analysis
- The RAG discussed the following points:
 - Retention of footage –The RAG noted that footage is typically kept for six months. The footage is audited (depending on percentage review rate e.g., 10%) before it is discarded. Footage can be stored for longer if required, although this has costs.
 - AI is being considered through the EM program for bycatch species ID and to build a catalogue of length measurements.
 - Industry's expectations and concerns:
 - Cost saving if replacing observers – trial will see if EM can replace observer coverage and determine the cost savings
 - AI may have the benefit of being able to estimate some things better than observers, such as catch composition
 - Length and age data are pivotal for a stock assessment, as well as verifying discards.
 - ERA methodology looks at species composition (relative proportion) not quantity of catch.
 - Industry would like EM to remove most of the administrative processes and free up time for crew.
 - Software needs to tap into the e-log system.
 - Ensure that during the trial the collection of fish length measurements and otoliths is continued (e.g., data programs such as GABCBDD).

6.1. Orange Roughy Research Plan 2023–24

- The RAG discussed an Olympic RCA for scientific permits to be issued during the 2024–25 SESSF season under the GABTF Orange Roughy Research Plan 2020–24 (the Research Plan).
- The RAG noted scientific permits were issued to four vessels to fish for Orange Roughy under the Research Plan (with an Olympic RCA of 200 t) during the 2023–24 SESSF season.
- The RAG noted that at the time of writing, approximately 711 kg of Orange Roughy has been caught under these permits.
- GABIA proposed an Olympic 1000 t, consisting of 200 t for each of the five zones. GABIA noted that Orange Roughy in the GAB is a different stock and should be assessed separately. GABIA stressed that there needs to be greater incentives to collect data across all five zones, however as the whole fishery is constrained to 200 t and given the costs are higher to fish these zones, doing so would be a net loss. GABIA discussed the data benefits to the RAG of increasing the RCA to 200 t in each of the five zones, instead of using the current catch in one zone as a proxy.

- From an assessment perspective it is best to fish the same areas and collect data, however Orange Roughy are not always found in the same area annually. If Industry are not catching many fish, then there is no risk to the stock.
- The RAG discussed the stock structure of Orange Roughy and noted that there is currently insufficient information to classify Orange Roughy in the GAB as different stocks. Genetic testing is required to determine if this is indeed the case.
- The AFMA member proposed that if 75% of the 200 t RCA is caught then an additional catch allowance (of 200 t) could be considered for the other zones. One scientific member was concerned with the additional fishing mortality under this proposal.
- GABIA proposed increasing the RCA to incentivise industry and to allow catch to occur when Orange Roughy are found.
- The Chair asked Industry to leave before the RAG considered the RCA options. These were:
 - Option A: 200 t with a 150 t trigger. The trigger would allow an additional 200 t RCA to be allocated, increasing the RCA for a season to 400 t.
 - Option B: maintain the current 200 t RCA.
- The RAG discussed the following:
 - There is no new evidence presented to justify changing the RCA. There is added uncertainty given recent low catches and no assessment.
 - AFMA need to discuss RCA proposal (option A) with the Department of Climate Change, Energy, the Environment and Water
 - Industry to work with Tim Ryan (CSIRO) to use acoustic recordings to validate the timing and location of spawning aggregations.

GABRAG supported the continuation of the default 200 t RCA noting that no new evidence has been presented to justify changing the RCA.

6.2. Orange Roughy TAC Albany and Esperance

- The RAG discussed a bycatch TAC for Orange Roughy in the Albany and Esperance Quota Zones for the 2024–25 SESSF season. The RAG noted:
 - The majority of the Albany and Esperance Quota Zones are closed to commercial fishing due to the overlap with the 'Albany' and 'Humdinger Magic' Orange Roughy Research Zones.
 - The RCA utilised through scientific permits under the 'Great Australian Bight Trawl Fishery (GABTF) Orange Roughy Research Plan 2020–24' (the Research Plan) is separate to the Albany and Esperance Bycatch TAC.
 - The bycatch TAC for the Albany and Esperance Quota Zones has been set at 50 tonnes (t) since the 2009–10 SESSF season.
- The RAG supported maintaining the bycatch TAC at 50 t for Orange Roughy in the Albany and Esperance Quota Zones during the 2024–25 SESSF season.

7. Other business and Action Items:

- The Chair asked the RAG if there were further items that members wished to discuss. The RAG made no further remarks or discussions.
- The EO reviewed the action items arising from the meeting and these were endorsed by the RAG (Table 2).

8. 2023 Meeting schedule

- The RAG agreed that GABRAG 2 would be held on 22 November 2023 and noted that the subsequent GABMAC meeting will be scheduled before the end of November.

9. Close of meeting

- The Chair thanked RAG members for their contributions and closed the meeting.

Table 2 - Action items arising from GABRAG 1 2023

No.	Meeting (Agenda Item)	Action Item	Responsible entity	Timeframe
1	GABRAG 1 October 2023 (4) Deepwater Flathead Tier 1 assessment	CSIRO to run a recent 10-year average recruitment projection for Deepwater Flathead as a sensitivity.	CSIRO	Before GABRAG 2 (22 November 2023)

Attachment 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 Project 2019-036: Implementation of dynamic reference points and harvest strategies to account for environmentally driven changes in productivity in Australian fisheries. • Currently independent scientific member on the AFMA South East RAG, Shark RAG, Great Australian Bight RAG, Small Pelagic Fishery RAG Tropical Rock Lobster RAG and the Torres Strait Finfish RAG. • 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	Economics Member	<ul style="list-style-type: none"> • Employed by CSIRO, Marine Resource Economics Group

		<ul style="list-style-type: none"> • 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	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.
Neil MacDonald	Industry member	<ul style="list-style-type: none"> • Director NMAC (SA) P/L • Executive Officer of the Great Australian Bight Industry Association (GABIA) • Executive Officer of Charter Boat Association South Australia • Executive Officer Southern Fishermen's Association • Executive Officer of Saint Vincent Gulf Prawn Boat Owner's Association • Executive Officer of Marine Scale Net Fishers Association • Committee support services South Australian Rock Lobster Management Advisory Committee & Research Sub-Committee • Support services South Australian Professional Fishers Association • GABMAC Industry 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 • Director of the Australian Council of Prawn Fisheries • Seafood Industry Australia Wildcatch Working Group Member
Marcia Valente	Industry member	<ul style="list-style-type: none"> • Committee Consultant for Silver Phoenix Holdings who hold two GABT SFRs
Mark Grubert	AFMA Member	<ul style="list-style-type: none"> • Employed by AFMA. Trawl Manager, • No pecuniary or other interest.

Rebecca Jol	Executive Officer (EO)	<ul style="list-style-type: none"> • Employed by AFMA, Senior Management Officer, EO of SEMAC, interim EO of GABRAG. No pecuniary or other interest.
Sally Weekes	AFMA	<ul style="list-style-type: none"> • Employed by AFMA. Acting Senior Manager Demersal and Midwater Fisheries. No pecuniary or other interest.
Tamre Sarhan	AFMA	<ul style="list-style-type: none"> • Employed by AFMA. Acting Senior Manager Electronic Monitoring program. No pecuniary or other interest.
Euan Provost	AFMA	<ul style="list-style-type: none"> • Employed by AFMA. 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
Keith Rowling	Observer	<ul style="list-style-type: none"> • GABIA

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	Rebecca Jol
9:30 (45 min)	2. Data, Management and Industry updates 2.1 AFMA Update 2.2 Industry Update 2.3 Data Update	2.1 For noting 2.2 For noting 2.3 For noting/advice	Mark Grubert Industry Franzis Althaus
10:15 (15 min)	Morning Tea		
10:30 (30 min)	3. MYTAC Working Group outcomes	For advice	Mark Grubert
11:00 (60 min)	4. Deepwater Flathead Tier 1 assessment – Base case development	For advice	Geoff Tuck
12:00 (45 min)	Lunch		
12:45 (30 min)	4. Deepwater Flathead Tier 1 assessment – Base case development (cont.)	For advice	Geoff Tuck
13:15 (45 min)	5. Electronic Monitoring trial	For advice	Tamre Sarhan
14:00 (45 min)	6. Orange Roughy 6.1 Research Plan for 2024–25 (including RCA) 6.2 TAC Albany and Esperance	For advice	Mark Grubert
14:45 (10 min)	7. Other business and action items	For advice	Rebecca Jol
14:55 (5 min)	8. Future meeting schedule	For noting	Rebecca Jol
15:00	Close		

Attachment C – Progress of Action Items from Previous Meetings

Complete/Redundant	Underway	Yet to start	Advice required
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Table 1. Progress of action items from previous GABRAG meetings

	Meeting details (Agenda Item)	Action item #	Action Item	Entity Responsible	Timeframe	Progress
	Oct 2020 (2.1)	10	As an extension component to the 'non-eastern Orange Roughy data and assessment options' AFMA to consider which lines of evidence and criteria would be used to consider allowing targeted fishing for non-eastern Orange Roughy stocks.	AFMA		<u>Advice required</u> AFMA suggests that this action item is removed as it is now three years old and it is clear that a stock assessment for GAB Orange Roughy is required before target fishing in the GAB could resume. A stock assessment for GAB Orange Roughy is tentatively planned for 2025. Paul Burch will describe a proposed modelling approach for GAB Orange Roughy at GABRAG 2, 2023.
	October 2022 (7)	6	AFMA to include a data analysis strategy for GAB Orange Roughy in the GAB research plan (including a possible time frame). AFMA to work with FAS and CSIRO to provide a stocktake of what Orange Roughy has been aged and to determine what is needed and incorporate into the fish ageing data plan.	AFMA/FAS/ CSIRO	GABRAG 2, 2022	<u>Advice required</u> AFMA suggests removing this action item and replacing it with the need to develop a broader 'non-eastern' Orange Roughy data analysis strategy which would also include Western Orange Roughy and (potentially) Cascade Orange Roughy. All three of these stocks require a data analysis strategy and pursuing one for GAB Orange Roughy in isolation would result in duplication.

December 2022 (5.2)	1	Industry to receive vessel and date information from CSIRO and fill in the information gaps from Orange Roughy historical records of fishing locations. FAS and industry to progress discussions out of session via the GABT data working group.	CSIRO/Industry/FAS	Before the 2023 SESSFRAG data meeting	<u>Advice required</u> AFMA suggests removing this action item as a similar action item was identified during the 2023 SESSFRAG data meeting.
December 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.