



Australian Government

Australian Fisheries Management Authority



**Southern and Eastern Scalefish
and Shark Fishery
- Great Australian Bight
Resource Assessment Group (GABRAG)**

Meeting Minutes

Date: 23 November 2015

Venue: Stamford Plaza, Adelaide

Attendance

Members	Membership
Mr Lance Lloyd	Chair
Mr Jeff Moore	Industry Member
Mr Jim Raptis	Industry member
Dr Ian Knuckey	Scientific Member
Mr Andy Moore	Scientific Member
Dr Marcus Finn	AFMA member
Ms Giulia Porro	AFMA, RAG EO
Ms Marcia Valente	Industry member
Invited participants	
Dr Malcolm Haddon	Assessment scientist, CSIRO
Mr Gary Jackson	
Apologies	
Professor John Tisdell	Economic member

Agenda Item 1 – Preliminaries

Agenda Item 1.1 – Welcome and introductions / Apologies

1. Mr Lance Lloyd (Chair) opened the meeting at 9.00 am (AEST) and welcomed members.
2. The RAG noted apologies from Dr John Tisdell.

Agenda Item 1.2 – Declarations of interest

3. The RAG followed the conflict of interest declarations as outlined in the revised Fisheries Administration Paper (FAP12). A list of the full conflicts of interest declarations made by the RAG members and other participants is provided at Table 1 below.
4. Dr Knuckey declared his conflict of interests with GAB research. The RAG noted this conflict of interest and recognized that Dr Knuckey was a valuable contributor and was invited to re-join the meeting.
5. Mr Raptis declared his conflict of interests as a holder of SFRs in the GAB. The RAG noted this conflict of interest and recognized that Mr Raptis was a valuable contributor and was invited to re-join the meeting.
6. Mr Jeff Moore declared his conflict of interests as executive officer for the Great Australian Bight Industry Association (GABIA). The RAG noted this conflict of interest and recognised that Mr Moore was a valuable contributor and was invited to re-join the meeting.
7. Ms Valente declared her conflict of interests as a holder of SFRs in the GAB. The RAG noted this conflict of interest and recognised that Ms Valente was a valuable contributor and was invited to re-join the meeting.

Table 1: Members' and invited participants' declared interests as at 23 October 2015.

Participant	Interest Declared
Mr Lance Lloyd, Chair	Director of Lloyd Environmental Pty. Ltd., SESSFRAG and GABMAC member, Research Fellow, Federation University Australia. Interest in projects involving fish and fisheries but not in the GAB. No pecuniary interest.
Mr Marcus Finn, AFMA Manager	Employed by AFMA, no pecuniary interest or otherwise, AFMA Member on Shelf and Slope RAG.
Ms Giulia Porro, AFMA, GABRAG EO	Employed by AFMA, no pecuniary interest or otherwise.
Mr Jeff Moore, Industry Member, GABIA	Great Australian Bight Industry Association (GABIA) EO, board member of Commonwealth Fisheries Association, member of GABMAC, invited participant of SEMAC, invited participant of SESSFRAG, industry liaison officer for Commonwealth Marine Reserve consultative group, engaged to try and establish the Eastern Tuna and Billfish industry association, no pecuniary interest.
Mr Jim Raptis, Industry Member	Shareholder and employee of Raptis, 4 licences in GAB. GAB boat and quota SFR holder.
Ms Marcia Valente	GAB boat and quota SFR holder
Dr Ian Knuckey, Scientific Member	Director Fishwell Consulting, interest in sources of funding for research purposes, research work for GABIA agent of electronic logbook systems, scientific adviser to GABIA and SETFIA, Chair of Australian Seafood Co-products, scientific member on various SESSF RAGs, Squid RAG and Scallop RAG, involved in undertaking the Fishery Independent Surveys for the SET and the GAB, involved in the SESSF Review, involved in various oil and gas projects undertaken in the area of the GAB and is involved in the Western Gemfish project, shortlisted for the AFMA observer market testing EOI. PI for project for utilizing GAB bycatch. Selected to provide scientific advice for the Gulf of St Vincent Prawn fishery.
Mr Andy Moore, Scientific Member	Employed by ABARES - Interest in sources of funding for research purposes, involved

Participant	Interest Declared
	in the Gemfish stock structure project and the Western gemfish Tier 1 assessment, research fellow at University of Queensland, no personal pecuniary interest.
Dr Malcolm Haddon, Invited Participant	Employed by CSIRO – Interest in sources of funding for research purposes however, salary does not depend on this membership, involved in the SESSF Review, Sub Antarctic RAG, Sub Antarctic MAC and Northern Prawn RAG.
Mr Roland Pitcher	Marine researcher providing information useful to fisheries management. Project relevance to the GAB
Mr Gary Jackson	Research scientist with Department of Fisheries Western Australia. Currently working on research regarding bight redfish.

Agenda Item 1.3 – Adoption of agenda

8. The RAG adopted the draft agenda.

Agenda Item 1.4 – Actions arising from previous meeting

9. The RAG reported on outcomes arising from action items from the previous GABRAG meetings. A list of outcomes is provided at Attachment A.

Agenda Item 2 – Roland Pitcher

Agenda Item 2.1 – Presentation on habitat project

10. Dr Pitcher gave a report on his work with the National Environmental Research Program – Marine Biodiversity Hub:
11. The project mapped species assemblages in waters less than 2000 metres deep based on 40 environmental variables and found:
 - fishing effort post 2007 was assessed and it was found that 6 per cent of the study area was trawled
 - the most trawled areas are on the Slope and Shelf areas off south eastern Australia
 - most assemblages are only lightly trawled however there are some, depending on location, that are more heavily trawled
 - gravel habitats are the most sensitive areas to trawl impacts
 - impact from long line fishing and scallop dredging was low
 - the footprint of the oil and gas industry was small
 - areas other than seamounts contain cold water coral assemblages.

12. The project established that the footprint of fishing is smaller than expected and that negative trends have been halted and are probably improving. The project identified the assemblages most exposed to impacts from fishing and identified those that need future work.

Agenda Item 3 - Bight redfish

Agenda Item 3.1 – Presentation on bight redfish research in WA

13. Mr Jackson gave a report on his research with bight redfish in Western Australia (WA).
14. Bight redfish is currently targeted in WA waters as part of the demersal longline fishery. Approximately 60 tonnes of bight redfish are caught per year.
15. The project involved undertaking stock structure research to determine any differences between the bight redfish species caught in the GAB waters and the bight redfish species caught in WA waters. The project found:
 - there was a distinct separation between the stocks in the margins of the two areas of waters
 - no mixing was occurring between the stocks
 - fish composition varied across the years
 - there were a number of breeding and nursery sites for bight redfish however the locations of these is unknown
16. The project concluded that there is a single genetic stock of bight redfish, there are differences in otolith chemistry between WA and GAB stocks and there are various recruitment sources. WA will continue to monitor and assess the WA redfish stock separately to the GAB redfish stock.
17. Mr Raptis noted that WA should continue to monitor fishing effort in WA as it is important that fishing effort doesn't increase drastically over a short period of time.
18. The RAG noted the importance of monitoring bight redfish catches in WA and maintaining a record of all state catches.

Agenda Item 3.2 – Bight redfish base case

19. Dr Haddon presented the updated Tier 1 assessment for bight redfish. The stock assessment updates the 2011 assessment to provide estimate of stock status in the GAB.
20. The base case assessment estimated that the female spawning stock biomass at the start of 2015-16 was 63 per cent of unexploited female spawning stock biomass. The unexploited female spawning biomass was estimated at 5,451 tonnes. This major reduction in the estimate from that made in 2011 reflects the fact that the data now available is more informative about the unfished biomass and stock status.
21. The model 2016-17 recommended biological catch (RBC) is 862 tonnes and the long term yield (assuming average recruitment in the future) is 537 tonnes.

Modifications to previous 2011 assessment

22. An initial base case was developed and presented to GABRAG in October 2015.
23. In the 2015 assessment the latest version of the software was applied and an array of data updates were applied, including some data streams that had not been used previously. The

estimate of unfished spawning biomass was greatly changed so a number of extra steps were included to ensure the changes were only due to the addition of new data.

24. The changes are described in the stock assessment document produced by Dr Haddon.

Data and model inputs

25. A variety of different data sources were available for the assessment including catch, standardised commercial Catch Per Unit Effort (CPUE), an index of relative abundance from the Fishery Independent Survey (FIS), age composition data from the Integrated Scientific Monitoring Program (ISMP) and from the FIS and length composition data from the ISMP and from the FIS and from on-board crew sampling.

26. Age at length composition data was calculated from the available length compositions.

27. Catch history data was available for years between 1988-99 and 2014-15. Landed catches were derived from GAB logbook records for the years up to 2000 and catch disposal records (CDRs) since 2000.

28. Standardisations for commercial catch rates are carried out each year.

Action Item: AFMA to ensure CSIRO receives logbook data until the end of June prior to the catch rate standardisation process.

29. Data from the standardisation was based on depth between 0 – 1000 m and is restricted to vessels present for more than two years and that caught an average annual catch over 4 tonnes. Dr Haddon recommended that in future, the depth range used in the standardisation should be reduced to 0 – 500 m.

Recommendation: The RAG supported Dr Haddon's recommendation to reduce the depth range used in future standardisations to 0 – 500 m.

FIS abundance estimates

30. There were seven estimates of relative abundance from the FIS included in the assessment.

31. The variation relative to the individual abundance estimates were used initially, but in the process of balancing the output variability with that input, these values were greatly expanded.

Age composition data

32. Previously age composition data was only available from the ISMP sampling. In the 2015 assessment, the ISMP age composition data was included as well as three years of the FIS.

33. The ISMP ageing data illustrates that since about 2006-07 the proportion of older fish has declined.

34. A comparison of the age composition seen in the FIS years and the ISMP samples suggested similarities, although the progression of the two modes of age classes appears clearer in the FIS data. In the last two years of the FIS there appears to be a higher proportion of older fish.

Length composition data

35. In the 2011 assessment, only length composition data from the ISMP sampling was used and port and on-board samples were considered together. In the 2015 assessment the port and on-board ISMP length samples were kept separate and there were further length composition data from the FIS and from crew collected data.
36. The crew collected length composition data exhibited an unusual distribution in the sample from 2009 and was therefore omitted from consideration however data from 2010-11 and 2014-15 was included using the same selectivity as for the ISMP data.
37. Over a longer time frame the length composition data from the FIS also exhibited variation through time. The length composition data from the ISMP also varied considerably from year to year in both the crew collected and port data.

Biological parameters

38. A single stock of bight redfish was assumed to occur across the GAB. The stock was assumed to have been unexploited prior to 1988-99. Male and female bight redfish are assumed to have the same biological parameters.
39. The impact of gear selectivity on the age at length data collected from the fishery was accounted for.
40. The rate of natural mortality per year was estimated in the base case model and was assumed to be constant with age and constant through time.
41. Maturity is modelled at 50 per cent maturity at 25 cm. Changing the size at maturity had almost no effect on the quality of the model fit but had a large effect on the estimates of stock biomass.
42. Recruitment was assumed to follow a Beverton-Holt type stock recruitment relationship.
43. The assessment data came from a single trawl fleet. The selectivity pattern for the trawl fleet was modelled as not changing through time.
44. The two parameters of the selectivity function were estimated within the assessment. A separate selectivity was estimated for the FIS and was found to differ from the rest of the fishery.

Development of the base case assessment

45. Fourteen sequential changes were made to the 2011 assessment, some of which had minor effects and others that had larger effects.
46. Stepping sequentially through the different scenarios leading from the 2011 assessment to the current assessment, the general result was that most scenarios that had a major influence on the outcome led to declines in the estimated unfished spawning biomass.
47. The reduction in biomass from the 2011 assessment implied that the catches that had been removed had imposed a higher fishing mortality rate than estimated previously so the final depletion level of 63 per cent was closer to the target reference point of 41 per cent.
48. The use of the more recent software version led to a minor change in unfished biomass and to a reduced variation (a smaller CV) which continued to decline as more data was added.
49. The relatively low catches in the most recent years have led to a degree of stock building since 2009-10 or 2010-11. This pattern of depletion and recovery suggests that the catch levels of approximately 800 – 1000 tonnes are too high to be maintained for long periods

but also that catches could be more than 300 tonnes and still be sustainable in the long term.

Fits to the data

CPUE data

50. The fits to the catch rate indices are poor with the predicted commercial CPUE trajectory not reflecting the ups and downs of the time series and taking the inverse trend to the observed CPUE trend between 2004-05 and 2014-15.
51. This lack of fit suggests that there is some form of conflict between the CPUE data and the age and length composition data such that despite trying to push for a close fit to the relative abundance indices the model can only fit to the age- and length-composition data.

Length composition data

52. The length frequency composition data from the FIS was slightly larger than that from the commercial fishery and this is reflected in the selectivity curves. Bight redfish tend only to be selected at about 25 cm and above implying that they can be 10 years or older before they are strongly selected by the fishery. This is about the same size and age at which they mature, which implies there is a proportion of the mature population not selected by the fishery and this should give the population an extra degree of resilience.
53. There are some years of ISMP sampling, both on-board and port samples that appear to be inconsistent, however the data from the FIS and the on-board samples are more sequentially consistent. Despite these internal inconsistencies the relative fit to the length composition data, when considered across all years was close in all data streams.

Age composition data

54. The model mimicked the observed age data reasonably well for both the ISMP samples and the three years of the FIS.
55. The FIS data especially illustrated the progression of age classes quite well.

Sensitivity tests

56. The sensitivity tests demonstrated that the assessment outcomes were very sensitive to the assumed value for the natural mortality.
57. This was examined more closely by estimating a likelihood profile for natural mortality. Approximate 95 per cent confidence intervals were obtained and these suggest that, in terms of the uncertainty related to natural mortality, with the best estimate of the mean current depletion of 63 per cent at the end of 2014-15, the 95 per cent confidence interval bounds would be between 57 per cent and 69 per cent.

Conclusions

58. The 2016-17 RBC under the 20:35:41 harvest control rule is 862 tonnes and the long term yield (assuming average recruitment in the future) is 537 tonnes. Averaging the RBC over the

three year period 2016-2018 gives an average RBC of 828 tonnes and over the five year period 2016-2020, the average RBC is 797 tonnes.

59. Even though the precision of this assessment is much improved over the 2011 assessment, the estimates of stock biomass and current depletion level must still be treated as approximate until further data collections confirm the model outputs.
60. Dr Finn questioned whether there were any major data weaknesses in the data set. Dr Haddon noted that there were no major weaknesses in the data and that the new data had varying effects on the estimate.
61. Dr Knuckey questioned why the exploited biomass is three times larger than the female spawning biomass given that the spawning biomass is what is caught.

Action item: Dr Haddon to look at the data and provide a response to the RAG.

62. Following the presentation of the base case assessment, Dr Finn informed the RAG that AFMA was requesting that GABRAG:
 63. accept the base case assessment
 64. recommend a single year or multi year RBC
 65. provide advice on the biological risks associated with the application of the 50 per cent large change limiting rule.

Recommendation: The RAG accepted the base case assessment presented by Dr Haddon.

66. Given the estimated spawning stock depletion of bight redfish is well above the management target and recent catches are low AFMA recommended a multi year RBC (and subsequent total allowable catch).
67. The RAG noted that there was a low risk to the stock of dropping below 20 per cent due to fishing pressure, however recommended implementing some well defined break out rules based on catch rates.
68. The RAG also acknowledged that although the stock is at 63 per cent there are still uncertainties in the data and catch rates are continuously declining. Dr Knuckey noted that the 41 per cent MEY target was calculated over three years ago and was fairly conservative.
69. Dr Haddon suggested that even if the breakout rules are triggered in subsequent years it does not automatically trigger a Tier 1 assessment. Cheaper and alternative assessments should be considered.

In summary, the RAG recommended a five year multi year TAC of 797 tonnes with the following breakout rules:

- **If CPUE increases outside the 95% confidence interval, trigger examination and potential reassessment.**
- **If catches exceed 75 per cent of the five year average RBC (i.e. approximately 400 tonnes), trigger examination and potential reassessment.**

The RAG supported applying the large change limiting rule noting that this will not pose a significant risk to stock status.

Agenda Item 4 – Deepwater flathead

70. Dr Haddon introduced the item and noted that the breakout rule for deepwater flathead is

triggered if:

- the most recent observed value for the standardised CPUE falls outside of the 95% confidence interval of the value for the CPUE predicted by the most recent Tier 1 stock assessment; or
- if the most recent observed value for biomass from the fishery independent survey falls outside of the 95% confidence interval of the value for the biomass predicted from the fishery independent survey (when survey values are available).

71. Predicted catch-rates for deepwater flathead have remained relatively flat for the years 2013-14 and 2014-15 while the standardized CPUE has declined. Dr Haddon noted that the predicted CPUE has now been above the observed CPUE for the past four years, with the difference between the two increasing.
72. There was no indication that deepwater flathead has broken out of its expected trajectory although for the last four years the predicted CPUE has been above the standardized CPUE.

Recommendation: The RAG supported continuing the current multi year TAC for deepwater flathead.

[Agenda Item 5 – Western gemfish](#)

73. Dr Haddon introduced the item and noted that the breakout rule for western gemfish is triggered if:

- the most recent observed value for the standardised CPUE falls outside of the 95% confidence interval of the value for the CPUE over the last ten years.

74. The estimate of CPUE for 2015 remains uncertain as a result of the relatively high level of discarding occurring. Over the last six years the average proportion of total catches discarded has been about 42.6%. Such high discard levels mean that any estimated CPUE is likely to be biased low. If discards were not included the estimated CPUE is likely to be biased high. The RAG agreed that it is important for AFMA to understand the reasons for high discarding and address the issue.

Recommendation: The RAG recommended that AFMA address the problem of high discards of western gemfish, particularly in the Commonwealth Trawl Sector.

75. Western gemfish in SESSF zones 40 and 50 has exhibited an increase in standardized CPUE in 2014 and discarding continues at relatively high levels (although less than last year). These observations indicate that the stock status is no worse than previously and may have improved slightly.

76. The RAG agreed that western gemfish had broken out above its expected trajectory, however the RAG noted that catches were very low (72 tonnes out of the 200 tonne TAC) and catches were therefore not the main driver for the trigger of the breakout .

Recommendation: The RAG supported continuing with the current multi year TAC noting that an assessment is scheduled for 2016-17.

Agenda Item 6 – Research and bycatch

Agenda Item 6.1 - FIS proposal 2016

77. Dr Knuckey declared his conflict of interest with the agenda item and did not participate in the discussion.

78. Mr Jeff Moore introduced the item and highlighted the following:

- Due to the problems encountered during the 2015 FIS, industry would like to run another FIS in 2016, however industry is not in a position to directly fund it.
- GABIA has requested some additional funding from the Fisheries Research and Development Corporation (FRDC), however FRDC has not committed to the funding.
- The RAG noted that if a FIS were run in 2016, only one survey would be undertaken (as opposed to previous FIS where two surveys have been run). The RAG noted that if only one survey was run the coefficients of variance would increase.
- Dr Haddon noted that an additional FIS in 2016 would benefit the proposed deepwater flathead stock assessment and that the long term utility of the FIS data is at risk due to seismic survey affecting the 2015 FIS.
- Mr Andy Moore recommended informing FRDC that the GAB industry would co-fund the 2016 FIS.

Action item: Mr Andy Moore and Dr Haddon to assist Mr Jeff Moore in applying for FRDC funding to run a FIS in 2016.

Recommendation: The RAG strongly recommended that if a FIS is run in the future, consideration be given to whether a seismic survey is occurring at the same time.

Agenda Item 6.2 – Review research and assessment schedule

79. The RAG discussed the Tier 1 assessment for western gemfish proposed for 2016-17 and noted that the catches for western gemfish are low and that the data collected is inconsistent.

80. The RAG agreed that once the stock structure research on western gemfish is complete, and depending on the data collected up to date, the RAG (together with SESSFRAG) will consider which stock assessment tier is appropriate for western gemfish.

81. Mr Jeff Moore also informed the RAG that there has been no money put into the observer budget in years of crew collected data sampling.

Agenda Item 6.3 –Bycatch update, including seabirds

82. Dr Knuckey provided an update on the bycatch utilization project in the GAB.

83. The project has several objectives including characterizing GABTS bycatch species, conducting domestic and international market surveys to determine the potential demand of edible product and value added products and developing a supply chain model.

84. Logbook data has been used to categorize species in the GAB and specific discard species with a potential use have been identified.

85. The RAG expressed their strong support for the project.

86. Dr Knuckey provided an update on the SESSF Monitoring and Assessment Strategic Review Project.
87. The primary objective of the project is to review the efficiency and cost effectiveness of current assessments undertaken in the SESSF. The review of the FIS is part of the project.
88. The RAG noted that the project is ongoing and looks forward to receiving the results.

Agenda Item 7 – Close of meeting

89. The Chair thanked everyone for their participation and closed the meeting at 16:50.

Action Items arising

Action Item	Action	Action person
1	AFMA to ensure CSIRO receives logbook data until the end of June prior to catch rate standardisations.	AFMA
2	Dr Haddon to look at the data and provide a response to the RAG.	Malcolm Haddon
3	Mr Andy Moore and Dr Haddon to assist Mr Jeff Moore in applying for FRDC funding to run a FIS in 2016.	Andy Moore/Jeff Moore/Malcolm Haddon



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Attachment A – Standing list of Action Items from previous GABRAG meetings

<u>Item</u>	<u>Meeting</u>	<u>Action</u>	<u>Actioning member</u>	<u>Status</u>
1	October 2015	Dr Knuckey to send Mr Raptis some literature on plate counts.	Dr Ian Knuckey	Complete
2	October 2015	Dr Haddon to examine CPUE either side of the FIS.	Dr Malcolm Haddon	In progress. Malcolm requires more information about the seismic survey. Seismic survey information in the FIS report. Look at catch rates over past years and overlay
3	October 2015	Fishwell to send any otoliths from the 2005 FIS to Fish Ageing Services to be aged.	Dr Ian Knuckey	Fishwell hold 320 otoliths, does RAG want them to be aged? Not aged but Ian to send them to Fish Ageing Services. Ian to give AFMA a full inventory of all otoliths

				he holds. AFMA recommends that to request FAS to store all otoliths.
4	October 2015	GABIA to inform industry that scientific permit applications for orange roughy need to be submitted by May and last several months once granted.	GABIA	Complete, Jeff has informed Jim and Tony. GABIA will write it into the 5 year research plan.
5	October 2015	Dr Knuckey to check whether Fishwell holds any orange roughy otoliths and send them to Fish Ageing Services to be aged.	Dr Ian Knuckey	Fishwell hold 1200+ otoliths – does RAG want them aged?
6	October 2015	Mr Jeff Moore to send AFMA any length frequencies.	Jeff Moore	
7	October 2015	Dr Haddon to characterise flathead catch rate standardisations and break down the data by month to have a look at the variability in catches.	Dr Malcolm Haddon	
8	October 2015	Dr Malcolm Haddon to compare catch rate standardisations for early 2015 and early 2016.	Dr Malcolm Haddon	Will be done in 2016
3	July 2015	Dr Ian Knuckey to have a look at effect of sea temperature on the resource survey relative biomass estimates when finalising the report.	Dr Ian Knuckey	In progress
9	July 2015	AFMA to ensure that the AFMA database project look at how to incorporate additional sources of data (eg. the FIS data).	AFMA	In progress – need a method to do it.
10	July 2015	CSIRO to prepare a thorough data characterisation (spatial and temporal) for both target species prior to doing the standardisation for	Dr Malcolm Haddon	Complete

		the bight redfish stock assessment and review of the catch rate standardisation for deepwater flathead.		
11	July 2015	Dr Malcolm Haddon to have a detailed look at discard rates for western gemfish and provide a break down by strata for consideration at the October GABRAG meeting.	Dr Malcolm Haddon	In progress - Western gemfish standardization is complicated by boundaries and which part of the fishery needs to be considered. In the GAB the discard rates are not sufficiently well sampled to allow for an acceptable estimate of discards, the discards that are recorded are primarily from the west coast of Tasmania.
12	July 2015	Dr Malcolm Haddon to develop two CPUE standardizations for western gemfish for consideration by GABRAG in October – one with discards and the other without discards.	Dr Malcolm Haddon	See above #11

2	Nov 2014	AFMA, CSIRO, GABIA and Fishwell Consulting to negotiate on the form future data summaries will take based on requests from the RAG and what is covered under the current contract with CSIRO.	AFMA, GABIA, CSIRO and Fishwell Consulting	In progress
11	Nov 2014	Dr Malcolm Haddon to work with Dr Robin Thomson to check where early length data and length data from 2006-08 is and why it is not included in the data summary	Dr Malcolm Haddon	In progress - The apparently missing data is not actually newly missing. If the 2011 summary is considered and the data used in the assessment then one can see that port samples were not present back then either. Robin will re-examine the software used to process the data. There ere on board measurements but no port measurements. Data wasn't rejected by software.

14	Nov 2014	Dr Malcolm Haddon to look at catch composition of Western Gemfish shot next year.	Dr Malcolm Haddon	In progress, Malcolm to look at by next GABRAG meeting
17	Nov 2014	Dr Marcus Finn to inform AFMA Executive of GABRAG's intention to categorise discards.	AFMA	In progress – the potential for categorizing discards is also being explored more broadly for SESSF trawl sectors. It has been discussed at SESSFrag, and more recently in Slope/ShelfRAG where concerns were raised. The proposal is still being progressed at a SESSF scale and is still to be finalized. GAB groupings
18	Nov 2014	AFMA to follow up the legal requirements of reporting of discards and that appropriate CAAB codes are available for the proposed discard groupings.	AFMA	
19	Nov 2014	AFMA and GABIA to update the Boat Operating Procedures Manual with agreed discard categories and produce a one pager of instructions to crew on discard reporting.	AFMA/GABIA	
20	Nov 2014	Fishwell Consulting to update Olfish for appropriate discard categories.	Fishwell Consulting	

				are ready to be implemented in elogs but worth reviewing groups with wider SET project and e-log improvement program.
22	Nov 2014	ABARES to consult with Professor John Tisdell about what they intend to do with the economic survey and what information they intend to collect.	ABARES	Not complete
23	Nov 2014	AFMA to obtain economic data incorporated into next RAG in the form of a data summary	AFMA / ABARES	Not complete – AFMA no longer has an economist; AFMA will investigate whether the data can be summarized from other sources and incorporated into the ABARES fishery economic

				survey. AFMA needs to
26	Nov 2014	Professor John Tisdell to obtain a summary of Sean Pascoe's economic work of the Great Australian Bight.	John Tisdell	Not complete