



Australian Government  
Australian Fisheries Management Authority



# Southern and Eastern Scalefish and Shark Fishery



Resource Assessment Group (SESSF RAG)

## 2014 Chairs' Meeting

### **MINUTES**

*CHAIR: Professor John Buckeridge*

4 and 5 March 2014  
Exhibition Room  
Sydney Fish Markets  
Pyrmont  
NSW

# Southern and Eastern Scalefish and Shark Fishery Resource Assessment Group (SESSF RAG)

## Minutes

4 and 5 March 2014

Chair: Professor John Buckeridge

### DAY 1

The meeting commenced at 9:00 am.

#### *Agenda Item 1 – Preliminaries*

##### **1.1 Welcome and introductions/apologies**

Professor Buckeridge (SESSF RAG Chair) welcomed members and observers to the meeting. The Chair noted apologies from:

- Dr Sarah Jennings (overseas);
- Mr Simon Boag; and
- Mr Jeff Moore.

The Chair noted an apology for Day 1 from Dr Klaer (CSIRO) and indicated that he would join the RAG on Day 2 following his return from a fisheries workshop in Florida.

The executive officer advised that he intended to record the meeting to assist with record keeping. There were no objections from members or observers.

##### **1.2 Declarations of Interest**

The Chair sought advice from the AFMA member on the status of Fisheries Administration Paper 12 (FAP 12) *Resource Assessment Groups – Roles, Responsibilities and relationship with Management Advisory Committees*. The AFMA member indicated that AFMA was in the process of finalising the policy following the recent review. The AFMA member advised that declarations of interest would still need to be conducted consistent with the existing policy's requirements which meant members with conflicts would need to step out of the room while the RAG considered how to deal with them.

Members and observers then reviewed the draft register of declarations of pecuniary interest and the incorporated a number of updates (Table 1).

Table 1. SESSF RAG Register of interests - 4 March 2014

<b>Member</b>	<b>Declared interest</b>
Professor Buckeridge	SESSF RAG Chair. SARAG Chair. RMIT. No pecuniary or otherwise interest.
Mr Day	Employed by AFMA. Manager Demersal and Midwater Fisheries. No pecuniary or otherwise interest.
Dr Haddon	Employed by CSIRO. Member of SESSF RAG ,SARAG, and NPF RAG. Interest in research projects in the SESSF and noted the potential for conflict in relation to research priorities. Involved in stock assessments and data processing. No pecuniary interest in the fishery.
Dr Kelaher	SharkRAG Chair No pecuniary interest in the SSESF.
Mr Lloyd	GAB RAG Chair Director of Lloyd Environmental Pty. Ltd. Interest in projects involving fish and fisheries – but not in the GAB or SESSF.

Mr Morison	Director of Morison Aquatic Sciences. Chair of ShelfRAG and SlopeRAG. Scientific Member on South East MAC. Advised that he didn't have any conflicts with items on the current meeting agenda. Interest in research and other fisheries related projects from a range of government, NGOs and corporate organisations.
Mr Penney	Employed by ABARES. Director of Domestic Fisheries and Marine Environment Section. Member of SESSF RAG and SlopeRAG. No pecuniary interest in the SESSF. Co-investigator on the research proposal before FRDC - <i>Strategic Review of Monitoring and Assessment in the SESSF</i> . Mr Penney did not consider that this constituted a conflict with the current meeting's agenda.
<b>Invited observers</b>	
Mr Burns	Employed by AFMA. No pecuniary or otherwise interest.
Mr Corrie	Employed by AFMA. No pecuniary or otherwise interest.
Dr Finn	AFMA – Manager Southern Trawl Fisheries. No pecuniary or otherwise interest.
Dr Klaer <sup>1</sup>	Employed by CSIRO. Involved in stock assessments and data processing. Interest in sources of funding for research purposes. No pecuniary interest in the fishery.
Dr Ian Knuckey	Director Fishwell Consulting Pty Ltd Involved in – Fishery Independent Survey (FIS) SESSF and GAB and noted a potential conflict with the agenda in this regard. Co-investigator on the research proposal before FRDC - <i>Strategic Review of Monitoring and Assessment in the SESSF</i> . Range of research interests in relation to South East fisheries including the GABTF, SESSF and auto-longline sector including: Gummy Shark Longline Hook Trial, Orange Roughy Acoustic Optical Survey, Blue Warehouse Industry Survey Agent for Olfish Electronic Logbooks NPF RAG Chair Scientific member on NORMAC, Member on Scallop MAC Industry Liaison Officer – South East MAC Provides research advice to various industry associations: SETFIA, GABIA and SSIA
Mr Krusic –Golub	Director – Fish Ageing Services, member of SlopeRAG and ShelfRAG. Principal Investigator of the long term age data collection project for delivery of ageing services for SESSF and GAB stock assessments and for the EOI for the next period.
Mr Moore	Executive Officer GABIA, CFA Board member. Member of GABRAG and GAB MAC. Invited participant on South East MAC. Industry Liaison Officer Commonwealth MPAs. Involved in the Risk Cost Catch Approach with the Review of the Commonwealth Fisheries Harvest Strategy Policy.
Mr Power	Employed by AFMA. Manager Gillnet, Hook and Trap Fisheries. Executive Officer for SlopeRAG. No pecuniary or otherwise interest in the SESSF.
Mr Stone	Executive Officer Sustainable Shark Fishing Incorporated. No pecuniary interest in the SESSF.
Dr Tuck	Employed by CSIRO. Interest in sources of funding for research purposes and noted a potential conflict with research priority setting. Principal Investigator for: <ul style="list-style-type: none"> <li>• The current stock assessment contract with AFMA and the EOI for this work in 2015.</li> <li>• Research project looking at the effects of closures on stock assessments</li> </ul>
Mr de Fries	Executive Officer South East MAC. Fisheries consultant. No pecuniary interest in the SESSF.

<sup>1</sup> Declaration made on Day 2

### **1.3 Adoption of Agenda**

The RAG agreed to add the following items to the draft agenda:

2.1 - RAG Chair's Reports

4.2 - Confirmation of priority species for assessment in 2014

5.6 - Conditions which could justify rejection of CPUE as an index of abundance

8.4 - Which RAG should have responsibility for the assessment of Western Gemfish?

The revised agenda was then accepted. The final agenda is provided as Attachment 1.

Item 5.6 was not discussed directly due to time constraints.

### **1.4 Acceptance of minutes from SESSF RAG's Environment Meeting 30 and 31 July 2013**

The RAG agreed to adopt the draft minutes from the SESSF RAG's Environment Meeting held on 30 and 31 July 2013 in Hobart subject to a small number of minor editorial corrections being made.

### **1.5 Status of actions arising from SESSF RAG's Environment Meeting 30 and 31 July 2013**

The RAG noted that twelve of the twenty-four actions had been resolved with another three items up for consideration on the current agenda. The RAG noted that Dr Klaer would be able to update the RAG on Day 2 in relation to a number of technical actions and proposed changes to the format of the SESSF Data Summaries.

The status of the actions is detailed in Table 2.

Table 2. Status of Actions from the SESSF RAG Environment and Research Meeting 30-31 July 2013

Old No.	Previous Actions	Agency	Status	New No.	New Action and Timeframe
1	Add to the SESSF RAG Data Meeting agenda: Consideration of AFMA's Information Disclosure Policy on the Authority's ability to publically demonstrate and defend evidence based decisions with particular reference to analyses undertaken by its RAGs. ( <i>FMP No. 12 - Information Disclosure Policy</i> )	SESSF RAG Chair ABARES Member	<b>Completed</b>  Mr Penney (ABARES) delivered a presentation to at SESSF RAG's Data Meeting 31 July to 2 August 2013.		
2a	AFMA to write to the relevant state fisheries agencies to propose the establishment of a formal data sharing arrangement for the SESSF, SPF and SSJF which would (ideally) provide for exchange of raw data under subsidiary confidentiality agreements.	AFMA	AFMA reported that Memoranda of Understandings (MOUs) were in place with all states except for NSW that provide for exchange of data. AFMA had contacted NSW fisheries and had been advised that data had now been provided to CSIRO.  AFMA has asked CSIRO to advise them if there are any delays in getting the data and AFMA will then remind the states of their obligations under the MOUs. NSW have a provided data on School Whiting to CSIRO.  Dr Haddon emphasised that while cooperation of individuals had been good with NSW it was still important to institutionalise these matters hence the value in an MOU.  The RAG noted that AFMA had sought PIRSA's cooperation in improving the South Australian state logbook information on sharks (i.e. capacity to report School and Gummy Sharks separately).	1	
2b	Circulate Dr Penney's email response in relation to the Fisheries Statistics Working Group (FSWG).	Executive Officer	Completed - circulated on 28 August 2013.		
3	Circulate the full RUSS Report (electronic version provided by Dr Klaer).	Executive Officer	Completed - circulated the full RIUSS report electronically on 28 August 2013.		
4	Executive Officer to follow up on Fish Ageing Services (FAS) Workplan.	Executive Officer	Completed – Workplan tabled at the SESSF RAG's Data Meeting 31 July to 2 August 2013.		
5	Circulate the SESSF Harvest Strategy Framework to SESSF RAG and GABRAG members for out of session comment (Microsoft Word format)	AFMA Executive Officer	Completed - SESSF RAG provided out of session input to AFMA. A revised HSF was adopted by the AFMA Commission's February 2014 meeting.		
6	CSIRO to add a metric on planned observer coverage by	CSIRO	No done yet - will need to refer to AFMA's observers		

	strata versus observer coverage to the Logbook, Landings and Observer Data Summary.		coverage plan. Discussed under Agenda Item 8.3.		
7	Raise the issue of sampling of the shark line sector with observer representatives at the Data Meeting.	SESSF RAG	<p>Sampling of line caught shark raised at the Data Meeting – AFMA Observer Section agreed to check – Data Meeting Action # 21.</p> <p>Mr Burns (AFMA) reported 41 observer seadays had been allocated to the shark line fishing sector with the instruction to measure all shark.</p> <p>Port sampling in Robe has been enhanced.</p> <p>Mr Stone suggested that reporting of shark length frequency data be separated into line and gillnet data to better inform discussion age size selectivity of the respective gears.</p> <p>The SharkRAG Chair confirmed that size data from line caught and gillnet gears was treated separately in the Gummy and School Shark models and related analyses.</p>	2	<u>AFMA/CSIRO</u> That AFMA and CSIRO to distinguish line and gillnet data in length frequency data tables and histograms in summary documents.
8	AFMA Management to update SESSF RAG (out of session) on progress with its internal file sharing facility.	AFMA	<p>AFMA has implemented a Sharepoint (a document management system) for its officers and the second phase will be to give RAGs and MAC members access through the AFMA website.</p> <p>The ABARES member stressed the handling of drafts need to be handled carefully with a commitment to replace drafts with finals once available. The member also suggested including caveat that text in draft documents shouldn't be quoted without reference to AFMA or the document author(s).</p> <p>The Chair added that the use of standard software tools for watermarking drafts should be required.</p>	3	<u>AFMA</u> That AFMA develop protocols for handling (and marking) draft RAG and MAC documents on SharePoint and establish follow-up procedures to ensure draft versions are replaced with final copies once these are available.
9	AFMA to report back on recent ComFRAB research process and associated research funding decisions in relation to habitats and communities focused ecological risk assessment methodologies.	AFMA	<p><u>Completed</u></p> <p>AFMA provided an update to SEMAC 14 (January 2014).</p> <p>Ecological Risk Management to be further discussed under Items 6.1 and 6.2 at this meeting.</p> <p>The RAG noted that there was also provisional FRDC approval for a project on current spatial management measures for AFMA's ERAs on habitats following completion of the Commonwealth Marine Reserve Network (full proposal will be developed).</p>		Verbal update at meeting.
10	Circulate Mr Stone's (SSFI) draft analysis of gillnet risks for	Executive Officer	<u>Completed</u>		Refined version included in

	protected species and management.		Tabled at SEMAC 13 - October 2013		Dolphin Strategy
11	AFMA Management to draft Ecological Risk Management (ERM) for the SESSF and circulate the draft report to SESSF RAG.	AFMA Management	<u>Completed</u> To be considered under Agenda Item 6.1 at this meeting.		
12	AFMA to display fishing effort (density) on maps of protected species interactions.	AFMA	<u>Completed</u> The RAG noted that AFMA had instituted this at SEMAC 13 in October 2013 and that it had been well received by members.		
13	CSIRO to raise concerns over observer coding for: Protected species interactions with AFMA to ensure codes for no observations made (darkness, poor visibility) are distinguished from observations where zero interactions were observed or counts of animal abundance were real zeros. Distinguishing real zeros for discards of commercial species where discard estimates were collected and situations where shots were observed but discard estimation not undertaken for that species.	CSIRO AFMA	Mr Burns explained that an observation period has been undertaken for wildlife interactions but when no interactions are observed a code of '888' is entered. If there have been no observations for wildlife interactions due to an observer not being present or conditions don't allow observations to be made then there is no actual recording of an observation period. The RAG and Mr Burns agreed to liaise with CSIRO to make sure the intent of the codes was understood by CSIRO. Mr Burns added that the '888' was recorded in the species code field so there was no potential for confusion with counts.  Mr Burns confirmed the '888' code was also used in wildlife counts taken by observers.	4	<u>AFMA</u> Mr Burns to contact Dr Klaer and Dr Upston at CSIRO to explain the observer coding around wildlife interactions – in particular the use of the '888' code in relation to observed wildlife interactions and wildlife counts.
14	AFMA to clarify the definitions/criteria ISMP observers use to categorise protected species interactions against the criteria for interactions operators are required to report in their logbooks.	AFMA	The RAG noted that Mr Gerner (AFMA) had provided a document to SEMAC summarising the criteria that apply in relation to reporting of protected species interactions.	5a  5b	AFMA/EO to circulate advice provided to SEMAC 13 by AFMA's Bycatch Team in relation to criteria for reporting interactions with protected species.  AFMA to prepare a paper on the various definitions for interactions with protected species: <ul style="list-style-type: none"> <li>• Legislative - EPBC Act, Threat Abatement Plan etc; and</li> <li>• Operational - observers and logbook</li> </ul>

15	CSIRO to exclude observer data from research projects from the general summaries of protected species interactions (i.e. FIS, Gummy Shark Auto-longline Trial, experimental fishing programs)	CSIRO	Dealt with - fairly sure research projects go in under a different code. Neil to double check.		
16	CSIRO to report separately on the gear sectors in the GHaT in their annual summaries of ISMP data on protected species interactions	CSIRO	To be implemented in the 2014 reports		
17	Circulate the Varying the Threat Abatement Plan 2006 for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations when it is released by SEWPaC (now the Department of the Environment) to SESSF RAG members.	Executive Officer	<u>Completed</u> - circulated 28 August 2013 The RAG noted that SEMAC provide detailed comment's for consideration by AFMA in the preparation of an agency submission to the Australian Antarctic Division (part of the Department of the Environment)		
18	ABARES member to draft specifications for annual review procedures for SESSF Tier 1 assessed stocks noting that some will be: <ol style="list-style-type: none"> <li>1. Identified (or scheduled) as priority species for Tier 1 assessments that year.</li> <li>2. Currently under MYTACs and require a review of performance against their break-out rules.</li> <li>3. Currently under annual TACs and, in the absence of the ability to fund an updated assessment, a review of their status against indicators may be appropriate.</li> </ol>	ABARES Member	To be addressed under Agenda Item 5.2		
19	ShelfRAG Chair and SETFIA EO to consult with Dr Prince (Biospherics) regarding prospects for presenting a preliminary analysis of industry gathered Blue Warehou data to ShelfRAG.	ShelfRAG Chair Mr Boag, Dr Prince	<u>Completed</u> The RAG noted that Dr Koopman (Fishwell Consulting) had provided copies of the data collection protocols for the industry sampling initiative. The ShelfRAG Chair advised that ShelfRAG had reviewed that data and had determined that it was not sufficiently representative to support an SPR approach Dr Haddon noted that the fishery dependent data on Blue Warehou tended to be patchy, heterogeneous and variable by location in terms of sizes. Dr Haddon added that SPR is heavily reliant on growth and size distribution and if you couldn't get a representative sample of sizes then this approach was not valid.		

20	SETFIA EO to expedite write-up of the 2012 and 2013 Orange Roughy (east) Acoustic Optical Surveys for consideration by SlopeRAG.	Mr Boag	<u>Completed</u> Dr Tuck advised that Dr Kloser had written up the 2012 Orange Roughy Survey data and was currently working on the 2013 data. Members noted that the analyses would be presented at the upcoming Orange Roughy workshop in April 2014.		2013 RESULTS WERE PRESENTED TO THE ORANGE ROUGHY WORKSHOP IN MAY BUT FINAL REPORT NOT YET COMPLETED.
21	That SESSF RAG's scientific members develop a paper on approaches for Tier 4 assessments when CPUE is not informative and establish more objective basis for rejecting CPUE as an indicator of abundance.	Shelf & Slope RAG Chair, Dr Haddon, ABARES member	The AFMA member noted that Dr Klaer's project – <i>Options for Tier 5 approaches in the SESSF</i> was scheduled for completion by 30 June 2014.  The RAG recognised that one of the reasons Tier 5 approaches might be needed was if there was a loss in confidence in CPUE as an index of abundance. The RAG agreed that further consideration be given to developing some guidance for situation when the utility of CPUE was being called into question. The RAG agreed to add - <i>Conditions which could justify rejection of CPUE as an index of abundance t Agenda Item 5.6.</i>		
22	Circulate AFMA's research call to ShelfRAG, SlopeRAG, SharkRAG, SPF RAG and SquidRAG.	EO/AFMA	Completed		
23	SESSF RAG to schedule a day to finalise the <i>SESSF Annual Research Plan</i> format and the 2014 plan.	SESSF RAG Executive Officer AFMA	The RAG noted that consideration of the annual research plan was schedule for Agenda Item 3.1. Members considered that SESSF RAG may need to schedule a ½ day in 2015 to review the SESSF 5 Year Strategic Research Plan.	6	That the SESSF RAG determine at its 2014 Research and Environment Meeting how the RAG will contribute to the review of the SESSF 5 Year Strategic Research Plan.
24	Upper Slope Dogfish Research Plan Working Group to establish Terms of Reference and a timeline for the drafting of a Research and Monitoring Plan for Upper Slope Dogfish.	Upper Slope Dogfish Research Plan Working Group	The RAG noted that AFMA had incorporated research needs associated with the Upper Slope Dogfish Research and Monitoring Plan.	7	Ongoing – AFMA to report on the status of Upper Slope Dogfish Research Plan Working Group at SESSF RAG's 2014 Research and Environment Meeting

## 1.6 Correspondence

The RAG noted four incoming correspondence items:

1. Review of AFMA's policy paper - <i>Fisheries Administration Paper No. 12 (FAP 12) - Resource Assessment Groups (RAGs)</i> .	SESSF RAG members' comments had been forwarded to AFMA's Policy, Environment, Economics and Research Section. AFMA is currently finalising FAP 12. HAS BEEN FINALISED.
2. AFMA Management's TAC Paper	AFMA's TAC Paper had been provided to SESSF RAG members involved in SEMAC 14 (TAC meeting).
3. Market testing of AFMA's Observer Program	For information
4. <i>Public Interest Disclosure Act 2013 (PID Act)</i>	The AFMA member advised that the PID Act was quite a significant piece of legislation for AFMA and observed that would have quite an impact on AFMA's RAGs and MACs. The RAG noted that AFMA had already had to respond to a number of public disclosures in relation to RAG business. The AFMA member noted that a person did not have to say they were making a public interest disclosure if the substance of what is said constitutes a public interest disclosure – i.e. there has been some form of a breach of policy or law. The AFMA member noted that once you make a public interest disclosure it cannot be retracted. The RAG noted that the disclosure remains confidential unless the person making it gives consent to it being made public.

### *Item 2 – Review of last year's assessment process*

#### **2.1 Review of the 2013 assessment process from the RAGs**

The RAG agreed it would be useful to hear feedback about the 2013 assessments from the RAG Chairs in attendance before discussing the translation of RBC advice to TAC recommendations at SEMAC 14.

The Chair of the Shelf and Slope RAGs observed that both RAGs endorsed a larger number of MYRBC recommendations than in previous years. The Chair considered that there remained a need for better expression around the principles for multi- year settings given the current lack of guidance for MYRBCs/MYTACs in the SESSF Harvest Strategy Framework. The Chair noted that the issues around the application of discount factors had surfaced in both RAGs.

#### SlopeRAG

Mr Morison (SlopeRAG Chair) noted that a significant proportion of the RAG's time was devoted to Pink Ling in 2013 (essentially two assessments – CSIRO's and Mr Cordue's). The Chair noted the benefits and downsides of having two assessments being undertaken in parallel:

- Identified new ways to treat size and age data with stratification and weighting
- New CPUE standardisations
- New way to split the CPUE time series -

- Useful dialogue around data weighting (more work to be done)
- Outcomes of the additional assessment was similar to previous assessments
- General review process was beneficial and a strong view emerged that the in depth level of investigation delivered insight that may not have been revealed in a desktop (arm's length) review.
- The application of the Markov Chain Monte Carlo (MCMC) algorithms allowed the RAG's advice to be articulated in a probabilistic manner.

The SlopeRAG Chair noted the downsides:

- Process had been chaotic at times
- Confusion existed about who was doing the base case
- A lot more time was invested in comparison to any previous Tier 1 assessments, and hence the costs expanded greatly beyond the usual costs of Tier 1 stock assessments.
- Some professional disagreement about the way forward is still not resolved
- Concerns raised around the lack of documentation of the new approach (repeatability of the CPUE standardisation)

The SlopeRAG Chair considered that if a similar situation arose then it would be preferable if it was managed independently of the normal assessment cycle.

Mr Penney observed that another outcome of the additional scrutiny was that there was increasing evidence that there were substantially different things happening between the eastern and western stocks. Mr Penney suggested this was likely to lead to further consideration being given to other species and if they should also be managed on an east and west basis. The SESSF RAG Chair asked if genetic analysis supported this delineation. The SlopeRAG Chair indicated that research to date had not identified significant genetic variation but observed that the notion of treating the stocks separately for assessment and management purposes wasn't contested. Mr Penney referred to concerns raised about the new assessment's documentation and suggested if this was the case then that industry (as funders) needed to go back to Mr Cordue and request that a more comprehensive report be provided.

Dr Haddon considered that the whole review process had been valuable but the way in which it was implemented (changes right up to the last minute, lack of full assessment document) was different to the normal process and carried some risks. Mr Penney compared the situation to international fisheries workshops where assessments were run during the meetings but emphasised that the report did need to be written up. Dr Haddon noted that CCAMLR required assessment documentation to be submitted two weeks prior to scientific meetings.

The RAG noted that the provision of a range of options to SEMAC (probability matrix) while consistent with the Harvest Strategy Policy was not compatible with the current SESSF Harvest Strategy Framework. Mr Penney suggested that the SESSF Harvest Strategy Framework may need to be updated to take into account the provision of advice in probabilistic frameworks.

Dr Tuck noted that neither Mr Cordue nor CSIRO had tabled complete documents at the last SlopeRAG meeting and observed that this had been a novel situation. Dr Tuck noted that CSIRO's document was now complete and was available for circulation.

Dr Tuck advised there had been a lot of un-costed work (data requests) as a result of the additional assessment. Dr Tuck commented that the SEMAC 14 minutes suggested the MAC had gained the impression that the assessment was more robust than previous ones and that this interpretation did not reflect the assumption of average recruitment coming into the eastern stock. Dr Tuck indicated that recruitment over the last 5 years had been lower than average and emphasised that we still needed to be careful when making statements about rebuilding stocks. The AFMA member noted that

the assessment had assumed lower than average recruitment. Dr Haddon noted that the MCMCs do not capture all sources of uncertainty.

Dr Knuckey suggested SESSF RAG was best placed to look at the process rather than details of assessments and recalled that the focus on Pink Ling had already increased when Professor Punt made fundamental changes to the existing assessment in 2012. Dr Knuckey considered that this situation had developed largely because we didn't have a formal review process for Tier 1 assessments in place. Dr Knuckey noted that previous meetings has indicated there was broad support for instituting an external review process for important assessments (drivers of the fishery) but recognised that putting something into place was difficult in the current funding environment.

The RAG acknowledged the events which contributed to the rushed circumstances of the 2014 Pink Ling assessment and recognised the goodwill amongst parties involved which had contributed to the agreed outcomes. The RAG was mindful that the Pink Ling assessment had been problematic and to a large extent the contention around the assessment had driven the process. The RAG recognised that a review framework needed to be impartial and that choosing to respond only to problematic assessments introduced a bias in the process. The RAG agreed that some pragmatism was needed and if a review process was agreed then the priority candidates should be selected from the most economically important species.

Mr Stone expressed concern about an additional layer of costs being added to the assessment cost centres. Dr Knuckey suggested that trade-offs might be needed and for a species like Tiger Flathead it may be better to fund an in-depth independent review of the current model than to run two annual standard assessments.

Mr Penney considered that funds were probably insufficient to support a system of obligatory external reviews of assessments, and noted that reviews would probably be instituted when there were problems with assessments. Mr Penney considered that the Pink Ling process had been good because it had identified the potential sources of disagreement and worked through them with the outcome being that two separate assessments had delivered results which were largely consistent.

The AFMA member, noting the valuable input on review options, offered to develop a paper for SESSF RAG's next meeting looking at review processes which might be accommodated in the SESSF.

**Action 8 - AFMA Management**

AFMA to develop a paper on possible mechanisms for securing external reviews for Tier 1 assessments in the SESSF.

The SlopeRAG Chair noted that there were ongoing issues with Blue-eye Trevalla Tier 4 assessment. The RAG also noted that there were a number of deepwater species where there wasn't enough new data to update assessments.

ShelfRAG

The ShelfRAG Chair reported that were no major new issues had emerged but noted that the following issues remained:

Redfish – conflict between Tier 3 and Tier 4 remained. The AFMA member advised that Redfish had started to show again off NSW.

Silver Trevally – discussion around resolving the impact of the Batemans Bay Marine Park on the Tier 4.

The RAG noted that the Mirror Dory Tier 3 was rejected by the RAG due to sampling shortfalls and members noted that Tier 3s needed good representative fishing and good representative sampling.

The ShelfRAG Chair recalled observations made by Dr Klaer that given adequate data Tier 3s should get to you where you want to be with respect to sustainability (in an equilibrium sense) and this was fundamentally different to Tier 4s which were configured around a reference period and may not reflect the sustainability target you wish to be at.

Dr Haddon noted that  $B_{48}$  was still a proxy for the notion of a healthy stock. Dr Haddon noted that many stocks had good spawning biomass but still went downhill. The RAG noted that a good spawning stock did not guarantee a healthy stock if some other factors impact increased.

#### GABRAG

Mr Lloyd (GABRAG Chair) reported that the recent GABRAG meeting had gone very well and noted that the involvement of some skippers at the last meeting had been valuable.

The Chair noted that seismic testing had been discussed at length and that there was a range of views on its impact on the fishery. The Chair noted SARDI's participation at the meeting and welcomed positive developments in relation to publishing data from the GAB FIS.

The Chair advised that GABRAG had a dedicated session on research and development and had narrowed down the fishery's strategic research priorities.

The Chair noted that Western Gemfish had been the only contentious issue and this had arisen in part because the RAG had received new data and information at its second meeting rather than at its first meeting. The Chair noted that breakout rules for the proposed Western Gemfish MYTAC still needed to be developed.

Dr Knuckey (scientific member on GABRAG) noted that the Bight Redfish assessment (based on age-structure) looked very healthy but catches and catch rates seemed to be falling away. Dr Knuckey expressed concern that the assessment may not be reflecting reality. Members noted that similar concerns existed in relation to its east coast congener.

#### SharkRAG

Dr Kelaher (SharkRAG Chair) noted that the RAG had had substantial discussions about line fishing off South Australia given the dynamic situation there and how this might affect the management of the fishery.

The SharkRAG Chair noted that the RAG was comfortable with the RBCs from the Tier 4s for both Elephantfish and Sawshark. The Chair reported that the recent discard estimates for School Shark had improved and it was apparent there was quite high discarding of this species.

The SharkRAG Chair noted that the MYRBC agreed for Gummy Shark was lower than the Tier 1 allowed but noted that the RAG was cognisant of the efforts being made to keep the incidental take of School Shark taken in operations targeting Gummy Shark at a minimum. The RAG also noted that the South Australian state shark catch of 160 t wasn't well discriminated and that this concerned SharkRAG.

The SharkRAG Chair noted positive industry reports on School Shark abundance but added it was hard to confirm this quantitatively without a reliable index of abundance. Mr Stone confirmed that industry was seeing more School Sharks and was finding it difficult to avoid them and was concerned about operators' ability to comply with the 20% quota holding rule as the season drew to an end. Dr Haddon noted that his review of catch records indicated that operators were moving on to try and avoid catching School Sharks.

Mr Penney supported the need to identify an alternate index of abundance but cautioned that a new index, once identified, would require some time to establish as a time series. Mr Penney noted that ABARES had highlighted the need to collect accurate data on discards and the importance of industry reporting discards fully and accurately in logbooks.

Mr Stone indicated that there was confusion amongst industry arising from the draft quota administration policy previously circulated and a proportion of operators were under the impression that discards needed to be covered by quota. The AFMA member confirmed that currently discards did not need to be covered by quota. Mr Stone noted that imports of South African Gummy Shark (\$AUD 6:00 at the fish shop door) meant that leasing in School Shark quota (lease price \$AUD 4:50) wasn't economically viable.

The AFMA member reported that the AFMA Commission had considered the TAC recommendations for 2014/15 and appreciated the hard work of the RAGs which supported this process. The member added that the Commission welcomed the new format for the species summaries and acknowledged the work done by Mr Penney, Mr Morison and AFMA staff in developing the new templates.

The RAG noted that the Commission supported the move to more MYTACs and was keen to see more work done on the principles around the application of MYTACs and break-out rules. The AFMA member noted that the Commission encouraged AFMA to develop a more consistent approach to the setting of Incidental Catch TACs.

## **2.2 Feedback from South East MAC 14 – SESSF TAC recommendations for 2014/15**

The SESSF RAG Chair noted that the South East MAC's TAC process had been characterised by close alignment of the MAC's advice with the various RAG's RBC recommendations.

SESSF RAG reviewed a draft schematic (flow chart) designed to reflect the outcomes of the SESSF assessment and TAC recommendation process. The revised draft at Figure 1 reflects suggestions made by members and has the status of a working draft. The RAG noted:

- That species where the most recent assessments had been accepted should be elevated above the line noting that in several cases insufficient fishing had occurred to update the assessments.
- Noted that while Redfish was an unusual case (Tier 3 and Tier 4 not consistent) the Tier 4 assessment was accepted (RBC = zero but with a TAC recommended based on the 50% change limiting rule).
- Categorise species under rebuilding strategies (under  $B_{LIM}$ ) with Incidental Catch TAC species as consistent with the Harvest Control Rule (RBCs = zero) but continue to note that Incidental Catch TACs are set on a different basis. Dr Haddon observed that the Harvest Control Rules do cover all biomass levels.

The RAG discussed that while an assessment may produce a result the RAG's acceptance of the assessment was also important and suggested amending the schematic to reflect that.

The ABARES member suggested an additional simplification might be to remove stocks that weren't assessed in the previous year's process as this potentially gave a distorted picture of the process. Members noted the usefulness of the schematic might become marginal with greater adoption of MYTACs.

The RAG agreed the key thing was to indicate if there were species (stocks) where the RAGs weren't able to provide advice on. The RAG recalled that a lack of representative age and length data was the reason for unsuccessful Tier 3 for Mirror Dory. The ShelfRAG Chair noted that the planned Tier 1 assessment for Redfish might help resolve the reasons behind the conflicting trends in the age and CPUE data.

The MAC reviewed correspondence from ABARES on the 2014 TAC setting process. Mr Penney explained that it was the job of Department of Agriculture to annually review AFMA's performance and noted that the Department delegated some of this responsibility to ABARES.

Mr Penney advised that the letter provide additional technical comments to AFMA on issues with the assessment and TAC recommendation process most of which had been identified in the SEMAC Chair's Summary.

Dr Knuckey expressed concern about the reference to asymmetric responses to RAG advice. Mr Penney indicated that he had raised this concern at the meeting and that it was general caution along the lines of being wary of always accepting increases based on upward trends but responding more slowly or phasing in TAC cuts in responding to declining CPUE. Mr Penney noted that the observations mainly referred to the Blue-eye-Trevalla situation. The AFMA member noted that there were also a few step up approaches in this year's advice (Blue Grenadier, Deepwater shark).

Dr Haddon provided an update on Dr William's (CSIRO) Blue-eye Trevalla project<sup>1</sup> was now underway and would assist the stock assessment process. Dr Haddon noted that team were developing spatial layers to populate a new 4 dimensional model (latitude and longitude, depth and time) and a lot of work was being done on ageing and otolith microchemistry.

The RAG returned to the TAC setting process. Dr Knuckey considered that the recommendation to keep the Deepwater Shark TAC under the recommended RBC in order to maintain profitable catch rates was an interesting precedent considering the RAG's recommendation is based on a proxy for an MEY target.

Dr Haddon explained that the 700 m closure had excluded industry from the core habitat of Deepwater shark species and even allowing for the opening of a small area of waters deeper than 700m it was quite likely that they would struggle to catch the TAC.

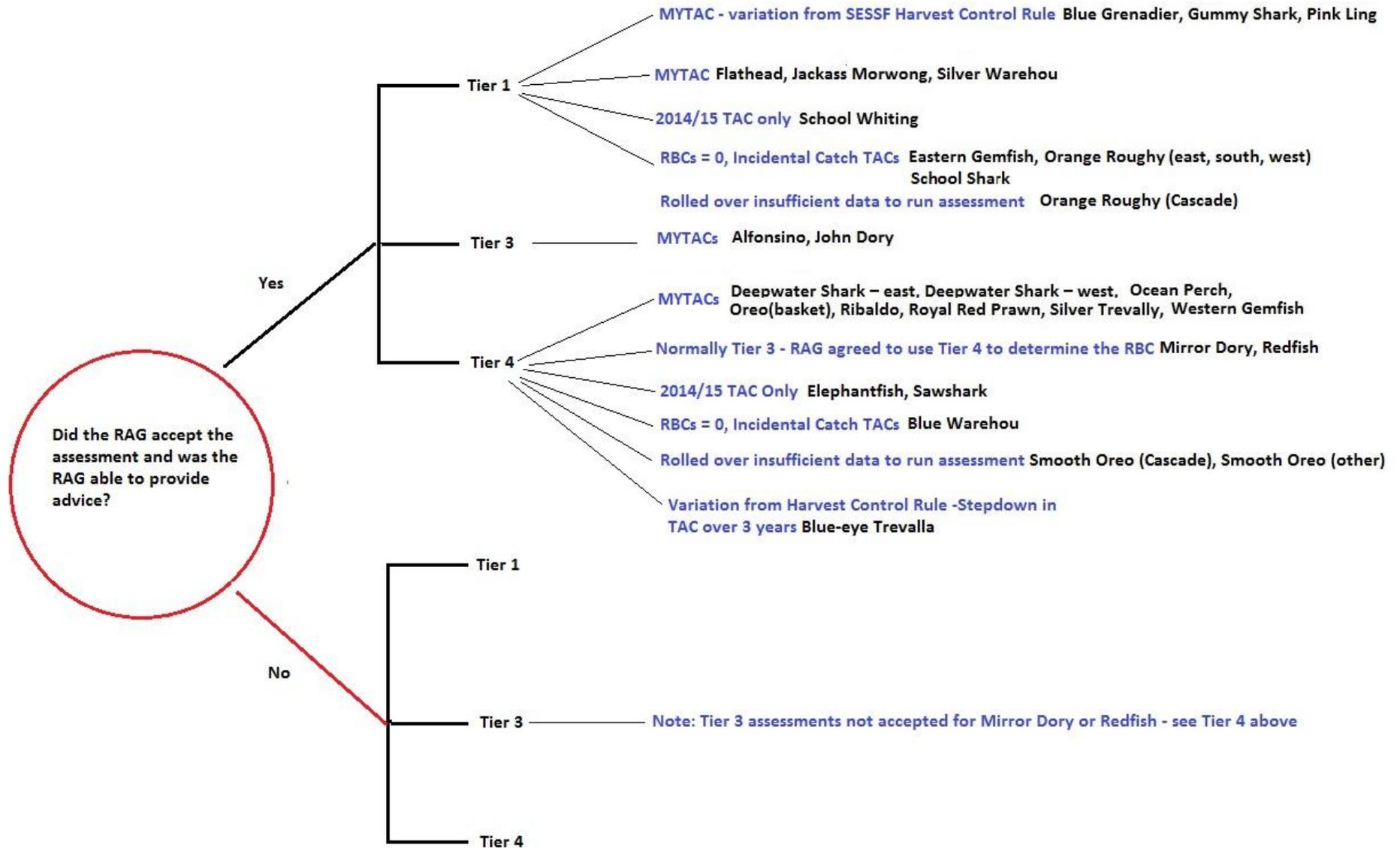
Mr Penney observed that industry had reaffirmed the view that they didn't want to catch that much Deepwater Shark. Mr Penney noted the importance of distinguishing between the RBC advice from the RAG (which provided best advice on what catches should be sustainable), and subsequent industry proposals for TACs to be set below the recommended RBC for other reasons, such as economic stability. Industry requests for lower TACs should not be read interpretations that the RAG recommended RBCs are not sustainable.

The RAG observed that further articulation of the complexity closures create for the Deepwater Shark assessment and also to the sector's ability to access the TAC would assist the MAC in forming its TAC recommendations.

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<sup>1</sup> Development of improved methods for stock assessment in spatially complex fisheries using Blue-eye Trevalla as a case study

Figure1: Outcomes of 2013 assessment processes and the translation of RBCs to TAC recommendations (SEMAC TAC Meeting - January 2014).



### 2.3 Species summaries – new format

The AFMA member noted that the new templates were well received by the Commission, who like SEMAC, indicated they would like to see clearer documentation of the calculations used in the translation of RBCs to TACs (discard information and state catches). The RAG noted that in some cases we use model estimated discards (built in) and for most rely on estimates calculated by CSIRO from ISMP observer estimates of discards. Mr Penney's view was that the templates should contain everything the MAC needs to make management recommendations, but should not include unnecessary extrat technical details.

Members made additional comments:

- Need to be more specific about the stock structure and how that relates to the SESSF area of waters noting that for some species the SESSF is only managing a subset of the range for that species.
- For those species managed as a number of stocks the templates should indicate where (within the SESSF) the stock structure boundary for management purposes is (i.e. what the longitude for east west split is).
- Consider including a small map for species with management splits.
- May not be necessary to include statements about Tier characteristics (i.e. in the Redfish example the three statements in the second box commencing with '*Tier 3 species*').

The RAG noted that AFMA Management would consider its advice in refining the templates and recognised that further advice from the individual RAGs would be welcome.

### 2.4 Basis for stock regionalisation

Dr Finn opened the discussion and indicated that AFMA was seeking to better document the reasons for managing some SESSF TAC species as sub-stocks and would value RAG advice on a list of draft criteria for this purpose. The RAG reviewed a quick summary prepared by the SlopeRAG Chair for industry explaining the basis for treating Pink Ling as two management stocks.

The RAG agreed that recommendations on stock structure should be sought from the RAGs and this would require the RAGs to organise for the evidence to be presented. The RAG noted that this would take time and acknowledged the work by the SlopeRAG Chair for Pink Ling. The RAG noted that the recently commissioned project on Western Gemfish put some perspective around the effort that may be needed to establish the stock structure (for purposes of management) for some species.

The SharkRAG Chair suggested that the next generation genetic techniques were likely to provide the level of discrimination needed for this purpose in the next 5 years. The Chair noted that genetic analyses had previously focused on microsatellites with 6 to 10 sites and that this approach may not have the capacity to distinguish closely related stocks. The Chair observed that developing approaches using single nucleotide polymorphism (SNPs) would look at thousands of markers and provide enhanced capacity to differentiate closely related stocks. The RAG noted that these new approaches were gaining momentum overseas and that the fishery managers and the RAGs should anticipate having to respond to new information.

Dr Haddon noted that species with strong site affiliation may also need policy attention and a similar consistency of approach.

The RAG Chair sought views on possible criteria. Dr Finn noted that currently when the assessment scientists have trouble fitting assessment to the data then consideration was often given to structuring the assessments spatially which can then flow into management. Dr Finn explained that if AFMA

moved to regionalise quota SFRs for Pink Ling (allow separate east west TACs) then it would be sensible administrative practice to also do this for other stocks in this situation like Blue Warehouse.

Dr Knuckey noted, in relation to east west splits, that some fisheries operated through Bass Strait but for other species the east west split aligned generally with the middle of Tasmania and appeared to be a sensible demarcation. Dr Knuckey added that fishing pressure was also quite different across this stretch of waters and that this was potentially a big driver of population dynamics.

The ShelfRAG and SlopeRAG Chair observed that this wasn't a new issue and indicated that due consideration had been given to why indicators for certain stocks appeared to respond differently in spatial terms. Dr Knuckey indicated it was important to respond if the fishery had a chance to impact differently on the stocks and this applied whether you treat the fishery as a continuous stock or not you may need to respond differently. Dr Knuckey cited Western Gemfish as an example where AFMA currently has two completely different management approaches.

The RAG wasn't convinced that a uniform set of criteria would be appropriate noting issues with catch rates, maturity and limited genetic research. Members did agree that it would be useful if SlopeRAG could also produce a list of candidate species for regionalisation.

**Action 9** – AFMA Management, SlopeRAG

*for the SESSF RAG Data Meeting*

AFMA to seek a list of candidate species from SlopeRAG for stock regionalisation (based on available evidence with respect to stock structure).

Mr Penney suggested that assessment reports should include a statement about stock structure used in the assessment, including whether the species was being assessed as multiple stocks.

Dr Knuckey noted that ShelfRAG had been recommending for 14 years (standing line in the assessment summary) that Ocean Perch should be managed as two separate species (no ambiguity and they have different age structure, growth rates). The AFMA member indicated that it wasn't a sufficient cost benefit in the case of the Ocean Perch basket. Dr Knuckey indicated that he wasn't familiar with the analysis referred to by the AFMA member.

Mr Penney observed that in the case of Ocean Perch that ShelfRAG had recommended that this be managed as separate species, but that managers now needed to decide whether to do so or not.

Mr Stone noted implications for Gummy Shark given the regionalised approach already used in the stock assessment.

AFMA agreed to do more background work (review older Species Summaries) and look at species managed as separate stocks and the rationale provided in those records and clear the summary back through the appropriate RAGs.

### *Item 3 – Research*

#### **3.1 Identification of research priorities for annual research plan**

The AFMA member advised that after SESSF RAG's comments were incorporated AFMA would circulate the list to SEMAC and GABMAC and provide the final version to ComFRAB for consideration at its 20 March 2014 meeting.

The RAG suggested that AFMA add a column to the Attachment A to denote likely funding source AFMA or FRDC noting that the FRDC doesn't fund routine stock assessments and 'business as usual' research projects.

The RAG then took time to consider if members or observers who (or their agencies) provide research services to the SESSF were conflicted with respect to this item. The Chair noted that the challenge was that those who were conflicted were also most likely to provide us with insight into the proposals.

Mr Penney suggested separating discussion of the relative priorities of the proposed work from concerns about who was going to do it.

The AFMA member clarified that if the RAG decides that a direct conflict of interest exists and the conflict is likely to interfere with the RAG's consideration of an issue then the RAG could ask the member to leave the room for the discussion and recommendation or to participate in the discussion and leave the room for the framing of the recommendation. The Chair noted Mr Penney (ABARES), Dr Knuckey (Fishwell Consulting), Mr Krusic-Golub (Fish Ageing Services) and Dr Haddon (CSIRO) and Dr Tuck (CSIRO) were potentially conflicted.

Mr Penney noted his declaration pertained to a project that was already approved and not up for prioritisation. Dr Knuckey noted a conflict in relation to the FIS and in regard to the School Shark project.

The AFMA member indicated that he was satisfied that the interests had been declared appropriately and were understood and on that basis he was comfortable with those members staying in the room. No objections were raised.

The RAG clarified that the column *Management Priority* was not AFMA Management's ranking but rather SESSF RAG's view on how important the research was for day to day management.

The RAG identified the following four intrinsic elements to data and research process for the SESSF:

1. Stock Assessment
2. Fishery Independent Survey (FIS)
3. ISMP
4. Ageing work

The GAB RAG Chair suggested adding the ISMP to the mix even though it wasn't funded through the research funding cycle to help maintain an integrated approach and added that by agreeing to add another column AFMA could flag that it was funded differently (levy base).

The RAG agreed to add the category 'Essential' above High, Medium, and Low.

The SESSF RAG Chair sought agreement on whether the Stock Assessment and FIS be ranked as essential.

The SharkRAG Chair and Mr Stone indicated that from the Shark Fishery perspective the FIS wasn't essential whereas the development of an Independent Index for School Shark was.

Mr Penney's and Dr Knuckey's view was the School Shark index remained as a high priority and both he ranked it a higher priority than the Blue-eye Trevalla work currently underway (a lower risk than School Shark).

Most members agreed that a High priority wasn't justified for Byproduct monitoring and assessment particularly as the monitoring techniques were well established (ISMP). Members also noted that the ERA methodology was accepted broadly. Dr Haddon noted that there was an inherent requirement in the fishery that should you wish to expand catches of particular species then there was an obligation to collect more data on it and to determine which appropriate assessment (from the established 'toolbox') might be.

A number of members considered the priority for research around byproduct would also depend on what the Government decided to do with the reviews of the Commonwealth Harvest Strategy Policy and Policy on Fisheries Bycatch. The RAG suggested that AFMA remove this area of work from the research priority list and manage this internally until definitive advice is received from the Department of Agriculture regarding the policy reviews. The RAG also agreed to remove the two rows which referred to Tier 5 assessments noting that a project had been funded along these lines.

The RAG considered that AFMA's proposals around MYTACs could be repackaged as Management Strategy Evaluation (MSE) of MYTACs and noted this had been identified as an important area of investigation. Members noted that MSE work in relation to MYTACs had already been flagged as part of the *Strategic Review of Monitoring and Research in the SESSF* however financial constraints now mean there was less capacity to pursue the quantitative parts envisaged in the original proposal. Mr Penney and Dr Haddon, noting involvement in the *Strategic Review of Monitoring and Research in the SESSF*, declined to comment on the relative priority of this research need. The ShelfRAG and SlopeRAG Chair suggested that this should be ranked as high. Members also suggest that AFMA consider removing it from the socio-economic category and replace the high cost ranking with a medium cost ranking.

The RAG recommended that AFMA remove the habitats work from the Ecosystem based management category given the level of work that has already been done by CSIRO.

The RAG agreed that the need for mitigation work with pingers should remain in the priorities and be modified to better reflect prospects for acoustic monitoring to determine how dolphins behave around nets and in regard to certain pingers. The RAG endorsed increasing this to a medium priority.

#### *Item 4 – Priorities and resourcing*

##### **4.1 Priority species for ageing**

Mr Krusic-Golub (FAS) noted that the single year TACs, subject to the Commission's decisions, were Blue Warehou, Eastern Gemfish, Mirror Dory, School Shark, Redfish and possibly School Whiting. The RAG then discussed which of these species might need specific ageing work. The RAG did not see a need for ageing work on Blue Warehou.

The RAG reviewed the draft assessment schedule (2014 to 2018) provided in Agenda Item 5.2 and noted that FAS could assess which species needed to be aged for the upcoming 2014 assessments (samples already collected).

The RAG noted that, with the adoption of more MYTACs, there was still work to be done in ensuring the stock assessment schedule did not result in unmanageable spikes in workload. Flowing on from this similar care was also needed to avoid similar workload build-up in the ageing work. Mr Krusic-Golub explained that there were not enough funds to age every sample the ISMP collected so they needed to stratify their sampling.

Mr Krusic-Golub also noted that there was also a need to revisit a subsample of the historical data for Orange Roughy (east) to address a bias in the data. The RAG noted that this was more about time and less about funds (samples already catalogued and sectioned). Mr Krusic-Golub added that ageing of more recent samples from the AOS surveys would also need to be done.

Redfish was also a priority as it was being assessed this year. Mr Krusic-Golub noted that it may not be worth ageing the Tier 3 species (John Dory and Mirror Dory) if it looks like the age samples aren't representative. Dr Knuckey observed that there was a case for closer links between the ageing contract and the observer program (ISMP component) to emphasise the need for specialised requirements for Tier 3 species.

The next priority were species up for assessment in 2015 (Bight Redfish, Jackass Morwong and Silver Warehou) alongside high value species like Blue Grenadier and Tiger Flathead which were due to come off MYTACs in 2016.

Mr Krusic-Golub agreed to prepare an ageing plan for 2015 to 2018 based on the draft assessment schedule prepared by AFMA.

<b>Action 10 - Mr Krusic-Golub (FAS)</b>
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FAS to circulate a draft ageing plan (2015 to 2018) based on AFMA's draft stock assessment schedule for 2014 to 2018 for comment.

#### **4.2 Priority species for Tier 1 assessments in 2014**

The RAG noted that the Tier 1 assessments scheduled for this year were Orange Roughy (east), subject to the April 2014 workshop outcomes, Redfish and Tier 4s for Blue Warehou, Sawshark and Elephantfish. Dr Haddon noted that running a Tier 4 for Blue Warehou would probably be a waste of time. The ShelfRAG Chair, noting industry's desire to reduce the Tier 4 burden, indicated that a Tier 4 for Mirror Dory would be needed as a backup for the proposed Tier 3.

The RAG noted that, subject to the step down TAC for Blue-eye Trevalla being approved, there may be the need for additional advice in relation to monitoring work. Mr Penney considered that there is little merit in running the Blue-eye Trevalla Tier 4 in 2014. The SlopeRAG Chair noted however some CPUE standardisation work may be required to inform CPUE based break-out rules for species put forward for MYTACs.

The RAG noted that Silver Warehou was scheduled for a Tier 1 in 2015 and acknowledged that work was needed ahead of that to explore the reasons for the retrospective pattern in that assessment. Mr Penney noted that it was important to understand why the model wasn't fitting recent CPUE and then fixing that before running an updated Tier 1 (i.e. evaluation of retrospective patterns in the assessment).

Dr Haddon supported that suggestion and noted that there was real spatial heterogeneity in catches but noted that currently catch rates were assessed in an aggregated fashion. Dr Haddon considered that this was not an ideal approach as the spatial characteristics of the data appeared to be more complicated.

Mr Penney observed that one of the reasons for moving to more MYTACs was to allow more resources to be annually directed at in-depth assessment of problematic species (as had been done with Pink Ling and Blue Eye Trevalla) rather than just 'cranking the handle' for a range of species.

Dr Tuck supported this view and noted that in doing less Tier 1s it was important then to secure resources to undertake investigations of those assessments but not to necessarily tie that to undertaking a Tier 1 for that species in that year. Dr Tuck observed that an investigation of on the CPUE standardisation for Silver Warehou would need to be done in advance of running the Tier 1 in 2015. Dr Tuck noted the practice on the west coast of the United States, where stock assessments are undertaken biennially, tasked the scientists with refining the models and exploring data in the alternate years.

Mr Penney considered that a similar approach was also needed for Blue-eye Trevalla and noted that the recent SEMAC meeting had identified that changes to the Blue-eye Trevalla assessment were needed. The RAG noted that addressing the issues of spatial closures and Orca depredation on the Blue-eye Trevalla CPUE index would require some intensive work.

Dr Haddon observed that currently budgets don't allow servicing of all of the Harvest Strategy Policy commitments and to some extent the same constraints could apply to a mix of assessments and investigations.

The RAG recognised that it was important to avoid a logjam of assessments and noted the draft schedule tabled by AFMA indicated that 2016 was potentially oversubscribed.

Dr Haddon reported that the simple Tier 4s don't take too much time whereas more complex ones (like Royal Red Prawn) can take a day or more.

The RAG returned to Blue-eye Trevalla and agreed that some oversight would be needed (if the AFMA Commission approved the step-down TAC). Mr Penney reiterated that repeating the Tier 4 (as is) was not an acceptable option and in his view an exploration of the data in a far finer scale and an innovative approach for factoring in Orca depredation over time.

The RAG, anticipating a phased reduction in the TAC, considered that this may take some urgency out of the situation. The SlopeRAG Chair observed that SEMAC had recommended keeping an eye on the Blue-eye stock and expected that this would mean having some level of CPUE analysis available in 2014.

Dr Haddon noted that the CPUE analysis for Blue-eye Trevalla wasn't straight forward because of the population structure and could consume significant resources. Dr Haddon observed that the Flinders Island Upper Slope Dogfish Closure alone accounts for 8.8% of the Blue-eye Trevalla catch for the period 1997 to 2010.

Dr Knuckey, anticipating the work involved with the SESSF Strategic Review, expressed concern that unless things were scheduled carefully we could end up with assessments without adequate data and things not gelling. Dr Knuckey emphasised that it was important that data collection strategies anticipated future assessment needs. Dr Knuckey observed that this exercise had taken some work in the GAB and noted that correlating aspects which were administered according to financial year, calendar year and fishing season had added complexity to the scheduling.

Mr Penney suggested a system of 1, 2 and 4 year cycles to spread assessment load, noting that the recent recommendation of a number of 3 year MYTACs had created a spike in assessment workload in 2016.

The SlopeRAG Chair, noting the SESSF Strategic Review would proceed, considered that the immediate question was what work might be brought forward into 2014. The SlopeRAG Chair indicated that Blue-eye Trevalla and Silver Warehou were the immediate candidates. Members observed that both sets of work were important but that SEMAC had in recommending step down TAC also identified the need for a watching brief for Blue-eye Trevalla and the RAG's scientific members agreed that this would mean investigations were needed because rerunning the current Tier 4 (with one more year's data) would not resolve the issues of concern.

The SESSF RAG Chair observed that this work was important, as was the preparatory work for the 2015 Silver Warehou assessment, and suggested AFMA would need to review both priorities against available resources.

#### **Recommendation**

That investigation and data exploration work for both the Blue-eye Trevalla Tier 4 assessment and Silver Warehou Tier 1 assessment are supported in 2014.

Noting that:

AFMA Commission's support for a proposed step-down TAC for Blue-eye Trevalla is still pending and if endorsed may mean that additional monitoring of Blue-eye Trevalla CPUE (using new or refined approaches) is needed during the step-down period.

A Tier 1 assessment for Silver Warehou is scheduled for 2015 however SESSF RAG's view is that it would not be worth running the Tier 1 unless the reasons behind the retrospective pattern observed in the current assessment are resolved first.

### *Item 5 – Harvest Strategy Framework*

#### **5.1 Moving outside the harvest control rules when a Tier 1 assessment can provide probability parameters**

The RAG noted that the proposed arrangements for Pink Ling moved outside its Harvest Control Rule. AFMA was seeking SESSF RAG's advice as to if the SESSF Harvest Strategy Framework needed to be changed to allow for situations where a range of options (in the case of Pink Ling determined through a Monte Carlo Markov Chain analysis (MCMC)) were available. The RAG noted the outputs of the MCMC were compatible with the Commonwealth Harvest Strategy Policy but provided broader scope than anticipated in the harvest control rules set out in the SESSF Harvest Strategy Framework (set up to respond to annual assessments and produce singular outputs).

The SlopeRAG Chair clarified that the RAG didn't decide to step away from the harvest control rule but rather to augment its advice with the table of scenarios produced through application of the MCMC. The Chair added that RAGs had given advice by stepping away from harvest control rules before and in his view the question was - do we want to formalise this approach?

Dr Haddon observed that a MCMC was a good way of capturing a good deal of uncertainty (standard way of producing a decision table) however couldn't encompass all sensitivities around the structural assumptions underpinning the assessments i.e. what if we have natural mortality wrong?. Dr Haddon suggested that MCMCs were good when sensitivities aren't significant but there are extra risks when sensitivities are significant.

Dr Tuck recalled that similar work had been done for Blue Grenadier under the auspices of the former Blue Grenadier Assessment Group (BGAG) but noted that we had since moved away from that approach.

The RAG discussed the way the risk of going below the limit was articulated in the Commonwealth Harvest Strategy Policy (stays above the limit reference point 90% of the time) and recognised that this may have been influenced by the need to accommodate highly variable species like prawns.

Members noted that in some regard it was desirable to reduce the amount of work around a decision rule and to take the level of flexibility (provided by a decision table) away from managers.

The AFMA member noted that in this case 122 t for the eastern Pink Ling stock determined by the harvest control rule could not be implemented without closing down much of the fishery over a certain depth contour. The member added that AFMA would have more flexibility to manage incidental catch if the eastern stock was assessed as being under  $B_{20}$ .

The RAG agreed that managers need advice on how to use such decision tables. Dr Tuck noted that we had moved away from this approach to decision rules as you do need some prescription for managers faced with decision tables. Members agreed that dissatisfaction with the output of the harvest control rule was not a justification for moving to an MCMC. The RAG also noted that a lot of extra effort was required to develop the additional layer of advice.

Mr Penney's view was that moving away from decision rules should not occur unless it was decided that the decision rule no longer provided realistic advice (if the stock had moved outside parameters tested when developing the decision rule) If that occurs (as for Pink Ling), then a broader exploration of alternative assessments, projections and probabilities was capable of providing managers with advice on a broad range of scenarios from closing the fishery to collapsing a stock.

The RAG noting the management approach for most stocks below the limit reference point ( $< B_{20}$ ) was to set an incidental catch TAC. The Group recognised that this approach reflected the multi-species nature of the SESSF and to some extent was the basis for inconsistencies in management responses i.e. the most direct way of reducing Redfish catch would be to reduce the catch of Tiger Flathead.

The RAG also noted that we can only develop the full range of risk based advice for Tier 1 species and acknowledged that most of the current problems lay with species under Tier 3 and Tier 4 assessments.

Members discussed how, under normal assessment and RAG scheduling, might the decision to commission an MCMC be made and if so how much time/effort would be needed to perform it.

The AFMA member indicated that AFMA Management would undertake some intersessional work to develop guidance on the decision making process around augmenting assessment advice from Tier 1s with a range of risk based advice (i.e. MCMC outputs)

**Action 11 – AFMA Management - out of session**

AFMA to develop some rules/guidance around the decision and of process moving away from a Harvest Control Rule and to augment assessment advice for Tier 1 assessed species with a range of risk based advice.

**Day 2 commenced at 9:03 am**

**5.2 Guidance for setting Multiple Year TACs (MYTACs)**

Dr Klaer recalled an earlier SESSF RAG discussion about how precaution might be added to MYTACs noting a general view that there is an increased risk with setting a TAC for 3 years rather than annually.

Members noted there had been no MSE testing of approaches which could be applied to for MYTACs to add precaution such as (use of average TACs, application of discounts). The RAG noted that the default setting currently was to use projections to determine MYRBCs.

Dr Tuck observed that the criteria used to decide if a species should be promoted to a MYTAC had not been tested.

The AFMA member indicated that the SESSF Harvest Strategy Framework has now been revised with the default now being to move to a MYTAC unless RAGs identify a reason(s) not to.

Dr Klaer noted that the concept of discounting between Tiers is more complex than was expected and it would appear that the appropriateness of a discount factor depends more on the biology of that species.

Mr Penney considered that the correct approach for a management decision would have been to have done the risk analysis and management strategy evaluation up front and then base the decision on the results and then manage those risks. Mr Penney noted that the transition to MYTACs had not been MSE tested.

The RAG noted that Tier 1 assessment could be used to generate projections but this could not be done for Tier 3 and Tier 4 assessed species. The RAG recognised that, given the lack of MSE testing, decisions around adding precaution to MYTACs for Tier 3 and 4 species would need to be based on expert judgement. Members noted that it was likely that the Strategic Review of Monitoring and Assessment in the SESSF project would identify the need for MSE testing of MYTACs and breakout rules.

The SlopeRAG Chair suggested separating the discount factor issue from the MYTAC discussion. The SlopeRAG Chair, noting concerns, indicated that the issue of suitability for MYTACs was no longer up for discussion. The SlopeRAG Chair also recalled the findings of the Stokes Review which indicated there was little value in moving to MYTACs for Tier 3 and Tier 4 species yet we are now in the space where we are trying them. The RAG noted that the 2013 assessment process had largely followed this direction with species being excluded from being put on MYTACs for quite specific reasons.

Dr Knuckey noting that break-out rules are in place, suggested that it would be helpful to know how much these might offset the inherent risk in a MYTAC. Members noted that the AFMA Commission wasn't comfortable with set and forget arrangements.

Mr Penney recalled the dilemma with breakout rules being the work required to examine them could approach the scale of actual running Tier 3 and Tier 4 assessments. Mr Penney indicated that the New

Zealand practice was to only use breakout rules based on large changes in catch (cost effective). Mr Penney noted the New Zealand approach was that break-out rules should be the minimum needed to detect a significant change.

Members agreed that for a Tier 1 species on a MYTAC the cost of running annuals CPUE standardisations to test the breakout rules was appropriate given the relative costs in doing a full assessment to a CPUE standardisation. At the other end of the scale doing a fresh CPUE standardisation for a Tier 4 species was basically equivalent to running the Tier 4.

The RAG then addressed the points in AFMA's paper and noted:

- That the RAGs set MYRBCs and the AFMA sets MYTACs.
- That the management process has to manage within the RBC.
- Breakout rules should cover changes in the 'unmanaged part of the fishery' i.e. discarding, state catches (potential for overfishing)
- MYRBCs should reflect the uncertainty in Tier 1 assessment projections.

The RAG noted that a total catch breakout rule (i.e. catch > RBC) would formalise the RAG statement that there is an unquantifiable risk associated with unrestrained and escalating state catch for some species. Most members saw this as another lever for getting better data on state catch and getting them in the system with some form of catch control. An alternative approach was to recommend that species in this situation were not suitable for MYTACs.

AFMA agreed to circulate the excerpt from the SESSF HSF pertinent to this discussion.

#### **Action 12 - AFMA Management**

AFMA to recirculate the relevant section of SESSF Harvest Strategy Framework for comments with particular reference to break-out rules for the unmanaged part of the fishery – state catch or discards.

#### Small change rule

The RAG noted that the small change rule fulfilled a smoothing function and had been requested by industry and was not a product of RAG process or the assessments.

The RAG discussed if both change limiting rules could be dispensed with under a MYTAC dominated regime. Dr Klaer indicated that the large change rule was necessary in Tier 3s and this had been demonstrated by MSE testing. Dr Klaer indicated that earlier testing had indicated that the small change rule was neutral.

Member noted the large change rule wasn't as suitable for species with episodic recruitment like Blue Grenadier and Redfish. Dr Tuck noted that where you have small TACs the 50% rule made it hard to respond to fluctuations in biomass quickly enough. An additional concern was the potential for the rule to constrain changes when species came off 3 year MYTACs and significant adjustments to the TAC were needed.

Mr Penney indicated that the change you might consider acceptable needs to be relevant to the species and what the stock does.

The RAG agreed that the small change rule was not necessary given the transition to MYTACs however recognises that AFMA may wish to consult with industry prior to removing it from the SESSF Harvest Strategy Framework.

The RAG notes that the 50% large change rule is not suitable for Blue Grenadier and Redfish but is needed for Tier 3 assessments and that it and been part of MSE testing of harvest control rules for the SESSF. The RAG considered that testing of the 50% large change rule in the context of MYTACs is referred for inclusion in the *Review of Monitoring and Assessment in the SESSF* project.

## Recommendations

That the small change rule be removed from the SESSF Harvest Strategy Framework subject to AFMA consulting with industry.

That AFMA refer the need for MSE testing of the 50% large change rule in the context of MYTACs with particular reference to Blue Grenadier and Redfish and any other species with episodic recruitment to the *Review of Monitoring and Assessment in the SESSF* research project.

### Role of break-out rules

The RAG noted that the only quantitative rule presently was the standardised CPUE breakout rule used for Tier 1 species under MYTACs. Members supported retaining the use of standardised CPUE as the basis for Tier 1 break-out rules.

The RAG noted that for a Tier 3 the approach might be to examine if the age structure had changed significantly but we don't have a good metric for that.

The RAG noted suggestions that breakout rules for Tier 4s be designed around information available in Data Summary like catch, length frequency data, data representativeness and possibly geometric mean CPUE. Dr Haddon observed that ideally approaches would be developed individually. Members agreed that geometric mean CPUE may be a suitable CPUE breakout rule for some Tier 4 species. The RAG noted that using the same code to rerun the optimal CPUE standardisation used in the Tier 4 to set the MYTACs would also be a cost effective process. Dr Klaer confirmed that running the original to provide for testing against the break out rule would be largely automated task.

## Recommendation

That if the RAGs elect to maintain CPUE breakout rules for particular Tier 4 species then those breakout rules should be referenced to, and tested against, the optimal CPUE standardisation used to set the MYTAC for that species.

### Assessment workload associated with MYTACs

The RAG recalled the discussion under Agenda Item 4.2 regarding avoiding having a logjam of assessment in 2016. Members agreed that 3 Years became somewhat of a standard but noted there was no in-principle objection to having 4 or 5 year MYTACs for candidate species that exhibit stability.

The AFMA member noted that it was possible to bring some assessments forward to 2015. SESSF RAG was comfortable with the RAGs making the call on scheduling.

## **Action 13** – AFMA Management, SharkRAG, ShelfRAG, SlopeRAG *for SESSF RAG Data Meeting*

That the RAGs review the assessment schedule for their species for 2015 to 2017 and give advice to AFMA on how their schedule can be integrated without creating an assessment workload spike in 2016.

### Integration of MYTACs into the SESSF Harvest Strategy Framework

Dr Finn noted that a couple of the RAGs elected to use catch levels around  $C_{TARGET}$  when setting MYTACs for Tier 4 species (i.e. recommending catch over the target period of the Tier 4 as the basis for the MYRBC). Dr Finn noted this seemed to be an overly conservative approach for those stocks where the CPUE was tracking well above the target reference period.

Dr Haddon noted that there was no general principle to be gleaned from this but indicated that  $C_{TARGET}$  was both a safe catch level and our proxy for  $B_{48}$ . Members accepted Dr Finn's observation but considered that it was appropriate approach for Tier 4 stocks including those which exhibit high variability and in some cases high discard rates.

Members recognised that the RAGs were aware that for some species recent annual RBCs were higher than  $C_{\text{TARGET}}$  but considered that overruling this approach was not appropriate. The RAG agreed that MYTAC settings should be considered on a case by case basis by the RAGs.

### 5.3 Are changes to the Tier 3 multiplier required?

The RAG noted that the Tier 3 multiplier was being limited but that this was not articulated in the SESSF Harvest Strategy Framework. Dr Klaer noted support for a limit on Tier 3s and advised that the current approach was to set a minimum threshold for Fishing Mortality (F) at 10% of Natural Mortality (M):

$$F \geq M/10 \quad \text{where } F = \text{Fishing Mortality, } M = \text{Natural Mortality}$$

The RAG noted that the cap on F stopped the Tier 3 selecting RBCs from the part of the catch curve that tended to infinity as F became very small and which generated improbable RBCs.

The RAG supported the use of the limit on F and asked AFMA to work with Dr Klaer to craft the words for the SESSF Harvest Strategy Framework. Dr Klaer noted that the 50% large change rule moderated TACs regardless but the cap on F would stop Tier 3s generating very large RBCs.

#### **Action 14 – AFMA Management, Dr Klaer**

AFMA to work with Dr Klaer (CSIRO) to craft words describing the cap on F (Fishing Mortality) in Tier 3s in the SESSF Harvest Strategy Framework.

### 5.4 Situations whereby application of discounts result in a zero RBC

The RAG noted the discount factors for Tier 3 and Tier 4 assessed species were applied to the Global RBCs. Members noted that in unusual circumstances i.e. high discards and significant state catch that the end result might be no room for a Commonwealth TAC.

Dr Klaer noted that situation was complicated by the possibility that decreasing the Commonwealth TAC could decrease discards or alternately that fishing (for other species) continues and the lower TAC just means discarding increases. Mr Penney agreed that this was an area where the RAGs could give advice.

The AFMA member considered that the primary reason for applying a discount factor was to allow for uncertainty in the assessment on that basis it should be applied to the Global RBC.

The RAG recognised that whether discount factors were used or similar precaution was built into Tier 3s and Tier 4s upfront the problem with discards and state catch remained with the allocation issue being management problem.

Mr Stone indicated that the process also assumed that all discards are mortalities and argued that this wasn't the case for several species.

### 5.5 Development of formal guidance in relation to the application of discount factors

The RAG resumed discussing the difficult issue of discount factors noting that AFMA was seeking formal advice from SESSF RAG on when discount factors should be applied and reasons for not applying them.

Dr Knuckey indicated that the review by Dr Fay as well as consideration by the various RAGs suggested that it wasn't the methods which contributed the main uncertainty but it was the data that underpinned them that made them uncertain. Dr Knuckey suggested that a Tier 3 had just as much potential as a Tier 4 to be uncertain.

Dr Haddon noted that the advantage of a Tier 3 was that it gives you direct estimates relating to the target and limit reference points whereas the Tier 4 operates against proxies.

Dr Klaer noted that there may not be equilibrium as it was possible that the amount of effort and catch in the reference period might not be related to each other.

The ShelfRAG and SlopeRAG Chair noted that Dr Fay’s analysis didn’t indicate any ready substitutes.

Tier 3	Tier 4
References age or size structure and also uses estimates of selectivity-at-age, length-at-age, weight-at-age, age-at-maturity, and natural mortality.	References CPUE data (logbooks)
Relies on observer or port sampling of length frequency and otolith collections being representative of the catch	Lot of data Essentially 100% of the fleet activity available
More assumptions in a Tier 3	Assumes CPUE is proportional to abundance
Direct estimate versus the target and limit reference points	Assumes that the chosen reference period is a suitable proxy for $B_{MEY}$ .

Dr Klaer noted that over time a number of Tier 3s had been converted to Tier 1s which, funding limitations aside, was a logical pathway if you had both CPUE and data on age structure. Dr Klaer added that the RAGs had identified reasons why a number of species weren't suitable for Tier 3s – dome shaped selectivity, episodic recruitment.

The RAG returned to the question about what were the justifications for not applying discount factors.

SESSF RAG, noting Dr Fay's report, **agreed that stability in CPUE was not a valid reason to waive a discount factor.**

The SharkRAG Chair indicated that SharkRAG's unanimous view was that spatial closures were a legitimate reason to waive discount factors and would appreciate more specific wording in the SESSF Harvest Strategy Framework to add weight to decisions to waive discount factors. Members agreed that the scale of precaution provide by closures could be quantified to some extent i.e. catch formerly taken inside particular closures.

SESSF RAG **reiterated its support for waiving discount factors on the basis of closures** providing equivalent protection but encouraged RAGs to support such recommendations with an analysis that quantified the level of protection particular closures provided with regard to the relevant discount factor.

The RAG recognised that discount factors were a means of achieving risk equivalency across the Tier levels. Dr Klaer noted that testing had indicated declining performance as you went from Tier 1 to a Tier 3 and then to a Tier 4 but Dr Fay had found that this was very difficult to account for in a numerical sense. Members noted that Dr Fay's work established that performance was highly variable between different species.

The RAG noted that that Dr Fay had suggested that error estimates around Tier 3 and 4 methods could form the basis of decisions about discount factors. It was noted that this approach addressed two findings from Dr Fay's analyses: that the level of any discount should be species specific and it should be responsive to the level of variability in the input data. The RAG considered that this was worth exploring.

Dr Klaer suggested calculating error estimates around the Tier 3 and Tier 4 RBCs and using that to modify the discount factors in some way.

Dr Klaer proposed starting with adding error estimates to Tier 3 and Tier 4 outputs:

- Fit to slope to get Z for Tier 3s
- Error around recent CPUEs for Tier 4s

The RAG noted that with Tier 4 it may be worth doing residuals for the reference period as well as the recent average.

The RAG noted that what we then do with the error estimates with respect to discount factors might be an additional body of work. The RAG noted that this initial work would not necessitate any change to the SESSF Harvest Strategy Framework until this approach had been developed and tested.

The RAG agreed that the 5% and 15% discount factors should remain in effect until we have a robust replacement including possibly being tested.

**Action 15 – AFMA, CSIRO**

(a) AFMA to request that CSIRO include error estimates around:

- Fit to slope to get Z for Tier 3s
- Error around recent CPUEs for Tier 4s (recent average)

(b) Put error estimates on the agenda for SESSF RAG's 2014 Data Meeting

## *6 Ecological Risk Management*

### **6.1 Comments on Ecological Risk Assessments**

Mr Corrie (AFMA) briefed the RAG on AFMA's Ecological Risk Management (ERM) framework for the SESSF. Mr Corrie explained that AFMA was seeking SESSF RAG's advice the:

- Level 3 SAFE Results (Chondrichthyans and Teleosts); and
- Residual Risk Assessment (of Level 3 Results for Teleosts and Chondrichthyans)

Mr Corrie noted that SharkRAG had reviewed the assessments for gillnet sector/species and were comfortable with School Shark remaining as a high risk. Members did not dispute the findings but considered that target species should be removed from the ERAs because they were managed under the Commonwealth Harvest Strategy Policy.

#### Auto-longline

Members noted that Level 3 analysis was still producing outliers. Members suggested that Cookie Cutter sharks were unlikely to be caught in the auto-longline sector and in any case evidence from tuna longline observers would probably indicate that this species was common and ubiquitous (frequent characteristic bites on tuna and swordfish). Members noted that the lack of information for some species may have resulted in their high risk ratings. Mr Penney expressed concern that unrealistic assumptions about catchability for species like Cookie Cutter sharks resulted in incorrect risk assessments. There was evidence or expert pinion available to improve assumptions regarding such values.

Dr Haddon was concerned that false positives could cloud real issues such as Mirror Dory in the auto-longline SAFE.

#### Trawl

The RAG noted that the covered codend research project showed that 70% of little fish got through even standard mesh and recognised that this research would assist the residual risk assessment. Dr Knuckey offered to provide a copy to Mr Corrie.

**Action 16 – Dr Knuckey (Fishwell Consulting)**

Dr Knuckey to forward a copy of the covered cod-end report to Mr Corrie (AFMA).

Members were curious about Tiger Shark remaining in the SESSF otter trawl at precautionary extreme high risk given the CTS probably only occupied 10% of the Tiger Shark habitat in Australia and also because the last recorded catch was in 2004.

Members also noticed that expert override had been applied to Mirror Dory (a quota species) in the trawl assessment suggesting that more formalised arrangements should be considered for quota species.

Dr Knuckey noted that Whitefin Swell Sharks were rated as precautionary extreme high risk and suggested that these were amongst the toughest animals landed onto fishing boats and survived capture very well.

Mr Burns (AFMA) suggested it would be worthwhile cross checking observer records of spurdog species identifications with the lists in the SAFE report.

The RAG also thought it would be worth trying to chase up life history information sources for Cuttlefish and Octopods listed at high risk in the GABT ERA.

Mr Corrie indicated that after RAG comments were taken into account that AFMA would consult further on its ERM responses for the high risk species.

## **6.2 Species classification**

The RAG noted that the project looking at identifying byproduct species was implemented with assistance from ABARES in anticipation of a revised version of the Commonwealth Harvest Strategy Policy being announced.

The RAG indicated its interest in reviewing this work when indications of the Government's intention regarding the Harvest Strategy Policy and the Policy on Fisheries Bycatch were clear.

## **6.3 Recognition of other species/baskets as secondary species (MSY targets)**

The RAG discussed possible candidates for moving to  $B_{MSY}$  targets in the SESSF noting that Ocean Perch and Ribaldo were currently managed at  $B_{MSY}$  (proxy).

The RAG considered who was best informed to manage the process for 'dropping' quota species into the secondary species group. The RAG noted that AFMA had suggested that Sawshark might be an appropriate candidate but noted advice from the SharkRAG Chair that there may be some targeting of these species (basket TAC). Members also noted that the TAC recommended for Sawshark was quite large which reduced potential for lack of quota availability for this species constraining effort on Gummy Shark.

SESSF RAG agreed that the individual RAGs remained best placed to advise on the appropriate target level for particular species within the confines of the Commonwealth Harvest Strategy Policy.

## **7 - General issues**

### **7.1 Clarification around jargon used in the context of SESSF stock assessments**

The RAG agreed that it would be worthwhile to expand the glossary used by SEMAC to include some of the common terms used in the SESSF fisheries stock assessment process.

### **7.2 Update on the reviews of the Commonwealth Harvest Strategy Policy and the Commonwealth Policy on Fisheries Bycatch**

The RAG noted that there had been no fresh advice from the Department of Agriculture on the status of the reviews.

## **8 Other business**

### **8.1 AFMA website publication**

The RAG agreed that all papers should be placed on the website with the exception of the tables in the draft residual risk reports tabled under Agenda Item 6.1 given their draft status.

## 8.2 Project updates includes Dolphin Management Strategy

Mr Power (AFMA) briefed the RAG on the development of AFMA's Dolphin Management Strategy for the gillnet sector. The RAG noted that there was a meeting scheduled for 12 March 2014 which would bring together fishery managers, marine mammal scientists, mitigation specialists and industry representatives.

Mr Power explained that that the key elements of the draft strategy were:

- Series of escalating responses to mortalities
- Rollout of electronic monitoring across the gillnet fleet
- Capacity to structure management around individual accountability

Mr Stone registered strong concern about the lack of an adequate cost benefit analysis for the broader rollout of e-monitoring across the gillnet sector. Mr Power indicated that a final decision was yet to be made and a focused cost benefit analysis for the GHaT was under preparation.

Dr Knuckey asked if the area of waters of the fishery be divided up into smaller areas. Mr Power indicated this would be considered by the Working Group. Dr Tuck noted the social licence to operate aspect of this issue but asked if information on the population size of local dolphin populations was being considered: - are they under threat are populations localised, is there information on movement rates. Dr Tuck expected that bycatch rates would be linked to abundance.

Mr Power noted that the *Fisheries Management Act 1991* placed a higher emphasis on the conservation of cetaceans than say seals but noted the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) remained the primary driver. Mr Power indicated that advice from Flinders University was that the Common Dolphin population around the Spencer Gulf numbered in the tens of thousands and noted that genetic research suggests that there are discrete populations within the broader stock.

Dr Tuck (CSIRO) advised that work on the FRDC funded research project 2011/032 *Incorporating the effects of marine spatial closures in risk assessments and fisheries stock assessments* was proceeding nicely. The RAG welcomed an offer from Dr Tuck to give a presentation at the SESSF RAG's Data Meeting in July 2014.

**Action 17** – Dr Tuck (CSIRO)

SESSF RAG Data Meeting

CSIRO to prepare a presentation for SESSF RAG Data Meeting on FRDC 2011/032: *Incorporating the effects of marine spatial closures in risk assessments and fisheries stock assessments*.

## 8.3 AFMA Observer Program ISMP Progress Report

The RAG noted the 2013 fourth quarter progress report (1 October to 31 December 2013) report from the ISMP (AFMA Observer Program).

The RAG considered it would be timely to review the observer coverage plan and sampling targets noting that it had been a few years since a review had examined coverage by the ISMP.

Members noted that targets for some species may be excessive i.e. Smooth Oreo (4,000 lengths) and that some sampling targets were not well specified i.e. Mirror Dory otoliths open ended. Mr Stone supported careful planning of targets noting that additional handling and storage of excess samples did add cost. The RAG agreed that otolith and vertebrae sample targets should be managed carefully as there were processing requirements for these. Mr Krusic-Golub indicated that over collection was being addressed.

Mr Burns noted that generally annual targets were divided by 4 to generate quarterly targets. The RAG suggested that it would be better if targets generally could reflect catch and suggested using the previous season's catch data to better allocate targets over the year.

Mr Penney observed that RAGs were good at complaining about non-representative observer coverage or sampling, but not so good at managing iterative processes and to better align coverage and sampling. It was necessary to maintain ongoing liaison between data users and the observer program. AFMA Management accepted that it was the agency's role to ensure this two way dialogue. The RAG suggested that the Observer Section circulate a copy of its draft observer targets to SESSF RAG and the individual RAGs by June each year.

**Action 18** – Mr Burns (AFMA Observer Section)

by June each year

AFMA's Observer Section to circulate its draft observer coverage and sampling targets to the RAGs and Fish Ageing Services (FAS) by June each year for comment.

#### **8.4 Assessment responsibility for Western Gemfish**

The RAG agreed that it would be premature to recommend that GABRAG maintain long term responsibility for assessing Western Gemfish or that it be transferred to SlopeRAG until the outcomes of the stock structure research project were known.

### **9 Next meeting**

#### **9.1 Scheduling of the 2014 RAG meetings**

The RAG confirmed its schedule for its Research the Data meetings for the week 28 July to 1 August 2014 with the exact dates to be advised out of session.

The SESSF RAG Chair thanked RAG Chairs, other members and observers for their valuable input and closed the meeting at 3:18 pm.

John Buckeridge

SESSF RAG Chair

xx July 2014

#### **Attachments:**

Attachment 1: Agreed agenda

## **PARTICIPANTS AT SESSF RAG Chairs' Meeting – 4 and 5 March 2014**

### **Chair**

Professor John Buckeridge

### **SESSF RAG members**

Mr George Day

Dr Malcolm Haddon

Dr Brendan Kelaher

Mr Lance Lloyd

Mr Sandy Morison

Mr Andrew Penney

### **SESSF RAG Observers and Invited Guests**

Mr Chris Burns (AFMA Observer Program)

Mr Daniel Corrie (AFMA)

Dr Marcus Finn (AFMA)

Dr Neil Klaer (CSIRO) – Day 2 only

Dr Ian Knuckey (Fishwell Consulting)

Mr Kyne Krusic-Golub (Fish Ageing Services)

Mr David Power (AFMA)

Mr David Stone (SSFI)

Dr Geoff Tuck (CSIRO)

### **SESSF RAG Executive Officer**

Anthony de Fries

### **Apologies**

Mr Simon Boag (SETFIA)

Dr Sarah Jennings (member)

Mr Jeff Moore (GABIA)

### Actions Arising from SESSF RAG – 4 and 5 March 2014

No.	Action Item	Action Person	Timeframe
1	AFMA to update SESSF RAG on efforts to formalise data sharing arrangements with NSW DPI.	AFMA	Next meeting
2	That AFMA and CSIRO to distinguish line and gillnet data in length frequency data tables and histograms in summary documents.	AFMA Management CSIRO	-
3	That AFMA develop protocols for handling (and marking) draft RAG and MAC documents on SharePoint and establish follow-up procedures to ensure draft versions are replaced with final copies once these are available.	AFMA Management	
4	Mr Burns to contact Dr Klaer and Dr Upston at CSIRO to explain the observer coding around wildlife interactions – in particular the use of the '888' code in relation to observed wildlife interactions and wildlife counts.	Mr Burns AFMA	Data Meeting 2013
5a	AFMA to circulate advice provided to SEMAC 13 by AFMA's Bycatch Team in relation to criteria for reporting interactions with protected species.	AFMA Management Executive Officer	Out of session
5b	AFMA to prepare a paper on the various definitions for interactions with protected species: <ul style="list-style-type: none"> <li>• Legislative - EPBC Act, Threat Abatement Plan etc; and</li> <li>• Operational - observers and logbook</li> </ul>		
6	That the SESSF RAG determine at its 2014 Research and Environment Meeting how the RAG will contribute to the review of the SESSF 5 Year Strategic Research Plan.	SESSF RAG	July 2014
7	Ongoing – AFMA to report on the status of Upper Slope Dogfish Research Plan Working Group at SESSF RAG's 2014 Research and Environment Meeting	AFMA Management	July 2014
8	AFMA to develop a paper on possible mechanisms for securing external reviews for Tier 1 assessments in the SESSF.	AFMA Management	
9	AFMA to seek a list of candidate species from SlopeRAG for stock regionalisation (based on available evidence with respect to stock structure).	AFMA Management SlopeRAG	Data Meeting 2014
10	FAS to circulate a draft ageing plan (2015 to 2018) based on AFMA's draft stock assessment schedule for 2014 to 2018 for comment.	Mr Krusic-Golub (FAS)	Out of session
11	AFMA to develop some rules/guidance around the determination and process to move to Incidental catch TACs – move away from a Harvest Control Rule and to augment assessment advice for Tier 1 assessed species with a range of risk based advice.	AFMA Management	Out of session
12	AFMA to recirculate the relevant section of SESSF Harvest Strategy Framework for comments with particular reference to break-out rules for the unmanaged part of the fishery – state catch or discards.	AFMA Management	Out of session
13	That the RAGs review the assessment schedule for their species for 2015 to 2017 and give advice to AFMA on how their schedule can be integrated without creating an assessment workload spike in 2016.	AFMA Management SharkRAG, ShelfRAG, SlopeRAG	Data Meeting 2014
14	AFMA to work with Dr Klaer (CSIRO) to craft words describing the cap on F (Fishing Mortality) in Tier 3s in the SESSF Harvest Strategy Framework.	AFMA Management Dr Klaer	As soon as possible

No.	Action Item	Action Person	Timeframe
15a	AFMA to request that CSIRO include error estimates around: <ul style="list-style-type: none"> <li>• Fit to slope to get Z for Tier 3s</li> <li>• Error around recent CPUEs for Tier 4s (recent average)</li> </ul>	AFMA Management Dr Klaer (CSIRO)	Data Meeting 2014
15b	Put error estimates on the agenda for SESSF RAG's 2014 Data Meeting	AFMA Management Executive Officer	Data Meeting 2014
16	Dr Knuckey to forward a copy of the covered cod-end report to Mr Corrie (AFMA).	Dr Knuckey (Fishwell Consulting)	As soon as possible
17	CSIRO to prepare a presentation for SESSF RAG Data Meeting on FRDC 2011/032: <i>Incorporating the effects of marine spatial closures in risk assessments and fisheries stock assessments.</i>	Dr Tuck (CSIRO)	Data Meeting 2014
18	AFMA's Observer Section to circulate its draft observer coverage and sampling targets to the RAGs by June each year for comment.	Mr Burns (AFMA)	By June each year



## Southern and Eastern Scalefish and Shark Fishery Resource Assessment Group (SESSF RAG)

### Agenda

4 and 5 March 2013 — Exhibition Room (first floor)  
Sydney Fish Markets  
Banks Street Pyrmont

9:00 am start – 4<sup>th</sup> March

#### ITEM

- |   |         |
|---|---------|
| <b>1. Preliminaries</b>   | 40 mins |
| 1.1 Welcome and introductions   |         |
| 1.2 Pecuniary interest declarations   |         |
| 1.3 Adoption of agenda  |         |
| 1.4 Acceptance of minutes from SESSF RAG's Environment and Research Meeting 30-31 July 2013                               |         |
| 1.5 Actions arising from SESSF RAG's Environment and Research Meetings 2013   |         |
| 1.6 Correspondence  |         |
| <b>2. Review of last year's assessment process</b>  | 3 hours |
| 2.1 RAG Chair's reports   |         |
| 2.2 Review South East MAC 14 – SESSF TAC recommendations for 2014/15  |         |
| 2.3 Species summaries – new format  |         |
| 2.4 Update from GABRAG – Minutes November 2013  |         |
| 2.5 Basis for stock regionalisation   |         |
| <b>3. Research</b>  | 45 mins |
| 3.1 Identification of research priorities for annual research plan  |         |
| <b>4. Priorities and resourcing</b>   | 30 mins |
| 4.1 Priority species for ageing   |         |
| 4.2 Confirmation of priority species for assessment in 2014   |         |
| <b>5. Harvest Strategy Framework</b>  | 4 hours |
| 5.1 Moving outside the harvest control rules when a Tier 1 assessment can provide probability parameters (e.g. Pink Ling) |         |
| 5.2 Guidance for setting Multiple Year TACs   |         |
| (a) Relevance of the small change limiting rule when MYTACs apply   |         |

	(b) Role of break-out rules	
	(c) Assessment workload associated with MYTAC break out rules	
	(d) Integration of MYTACs into the SESSF Harvest Strategy Framework	
5.3	Are changes to the Tier 3 multiplier required?	<i>verbal</i>
5.4	Situations whereby application of discounts result in a zero RBC	<i>verbal</i>
5.5	Development of formal guidance in relation to the application of discount factors	
5.6	Conditions which could justify rejection of CPUE as an index of abundance	
<b>6.</b>	<b>Ecological Risk Management</b>	2 hours
6.1	Comments on Ecological Risk Assessments	<i>AFMA</i>
6.2	Species classification	<i>AFMA</i>
6.3	Recognition of other species/baskets as secondary species (MSY targets)	
<b>7.</b>	<b>General issues</b>	45 mins
7.1	Clarification around jargon used in the context of SESSF stock assessments	
7.2	Update on the reviews of the Commonwealth Harvest Strategy Policy and the Commonwealth Policy on Fisheries Bycatch.	
<b>8.</b>	<b>Other business</b>	45 mins
8.1	AFMA website publication	<i>for recommendation</i>
8.2	Project updates includes Dolphin Management Strategy	<i>for information</i>
8.3	AFMA Observer Program ISMP Progress Report	<i>for information</i>
8.4	Which RAG should have responsibility for the assessment of Western Gemfish?	
<b>9.</b>	<b>Next meeting</b>	
9.1	Scheduling of the 2014 RAG meetings	