



Australian Government

Australian Fisheries Management Authority



Southern and Eastern Scalefish and Shark Fishery - Deepwater Resource Assessment Group (DeepRAG)

DEEPRAG 9

DRAFT MINUTES

The second meeting for 2008 of the Deepwater Resource Assessment Group (DeepRAG) was held in Canberra on 26 June 2008.

Attendees

Members

Dr Jeremy Prince, Chair
Ms Beth Gibson, AFMA Member
Mr Angus Nichols, Industry
Dr Ian Knuckey, Scientist
Dr Kevin McLoughlin, BRS
(representing Sandy Morison, BRS)
Mr Jeff Moore, Executive Officer, GABIA
(representing Semi Skoljarev, Industry)
Ms Darci Wallis, Executive Officer GABRAG

Observers

Dr Sally Wayte, CSIRO
Mr Jim Collins, Industry
Ms Annette Sands, BRS
Dr Tony Smith, CSIRO
Mr Kyne Krusic-Golub, CAF

Apologies

Dr Rudy Kloser, CSIRO
Mr Semi Skoljarev, Industry
Mr Sandy Morison, BRS
Mr Phil Hooper, Industry

Agenda Item 1 - Preliminaries

1.1 Welcome and Apologies

The Chair Dr Jeremy Prince opened the meeting at 9.00 am and welcomed members and observers to the meeting. Apologies were received from Rudy Kloser, Semi Skoljarev, Sandy Morison and Phil Hooper.

1.2 Declarations of Interest

Jeff Moore	EO GABIA
Kevin McLoughlin	Currently completing a research projects of deepwater sharks (AFMA funded)
Beth Gibson	No pecuniary interest
Darci Wallis	No pecuniary interest
Jeremy Prince	No pecuniary interest
Tony Smith	SESSF RAG Chair
Jim Collins	SETMAC member and Orange Roughy quota holder
Angus Nichols	Commercial Roughy fishermen, Alfonsino quota holder
Annette Sands	No pecuniary interest
Sally Wayte	CSIRO, completing work on Orange Roughy Assessments

1.3 Adoption of Agenda

The Committee adopted the Agenda with some minor changes, including adding a Management and Industry update on this and further agendas. An update on the monitoring program in the GAB was included at item number 4.5.

Action DAG 1/2008: 1 (DeepRAG EO)

DeepRAG EO to include management and industry update on the agenda for the next meeting.

1.4 Adoption of minutes of DeepRAG 8

The minutes of DeepRAG 8 were adopted with no changes.

1.5 Actions arising from DeepRAG 8

Number	Action	Progress
1	Dr Knuckey to develop wording for the rationale of why the timing of a planned catch is less important for long lived species like orange roughy. The wording will be circulated and agreed to, before being submitted to the Board.	Complete, submitted to the Board
2	Dr Knuckey and industry to work on developing protocols for the 2008 surveys.	Ongoing
3	Dr Knuckey to provide Dr Prince and Dr Kloser with a fully copy of the Cascade report.	Dr Prince yet to receive copy
4	DeepRAG members to provide comment on deepwater shark management and research strategy.	Complete, strategy submitted and approved in principle by the Board



5	Dr Knuckey to work with Mr Gulliot, Mr Walker, and Mr Saul to develop the research project.	Complete, research project has commenced
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Agenda Item 2 – Discussion items for Joint SESSF RAG meeting

Ms Gibson provided a management update for the RAG and noted that AFMA will become a commission on 1 July 2008 and informed the RAG of the changes to AFMA.

- Procurement processes will change within AFMA and become tighter as the money will belong to the Commonwealth, not AFMA. The RAG noted that more forward planning is needed in the budget as there is no room to move once these are finalised;
- All domestic fisheries will report to the Commission (formally the Board) and HR, finance and foreign fisheries will report to the Minister through the CEO;
- The Board members will become Commissioners temporarily for 6 months until new commissioners are appointed. Two current Board members are not able to continue due to new requirements under the Commission.

The RAG noted that the Board has approved the Cost Reduction Working Group (CRWG) report with some minor changes, there will be a maximum of 6 MACs and the RAGs will be maintained in the interim. Ms Gibson also informed the RAG that the SESSF closures had been approved, including the Orange Roughy Deepwater Closures in the GAB.

Agenda Item 3 – Discussion items for Joint SESSF RAG meeting

Industry members agreed that this update would be covered under the Cascade Roughy in Agenda item 6.

Agenda Item 4 – Discussion items for Joint SESSF RAG meeting

4.1 Tier 3 and Tier 4 Rules – review and target CPUE levels

Dr Smith provided a background and update to the Tier Rules, it was noted that the current Tier 3 and 4 rules have issues, mainly being that the ratchet effect is created reducing the TAC annually. This is especially an issue with Tier 4 assessments as there are no reference points. The RAG noted that in 2007 the RBCs were maintained on Tier 3 and 4 species for the 2008 season on the basis that these issues would be addressed for the 2009 TAC setting process.

Tier 3

Dr Smith made a presentation on the proposed new Tier 3 rules. It was noted that the current Tier 3 rules have 3 main issues:

- The Tier 3 control rule has an impact measured as the average F over the number of fully selected age classes of the species into the past, and a reference catch C_{cur} being the average over the past 4 years.
- This causes a ratcheting effect as the rule is applied each year, tending to continue to adjust catches in the same direction through time, leading to overcompensation.



- If equilibrium methods are used to calculate F_{cur} , this implies that the fishery impact is measured over a period of at least the number of fully selected ages of the species, and possibly the maximum observed age.

The RAG noted that Sally Wayte had completed some testing, and preliminary results are fairly positive, the major issue occurs when the F value is calculated incorrectly. The proposed recommendations are:

- the same time period be used to calculate F_{cur} and C_{cur}
- the performance of the new catch control rule be further tested using MSE, and adopted if the performance is satisfactory
- non-equilibrium methods for calculating F_{cur} be investigated, and their effectiveness tested using MSE

(Note: that the non-equilibrium method appears to perform reasonably well in these initial tests, and may still be the default)

It was questioned how this performs with species like Western Gemfish that have sporadic fishing and fish availability. It was noted that making sense of the CPUE for Western Gemfish is an issue, but if a representative sample of the population through the age sampling is available then this could be overcome.

Tier 4

Dr Smith made a presentation on the proposed new Tier 4 rules. It was noted that there are currently issues with the ratchet effect as these assessments rely so heavily on catch rates, and this is especially an issue with bycatch species. Dr Smith stated that the rules have been adjusted to have target CPUE, which is compared with the average CPUE and limits. The development of the CPUE target is done by examining the historical catch and CPUE series and finding a period of relatively consistent catch and CPUE. It was found that catch and CPUE from 1986 – 1995 was consistent for a range of the shelf species. This period would become the target with the limit being 40% of this target, however this would only apply if the species was fully fished during the target period. If the species was not fully fished during this period and was thought to be close to the virgin biomass (B_0), the target would become half the average CPUE during the target period.

It was questioned the affect on the CPUE when known aggregations are targeted, in particular the deepwater species. Dr Smith responded that this has been reviewed and the CPUE is similar during surveys (FIS) and also commercial fishing, although it is unclear why. It was noted by the RAG that there is the potential for a precautionary discount to be applied on top of the RBC to ensure the TACs remain precautionary. A MSE analysis should be able to produce an estimate as to the level of discount, and this can be reviewed against well known species with quantitative stock assessments. Industry questioned whether a discount is needed with these revised rules and what it would be. Dr Smith responded that the Tier 4 uses less information and is therefore a higher risk than Tier 1 species. Without testing a discount should be in place to account for some uncertainty.

The RAG reviewed the analysis of deepwater sharks (west stock), and noted that the CPUE is above the targets in this alternate method. It was agreed that the deepwater shark working group (DSWG) had discussed using a particular time series for this



species, and this needs to be revisited and included. It was noted that the current bycatch TAC was in place to cover the catch of these species above 700m, and this closure needs to be considered within the analysis, as much of the population is currently closed from the fishery. Dr Wayte advised the RAG that the testing of the Tier 3 and 4 rules should be completed in the next couple of months.

Action DAG 1/2008: 2 (AFMA and CSIRO)

Ensure that the time series used in the Tier 4 analysis for deepwater sharks is the same agreed to by the DSWG.

The RAG reviewed the alfonsino data, and noted that few data points are available for this species and they are very noisy. It was questioned the effect of adding another data point, as there has been limited fishing. The RAG thought that another data point would shift the catch bar considerably, and with the varying catch rates this would impact the RBC. The effect of no or limited fishing on the model and whether alfonsino should be assessed at Tier 3 or Tier 4 this year was questioned. Dr Smith responded that this should be assessed at Tier 3, because the catch curve is available and will account for the low levels of exploitation. Industry stated that there were concerns with recording the catches of alfonsino in the SET, as higher catches may cause a TAC to be placed on these species. It was agreed that a process and criteria need to be developed to decide when a species is moved to quota.

Action DAG 1/2008: 3 (DeepRAG Chair)

Carry over the discussion on developing a process and criteria for species to move to quota to the SESSRAG meeting.

4.2 B_{MSY} and B_{LIM} estimates

Dr Smith provided a background to this item and noted that the Commonwealth Harvest Strategy specifies a default of B_{40} to be used in cases where B_{MSY} is unknown. It was noted that this is an issue as the assumptions have a strong effect on B_{MSY} , and it is unclear when to use B_{MSY} and when to use B_{40} . It was advised that the clasp point of stocks are only known in stocks that have already clasped. The time-lag with recruitment for many species means that the effects from fishing are not often seen in a lifetime for most species. It was noted that the recruitment is unknown in most species, and is one of the assumptions in the assessment. It was agreed that the work on recruitment should be reviewed (Beven Holt method etc.) and further discussed at SESSRAG.

4.3 Interim B_{MSY} targets

Dr Smith gave a background on the different Harvest Control Rules, and noted the clarification on the application of the policy to rebuilding stocks above the limit reference point (B_{LIM}) was provided in the letter from Nick Rayns. The preference is to initially use the 20:40:40 ($B_{LIM}:B_{MSY}:F_{TARG}$) approach. That is follow this rebuilding path up to where the Fishing Mortality rate (F) reaches F_{48} , which is equivalent to a biomass slightly below B_{40} . Once F reaches F_{48} , the rebuilding approach should be changed to 20:40:48 to allow the stock to reach B_{48} . This approach prevents overfishing which then has to be corrected to reach B_{48} . It was noted that there has been some pressure for identifying specific recovering times in the rebuilding strategies, however this is often difficult for many species.



Action DAG 1/2008: 4 (DeepRAG EO)

Circulate the letter from Nick Rayns to the MAC and RAG chairs regarding the interim targets for B_{MSY} to all DeepRAG members.

4.4 Review of CDR and logbook information

The RAG noted the alfonsino catches in the species summaries was likely to come from the SEF catches, not the ECDWZ. It was agreed that the data provided in the species summaries should be the same as the assessment, and include the ECDWZ catches. It was noted that the CPUE data shown in the Tier 4 presentation was the correct data, however the data used in the species summaries was based on the SEF. It was agreed that the data that will be input into the models needs to be visually reviewed by relevant scientist and industry to review any issues, as this can be difficult once the data has been input into the model. Dr Smith advised that the data from 2006, 2007 and 2008 needs to be compared, to complete some basic error checking on the data.

4.5 Timetable of Assessments and RBC recommendations

Ms Gibson provided an update on the new timetable of assessments and the RAG noted that the Commission (formally the Board) will determine all TACs at the February meeting, and no opportunity will be available to carry-over any species to the following meeting (as was available in 2007/08). The RAG was informed that the analysis of data should be available around November. The RAG reviewed the available data and noted that orange roughy was broken down into the SEF zones, not the orange roughy management zones. It was also noted that the catch dropped in 2007 in most sectors because of the closures. It was agreed that the catch from 'other' needs to be reviewed to establish where the catch occurred. The RAG agreed that the catches of oreos appeared to be correct and that the alfonsino catch needs review, as discussed previously, to ensure that the ECDWZ is included.

4.6 Stock Rebuilding Strategies

Ms Gibson provided a background to the stock rebuilding strategies, nominations and priority listings for Eastern Gemfish, School Shark, Blue Warehou and Harrison's dogfish. It was noted that the Threatened Species Scientific Committee (TSSC) has considered the rebuilding strategies for Eastern Gemfish and School Shark and has sought amendments to the rebuilding strategies, which will be re-circulated shortly. The Blue Warehou is required to have a rebuilding strategy finalised by December. Harrison's dogfish requires preliminary work, as this will be considered for priority listing later this year for nomination next year. The response to the trawl nomination is required by 30 September this year and the RAG noted that the scope of the nomination will cover overfishing and the effect on benthic communities. It was advised that clarification is being sought on this and the consideration for this may be staged. The RAG was asked to note that DEWHA has requested submissions on the EPBC Act as the Act is undergoing a 10 year review. The RAG agreed that the trawl and other nominations have highlighted the issues with the current process, and that AFMA and industry should both make submissions. It was asked that AFMA circulate more information once more information is available.



Action DAG 1/2008: 5 (AFMA)**AFMA to circulate further information on the EPBC Act review once available.****4.7 Incorporating Industry Information**

Dr Knuckey provided an update on this issue and advised that there is a project with funding available for industry to collect relevant information at a both shot (water temperature, weather, moon phase, currents, winds etc.) and trip (economic information like fuel price, fish price, quota prices) level. The project requires 10 to 20 fishermen to start recording this information and there is money available to provide depth recorders to participants. It was noted that due to the lag between the collection of data and it being input in the assessment there is capacity for logbook and FIS data to alter the TAC up or down from the RBC recommended by the assessment. It was agreed that this would be discussed next year. Mr Nichols suggested that the target catch be recorded when the boat leaves the port and note how it evolves during the trip.

4.8 Impact of the buyout

The RAG noted the paper provided by David Galeano and agreed that discussion on this would be carried over to the Joint SESSRAG meeting.

4.9 Nominate Priority Species for Stock Assessments in 2008

The RAG noted this agenda item and Dr Smith stated that this item mainly applies to Tier 1 species, as the Tier 3 and 4 rules are being revised. It was agreed that the Cascade assessment projections are based on the high biomass and noted that his assessment will not be repeated, therefore no Tier 1 species are a priority. Alfonsino is a priority to move to a Tier 3 assessment, and the CPUE will be updated to include 2007 data. All Tier 3 and 4 species will have an assessment completed this year, excluding deepwater sharks. It was agreed deepwater sharks would have the TAC carried over, until the spatial management is in place and the outcomes of the current projects are available.

The RAG agreed that all Tier 3 and 4 species would have an assessment run this year, excluding deepwater sharks. The deepwater sharks TAC would carry over, until the spatial management is in place and the outcomes of the current projects are available.

4.10 Nominate species suitable for 3 year TACs

Dr Prince stated that in the long-term all of the species under DeepRAG would be able to have 3 year TACs set, however this is currently not an option. It was noted that the bycatch TAC for deepwater sharks and oreos would need to be refined and there are currently issues with the Cascade assessment. It was agreed that in the future it would be preferred to move all species under DeepRAG to 3 year TACs, however this is currently not an option. Ms Gibson stated that eligible species will move the way of the GAB, with 3 year TACs being set and justified annually based on the Fishery Independent Survey (FIS) and other stock health indicators. Dr Prince noted that the RAG needs to discuss whether decision rules are required for the species under DeepRAG, as whether to run a full assessment or use the Tier 4 rules. It was also noted



that discussion needs to occur on whether triggers are required for any species under DeepRAG, but agreed that this will be further developed in the future.

The RAG agreed that nothing would be nominated this year, but most of the species under DeepRAG are longer lived species, which are ideal for multi-year TACs.

4.11 Process to be followed for unchanged TACs

Dr Smith gave a background on this issue and noted that a paper has been prepared by Sandy Morison. It was agreed that if no assessment or update was completed then the RBC rolls over to the following year, however the current state catches and discards are considered.

The RAG agreed with the process, however noted that this doesn't really affect the DeepRAG species.

4.12 Process on approaches for use of zeros in CPUE analysis

The RAG was provided with a background on this issue and noted that BRS and CSIRO have been working on the effects of zeros in the CPUE analysis. The RAG noted this, however it was agreed that this has limited relevance to DeepRAG.

4.13 Companion Species

Dr Smith provided an update on the Companion species project that is currently being completed by Neil Klaer. It was noted that project will provide advice and guideline on how to set TACs for associated species, and one analysis has been completed for all species. The RAG noted this item for information and it was agreed that this would be further discussed at later meetings once the full report was available. Previous debate has occurred at DeepRAG about the proportion of oreo catch associated with orange roughy and the effects on the bycatch TAC.

4.14 Final ISMP Report 2007

The RAG noted that this report is not complete, and agreed that AFMA would update the RAG once this is finalised.

4.15 Review of interim ISMP targets

The RAG was provided with a background of the issues with the ISMP targets since the buyout, and noted that some of these targets are no longer realistic and the targets need to be refined. It was noted that currently the proposal is reducing targets based on the percentage of effort reduction for both otolith and length targets. The RAG noted that Gary Collins will be able to provide more information at the Joint RAG meeting. It was advised that the ISMP program is currently undergoing a review and the interim targets will be in place until around December, or until the review is completed. It was noted that the targets have only really been reached for alfonsino and the orange roughy samples collected during the survey have not been counted. Mr Moore noted that the 504 otoliths listed in the ISMP report are all from the GAB and it was agreed that this was misleading and the collection needs to be broken down into management zones. Dr Prince requested that minutes record that the RAGs and MACs were asked for advice on the ISMP transfer over to AFMA and all this advice was ignored. It was agreed that there



has been a reduction in the quality of data provided from the ISMP program since AFMA took over.

The RAG requested that the AFMA Commission should note and learn from this example, that there is an advice mechanism in place that was not taken into account and has now been shown that this advice was correct.

The RAG agreed that no additional orange roughy data is required from the ISMP as this is covered in the survey. It was noted that the targets for orange roughy were required when there were four targeted management zones, however now there is only one. It was also agreed that the oreo collection also needs to be broken down into management zones and that smooth oreo targets are too high, considering the current catch levels.

The RAG requested clarification on which samples were collected at sea, in port and at the markets.

The RAG made the following recommendations to the ISMP program:

- while the surveys continue the ISMP targets should be zero for orange roughy,
- the report should divide both oreos and orange roughy collection into the management zones,
- the smooth oreo target to be reduced, as it is currently too high considering the current catch,
- deepwater sharks need information collected only on the major species caught; black, Brier, Owston and Golden shark,
- saw shark needs to be broken down into the two species; common and southern.

Industry questioned if the size profile of both retained and discarded catch was still being collected, as done previously with PirVIC, as this is currently not included in the reports. It was agreed that this is an issue certain data is no longer being collected, as the assessments are based around the previous data collection. It was noted that the zones are different when compared with the PirVIC zones and there was no consultation on this issue.

4.16 Terry Walker's ISMP Analysis

The RAG noted Terry's Walker's report for information.

4.17 BRS 'Uncertain species project' and how it will interact with SESSF RAGs

Dr McLoughlin provided the RAG with an update on this project and noted that the project is being developed in consultation with DAFF. This project was an election promise from the new government to review all the uncertain species in the BRS status reports. It was advised that the RAGs will be kept informed on any updates and provided with copies of the final reports.



Agenda Item 5 – Deepwater Shark Update

Dr Prince noted that some of the deepwater shark items are related to the deepwater closures and requested the Dr Knuckey provided a background and update on this project. At the end of 2007 maps were produced boxing up the areas that caught 90% historically of the orange roughy catch and also identifying the extra 5%. Industry then provided input suggesting certain changes to these maps. It was noted that this was divided into the stock levels; north east remote, southern and eastern and western. The closures were put in place for orange roughy, and the modification of the closures would then open up other deepwater ground. It was questioned if these proposed area closures are enough to protect deepwater sharks or are additional areas required. Dr Knuckey advised that the deepwater shark catches are available and is able to assess the amount of protection that is provided.

The RAG agreed that the catches of deepwater sharks should be reviewed to assess any areas that need to be closed to provide protection for these species. These results should be combined with the results of the short-term interview project to ensure adequate protection for these species.

5.1 Short-term Interview project

Dr Prince provided an update on the short term interview project and noted that this project is designed to gather the industry information which can then be input into the deepwater closures to ensure that any aggregations are protected. There is a need for the long-term effective monitoring for deepwater sharks, to determine if the population is declining. This project should be completed in mid to late August. Dr Knuckey advised that the deepwater orange roughy closures will be complete at the end of July and then the deepwater shark information can be added to the deepwater closures.

5.2 Deepwater Shark Research Project Update

Dr Knuckey advised that the contract has been signed and this project will start in mid-July, and a master's student will complete the data collection at the fish markets.

5.3 Gulper Sharks – inclusion under Deepwater Shark strategy

Mr Domaschenz gave a background to this issue and noted that process with AFMA, the ERA, the Ministerial Direction and the requirements under the EPBC Act require that work be done on these species. There are also pressures from DEWHA as this species will be considered for priority listing by the TSSC at the end of the year with a possible nomination next year. Harrison's dogfish will definitely be considered with the possibility of Endeavour and Southern dogfish as well.

Mr Nichols stated that it has been acknowledged that the listing criteria are not suitable for marine species and questioned if DEWHA has responded to this. Ms Gibson advised that this has been questioned with DEWHA but no response has been provided. Dr Smith advised that the submissions to the EPBC Act review could cover this. Mr Nichlos questioned if this had been taken to the Minister and was advised that it hasn't. It was noted that much of the required work is built into legislation and timelines and other deadlines have to be met. The RAG agreed that if gulper sharks were nominated and listed this would be a major issue, as these species fall outside the Harvest Strategy



Policy (HSP). The HSP somewhat clarifies the listing as there are defined limits and targets.

The revised Wildlife Trade Operations (WTO) conditions also require that the extent of interactions with Harrison's be defined by the end of 2008 and mitigation be implemented by the end of 2009. If this species is put up for priority listing at the end of the year, then the species will be considered for nomination in April 2009 and AFMA will have until September to respond to the nomination. It was agreed that mitigation and other measures need to be in place. It was noted that these species have a lower biomass percentage than other nomination species, however there is much more uncertainty compared to these other species. The RAG was advised that AFMA is forming a Chondrichthyan working group to deal with the number of shark species that came out at high risk from the ERA. It was agreed that the gulper shark issue must be progressed faster than this.

It was noted that the crossover with membership between SharkRAG, DeepRAG and the Deepwater Shark Working Group (DSWG) and noted that the deepwater closures project can be expanded to include the gulper shark information. It was identified that the problem is the lack of knowledge about these species, and also the identification issues for industry. It was noted that ID packages have been sent out to industry to assist in the information collection. It was suggested that additional ID packages be sent out to industry so they can collect a fin clip in a vial and record the position of the catch, and AFMA advised that vials are available. It was suggested that a small task team be formed to direct this process, comprising of Ian Knuckey (or Russell Hudson), Jeremy Prince, Sandy Morison, Tony Smith and an AFMA staff member coordinating.

DeepRAG agreed that this group would be responsible for progressing the gulper shark issue through the DSWG and report to both GHATMAC, SETMAC.

BRS advised that funding has been applied for to review all available data on gulper sharks and industry advised that if this is not funded, it may be possible to fund through the levy base. It was noted this work could be completed by December.

Agenda Item 6 – Orange Roughy

6.1 Orange Roughy Stock Assessment Review

Ms Gibson provided a background to this issue and advised that AFMA is under an obligation (through the orange roughy conservation program) to review the orange roughy stock assessment. The RAG noted the draft terms of reference (ToR) and was asked to provide input at the meeting so these could be agreed by the RAG. Mr Moore noted that under the second point of the ToR there is not stock assessment for the GAB and industry have concerns about completing one in regards to the cost. Mr Nichols stated that this should be paid for by the government, as the review would be benefiting the public. It was advised that how the process currently works means that the user pays, however AFMA advised that other funding would be sought, however it may come back to industry. It was agreed that whoever completes the review needs to liaise with industry and scientists to review the knowledge. The RAG agreed that Chris Francis and/or Pam Mace liaising with Tom Kompas would be a good combination as the economic side (point 4) would be covered.



The RAG agreed that Chris Francis and/or Pam Mace liaising with Tom Kompas would be a good combination for the review of the stock assessment as both the economic and stock assessment side (point 4) would be covered.

Dr Prince advised that he is developing a project to review the older data can compare this to the current data. This would be analysed through season and years, and a graduate is available to complete this work. Dr Prince advised that this would be completed at the end of next year as an honours project, however the group needs to agreed to release the data. The RAG agreed to this and noted that there is not a hurry to release this data, as the write up won't be beginning until September or October.

The RAG agreed to release the required data to Dr Prince so he can proceed with the research project.

6.2 Deepwater Orange Roughy Closures

The RAG noted that an update has already been provided. Mr Nichols suggested that these closures are linked to the Conservation Program, and once this is no longer in place that the orange roughy closures be lifted. It was agreed that this hasn't been finalised and would be further discussed at subsequent meetings. It was suggested that once the short-term project is completed in August that the deepwater shark information can be added and this could be in place later in the year.

6.3 Update on Cascade Orange Roughy monitoring program

Dr Knuckey invited comment on the format of the provided 2007 Cascade report. The RAG was updated that the fish didn't show leading up to the survey. The weather was poor before and at the beginning of the survey and the water temperatures were warmer than usual. It was noted that some fish were running ripe, but not a large percentage. Mr Nichols noted that the processing costs were high and all in the US and Mr Collins suggested that the length of the survey trip be reduced as the fish quality is declining due to the delay in processing times. Dr Knuckey advised that around \$30,000 for ageing from 2007 and another \$30,000 will be available in 2008.

The RAG agreed to go ahead with the ageing for 2007 and would review whether to age the 2008 information next year.

The RAG agreed that the survey is keeping the Cascade open and are reluctant to cease these. It was noted that the survey currently costs around \$200,000 (\$100,000 covered by the sale of the fish) and was advised the costs would reduce if the ageing an analysis was reduced. It was agreed that this would be review after the orange roughy assessment review.

Action DAG 1/2008: 6 (Tony Smith)

Dr Smith to follow up with Rudy Kloser regarding the success of the headline mounted technique.

6.4 Update on Eastern Zone Orange Roughy monitoring program

The RAG noted that the 2006 Eastern Zone Orange Roughy reports are available for distribution.



6.5 Update on GAB Orange Roughy

The RAG noted the update provided by Mr Moore on the GAB. The RAG agreed that the comparison of the age structure between the GAB and the Cascade should be reviewed at future meetings.

Agenda Item 7 – Alfonsino update – Tier 3 analysis

The RAG noted the update to the Alfonsino Tier 3 analysis was advised that the otoliths had been found and were sent to the Central Ageing Facility (CAF) along with length frequencies. It was noted that around 500-600 samples would be preferred, however current numbers are adequate. Dr Prince stated that it was agreed that a Tier 3 assessment would be completed this year, however only a snapshot is available based on this year. It was noted that limited ageing has been done previously, and there is limited potential for sampling in the future due to limited fishing activity. This situation is unlikely to change due to the economics, like rising fuel prices. It was advised that there were otoliths from 2006 available, and it was unclear if there were samples prior to 2001. This was thought to be unlikely because there is no record at PirVIC.

Action DAG 1/2008: 7 (AFMA)

AFMA to follow up the availability of the 2006 otoliths and clarify if samples were collected prior to 2001.

Agenda Item 8 – Next Meeting

The RAG agreed that the next meeting should be held over two days in early October in Melbourne and the meeting could include a tour of the fish markets.

Meeting closed at 16.55pm on 26 June 2008

