



Australian Government

Australian Fisheries Management Authority



Sub-Antarctic Resource Assessment Group (SARAG)

MINUTES
SARAG 47

29 AUGUST 2013

SUB- ANTARCTIC RESOURCE ASSESSMENT GROUP (SARAG)

CHAIR: Professor John Buckeridge

Date: 29 August 2013

Venue: CSIRO Marine Labs, Castray Esplanade, Hobart

Attendance

Members

Prof John Buckeridge – Chair
Dr Dirk Welsford, AAD
Dr Philippe Ziegler, AAD
Dr Malcolm Haddon, CSIRO
Ms Sally Wayte, CSIRO
Dr Richard Hillary, CSIRO
Mr Martin Exel, Industry Member
Mr Les Scott, Industry Member
Ms Sarah Kirkcaldie, AFMA
Mr Matthew Daniel, Executive Officer, AFMA

Observers

Mr Rhys Arangio, Austral Fisheries Pty Ltd
Mr David Carter, Austral Fisheries Pty Ltd

Apologies

Dr Heather Patterson, ABARES
Dr Rosemary Gales, DPIWE

Introduction

Agenda item 1 - Preliminaries

The forty-seventh meeting of the Sub-Antarctic Resource Assessment Group (SARAG 47) was opened at 8.45am on 29 August 2013 by the Chair, Professor John Buckeridge.

SARAG welcomed Professor Buckeridge as the new Chair of SARAG and expressed thanks to Dr Malcolm Haddon for his many years of service and expertise as Chair of SARAG. Members requested that Dr Haddon remain as a member of SARAG.

Members also expressed their thanks to Mr Peter Neave who has retired as the Manager of sub-Antarctic fisheries. The Chair and Dr Haddon agreed to write to Mr Neave and thank him on behalf of SARAG.

Action item 1: Professor Buckeridge and Dr Haddon to write to Mr Peter Neave thanking him for his service as SARAG member and Manager of sub-Antarctic fisheries.

1.1 Declaration of interests

Professor Buckeridge asked members and observers to declare their professions and their interests on specific agenda items. Members and observers that declared an interest were requested to leave the room at the beginning of the meeting and the remaining members made a decision as to whether the member or observer could participate in the discussion and in the making of a recommendation or remain absent from the meeting for the item.

Professor Buckeridge advised that he is also the Chair of the Southern and Eastern Scalefish and Shark Fishery Resource Assessment Group (SESSFRAG) and advised that he has no pecuniary interests in the sub-Antarctic fisheries.



Dr Haddon advised he is employed by CSIRO and is not undertaking specific research projects in relation to Sub-Antarctic fisheries, although he does provide advice to other researchers in relation to stock assessments, particularly for the Macquarie Island Toothfish Fishery (MITF). Dr Haddon is also a member on the Northern Prawn Fishery Resource Assessment Group and Slope Resource Assessment Group. Dr Haddon advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Mr Exel declared his interest in all agenda items. He advised that he is the General Manager, Environment and Policy, Austral Fisheries P/L. Austral Fisheries P/L owns Statutory Fishing Rights (SFRs) in the Australian sub-Antarctic fisheries and waters under the jurisdiction of Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). Mr Exel also declared that he is the Director of the Institute of Marine and Antarctic Studies, Chair of the Commonwealth Fisheries Association (CFA), member of the South East Trawl Fishing Industry Association (SETFIA), Member of the Great Australian Bight Industry Association, Member of Coral Sea Fishers Association and Chair of the Coalition of Legal Toothfish Operators. He was not aware of any investigation or prosecution action by AFMA against his Company or of any legal action taken by his Company against AFMA.

Mr Scott advised that he is the Managing Director of Australian Longline P/L and Managing Director of Petuna Sealord Deepwater Fishing P/L and which holds various fishing rights in, and operates vessels in the Australian Sub-Antarctic fisheries and waters under the jurisdiction of CCAMLR. Mr Scott is also an advisor to Petuna Fisheries. Mr Scott further advised he is a member on SlopeRAG, the Sub-Antarctic demersal longline member on the Threat Abatement Plan, industry representative on the Australian delegation to CCAMLR, director to CFA and Director of SETFIA. Mr Scott was not aware of any investigation or prosecution action by AFMA against his Company or of any legal action by his Company against AFMA.

Ms Wayte advised she is a CSIRO employee and was undertaking work on the Macquarie Island Toothfish Fishery stock assessment and Management Strategy Evaluation. Ms Wayte also attends ShelfRAG. Ms Wayte advised that she has no pecuniary interests in the sub-Antarctic fisheries.

Dr Welsford advised that he is employed by the Australian Antarctic Division (AAD) and was responsible for monitoring and assessing the Heard Island and McDonald Islands (HIMI) Fishery and other CCAMLR fisheries and also data collection for the MITF. Dr Welsford advised that AAD get core funding but also seek grants from Fisheries Research and Development Corporation (FRDC) and AFMA. However, members noted that Dr Welsford salary was not connected to these grants.

Dr Ziegler advised that he is employed by AAD and will be involved in the HIMI assessment this year. Dr Ziegler has no pecuniary interest in the sub-Antarctic and his salary is not connected to any research grants.

Dr Hillary advised that he is employed by CSIRO and is the Principal Investigator of the Macquarie Island Toothfish Fishery stock assessment project. He also advised that he is a member of the Southern Bluefin Tuna Management Advisory Committee (SBTMAC) and the Tropical Tuna Resource Assessment Group (TTRAG). Dr Hillary advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Ms Kirkcaldie advised she is employed by the Australian Fisheries Management Authority (AFMA) and is currently acting Manager for sub-Antarctic fisheries at AFMA. Ms Kirkcaldie advised she has no pecuniary interests in the sub-Antarctic fisheries.



Mr Daniel advised he is employed by AFMA and is the Manager for the Southern Bluefin Tuna Fishery. He also advised that he attends the Southern Bluefin Tuna Management Advisory Committee (SBTMAC). Mr Daniel advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Mr Arangio advised he was attending the meeting as an observer and that he is employed by Austral Fisheries P/L. Mr Arangio further advised that he is the secretary of the Coalition of Legal Toothfish Operators. Mr Arangio was not aware of any investigation or prosecution action by AFMA against his Company or of any legal action taken by his Company against AFMA.

Mr Carter advised that was attending the meeting as an observer and that he is the Chief Executive Officer of Austral Fisheries P/L. Mr Carter was not aware of any investigation or prosecution action by AFMA against his Company or of any legal action taken by his Company against AFMA. Mr Carter advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Messrs Scott, Exel, Carter and Arangio declared their interest under all agenda items. The group then discussed whether Industry members needed to leave the room for any agenda items; it was agreed that as their input was essential to most agenda items, they should remain in the meeting room unless a specific conflict of interest was identified, at which point members would be asked to leave the room for the duration of that particular discussion/recommendation.

1.2 Apologies

Apologies were received from Dr Heather Patterson (ABARES) and Dr Rosemary Gales (DPIPWE).

1.3 Agenda

The agenda was adopted. Mr Exel clarified that under agenda item 6 the future random stratified trawl survey (RSTS) plans and under agenda item 9 the Kergulen Plateau research otolith and Fisheries Assessment Plan would be discussed. Mr Scott noted that there was an amendment made to the Macquarie Island Total Allowable Catch and that it would be discussed under Agenda Item 7.

Agenda item 2 – Adoption of minutes from SARAG 46

SARAG noted that the minutes from SARAG 46, held on 19 March 2013, had been adopted out-of-session as a true and accurate record of the discussions.

Agenda item 3 - Action arising from SARAG 46

SARAG discussed the status of action arising items from SARAG 46.

Action arising	Status
HIMI Fishery Research - Dr Welsford to test through MSE the potential effects on the HIMI Fishery stock assessments of moving the RSTS to every other year and an indication of the timing to undertake the work.	SARAG noted that this action was ongoing.



HIMI Fishery Research - Dr Welsford to provide an outline of how the overcatch/undercatch issue could be addressed under MSE and an indication of the timing required to undertake the work.	SARAG noted that this action was ongoing.
HIMI Fishery Bycatch - Mr Neave to prepare a draft document which outlines the bycatch issues for sub-Antarctic fisheries and the strategies that have been adopted to address them.	Members noted that this action item was completed and a Bycatch and Discard Workplan has been finalised for sub-Antarctic fisheries. Members noted that it will be updated annually for consideration by SARAG.
Tagging in the MITF - Industry to report back to SARAG on how to achieve an overlap of at least 60% in the MITF and HIMI Fishery.	Members noted that this action item was completed and that an application in FishLog allows the AFMA observer to monitor the tagging overlap and that it is currently successfully working.
MSE – Natural mortality and sensitivity and movement and tagging evaluations to be provided for the MITF assessment by September 2013.	SARAG noted this action was on-going and would be discussed at the next SARAG meeting.
Benthic impacts research project – Dr Welsford to keep FRDC and SARAG up to date on project.	Members noted that this project would be discussed under agenda item 10.
Electronic monitoring – AFMA to keep SARAG informed on the request for Proposal process.	SARAG noted that Archipelago Marine Research was the successful tenderer and that they would be meeting with AFMA on 8 th October 2013 to discuss a way forward.
Toothfish tagging – AFMA to write to New Zealand again providing publicly available tagging information and requesting similar information.	SARAG noted that this action is on-going and following the last SARAG meeting AFMA wrote to Ben Sharp in New Zealand. To date no response has been received. Members noted that AFMA had sent follow-up emails and would keep members informed if any responses were received.
Gear loss report – in future effort to be included in reports.	SARAG noted that a gear loss report is now included in the paper titled 'Review of environmental interactions and gear loss'.

Agenda item 4 – Correspondence

SARAG noted the following correspondence which had been received out-of-session since the last meeting:

- an e-mail dated 26 March 2013 from Peter Neave regarding the market testing for observer services;
- an e-mail dated 16 April 2013 from Peter Neave advising Members that a TAC of 415 tonnes had been set for toothfish in the Macquarie Island Toothfish Fishery, with a 50 tonnes bycatch catch limit on any other fish species for the 2013/14 fishing year; and



- various notices to Members about their appointments to SARAG.

5 – Fishing operations – update

Messrs Exel and Scott provided SARAG with a verbal update on fishing operations in the HIMI Fishery and MITF.

Heard Island and McDonald islands Fishery

Mr Exel noted that trawl fishing in the HIMI was nearly completed, which included the completion of a Random Stratified Trawl Survey (RSTS). The vessel 'Southern Champion' took all but 1 tonne of the Mackerel Icefish Total Allowable Catch (TAC).

Members noted that Austral Pty Ltd had introduced a new longline vessel the 'Isla Eden' which will only fish in the HIMIF to 14 September as it was a new vessel and not allowed to fish the extended season.

SARAG noted that 500 tonnes of Patagonian Toothfish had been taken by trawl methods in the HIMI Fishery with the remainder (and majority) of Austral's quota taken by longline. Mr Exel acknowledged that the trawl catch may increase to 550 tonnes depending on how much the longliners catch. Members noted that from industry perspective the Patagonian Toothfish fishery was going well. Industry noted that the average size caught by longline seemed to be decreasing slightly which could indicate good recruitment.

Mr Exel noted that Austral's longline vessels have captured six elephant seals this season which was unfortunate and unusual. One Northern Giant Petrel was also caught when it somehow forged its way through the 'brickle curtain'. SARAG noted that Austral Fisheries Pty Ltd are investigating ways to improve mitigation methods including alternative designs for the 'brickle curtain' as a result of this capture.

Mr Exel noted that Austral did not undertake any fishing activity at Macquarie Island as the full quota from these grounds had been leased to Australian Longline P/L.

Mr Scott advised that Australian Longline Pty Ltd had 710 tonnes of toothfish to catch at HIMI and it was envisaged that catching would be completed in the coming weeks. Members noted that 18,330 fish had been taken to date with an average weight around 5.8kg which was down on previous years (when it was c. 8kgs). Mr Scott noted the vessel 'Antarctic Chieftain' was fishing in water a couple of hundred metres shallower than last season.

Mr Scott noted that there were signs that the fishery was recovering from the Illegal Unregulated Unreported (IUU) fishing a number of years ago. Mr Scott noted that they had the best Catch Per Unit Effort (CPUE) that they had ever had in the Fishery this year. SARAG noted that Australian Longline Pty Ltd reported no interactions with seabirds or marine mammals and that gear loss was reasonably minimal.

Macquarie Island Fishery

Mr Scott noted that fishing in Macquarie Island had been going well, however, an incident had just occurred where a seaman had been injured and the vessel would be returning to New Zealand as soon as possible. Mr Scott noted that the MITF TAC had been varied from 415 tonnes to 410 tonnes but noted that this would be discussed later in the meeting. Members noted that the vessel currently had around 406 tonnes on board so will take about 4 tonnes less than the TAC. SARAG noted that gear loss had been high this season due to fishing some very rough ground with strong tidal influences. Although, Mr Scott stated that overall gear loss was decreasing over recent years due to changes in fishing practices. Members



noted that the average weight for longline was 7.5kg but this needed to be looked at in context as some areas the average was 10-15kg and others were 3- 4kg. Mr Scott advised that a tagging rate of 2 tags per tonne was achieved with a high percentage of tags put in the northern area of the Fishery.

Members acknowledged that at Macquarie Island there had been no interactions with marine mammals or birds although Mr Scott noted rare instances where porbeagle sharks have been identified as taking fish off lines.

Mr Scott noted that a scientific permit had been granted to trial potting in the MITF however results were not promising as three pot designs had been trailed with limited success.

The Industry observer thanked the AAD staff for conducting the industry consultation meeting the day before, emphasising the high level of co-operation between the two groups.

Heard and McDonald Islands Toothfish Fishery

Agenda item 6 – Stock assessment

Dr Ziegler presented the paper titled *Integrated Stock Assessment for the Heard Island and the McDonald islands Patagonian Toothfish (*Dissostichus eleginoides*) Fishery* (Division 58.5.2). The paper presented an interim report for an updated assessment for the Heard Island and the McDonald islands Patagonian Toothfish (*Dissostichus eleginoides*) Fishery (Division 58.5.2) with data until the start of August 2013.

The meeting noted the assessment was developed in CASAL (C++ Algorithmic Stock Assessment Laboratory) a Bayesian framework developed by scientists in New Zealand that has become the preferred stock assessment framework for CCAMLR.

Dr Ziegler noted that this was an interim report and further refining of the assessment was expected.

SARAG noted that this assessment updates the 2011 stock assessment (Candy and Welsford 2011) with new data from the 2011, 2012 and 2013 fishing seasons up to the start of August 2013, including commercial removals, abundance-at-length estimates from the Random Stratified Trawl Surveys (RSTS; Nowara et al. 2013), and commercial catch-at-length proportions. Components from the 2011 assessment that remained *unchanged* include:

- Commercial catch catch-at-length proportions have been replaced with catch-at-age proportions by applying year-specific age-length keys (ALKs) to fishery-specific length frequency data for proportions from all years from the start of the fishery in 1997 to 2008;
- Abundance-at-length estimates from the annual RSTS have been converted to abundance-at-age estimates by applying year-specific ALKs for all survey years from 2006-2011;
- Haul-level variability in catch-at-length proportions, ALK sampling error, and random ageing error have been incorporated into the calculation of effective sample sizes (ESS) for commercial catch-at-age proportions and the coefficient of variation (CV) of abundance at-age data from RSTS, using the methods described by Candy (2009) and Candy et al.(2009); and



- A value for natural mortality M of 0.155 has been estimated externally to CASAL from catch-at-age and aged tag-recapture data as described in Candy et al. (2011), and used in the 2011 assessment. The method of M estimation was evaluated using simulations by Candy (2011).

Members noted that new features of this assessment include:

- An updated growth model that is used within CASAL to convert age to length data and *vice versa*;
- An evaluation of alternative fishery structures. The fishery structure for use in the assessment models was last evaluated in 2006 and has remained unchanged until 2011. However, the overall fishery has changed substantially since then, with a shift of dominant fishing activity from trawl to longline hauls, the introduction of trap as a new fishing gear, and the exploration of new fishing grounds and depth ranges; and
- An updated distribution of future catches in the projections is updated to reflect the end of commercial trawling in this fishery in 2013/14.

Dr Ziegler advised that compared to the last assessment in 2011 this assessment updated the growth model and compared the effects of a range of alternative Fishery structures on model estimates and projected catch limits that satisfy the CCAMLR decision rules. Re-defining the fishery structure was based on a method by Candy et al. (2013) that suggested a simplification of the longline hauls into two sub fisheries that were depth stratified but not regionally explicit. The meeting discussed the stratification of the shallow/deep longline hauls using alternative depth splits, and Dr Ziegler noted that he would look further at this parameter. Alternative trawl sub-fisheries were also evaluated within the assessment model in different scenarios.

SARAG noted that all evaluated scenarios produced similar patterns and estimates of current status. Across scenarios with YCS estimation B_0 estimates ranged from 89448 -101847 tonnes and SSB status in 2013 ranged from 0.63 -0.69 of B_0 . Ignoring YCS information resulted in an SSB status in 2013 of 0.58. The impact of altering the sub-fishery structure for trawl was relatively small, with similar or slightly lower biomass and mean recruitment estimates. However estimating a shorter time series for YCS by shifting the starting year of the assessment from 1983 to 1990 caused reductions in the estimated B_0 and the projected long term yield that satisfies the CCAMLR decision rules.

SARAG discussed Figure 6. in the paper that describes the likelihood profiles ($-2 \log -$ likelihood) across a range of B_0 values for scenario 2.1. The meeting noted that lines from individual data sets showed minima at different levels of B_0 , indicating inconsistencies of how the model fitted to different data sets.

Members noted that there was not much distinction in the data to separate quite a large biomass range of possible B_0 estimates. Dr Welsford noted that this result could be caused by the conundrum that when a fishery was managed well you may not see a signal from the fishery in the stock, especially for a long-lived species like toothfish. The objective is to not overexploit the stock which is what could have been achieved here, however it could also mean that there is very little information to determine what the upper end of what the biomass estimate might be. Dr Ziegler noted that the biomass estimates appeared to be in about the right range but stressed that this was an interim report and further work was needed.



Dr Hillary noted that the introduction of tagging data at some time in the future would assist in getting a better idea of the absolute biomass estimates. Dr Welsford noted that this model still needed work and that the future work plan included exploration of alternative assessment models that could deal well with tagging data and the spatial structure of the fishery, while the current approach of using a number of fishing selectivities was a proxy to represent a spatially-structure fishery in a non-spatial model. A model that represented space and movement and the different fleet dynamics across the plateau would be the ideal solution. Dr Haddon noted that in the last week of November CSIRO was hosting a group of stock assessment scientists from New Zealand and that the AAD scientists would be invited to that meeting.

The RAG noted that the priorities for further refinement were:

- Exploring the depth splits noting Dr Hillary's comments that the model fits to data from shallow water needed to be further explored as there was a indication of a possible mis-specified selectivity.
- Exploring the survey information and catch at age and catch at length data from the commercial Fishery.

The RAG noted that further work would be undertaken in the following weeks and that AFMA would organise a phone hook-up to discuss the assessment before it was submitted to CCAMLR on 23 September 2013.

Icefish Assessment

Dr Welsford presented the Heard Island and McDonald Islands Mackerel Icefish assessment. The paper provided a preliminary assessment of Mackerel Icefish population structure, abundance and yield for the area of Division 58.5.2 to the west of 79° 20' E using standard CCAMLR methods. SARAG noted that the species grow very fast and the population size can fluctuate strongly from year to year as the fish are very short lived (maximum age is about 6 years around HIMI). Members noted that Mackerel Icefish are also difficult to age so conventional stock assessments using aging information are not appropriate. Therefore, the RSTS is conducted to estimate the biomass of the standing stock and then project the year classes present in that standing stock are then projected forward for two years to estimated the TAC. The decision rule defines a TAC that allows 75% escapement of biomass that would have been there in the absence of fishing. Uncertainty is incorporated by using the lower 95 percentile of the biomass estimate in the projection which leads to quite a conservative approach. It was noted that work done last year indicates that using the 95 confidence percentile approach accounts for large uncertainties in growth and mortality rates.

It was noted that the annual Random Stratified Trawl Survey was undertaken in Division 58.5.2 in the vicinity of Heard Island during April 2013. The 2013 survey indicates that a large number of individuals have recruited to the 3+ cohort in Division 58.5.2, and are sufficiently abundant to support a fishery in 2013/14. There is limited evidence that large, older fish in the 4+ and 5+ cohorts persisted in the 2013 survey, despite several million individuals were estimated to be present in the 3+ and 4+ cohorts in the 2012 survey. It therefore appears that the population regime of a single abundant cohort dominating the population in 58.5.2 may have returned in 2013. This result further highlights the unusual stock recruitment relationship



in this population in previous years and the value of investigating the intrinsic and extrinsic factors that may reinforce the more common regime as well as those that lead to its apparent breakdown during 2010-2012.

Dr Welsford presented two TAC scenarios to SARAG – the typical two year projection of the population, and a projection accounting for the fact that the abundant 3+ year class is likely to be unavailable beyond 2013/14. Members noted that under scenario 1, estimates of yield indicate that 697 t of icefish could be taken in 2013/14 and 598 t in 2014/15. Under scenario 2, a catch of 1267 t could be taken in 2013/14 (which is less than the aggregate catch in scenario 1 of 1335 t), with the expectation that there will be no commercial fishery in 2014/15. Allowing this catch to be taken in a single season has the benefit of enabling the Fishery to have access to the abundant 3+ year cohort while it is still present and likely to be absent in the subsequent year. Further, this harvest strategy would reduce potential impacts on the current 1+ and 2+ cohorts, which appear insufficiently abundant to support the 598 t of catch estimate under scenario 1 in 2014/15. This is shown in the results of the projections of 1+ and 2+ cohorts in scenario 2, where the catch that satisfies the decision rules are only 74 tonnes in the 2014/15, below the 100 tonne threshold for commercial fishing to take place.

SARAG agreed that the paper presented at CCAMLR would recommend a catch limit in 2013/14 of 1267 t, and no commercial catch limit be set for 2014/15 unless a new survey indicates that the current 1+ or 2+ are sufficiently abundant to support commercial fishing.

The meeting noted that this strategy (taking a larger catch in the first year and none in the following) has been used in the past and was last implemented in 2010.

Agenda item 6.1 – Random Stratified Trawl Survey (RSTS)

SARAG noted that the current year was scheduled to be last RSTS undertaken by the Southern Champion and that industry were looking at moving to a biennial RSTS with the phasing out of the RSTS completely by 2020. However, industry noted that if CCAMLR agreed to the recommended Mackerel Icefish TAC of 1,267 tonnes then the vessel would be used again in 2014 to catch icefish only, and RSTS would be undertaken in May 2014 while the vessel was in the Fishery. Industry stated that this strategy would also put the Australian survey timing in line with the French who plans to undertake their Kerguelen Plateau survey in 2014. Industry noted that discussions were ongoing with the French industry about the prospect of a joint Plateau-wide survey. Dr Welsford noted that co-operation between industry groups from both countries would be helpful for any future government to government agreements.

Macquarie Island Toothfish Fishery

Agenda item 7 – Stock assessment and MSE update

Dr Hillary noted that the Macquarie Island Toothfish Fishery stock assessment would be delivered in March 2014 as planned. The Management Strategy Evaluation (MSE) work was also on track and would specifically look at tag mortality and tag loss and ascertain how they are affecting the model. Members noted that the issue relating to the spatial structure of the Fishery would also be investigated.

Industry noted that the Fishery was still data poor in the north of the Fishery and as a result industry had tried to release more tags in that region. However, due to the rough nature of the bottom this had not been completely achievable. Industry also noted that a degree of flexibility



had allowed a shift in where the total allowable catch was taken. SARAG noted that this flexibility was welcomed by industry.

Agenda item 8 – Approved fishing methods

Members noted that currently Macquarie Island Toothfish Fishery Direction No. 1 of 2011 prohibits the use of fishing methods other than trawling or longlining.

A similar Direction applied in the Heard Island and McDonald Islands (HIMI) Fishery. When that Direction expired on 25 November 2010 it was not renewed, so there are currently no restrictions on fishing method. Currently trawling, longlining and potting fishing methods are used in the HIMI Fishery.

SARAG discussed the proposal to revoke the MITF Direction that would bring the arrangement into line with those in the HIMI Fishery. This would allow potting to also be conducted in the MITF without the need for a scientific permit.

Members agreed that this issue would be more appropriately discussed at the next SouthMAC meeting but expressed concerns regarding completely removing all restrictions on fishing method in the MITF. Members expressed a need for appropriate data collection first before any other methods such as trotline are allowed.

Research

Agenda item 9 – Research issues

SARAG discussed the status of current research projects and possible future research.

SARAG noted that the project, 'Developing robust assessment methods for spatially complex, multi-jurisdictional toothfish fisheries in the Southern Ocean' has received Fisheries Research and Development Corporation (FRDC) funding over 3 years commencing on 1 July 2013. The project has secured funding from a number of sources including industry (\$165,000) and the Institute for Marine and Antarctic Studies (IMAS) (\$270,000). The FRDC component being granted is \$187,000.

Dr Welsford noted that the project was administered by IMAS however he was the Principle Investigator (PI). SARAG noted that AAD will have day to day oversight of the project and a steering committee involving AAD, IMAS and CSIRO would oversee the whole project. The project is designed to investigate Australian and French data and to develop a modelling approach that captures the fleet dynamics, the spatial structure and the biology of the fishery on the entire Kerguelen Plateau. Dr Welsford also noted that a full data sharing agreement had been negotiated with the Muséum National d'Histoire Naturelle (MNHN) in France to assist the project. Members noted that further funds had been provided by industry to age a large number of otoliths that have been collected. This extra work has been incorporated into the project as a variation increasing the duration of the project to 4 years. The FRDC Board is expected to make a decision on the variation in the coming weeks.

Members noted that the RSTS costs around \$600,000 annually however the cost of moving to a chartered vessel such as that used by the French would be in the vicinity of \$1.5 million Euros. Members noted that by conducting the RSTS every second year the overall costs would be about the same or slightly higher than for the current annual surveys. Mr Exel stated that by moving to a RSTS every second year and including the extra aging work industry were meeting the requirements of the FAP. He further noted that the FAP allows the recognition of



credits and debits and that this needs to be registered in some way so as to avoid the problem in 5 years time when the RSTS is phased out. Mr Scott noted that this may be the time to have a discussion with AFMA about the future of the RSTS and the FAP. Dr Welsford noted that the FAP should be a document that clearly states the contributions that industry needs to make and that it should be adaptive depending on the needs of the Fishery.

Action Arising 8 - AFMA to work with AAD to develop a FAP structure that represents the need of the fishery into the future.

SARAG noted that the CSIRO project 'Stock assessment and management strategy evaluation for sub-Antarctic fisheries (1 April 2013 to 21 March 2015)' to enable the ongoing stock assessment work at Macquarie Island has received continued funding. This project is funded 80% by industry through the levy base and 20% by Government.

Agenda item 10 – Benthic impacts research project

SARAG noted the update from AAD on the project titled "Demersal fishing interactions with marine benthos in the Australian EEZ of the Southern Ocean: an assessment of the vulnerability of benthic habitats to impact by demersal gear".

SARAG noted that draft final report has been finalised. Two external reviewers, chosen because of their expertise in the field, have evaluated the report and provided feedback. The general comments were very positive although there were some issues raised regarding the importance of Marine Protected Areas and a desire to see better alignment with the processes that CCAMLR has developed.

A full draft report will be provided to the Fisheries Research and Development Corporation (FRDC) later next month.

SARAG noted that the intention is to send the report for printing in October and release it after CCAMLR.

Environment

Agenda item 11 – Review of environmental interactions and gear loss

SARAG noted that no seabirds had been killed in the MITF as a result of an interaction with the fishing gear this season. However, in the HIMIF there have been four seabird interactions (two deaths) since the last SARAG meeting.

In July 2013, a Cape petrel was enmeshed in the trawl net on setting on the 'Southern Champion'

In August 2013, a southern giant petrel was found dead on the foredeck after colliding with the longline vessel 'Isla Eden'.

In August 2013, there were two seabirds interactions with longline operations:

- a cape petrel flew into the wheel house on the vessel 'Isla Eden' - the bird was released alive the following day; and
- a Southern Giant petrel crossed the brickle curtain on the vessel the 'Austral Leader 2' whilst the gear was being hauled and the bird was hooked in the lower leg – the hook was removed and the injury was described as minor.



Members noted that there were six interactions with seals resulting in deaths in the HIMI Fishery since the last meeting. Five southern elephant seals died on the vessel 'Isla Eden' after becoming entangled in the mainline in longline operations in June and August 2013. In May 2013, a southern elephant seal also died after becoming entangled in the mainline in longline operations on the vessel 'Austral Leader 2'. SARAG noted that industry was working hard to ensure that these incidents are not repeated. Mr Arangio advised that Austral Fisheries P/L were looking at the reasons why there was a sudden increase in interactions but suggested that it may be the result of fishing on new grounds and in shallower waters. Industry stated that they will be seeking advice from Dr Mark Hindell on the possible reasons for the interactions with the seals.

Members also noted that the gear loss at Macquarie Island and Heard Island and McDonald Islands had significantly decreased compared to the previous season.

Other

Agenda item 12 – Other business

SARAG discussed a number of 'other business' items.

12.1 Daylight setting trial in the HIMI Fishery

SARAG noted that in the HIMI Fishery a trial is underway to determine whether the ban on daylight setting during the period 15 – 30 April can be lifted. The trial aims to get seabird abundance data during that period during daylight setting operations. Members noted that the trial has run for two years but insufficient data has been collected to allow for analysis, so Australia will be proposing to CCAMLR a further extension of two years to enable more data to be collected.

12.2 Longline season extension in the HIMI Fishery

Industry stated that they would be seeking extensions to the current longline season in the HIMI Fishery to maximise the catch of toothfish taken in longline operations. A meeting held at AAD in February 2013 agreed that a proposal would be taken to CCAMLR to seek two extension periods at either end of the current season extensions. The proposed extensions are 1 – 14 April and 1 – 14 November.

SARAG noted that if the extension periods are adopted the longline season would be: 1 May to 14 September as the 'core' season with season extensions of 1 – 30 April and 15 September – 14 November. Members noted that access to the season extensions would be subject to full compliance with CCAMLR Conservation Measures in the previous season and the existing three seabird catch limit per vessel would apply for the entire extension periods.

12.3 MSC certification update

Mr Exel provided an update following the annual reviews of the sub-Antarctic fisheries by the Marine Stewardship Council (MSC) certifiers in June 2013. Members noted that the Fishery passed the first annual review with the only issue raised being the delay in the completion of benthic impact research.

Members further noted that MSC was underway for the Falkland Islands and public comments had been received on the French Kerguelen plateau MSC. Industry advised that the Australian certifiers had given feedback to the French certifier's regarding the rigour of the assessment.

12.4 – Threat abatement plan for seabirds



Members noted that the 'Threat Abatement Plan 2006' for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations' is being reviewed and comments sought on a consultation paper.

The AFMA member stated that AFMA intends to make a submission and comments are sought by 13 September 2013. The public comment period closes on 31 October.

Industry members stated that they do not believe the sub-Antarctic fisheries should be included in the TAP noting that sub-Antarctic fisheries are bound by conservation measures under CCAMLR which are more stringent than the TAP requirements.

Agenda item 13 – Next meeting

SARAG agreed to hold a teleconference in September to discuss the HIMI Fishery TAC recommendations.

The meeting closed at 2.30 pm.

Actions arising from SARAG 47

Item	Action arising	Action person
1	Peter Neave - Professor Buckeridge and Dr Haddon to write letter of thanks to Mr Peter Neave.	Chair
2	HIMI Fishery Research - Dr Welsford to test through MSE the potential effects on the HIMI Fishery stock assessments of moving the RSTS to every other year and an indication of the timing to undertake the work.	AAD
3	HIMI Fishery Research - Dr Welsford to provide an outline of how the overcatch/undercatch issue could be addressed under MSE and an indication of the timing required to undertake the work.	AAD
4	MSE – Natural mortality and sensitivity and movement and tagging evaluations to be provided for the MITF assessment by September 2013.	CSIRO
5	Benthic impacts research project – Dr Welsford to keep FRDC and SARAG up to date on project.	AAD
6	Electronic monitoring – AFMA to keep SARAG informed on the request for Proposal process.	AFMA
7	Toothfish Tagging – AFMA to write to New Zealand again providing publicly available tagging information and requesting similar information.	AFMA
8	Fisheries Assessment Plan - AFMA to work with AAD to develop a FAP structure that represents the need of the Fishery into the future.	AFMA/AAD

