



Australian Government
Australian Fisheries Management Authority



**Sub-
Antarctic
Resource
Assessment Group
(SARAG)**

FINAL MINUTES
SARAG 53

9 FEBRUARY 2016

SUB- ANTARCTIC RESOURCE ASSESSMENT GROUP (SARAG)

CHAIR: Professor John Buckeridge

Date: 9 February 2016

Venue: Australian Antarctic Division, Channel Highway, Kingston

Attendance

Members

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

Observers

Dr Heather Patterson, ABARES
Dr Jemery Day, CSIRO
Mr Peter Neville, SouthMAC Chair
Mr Malcolm McNeil, Industry
Mr Rhys Arangio, Industry
Mr Peter Yates, AAD
Mr Jim Dell, AAD

Introduction

Agenda item 1 - Preliminaries

The 53rd meeting of the Sub-Antarctic Resource Assessment Group (SARAG 53) was opened at 9:05 am on 9 February 2016 by the Chair, Prof John Buckeridge. Members welcomed Mr Peter Neville, Mr Malcolm McNeill, Mr Rhys Arangio, Mr Peter Yates and Mr Jim Dell as observers to the meeting.

1.1 Declaration of interests

Professor Buckeridge asked members and observers to declare their professions and any potential conflicts of interest on specific agenda items.

Professor Buckeridge advised that he is the chair of the Southern and Eastern Scalefish and Shark Fishery Resource Assessment Group (AFMA) and is a Professor of Natural Resources Engineering at RMIT University; he has no pecuniary interest in the sub-Antarctic fisheries.

Mr Exel 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 Director of the Institute of Marine and Antarctic Studies, Member 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.

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 Southern and Eastern Scalefish and Shark Fishery Resource Assessment Group. Dr Haddon advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Dr Hillary advised that he is employed by CSIRO and is the Principal Investigator of the MITF stock assessment project. He also advised that he is a member of AFMA's Southern Bluefin Tuna Management Advisory Committee (SBTMAC) and Tropical Tuna RAG. Dr Hillary advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Dr Welsford advised that he is employed by the Australian Antarctic Division (AAD) and is 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 Welsford further declared that staff at the AAD had purchased Austral fisheries Pty Ltd product through the AAD social club at Christmas.

Dr Ziegler advised that he is employed by AAD and is involved in the Heard Island and McDonald Islands (HIMI stock) assessment. Dr Ziegler has no pecuniary interest in the sub-Antarctic and his salary is not connected to any research grants noting that he is a co-investigator on a FRDC project.

Ms Fisher advised she is employed by the Australian Fisheries Management Authority (AFMA) and is currently acting Manager for sub-Antarctic fisheries at AFMA. Ms Fisher advised she has no pecuniary interests in the sub-Antarctic fisheries. AFMA declared that staff at AFMA had also purchased Austral fisheries Pty Ltd product through the AFMA social club at Christmas.

Ms Kirkcaldie advised she is employed by AFMA and advised that she is the Executive Officer for SouthMAC and the SBTMAC. Ms Kirkcaldie advised that she has no pecuniary interests in the sub-Antarctic fisheries.

Dr Patterson advised she is an employee of the Department of Agriculture and Water Resources and one of the authors of the Australian Bureau of Agricultural Resource Economics and Sciences (ABARES) Fishery Status Reports. Dr Patterson noted that she had no pecuniary interest in the sub-Antarctic fisheries.

Dr Day advised he is a CSIRO employee and was undertaking work on the MITF stock assessment. Dr Day advised that he has no pecuniary interests in the sub-Antarctic fisheries.

Mr McNeill advised he was attending the meeting as an observer and is the CEO of Australian Longline P/L which holds various fishing rights in, and operates vessels in the sub-Antarctic fisheries and waters under the jurisdiction of CCAMLR. Mr McNeill also declared he is a member on Slope Resource Assessment Group as well as the vice Chair of COLTO. Mr



McNeill 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 Neville declared that he was the Principal of a fisheries consulting business (P.J.Neville & Associates) but had no pecuniary interest in the sub-Antarctic fisheries.

1.2 Apologies

No apologies were received.

1.3 Agenda

Members agreed that the following agenda items should be added to the agenda:

- 5b. ABARES status report;
- 6b. CASAL assessment model; and
- Other Business
 - Undercatch/overcatch
 - 25.5% quota holdings to trawl
 - Coalition of Legal Toothfish Operators (COLTO) whale depredation workshop
 - Austral skippers meeting.

The agenda was adopted with amendments.

Agenda item 2 – Adoption of minutes from SARAG 52

Members noted that the minutes from SARAG 52 were circulated to members on 6 October 2015. Comments were received from Philippe Zielgler, Heather Patterson and Rhys Arangio. The comments were incorporated and SARAG noted the final minutes from SARAG 52 held in Hobart on 8 September 2015 as a true and accurate account of the discussions from that meeting.



Agenda item 3 – Actions arising from SARAG 52

SARAG discussed the status of action arising items from SARAG 52.

Actions arising from SARAG 52

Item	Action arising	Status
1	Research contribution (from SARAG 50) - AFMA to provide information on other fisheries and the comparison of Gross Value of Production and research contribution	The AFMA member noted that for AFMA to get an accurate figure would take considerable time to calculate. Industry advised that they had calculated using their own figures and had provided the information to senate enquiry into the Southern ocean and agreed to provide their submission to SARAG (Action arising 1)
2	Gear configuration for Mackerel Icefish – Industry and AAD to set up a plan on what data is required to do a comparison between the current gear requirements and any new configuration they wish to trial.	SARAG noted that industry and AAD had not discussed this as industry is currently not trialling new gear. It was agreed that this action arising should be removed until industry wanted to do a trial.
3	MITF Stock assessment - AAD to provide MITF data to CSIRO by the end of October 2015	SARAG noted that AAD provided the data to CSIRO. Industry advised that the stock assessment was not delivered before Christmas as initially expected.



		Members noted that there had been some resourcing issues, allocation of staff problems, the data arrived later than expected and the stock assessment had changed to a two year assessment. It was agreed that the next stock assessment would only include 2016 data and therefore the stock assessment would be completed by 1 June 2017 to be discussed well before the start of the 2018/19 season on 15 April 2018.
4	Unicorn icefish - AAD to provide SARAG with the Unicorn icefish paper that will be submitted to WG-FSA.	Members noted that this action was completed with AAD providing the Unicorn icefish paper to SARAG members on 21 September 2015.
5	Random Stratified Trawl Survey (RSTS) - AAD to do an analysis of the impact of doing a biennially RSTS.	Members noted that doing an analysis was currently not in the workplan but could be added. Industry questioned whether the RSTS was still relevant given the move to a tag based stock assessment. It was agreed that AAD and Industry



		would discuss the requirements of future RSTS (Action arising 2)
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Action arising 1: Industry to provide submission to senate enquiry to members

Action arising 2: AAD and Industry to discuss the future requirements of the RSTS

Agenda item 4 – Correspondence

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

- An email dated 17 September 2015 from Sarah Kirkcaldie regarding the call for expressions of interest to market test the AFMA Scientific Observer Program;
- An email dated 6 October 2015 from Sarah Kirkcaldie seeking individual comments on the various research expressions of interests for FRDC funding in 2016-17;
- An email dated 6 October 2015 from Sarah Kirkcaldie seeking comments on the draft SARAG 52 minutes;
- An email dated 18 November 2015 from Sarah Kirkcaldie seeking applications for Chairpersons of various Management Advisory Committees and Resource Assessment Groups;
- An email dated 30 November 2015 from Sarah Kirkcaldie attaching a letter from Nick Rayns to John Buckeridge regarding the AFMA Commission’s request for RAGs to now complete a RAG self-assessment;
- An email dated 14 January 2016 from Sarah Kirkcaldie seeking members for the Commonwealth Fisheries Marine Mammal Group;
- An email dated 19 January 2016 from Sarah Kirkcaldie seeking comments on the draft SARAG 53 agenda; and
- An email dated 21 January 2016 from Sarah Kirkcaldie attaching a letter from Beth Gibson, AFMA Policy, Environment, Economics and Research section, regarding AFMA reviewing its undercatch and overcatch provisions.

Members noted that on 4 February 2016, Sarah Kirkcaldie forwarded an email from AFMA seeking applications for member positions on SARAG. AFMA stated that expressions of interest need to be submitted to AFMA before close of business 3 March 2016.

Members noted that on 8 February 2016, Sarah Kirkcaldie sent an email explaining that AFMA has been participating in a project to develop national guidelines for the quality assurance of fisheries research and science information. This national level FRDC funded project is being led by Andrew Penney (Pisces Australis Ltd) and other co-investigators including QLD DAFF, PIRSA-SARDI, NT DPIF, CSIRO and ABARES.



Members noted that the intent of the project is to develop guidelines (or a non-mandatory standard) that participating agencies can implement to ensure that the quality of fisheries research and scientific information being used to inform fisheries management decisions is of the high standard, thus reducing the risk of poor management decisions being made. Members noted that individual MAC member comments are due 24 February 2016. Dr Haddon noted that he had already provided comments and noted that there was no mention in the information provided how to resource any actions arising from the project.

Agenda item 5 - Fishing operations update

SARAG noted the verbal report from Mr McNeill on fishing operations in sub-Antarctic waters. Mr McNeill noted that Australian Longline Pty Ltd had purchased a new vessel, *Antarctic Discovery* which has been given a major re-fit. The *Antarctic Discovery* was due to go and fish in the New and Exploratory Ross Sea Fishery but mechanical issues prevented it leaving on time and then the ice melted sooner than expected and all the fish were caught early by other countries. The *Antarctic Discovery* instead was currently fishing in 58.4.1 and 58.4.2 and was undertaking its research requirements. Members noted that there had not been a lot of gear loss as there was not a lot of ice. Mr McNeill noted that some tags had been recovered but the data was not available yet. Dr Welsford stated that tag returns are very important as an assessment has not been done for these areas yet with about 15,000 tags deployed and only 7 recovered. Mr McNeill noted that the *Antarctic Discovery* was currently trialling camera's between 500-2000m. AAD thanked Australian Longline Pty Ltd for delaying departure so that the camera's could be installed. Mr McNeill stated that both species of toothfish were currently being caught.

Once it returns from the CCAMLR New and Exploratory fisheries the *Antarctic Discovery* will then get prepared to go to the MITF. The Company's other vessel *Antarctic Chieftain* will fish in HIMIF in the 2015/16 season. The *Antarctic Discovery* will fish in the Ross Sea if granted access in 2016/17.

Mr McNeill said that catches had been low in the Macquarie Island Toothfish Fishery in the 2014/15 season and that the company was not sure why. Mr McNeill acknowledged the gear loss was higher than previous seasons and explained this was probably a reflection of attempts to catch the quota.

SARAG noted the verbal report from Mr Arangio, Austral Fisheries Pty Ltd, regarding their fishing operations in sub-Antarctic waters. Mr Arangio noted that the *Isla Eden*, the *Corinthian Bay* and the *Austral Leader 2* were currently in port in Mauritius. The *Atlas Cove* was chartered by the French to fish for Mackerel Icefish (October-December 2015) and was due to have a re-fit to improve the factory floor in January. The *Atlas Cove* was expected to depart for HIMIF to fish for icefish and compete the RSTS mid-March with the aim to be longlining on 1 April 2016. The *Corinthian Bay* and *Isla Eden* are due to depart for the HIMIF around 20 March to begin longlining. Members noted that Austral Fisheries Pty Ltd was looking to sell the *Austral Leader 2* but agreed that any AAD gear would be removed before it is sold.

Agenda item 5b – ABARES status report

Dr Patterson thanked members for the comments and photos provided for the 2015 ABARES Fishery Status Reports and noted that hard copies of the final report had been distributed but



ABARES could provide more if requested. Members noted that ABARES had begun drafting the 2016 status reports and that a new exploratory fishing chapter would be included to reflect Australian fishing activity in CCAMLR Exploratory Fisheries in 2014/15. The 2016 status report is due for release in September/October 2016.

Macquarie Island Toothfish Fishery

Mr Exel, Mr Scott, Mr McNeill and Mr Arangio declared their interests under Agenda Items 6-11, and left the room. The remaining members of SARAG agreed that Mr Exel, Mr Scott, Mr McNeill and Mr Arangio should be allowed to return for all discussions under Agenda item 6-11 but should not be present for recommendations.

Agenda item 6 – Stock assessment and MSE update

SARAG discussed the CSIRO prepared 2016 'Stock Assessment of the Macquarie Island fishery for Patagonian Toothfish (*Dissostichus eleginoides*) using data up to and including August 2015'.

SARAG noted that the stock assessment included data up to and including August 2015, including the 2015 ageing data. Members noted that the status of the Fishery was similar to last year with the stock at about 67% of B_0 with similar trends in recruitment. Members further noted that there were considerable revisions to the tag recapture history with the exclusion of fish recaptured after less than 180 days of release. This was to avoid release and recapture in the same season. Previously the figure was only 10 days. Members noted that the rates of tag loss and tag mortality are assumed to be zero.

Dr Day advised that the estimate of male growth had been influenced by the new data and that it now appeared unrealistic. Members noted that Dr Rich Hillary will be presenting a paper on modelling the growth of Macquarie Island Toothfish under agenda item 7 but the current estimates of length did not have any significant impact on the stock assessment but needed to be improved in the future. Members noted that CSIRO are considering fixing L_∞ in the next assessment as there appears to be little information in the data to enable this parameter to be estimated at a biologically realistic value.

Dr Day noted that there appears to be more fish movement from south to north in the Fishery, although it was acknowledged that effort in the north had been low indicating that there must be some movement from south to north for any south tagged fish to be caught in the north. Members noted that in future it would be beneficial to have spatial distribution of catch as there is still considerable uncertainty about movement of fish between these two areas. CSIRO agreed to check with industry if they were happy for spatial distribution including depth in different sectors to be shown at a future SARAG meeting (**Action arising 3**).

SARAG agreed that it is important to maintain fishing across the entire fishery and recommended a TAC of 450 tonnes for the 2016/17 season and 450 tonnes for the 2017/18 season, to be taken in approximately the following proportions: 250 tonnes from the Aurora Trough, 80 tonnes in the Southern Macquarie Ridge and 120 tonnes in the Northern



Macquarie Ridge. CSIRO recommended attempting to take more fish in the north this season as the northern area is estimated to contain larger stock size than in the south.

SARAG noted that the distribution of catches was a voluntary agreement with Industry and the members appreciated Industry's efforts to abide by the agreement.

Members noted that Industry had requested to have the next stock assessment for the 2018/19 and 2019/20 seasons completed as early as possible.

Members thanked CSIRO for completing the MITF stock assessment and noted that the final stock assessment paper, incorporating minor edits, would be circulated in the coming weeks (**Action arising 4**).

Action arising 3: CSIRO to confirm with Industry if they are happy for spatial information to be shown at a future SARAG meeting.

Action arising 4: CSIRO to provide AFMA with an updated MITF stock assessment, for circulation to members.

Agenda item 7 – Growth modelling in the stock assessment

Dr Rich Hillary presented the paper titled 'Age-at-length or length-at-age for modelling the growth of Macquarie Island toothfish'. Members noted that traditional methods for modelling growth have focussed on length-at-age measurements but more recently there has been a shift to modelling using age-at-length. Length-at-age assumes length is random for a given age and age is known without error. This has drawbacks as age is not known without error and there is length selectivity. SARAG noted that generally female Patagonian Toothfish are larger than males. Members noted that age-at-length assumes age is random within each length bin. SARAG noted that the paper explored both approaches to modelling growth, compared and contrasted the estimates using previous growth modelling work for this stock and constructed a novel age-at-length approach that can be undertaken outside of the assessment framework. Dr Hillary explained that overall, the length-at-age and the conditional age-at-length approaches appear to give generally consistent and precise estimates of growth. Dr Hillary noted that at this stage L_{∞} should be fixed for males. The paper identified future research required but noted that currently it did not have any significant impact on the stock assessment.

SARAG thanked Dr Hillary for the paper and presentation.

Agenda item 8 – Long term research

At SARAG 51, members agreed that the MITF assessment should move to a biennial cycle. This proposal was supported by SouthMAC and agreed to by the AFMA Commission. As such, there will be years when a stock assessment will not be completed for the MITF. CSIRO has requested that SARAG discuss any longer term or strategic research that could be undertaken in the years when an assessment is not completed. Members discussed moving to a tag based assessment model like the CCAMLR approved CASAL. Members discussed the benefits of comparing the current stock assessment model with the CASAL model noting that a new version of CASAL was due out in May 2016. Members noted that if there was a choice it would be better to develop a new Toothfish stock assessment model. AAD and CSIRO agreed to discuss the development of a Toothfish stock assessment model



and evaluate the cost/benefits (**Actions arising 5**). Industry expressed concern about developing a new model when CASAL is approved by CCAMLR.

As discussed under Action Arising, SARAG agreed that the next MITF stock assessment would include fishing data from 2016 but not from 2017. In the past, due to limited staff availability at CSIRO, the delivery of the stock assessment has not always allowed industry sufficient time to plan and prepare for upcoming season. SARAG agreed that the inclusion of only 2016 fishing data would allow the assessment, and delivery of TAC scenarios for the 2018/19 and 2019/20 fishing seasons, to be completed by 1 June 2017. The AFMA member noted that with the revised stock assessment completion date an expression of interest for the MITF stock assessment for 2018/19 and 2019/20 will need to go to the Australian Research Fund by March 2016 and will need to be considered by SARAG out-of-session.

Action arising 5: CSIRO and AAD to discuss and develop a scoping paper of the cost/benefits of developing a new Toothfish stock assessment model.

Agenda item 9 – Fishery Assessment Plan

Members noted that the Fishery Assessment Plan (FAP) is a requirement of the *Macquarie Island Toothfish Fishery Management Plan 2006*. SARAG noted the draft FAP proposed a tagging rate of two toothfish per tonne caught at Macquarie Island in the 2015/16 season. Members agreed to finalise the FAP with minor editorial amendments and make it a two year FAP, given the new two-yearly TAC setting cycle. The FAP will be finalised and circulated to members once the AFMA Commission has agreed to the MITF 2016/17 TAC (**Action arising 6**).

Action arising 6: AFMA to circulate final MITF FAP to members.

Agenda item 10 – Benthic impacts project

Members noted that in 2006, AAD were funded by the Fisheries Research and Development Corporation to look at the benthic impacts of bottom fishing gear in the HIMI Fishery. A key innovation of this project was the development and use of portable cameras on the fishing gear to indicate potential impacts.

At SARAG 52, members noted the HIMI Benthic impacts study was expected to have been applied to the MITF by June 2015, to meet conditions of the Marine Stewardship Council's accreditation of the MITF. The MITF study was to inform and undertake an Ecological Risk Assessment (ERA), however it did not occur. SARAG 52 noted that AAD was preparing a contract where they would undertake an industry funded project using the expertise, knowledge and details from the HIMI benthic impact study to assess benthic impacts at Macquarie Island. At SARAG 53, AAD presented the findings from the current research which showed that the Macquarie Island MPA protects about 40% of taxa and that the benthic impact is similar at MITF to that at HIMIF.

AAD agreed to provide a brief summary of the findings to SARAG (**Action arising 7**)

SARAG thanks AAD for the presentation and noted that the fishery was on-track for the next Marine Stewardship Council review.



Action arising 7: AAD to provide a summary of findings of the benthic impacts at MITF.

Agenda item 11 – Extension to longline fishing period

Members noted that at SARAG meetings in November 2014 and February 2015, industry requested that the MITF longline fishing season be extended to include the period 15-30 April. At these meetings SARAG noted that there were no scientific implications for the stock assessment by starting the season earlier but that any amendment to the longline fishing period would require consultation with the Threat Abatement Plan for seabirds team at the Australian Antarctic Division (AAD). AAD agreed that it is unlikely that the extension would pose any additional risks to seabirds at Macquarie Island. A trial of two weeks season extension was supported by SARAG, SouthMAC and the AFMA Commission and 244,390 hooks were set in 15-30 April 2015 and no seabirds were caught.

Members noted that daytime setting is not permitted in the MITF and fishing for a boat must cease immediately for the remainder of the season if any of the following birds are caught and killed:

- Wandering albatross
- Black-browed albatross
- Grey Headed albatross
- Grey Petrel: or
- Soft-plumaged petrel

Members further noted that the *2014 Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations* requires that AFMA implement an appropriate management response for bycatch incidents where more than one seabird is killed on a single trip by an individual longline fishing vessel. Members noted that the TAP team supported a permanent extension of the longline season given the other conditions imposed on operators.

SARAG agreed that the MITF longline season should be permanently changed to include the period 15-30 April each year.

Heard Island and McDonalds Islands Toothfish Fishery

Mr Exel, Mr Scott, Mr McNeill and Mr Arangio declared their interests under Agenda Items 12-17, and left the room. The remaining members of SARAG agreed that Mr Exel, Mr Scott, Mr McNeill and Mr Arangio should be allowed to return for all discussions under Agenda items 12-17 but should not be present for recommendations.

Agenda item 12 – Season extension

SARAG noted that based on the requirements of CCAMLR Conservation Measures, AFMA has granted access to the HIMI season extension periods to the following vessels:



Vessel	1 to 30 April 2016	15 September to 30 November 2016
Atlas Cove	✓	✓
Isla Eden	✓	✓
Austral Leader II	✓	✓
Corinthian Bay	✓	✓
Antarctic Chieftain	✓	✓
Antarctic Discovery	x	x

The AFMA member explained that access to the season extension periods 1 to 30 April 2017 and 15 September to 30 November 2017 is conditional on that vessel demonstrating full compliance with Conservation Measure 25-02 in the 2015/16 fishing season. Members noted that the fishing vessel *Antarctic Discovery* was new to the HIMI Fishery and had not fished in CCAMLR waters in the previous season, and therefore was not eligible to access the season extensions in 2015/16.

Agenda item 13 – CCAMLR Fisheries Review meetings and science workplan

SARAG noted that no HIMIF Patagonian Toothfish assessment will be conducted in 2016 but other research recommended by CCAMLR will be conducted and AAD will be working on exploratory fisheries research plans. Members noted that a draft of a new science work plan has been circulated to the CCAMLR Fisheries Review Meeting group and AAD are awaiting comments. Members were advised that the next CCAMLR fisheries review meeting had not yet been scheduled. Members noted that AAD would be reconciling the collaborative deed signed last year and acknowledge what has been completed.

Agenda item 14 – Fishery Assessment Plan

SARAG noted that the HIMI Fishery Assessment Plan (FAP) is a requirement of the *Heard Island and McDonald Islands Fishery Management Plan 2002*. The draft 2015/16 FAP was provided for comment and members agreed to aim for a tagging rate of approximately two tags per tonne of toothfish caught in all fishing operations and to remove all the unnecessary information in the FAP and make it a two year FAP. SARAG noted that the draft 2015/16 FAP sets out the timetable for the RSTS. Members noted that the draft 2016 RSTS is the same design as last year and retains the extra stations in Evitas and therefore increases time it takes to complete the RSTS. Industry noted that for operational reasons they may need to complete the RSTS in early- to mid-March this year. Concerns were raised by members that the RSTS has typically been conducted between April-June and doing it earlier could cause data integrity problems for the stock assessment. Industry questioned whether the RSTS needed to be run every year. SARAG agreed that before the next meeting the RSTS program should be reviewed by AAD to outline the impacts of the RSTS becoming biennial.

SARAG noted that the FAP will be finalised and circulated to members out of session (**Action arising 8**).

Action arising 8: AFMA to circulate final HIMI FAP to members.



Agenda item 15 – Lost longline gear

SARAG members noted the summary of gear loss in the sub-Antarctic fisheries over the last five years which indicated a significant increase in gear loss in recent years. Industry members explained that they would be employing a range of mitigation measures in the upcoming season to reduce gear loss including skipper incentives and working with gear technology companies to develop pingers on the lines to help locate the lost lines. Industry noted that they attempted to retrieve lost gear at the end of the season but they had mechanical issues and had to return to port. Industry indicated that they will attempt to retrieve previously lost gear during the 2015/16 season. Members noted that the lost gear doesn't ghost fish (ie continue to catch marine life) but there could be environmental damage from the heavy gear moving across the seabed. Industry stated that they would be discussing line thickness with gear supplier noting there is a compromise between gear thickness and drag in the water causing the gear to break under harmonic strain.

SARAG agreed that lost longline gear should be a RAG agenda item for all upcoming meeting. Members requested that more information be included in the next paper including number of boats, when longline fishing began, number of sets, lost hooks compared to hooks set and also any gear that is recovered.

Agenda item 16 – Electronic monitoring trial

The AFMA member informed SARAG that AFMA was attempting to secure government funding to do an electronic monitoring trial in the sub-Antarctic fisheries. Members were informed that the trial could include species identification under consistent lighting and length measurements in the factory. Industry members raised concerns regarding cost implications and noted it would only be economically efficient if the number of observers required could be reduced to one observer. Industry members noted that there may be benefit to electronic monitoring and Industry indicated a willingness to participate in the trial.

CCAMLR New and Exploratory Fisheries

Agenda item 17 – Consideration of New and Exploratory fisheries issues

SARAG noted that there currently wasn't an appropriate forum for domestic discussions about CCAMLR New and Exploratory fisheries. Members noted that the CCAMLR Consultative Forum (CCF) and the Inter-Departmental Committee (IDC) considers some of Australia's New and Exploratory issues with all applications being considered by these forums to determine whether Australia would endorse them for submission to CCAMLR. SARAG agreed that



scientific issues associated with CCAMLR New and Exploratory fisheries (in particular research plans) should be discussed at SARAG.

Research

Mr Exel, Mr Scott, Mr McNeill and Mr Arangio declared their interests under Agenda Items 18-22, and left the room. The remaining members of SARAG agreed that Mr Exel, Mr Scott, Mr McNeill and Mr Arangio should be allowed to return for all discussions under Agenda items 18-22 but should not be present for recommendations.

Agenda item 18 – Research issues

SARAG noted that the final report for the project ‘Stock assessment and management strategy evaluation for sub-Antarctic fisheries (Macquarie Island Toothfish Fishery) 2015-16’ was due at the end of June 2016. This project provided recommended TACs for the MITF for the 2016/17 and 2017/18 fishing seasons. Members noted that a new expression of interest will need to be submitted to the AFMA Research Fund for the MITF stock assessment for the 2018/19 and 2019/20 fishing seasons, and that given the revised stock assessment timetable discussed at Agenda Item 6 an Expression of Interest for a new stock assessment project will need to be provided to the AFMA Research Committee for consideration at its March 2016 meeting.

Members noted that the project titled ‘Development of robust assessment methods and harvest strategies for spatially complex, multi-jurisdictional toothfish fisheries in the Southern Ocean’ is on-track and that a paper has just been published on modelling habitat distribution using both French and Australian data. Dr Welsford advised that unfortunately Clara Peron had recently resigned to return to France.

The AFMA member stated that in January 2016, AFMA contacted New Zealand about MITF tag recaptures in the New Zealand Toothfish Fishery and were advised that the New Zealand Ministry of primary Industries is not aware of any tag recaptures.

Dr Welsford noted that CCAMLR had requested tagging data and asked SARAG members if they would agree to provide CCAMLR with the numbers of released tags. SARAG supported providing this information as it will provide data on tag movement in CCAMLR.

SARAG noted the status of sub-Antarctic fisheries research issues not discussed by SARAG 53 were included in the AAD document ‘CCAMLR Fisheries Science Work Plan’.

Agenda item 19 – Annual Research statement

Members noted that the Antarctic Fisheries Strategic Research Plan 2014-15 - 2018-19 was finalised following SARAG’s February 2015 meeting. The five year plan provides a framework to assist SARAG and SouthMAC in identifying research that will help achieve management goals for Antarctic fisheries. The AFMA member advised that the Strategic Research Plan needs to be used to draft an annual research statement each year that prioritises research.

At SARAG 51 members agreed that the research needs for the HIMI and CCAMLR New and Exploratory fisheries have been identified in the CCAMLR Fisheries Science Work Plan and



this should be used as the Annual Research Statement for HIMI and CCAMLR New and Exploratory Fisheries. Members agreed that the Science Work Plan should again be attached to the 2017-18 Annual Research Statement for the HIMIF and New and Exploratory fisheries. SARAG agreed that the priority for the MITF in 2017-18 is a new stock assessment for the 2018/19 and 2019/20 seasons.

Agenda item 20 – Joint Australia-France industry research plan

SARAG noted that in April 2015 Australian and French officials gave in-principle agreement to form a group to develop an Australia-French research plan. The group would contain scientists and officials from both countries. Terms of references (ToR) were discussed and drafted at CCAMLR 2015 and Australia is waiting on feedback from the French government on the ToR. AAD noted that there may be a meeting in May/June 2016. Members noted that early in the 2015/16 fishing season, the *Atlas Cove* was going to do the French RSTS but instead was chartered for commercial purposes, with the RSTS being undertaken by a different French boat.

Environment

Agenda item 21 – Review of environmental interactions and gear loss

SARAG noted that there had been seven wildlife interactions recorded that resulted in deaths in the HIMI Fishery since the last SARAG meeting in September 2015. In the 2014/15 HIMI Fishery fishing season 16,139,770 hooks were set with three seabird interaction being killed as a result of interaction with fishing gear and five birds found dead as the result of illness or as a result of hitting the vessel superstructure. Five Southern Elephant seals and one unidentified seal also died as a result of becoming entangled in the backbone of or hooked by the fishing line. Members noted that AAD will present a paper at the next SARAG meeting regarding whale depredation (**Action arising 9**).

Members further noted that in the MITF in the 2014/15 season 953,580 hooks were set with no wildlife interactions. For the current (2015/16) season 1,485,590 hooks have been set with no wildlife deaths.

Members also noted that the gear loss at HIMIF and MITF had significantly increased compared to the previous season. Members noted this issue was discussed under agenda item 15.

Action arising 9: AAD to present whale depredation paper to the next SARAG meeting

Other

Agenda item 22 – Other business

22a. Undercatch/overcatch

SARAG noted that on 21 January 2016 AFMA circulated a discussion paper on AFMA's planned review of its undercatch and overcatch provisions. The AFMA member explained



that the review proposes three overarching options for overcatch and undercatch arrangements:

1. keep the undercatch and overcatch provisions as they are;
2. change the current undercatch and overcatch provisions, including aligning current provisions to one uniform approach; or
3. completely remove undercatch, overcatch percentage and/or overcatch weight determination.

Members noted that at HIMIF and MITF there are no undercatch provisions and the arrangement for overcatch are: <10t overcatch is deducted at 1:1, 10-20 tonnes it is deducted 1:3 and if more than 20 tonnes overcaught is an offence. Members raised concerns with having one system across all Commonwealth fisheries (option 2) and also indicated that discarding may become a concern. Members noted that the current arrangements have no impact on the stock assessment as accurate information on removals is available. SARAG indicated that they would recommend keeping the current arrangements at HIMIF and MITF (option 1).

22b. 25.5% quota holdings to trawl

SARAG noted that prior to 2012 the *Heard Island and McDonald Islands Fishery Management Plan* restricted the Fishery to three boats through a minimum quota holding of 25.5%. With more of the catch being taken with automatic longline the three boat limit became restrictive. The Plan was changed to remove the limit on the number of longline boats, but retain a limit on the number of trawlers through a Determination. This Determination was for three years and meant to be an interim measure until the Ecological Risk Assessment (ERA) was updated. Members noted that this issue was discussed at the SouthMAC teleconference in November 2015 and it was agreed that AFMA and AAD would discuss out-of-session. To allow more time to discuss and consider all the implications of removing the 25.5% minimum quota holding AFMA implemented the Determination for another year. The AAD member noted that Australia does receive criticism in CCAMLR for trawling and the Australian delegation uses the three boat limit amongst other measures to argue against this criticism. Members agreed that there needs to be some discussion on how the benthic impact of trawling is managed if the limit is removed. Members expressed concern that the minimum quota holding would not manage any problem of trawl benthic impact but agreed that the impact needs to be constrained. Members noted that the stock assessment currently requires both trawl and longline data. Members agreed that SARAG should consider management of benthic impact of trawling at HIMI at its next meeting.

22c. COLTO whale depredation workshop

SARAG noted that at the COLTO workshop held in Norway in June 2015 the most popular discussion item was whale depredation. It was agreed that a workshop would be held in mid-March 2016 in Chile. Mr Arangio reported that the workshop had 30 confirmed attendees from every Patagonian Toothfish fishery and also scientists, gear suppliers, technologists and external experts. The aim of the meeting would be to discuss mitigation measures as well as streamline data collection. Members noted that Dr Welsford from AAD had applied to attend and that Mr Arangio and Mr McNeill would be attending from Australia.



22d. Austral skippers meeting

Austral Fisheries Pty Ltd noted that they will be holding a skippers briefing in Mauritius where a number of issues will be discussed including: gear loss, seal catch, RSTS timing and a trial for offal discharge. Mr Exel noted that the company wanted to trial releasing offal in the HIMIF. Members noted that offal is released in other CCAMLR fisheries and the trial would only allow discharge at night, only when steaming (not setting or hauling) and not at the extremes of the season. Industry noted that they were seeking ideas/relevant papers that work in other fisheries (**Action arising 10**). Members noted that some other fisheries use slicks to distract the birds.

Action arising 10: Members to provide Industry with ideas/papers on offal discharge in other fisheries.

Mr Les Scott

Members noted that as Mr Scott would not be re-applying in the upcoming SARAG membership process this was his last meeting as a SARAG member. Members noted that Mr Scott has been a member on SARAG since 1997. Mr Exel articulated for all members the extraordinary contribution that Mr Scott had made as a SARAG member and the significant and valuable input he has had in the management of the sub-Antarctic fisheries. Mr Scott noted that the highlight for him was the introduction of longlining and the considerable work done to minimise bird bycatch. Members agreed that the Chair should write a letter to Mr Scott thanking him for his significant contribution to SARAG and sub-Antarctic fisheries (**Action arising 11**).

Action arising 11: SARAG Chair to write to Mr Les Scott thanking him for his years on SARAG.

Agenda item 23 – Next meeting

SARAG agreed to hold the next meeting on Wednesday 7 September 2016 in Hobart where members will discuss the papers going to WG-FSA. Members noted that there will also be an industry meeting at the same time.

The meeting closed at 5.15 pm.



Actions arising from SARAG 53

Item	Action arising	Responsibility
1	Senate submission - Industry to provide their submission to senate enquiry to members	Industry
2	RSTS - AAD and Industry to discuss the future requirements of the RSTS	AAD/Industry
3	MITF spatial information - CSIRO to confirm with Industry if they are happy for spatial information to be shown at a future SARAG meeting.	CSIRO
4	MITF stock assessment - CSIRO to provide AFMA with an updated MITF stock assessment, for circulation to members.	CSIRO
5	Toothfish model - CSIRO and AAD to discuss a develop a scoping paper of the cost/benefits of developing a new Toothfish stock assessment model.	AAD/CSIRO
6	MITF FAP - AFMA to circulate final MITF FAP to members.	AFMA
7	MITF benthic impact - AAD to provide a summary of findings of the benthic impacts at MITF.	AAD
8	HIMI FAP - AFMA to circulate final HIMI FAP to members.	AFMA
9	Whale depredation - AAD to present whale depredation paper to the next SARAG meeting	AAD
10	Offal discharge - Members to provide Industry with ideas/papers on offal discharge in other fisheries.	Members
11	Les Scott - SARAG Chair to write to Mr Les Scott thanking him for 19 years on SARAG	Chair

