



Australian Government
Australian Fisheries Management Authority



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

**MINUTES
SARAG 52**

8 SEPTEMBER 2015

SUB- ANTARCTIC RESOURCE ASSESSMENT GROUP (SARAG)

CHAIR: Prof John Buckeridge

Date: 8 September 2015

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
Mr Malcolm McNeil, Industry
Mr Rhys Arangio, Industry
Dr Jemery Day, CSIRO
Mr Trent Timmiss, AFMA

Introduction

Agenda item 1 - Preliminaries

The fifty second meeting of the Sub-Antarctic Resource Assessment Group (SARAG 52) was opened at 8:40 am on 8 September 2015 by the Chair, Professor John Buckeridge.

1.1 Declaration of interests

Professor Buckeridge asked members and observers to declare their professions and any interests on specific agenda items.

Professor Buckeridge advised that he is also 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.

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.

Mr Scott advised that he is the Managing Director of Australian Longline P/L which holds various fishing rights in, and operates vessels in the Australian Sub-Antarctic fisheries and waters under the jurisdiction of CCAMLR. Mr Scott further advised he is a member on



SlopeRAG, South East MAC, the Sub-Antarctic demersal longline member on the Threat Abatement Plan for Seabirds, industry representative on the Australian delegation to CCAMLR, director to Commonwealth Fisheries Association (CFA) and Director of South East Trawl Fishing Industry Association (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.

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 a 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 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 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 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 the FRDC grants.

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.

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 one of the authors of the Australian Bureau of Agricultural Resource Economics and Sciences (ABARES) Fishery Status report. 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 further advised he is a member on the Sub-Antarctic Management Advisory Committee. 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.

1.2 Apologies

No apologies were received.

1.3 Agenda

Members agreed that agenda item 9 – HIMI stock assessments should be discussed earlier and agreed to move the item to after agenda item 5. The agenda was adopted.

Agenda item 2 – Adoption of minutes from SARAG 52

SARAG noted that the draft minutes from SARAG 51, held on 24 February 2015, were circulated to members on 25 March 2015. Mr Exel and Dr Patterson provided comments on the draft minutes which were incorporated and the minutes were adopted as a true and accurate record of the discussions.

Agenda item 3 – Actions arising from SARAG 51

SARAG discussed the status of action arising items from SARAG 51.

Actions arising from SARAG 51

Item	Action arising	Status
1	SARAG 50 minutes - The Executive Officer to circulate the final minutes from SARAG 50.	Members noted the final SARAG 50 minutes.
2	Research contribution (from SARAG 50) - AFMA to provide information on other fisheries and the comparison of Gross Value of Production and research contribution	Action arising 1. SARAG noted that AFMA still needed to obtain this information.
3	MITF stock assessment - CSIRO to circulate the final stock assessment paper in the coming weeks	SARAG noted that the final MITF stock assessment was circulated to members on 5 March 2015
4	Tagging - AFMA to contact New Zealand regarding tag re-captures	SARAG noted that this item will be discussed under agenda item 15
5	MITF FAP - AFMA to circulate final MITF FAP to members	Members noted that the final MITF FAP was circulated on 7 May



		2015
6	MITF Season extension - AFMA to inform SARAG of the outcomes of the AFMA Commissions discussions regarding the MITF season extension.	Members noted that the AFMA Commission agreed to change the MITF season dates to 15 April – 14 April. The longline season was also extended to include the period 15 – 30 April.
7	HIMI FAP - AFMA to circulate final HIMI FAP to members	SARAG noted that the final HIMIF FAP was circulated on 7 May 2015
8	Mackerel Icefish - AAD to prepare paper on Mackerel Icefish	SARAG noted that this would be discussed under agenda item 9.
9	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.	Action arising 2 - AFMA and Industry to discuss and provide an update at the SARAG meeting in February 2016. Members noted that Industry want to use larger bobbins and place cameras on gear. AAD indicated that they would like a comparison done between old gear and new gear.
10	University of Tasmania project – AAD and AFMA to discuss confidentiality agreement before any data is released.	AAD provided an update on the research that had been undertaken by Nicole Hill. Members noted that the research showed that there were three communities – Top of bank (Mackerel Icefish), Plateau (Unicorn Icefish) and Upper Slope (Macrourids).
11	Strategic Research Plan - AFMA to circulate finalised 5 year Antarctic Fisheries Research Plan	Members noted that the 5 year Strategic Research Plan had been finalised and that the annual research plan



		would be discussed under agenda item 17.
12	RAG/MAC external system - Executive Officer to clarify if observers would be able to log on to the system	It was confirmed that observers would be able to log on to the system. Members noted that there had been some delays in finalising the external system but it was hoped that it would be available by the end of 2015.

Agenda item 4 – Correspondence

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

- An email dated 5 March 2015 from Sarah Kirkcaldie attaching an email from Jemery Day regarding the final 2015 Macquarie Island Toothfish stock assessment;
- An email dated 25 March 2015 from Sarah Kirkcaldie seeking comments on the draft SARAG 51 minutes;
- An email dated 7 April 2015 from Sarah Kirkcaldie inviting all members to a RAG workshop to be held in Canberra on 21-22 May 2015;
- An email dated 7 May 2015 from Sarah Kirkcaldie attaching the final Fishery Assessment Plans for the Macquarie Island Toothfish Fishery and Heard Island and McDonald islands Fishery;
- An email dated 28 May 2015 from Sarah Kirkcaldie forwarding an email from Rik Buckworth, Principal Research Scientist, CSIRO, seeking input on a project proposal he is developing;
- An email dated 10 June 2015 from Sarah Kirkcaldie seeking member claim forms before the end of the financial year;
- An email dated 10 June 2015 from Sarah Kirkcaldie seeking comments on AFMA's proposal to collect information on prices of transferred or leased SFRs;
- An email dated 17 June 2015 from Sarah Kirkcaldie attaching a letter from Nick Rayns, A/g Chief executive Officer, AFMA regarding the key outcomes from the RAG workshop; and
- An email dated 20 August 2015 from Sarah Kirkcaldie providing the draft agenda for SARAG 52.



Agenda item 5 - Fishing operations update

Mr McNeill and Mr Exel provided SARAG with a verbal updates on fishing operations in the HIMI Fishery and MITF.

Mr McNeill stated that Australian Longline Pty Ltd had one vessel (*Janas*) operating in the MITF but that it had been a difficult season with low catch rates and noted that the vessel had fished the entire area of the Fishery. SARAG noted that the MITF TAC would be significantly undercaught this year. The vessel has now left the MITF and will be fishing in the HIMIF for the remainder of the season. Mr McNeill noted that the *Antarctic Chieftain* was on its second trip to HIMIF and that the *Janas* would be there soon. Current catch rates at HIMIF were on target with some larger and spawning fish caught. Members noted that the company had tried to fish new areas at HIMI but had been losing too much gear so moved. The biggest issues this season in the HIMIF for the company is whale depredation and also the storm that forced all vessels to seek shelter near the island. Members noted that the whale depredation only lasted a couple of days and the vessel moved on once gear was hauled.

Mr McNeill stated that Australian Longline Pty Ltd had purchased a new vessel that would be re-named the *Antarctic Discovery* (previously the *Antarctic III* and *Argos Helena*) and is expected to fish in 88.1 and 88.2 New and Exploratory Fishery.

Mr Exel re-iterated that the two biggest issues at HIMIF this season was whale depredation and the weather. Mr Exel further noted that the *Austral Leader 2* had to return to port earlier than expected as metal was detected in the engine but that fortunately there were no major issues.

Mr Exel stated that Austral Fisheries Pty Ltd had caught about 2081 tonnes of the Patagonian Toothfish quota they currently hold and have about 1042 tonnes remaining. Mr Exel noted that two seabirds and three seals had been killed as a result of interactions with fishing gear including one bird in the longline season extension (30 April 2015). Mr Exel also noted that the company had lost a lot of gear this season and would attempt to retrieve the gear by grappling (to be undertaken towards the end of the longline season). Members noted that the *Corinthian Bay* had not being previously been using the line tension meter but now that they were, this may reduce gear loss.

Mr Arangio noted that the Austral Fisheries Pty Ltd vessels had issues with a few whales at the beginning of the season mainly around the *Isla Eden*. The last whale was seen around mid-July. The company has been taking photos of the whales for identification purposes noting that they were all sperm whales. Mr Arangio noted that the increase in depredation of lines (currently around 5% of sets are affected by whale depredation but this will drop to 2% by the end of the season if no further depredation occurs) could be the result of an increase in the number of vessels. SARAG noted that in March 2016, COLTO will be running a workshop on whale depredation with experts from Alaska attending.

Macquarie Island Toothfish Fishery

Agenda item 6 – Future stock assessment work

SARAG members noted that industry members have expressed concerns about the timing of the MITF stock assessment. In previous years, the stock assessment and subsequent SARAG and SouthMAC meetings have been held in late February/early March which leaves industry with limited time to prepare for the commencement of the MITF fishing season.



CSIRO advised that they will attempt to complete the MITF stock assessment for the 2016/17 and 2017/18 seasons by the end of December 2015. SARAG agreed to meet in early February 2016 to discuss the stock assessment and recommend total allowable catches to the SouthMAC and the AFMA Commission. To assist CSIRO, AAD agreed to get the required data to CSIRO by the end of October (**Action arising 3**). Members noted that AAD will begin aging MITF otoliths next week.

Action arising 3 – AAD to provide MITF data to CSIRO by the end of October 2015.

Agenda item 7 - MSC review results and

Agenda item 8 - Implementation of benthic impacts assessment and review of MPA

SARAG noted the update on the MITF Marine Stewardship Council (MSC) annual review which was conducted in July 2015.

Members noted the HIMI Benthic impacts study was expected to have been applied to the MITF by June 2015, to inform and undertake an Ecological Risk Assessment (ERA), but that this did not occur. SARAG noted that AAD is preparing a contract where they will undertake an industry funded project using the expertise, knowledge and details from the HIMI benthic impact study to assess benthic impacts at Macquarie Island.

Heard Island and McDonalds Islands Toothfish Fishery

Mr Scott, Mr Exel, Mr McNeill and Mr Arangio declared their interest under agenda item 9 and left the room. The group then discussed whether the Industry members and observer needed to leave the room for the agenda items; it was agreed that as their input was essential to the agenda items that they should remain in the meeting room for all discussions but not any recommendations.

Agenda item 9 – Stock assessment

SARAG noted that scientists from AAD have prepared stock assessments for the two target species in the HIMI Fishery, Mackerel Icefish and Patagonian Toothfish, for peer-review and consideration by SARAG 52 and then CCAMLR's Working Group on Fish Stock Assessments (WG-FSA) and Scientific Committee. Papers were also been prepared on Grey rockcod (*Lepidonotethen squamifrons*), Unicorn icefish (*Channichthys rhinoceratus*) and grenadiers (Macrourids)

9.1 Mackerel icefish

Dr Welsford presented the preliminary 2015 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.

The RSTS is conducted to estimate the biomass of the standing stock. The year classes present in that standing stock are then projected forward two years to estimate the TAC. The



CCAMLR decision rule requires 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 a conservative approach.

SARAG noted that the population of Mackerel Icefish in Division 58.5.2 generally shows that a large 2+ cohort is dominating the population and it will support a commercial fishery in 2015/16.

The assessment recommended two scenarios:

- 1) a catch limit of 482 tonnes of Mackerel Icefish for the 2015/16 season if the remaining 304 tonnes of TAC is taken this season; or
- 2) a catch limit of 528t if it is not taken.

SARAG acknowledged that Industry were frustrated by the unpredictable nature of Mackerel Icefish. AAD noted that the cohorts younger than 3+ may not be well selected by the survey gear and therefore it is likely that a more accurate estimate of yield of the most abundant cohort from the survey will be conducted in 2016.

Industry indicated that it was likely that they remaining quota would be taken in 2014/15. The remaining SARAG members recommended that the paper presented at CCAMLR should recommend a Mackerel Icefish catch limit of 482 tonnes in the 2015/16 season.

9.2 Patagonian Toothfish

Members acknowledged that in 2015 there had been some issues with the timing of the Patagonian toothfish assessment prior to SARAG and noted that there were two issues to be discussed: a) when is the stock assessment model run and what data is included; and b) whether the stock assessment should be an annual assessment or a biennial assessment.

The AAD member suggested that biennial assessments should be conducted with a full two seasons of data be included. Members noted that the advantage of this method is that the stock assessment would then be available for review around May/June, rather than August/September as currently occurs. If SARAG agreed to this proposal, the next assessment would be conducted in 2017 with the full 2014/15 and 2015/16 data included. Industry members expressed concern that until the assessment is stable a stock assessment should be conducted every year using data up to date. SARAG acknowledged that if AAD continues to do a yearly assessment then they will not have resources to complete the other work necessary to improve the assessment.

Dr Ziegler presented the draft HIMI Patagonian toothfish assessment. Dr Ziegler reviewed the recent history of the HIMI stock assessment noting that in 2013 the assessment was questioned at WG-FSA and in particular fixed survey q. At the same WG-FSA meeting, concerns were also raised with the drop of projected SSB below target levels and with an issue regarding the version of CASAL used. It was agreed that in 2013, the TAC should be set at 2730 (carried over from 2012) and a new assessment would be conducted in 2014. In 2014, a substantial amount of work was done to improve the assessment. The CCAMLR Scientific Committee agreed that the new assessment with tag-release data from 2012-2013 should be used for management advice and a TAC of 4410 tonnes was set for the 2014/15 season.



SARAG noted that, by including the 2012-13 tag data into the 2014 assessment, the transition to a tag based assessment occurred faster than anticipated. Two issues were raised with moving to a tag-based assessment:

1. the 'Evidas problem' where fish move very little and the tag-release and recapture effort are concentrated; and
2. the fact that only about 50% of fishable habitat has been fished.

SARAG noted that there is an FRDC project being conducted to address and correct the potential bias in spatial distribution of fish and fishing effort.

The general approach to the 2015 assessment was to include as much information as possible (ie use data up to date on catch, survey, tag-recapture, catch at age), re-estimate parameters (including growth and fleet structure), improve the model assumptions and structure (ie estimate for q) and complete a bridging analysis.

The 2015 assessment used a similar model to 2014 with updated data, updated growth parameters, prior for survey catchability q (change from estimated prior to uniform-log), prior for B_0 (change from uniform to uniform-log, prior for year class structure (change from uniform to lognormal) and split the trawl in to two periods (model diagnostics showed an improved model structure).

SARAG agreed to the move from uniform to uniform-log but requested that an additional explanation be included in the CCAMLR paper to WG-FSA. Members also requested that in figure 6 the 'extend last estimated YCS from 2009-2010' be moved up to step 1e. Dr Ziegler also agreed to run an analysis on the impact of fixing q and examine if the shift in q is a result of adding the tagging data. Members also requested that a sensitivity on dispersion be done but not for the 2015 WG-FSA paper. Members noted that AAD will propose at CCAMLR that this assessment be moved back to a biennial schedule as it had been prior to 2013.

SARAG indicated a preference for all future stock assessments to include complete season data from the previous two years, meaning that the next assessment would be done in 2017 using complete data for the 2014/15 and 2015/16 seasons. Members noted that an assessment could be done in 2016 if required. AAD agreed to discuss with industry fishing strategies for 2015/16 that could assist in decreasing the bias in the tagging data.

SARAG members endorsed the 2015 Patagonian Toothfish assessment as best available science and agreed that it should go to WG-FSA as presented to SARAG 52, incorporating the comments agreed to above.

Members thanked Dr Ziegler and Dr Welsford for competing the assessment and also Emma Woodcock and Bryn Farmer for all the work on ageing completed and the speed in which they aged the otoliths.

Mr Scott was an apology for the remainder of the SARAG meeting.

9.3 *Lepidonotothen squamifrons* / Grey rockcod

Members noted that Grey rockcod was overfished in the 1970s and that CCAMLR had originally been set up to manage this species. Members noted that Grey rockcod has not



been targeted by fishing within the HIMI area since 1981 and the current bycatch limit is 150 tonnes with very little knowledge about the population dynamics of this species.

SARAG noted that AAD had prepared a paper for WG-FSA on the Grey rockcod exploring age and growth dynamics. Members noted that Grey rockcod populations aggregate and are vulnerable to overfishing. The data indicated the occurrence of three (maybe five) distinct geographical populations. SARAG noted that the Shell Bank population appears very healthy but other populations are not as healthy. AAD further noted that the maximum age estimates have increased from 19 years to 24 years.

AAD recommended further work to explore connectivity between populations, reconsider the move-on rules and to also include the 2015 RSTS data.

SARAG recommended that the bycatch limit remains the same and that the Grey rockcod should continue to be monitored at a sub-population level. Members noted that industry is currently not targeting Grey rockcod and that fishing using trawl gear is not increasing.

9.4 *Channichthys rhinoceratus* / Unicorn icefish

Members noted that there is anecdotal evidence that there has been a change in population biology of Unicorn icefish, and industry have expressed concern that this may result in the move on rules being triggered more often. AAD undertook an updated assessment of Unicorn icefish based on the results from the 2015 RSTS. AAD provided both a short (2 year) and long term (20 year) projection of Unicorn icefish structure using the Generalised Yield Model (GYM). Members noted that the variability in population biomass is lower than for Mackerel Icefish and the current estimate of biomass is very conservative. AAD advised that further work could include exploration of alternative assessment models and investigating otoliths and corresponding growth parameters.

SARAG noted that there had been 12 move on rule events triggered to date and that there was ambiguity over the definition of a haul 'path'.

SARAG noted that Unicorn icefish is not a commercial species but there was strong support that the bycatch and move-on limit could be increased. Members noted that AAD were preparing a paper for WG-FSA that will propose higher bycatch catch limits and move-on provisions and agreed to circulate this paper to SARAG once it is completed (**Action arising 4**).

Members thanked Dale Maschette for his work at sea on the fishing vessel *Atlas Cove* and in preparing the papers.

Action arising 4 – AAD to provide SARAG with the Unicorn icefish paper that will be submitted to WG-FSA.

9.5 Macrourids / grenadiers

SARAG noted that the bycatch limit for Macrourids has not previously been reached. However, members had expressed concern that with the higher TAC for Patagonian toothfish at HIMI in the 2014/15 season, the bycatch limit may be reached resulting in a closure of the toothfish fishery before its TAC has been caught.

AAD prepared a paper looking at the biology, population assessment and management of Macrourid species in the HIMI Fishery. The research indicated that there were four species of



Macrouids that were currently being managed as one single species. Improved identification tools and targeted sampling during the 2015 RSTS confirmed that the long-lived *Caml* grenadier (65+ years) is present at HIMI and one of the most common grenadier caught in the RSTS. The study found that the catch limit for *Caml* grenadier could increase but the observers would need to be able to differentiate between the different species. Differentiating between the species is very difficult and preliminary genetics show that observers identified the macrouid species in only about 50% of the samples.

SARAG noted that the move-on rule for grenadiers was developed within the context of a trawl fishery, and with the move of the fishery towards using longlining there has been a steady increase in the total bycatch of this genus. Members noted that prior to August 2015 only three move-on events had occurred and all at depths of 1450-1650 m. SARAG agreed that, to reduce macrouid bycatch, skippers should avoid these depths and also set smaller lines in high bycatch areas. There is also a possibility of a day limit noting that August appears to be the month with the highest macrouid catch rates.

Members noted that further work could include yearly estimates of Macrouids density required for accurate updates of bycatch limits, more samples to refine biological parameters, determining species ratio of Macrouids species at HIMI by observers having an improved species identification key, conducting genetic analyses on archived otoliths, and more work on the move-on rule.

SARAG noted that the paper to be submitted to WG-FSA proposes an increased bycatch limit based on the long-term sustainable yield for *Macrourus caml* and a proportional readjustment of the move-on rule.

Agenda item 10 – HIMI Fishery science work plan

SARAG noted the science workplan developed at the CCAMLR Fisheries Review meetings to support Australia's position at CCAMLR 2015. Members noted that the updated workplan would be presented to the next review meeting scheduled for straight after SARAG 52. The AAD member stated that all the work outlined in the workplan was on track to be completed as scheduled.

Agenda item 11 – MSC review results

SARAG noted that in July 2015 the Marine Stewardship Council (MSC) completed its annual review of the HIMI toothfish fishery and the HIMI icefish fishery. Industry members thanked members who had participated in the review. Members noted that all conditions for the HIMI Icefish Fishery had been completed and that the HIMI Patagonian Toothfish Fishery was on track to meet all conditions.

SARAG noted that there continues to be progress towards Australian and French scientists collaborating on a precautionary joint plateau-wide stock assessment.



Agenda item 12 – Seabird interactions and season extension in the HIMI fishery

Members noted that the two current season extension trial periods (15-30 April and 15 September – 31 October) in the HIMIF have concluded and have been deemed a success with over a million hooks set and limited bird interactions. Following a request from industry and discussions within Government and with industry, Australia is now proposing to CCAMLR that two further trials begin in the 2015/16 season (1-14 April and 15-30 November) and that the 1-14 November trial continue. Access to the season extensions will be contingent on full compliance with CCAMLR Conservation Measure 25-02. A three seabird catch limit for each vessel during the season extension periods will also apply. The three seabird catch limit will be cumulative for all season extension periods. In addition, members noted that the following conditions will need to be met before day/night setting allowed in the 15-30 November period:

- a. cumulative total number of hooks set in the fishery between 1-14 November 2014 and 1-14 November 2015 to exceed 500,000 hooks; and
- b. cumulative total seabird catch is no more than three (3) seabirds over this period.

CCAMLR New and Exploratory fisheries

Agenda item 13 - New and Exploratory Fisheries update

SARAG noted that this agenda item was for information and that Australia had applied to CCAMLR to fish in New and Exploratory fisheries in the 2015/16 fishing season.

Agenda item 14 - MSC assessment of toothfish fisheries in 88.1 and 88.2

The AAD member advised that there was already an MSC assessment of Antarctic toothfish in CCAMLR statistical areas 88.1 and 88.2 and that Australia had been approached to be part of the client group.

Research

Agenda item 15 – Research issues

SARAG noted the update on sub-Antarctic fisheries research projects that are proposed or underway. The AFMA member advised that a proposal for further MITF stock assessment will need to be submitted in 2017.

Members noted that at its meeting in February 2015, SARAG agreed to increase the tagging rate to two tags per tonne of green weight toothfish caught in the HIMI Fishery. Members noted that some observers have reported that it has been difficult to tag at this rate because lice-infected fish and the size of fish that have come up on the lines may affect the tag size-overlap rate. Members noted that, after discussions with AAD, AFMA had been informing observers that they should not tag fish that are unlikely to have a high chance of survival and that quality should not be sacrificed for quantity. Members further noted that industry are also



looking at recovery tanks and the observer set up on boats in an attempt to improve tagging survivability. SARAG acknowledged that the tagging overlap is currently above 80%, and well above the 60% required by CCAMLR.

Members noted that the tagging rate at Macquarie Island Toothfish Fishery is two tags per tonne and the observers have not indicated any difficulty in meeting this tagging rate.

The AFMA member advised that New Zealand Ministry of Primary Industries had informed AFMA that there had been no targeted fishing for toothfish within the NZ EEZ since February 2013 and that they were not aware of any tag recaptures. Members noted that on 25 July 2015, the *Janas* caught a Patagonian Toothfish with a CCAMLR tag. CCAMLR informed AAD that the fish had been released in the New Zealand domestic toothfish fishery on 5 February 2009. A tag with a similar tag number was recovered in the MITF several years ago and AAD is pursuing release details from CCAMLR.

Members noted that the random stratified trawl survey (RSTS) is a key part of data collection for the HIMIF stock assessments, however, questioned its importance as the Fishery moves to a tagged based assessment. Industry advised that they will be conducting a RSTS in 2016. AAD agreed to do an analysis of the implication of moving the RSTS to biennially and in particular how this will affect estimates of year class structure (**Action arising 5**).

Industry advised that an Austral Pty Ltd vessel will be doing the icefish survey in late October for the French.

Action arising 5 – AAD to undertake an analysis of the impact of doing a biennially RSTS.

Agenda item 16 – Annual research statement

SARAG noted that the Antarctic fisheries Five Year Strategic Research Plan was finalised following SARAG 51. The AFMA member advised that the Strategic Research Plan now needs to be used to draft an annual research statement that prioritises research for each year. SARAG agreed that the research needs for the HIMI and CCAMLR New and Exploratory fisheries have been identified in the AAD document 'CCAMLR Fisheries Science Work Plan' and this should be attached to the Annual Research Statement. SARAG agreed that there was no MITF projects required on the 2015 annual statement.

Agenda item 17 – Joint Australia-France industry research action plan

SARAG noted that that the Australian scientists were hoping to meet with French scientists to discuss this research plan while attending the June 2015 COLTO meeting but the relevant French scientists were not present. Members noted that discussions need to occur as soon as possible as the lack of information regarding tags moving between the exclusive economic zones of the two regions is impacting on delivery of the FRDC Kerguelen Plateau project.



Environment

Agenda item 18 – Review of environmental interactions and gear loss

SARAG noted that there have been ten wildlife interactions resulting in deaths (five deaths as a result of interactions of fishing gear) in the HIMI Fishery since the last SARAG meeting in February 2015.

- 30/4/2015 – a Northern Giant Petrel appeared to have been hooked by the wing on setting of a line and was dead when hauled on the vessel *Isla Eden*;
- 8/06/2015 – a Southern Elephant Seal was hauled to the entangled in the backbone of the line on the vessel *Atlas Cove*;
- 20/6/2015 – a Prion was found disorientated and in poor condition on the on the deck of the *Corinthian Bay*. The bird was released but appeared too exhausted to fly and fell into the water;
- 3/7/2015 – A Georgian Diving Petrel was found dead under the Gilson winches on the vessel *Atlas Cove* and appeared to have been dead for some time;
- 8/07/15 - a Southern Elephant Seal was hauled entangled in the backbone of the line on the vessel *Austral Leader 2*;
- 26/7/2015 – a Blue Petrel was found on the forward deck of the vessel *Antarctic Chieftain* with apparent head injuries. The observer placed the bird in a box but it later died;
- 2/8/2015 – a Southern Fulmar was found dead on the wheelhouse roof of the vessel *Atlas Cove*. It is assumed the bird flew into the superstructure of the vessel and died;
- 1/9/2015 – a Southern Elephant Seal was hauled to the entangled in the backbone of the line on the vessel *Isla Eden*; and
- 2/9/2015 – a Southern Cape Petrel was found dead on the deck of the vessel *Corinthian Bay*; and
- 8/9/2015 – a Northern Giant Petrel was hauled up dead on the vessel *Atlas Cove* while the vessel was longlining.

Members further noted that in the MITF in the 2014/15 season 953,580 hooks were set with no wildlife interactions that resulted in death. For the current (1 May 2015 – 27 August 2015) season 1,359,170 hooks have been set with no wildlife interactions.

Members also noted that the gear loss at HIMI and MITF had significantly increased compared to the previous seasons. Industry noted that at HIMIF they would attempt to retrieve gear towards the end of the season. The scientific members noted that it would be unlikely that there would be any catch remaining on the lines.



Other

Agenda item 19 – Other business

SARAG noted that AFMA had recently submitted an application for Australian export from Exploratory Fisheries in the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Statistical Divisions 58.4.1 and 58.4.2. The submission is now available on the Department of Environment's website for public comment until 1 October 2015.

AAD noted that with the increase in new and exploratory applications there will be an increase in workload especially as stock assessments will need to be reviewed.

Agenda item 20 – Next meeting

SARAG agreed to hold a teleconference on 10 November 2015 (11am-12pm) to discuss the recommended total allowable catch for the HIMI Fishery and CCAMLR outcomes. Members noted that the next face-to-face meeting would be held on Tuesday 9 February 2016 followed by SouthMAC on Wednesday 10 February 2016.

The meeting closed at 2.40 pm.

Actions arising from SARAG 52

Item	Action arising
1	Research contribution (from SARAG 50) - AFMA to provide information on other fisheries and the comparison of Gross Value of Production and research contribution
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.
3	MITF Stock assessment - AAD to provide MITF data to CSIRO by the end of October 2015
4	Unicorn icefish - AAD to provide SARAG with the Unicorn icefish paper that will be submitted to WG-FSA.
5	RSTS - AAD to do an analysis of the impact of doing a biennially RSTS.

