



**Australian Government**

**Australian Fisheries Management Authority**



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

**MINUTES  
SARAG 45**

**30 AUGUST 2012**

## **SUB- ANTARCTIC RESOURCE ASSESSMENT GROUP (SARAG)**

**CHAIR:** Dr Malcolm Haddon

**Date:** 30 August 2012

**Venue:** Australian Antarctic Division headquarters, Kingston, Tasmania

### **Attendance**

#### **Members**

Dr Malcolm Haddon – Chair  
Dr Dirk Welsford, AAD  
Dr Phillipe Ziegler, AAD  
Mr Ian Hay, AAD  
Dr Graham Robertson, AAD  
Ms Sally Wayte, CSIRO  
Mr Martin Exel, Industry Member  
Mr Les Scott, Industry Member  
Mr Peter Neave, AFMA

#### **Observers**

Mr David Carter, Austral Fisheries Pty Ltd  
Mr Rhys Arangio, Austral Fisheries Pty Ltd  
Mr Barry Baker, Latitude 42 Environmental Consultants

#### **Apologies**

Dr Richard Hillary, CSIRO  
Dr Heather Patterson, ABARES

### **Introduction**

#### **Agenda item 1 - Preliminaries**

The forty-fifth meeting of the Sub-Antarctic Resource Assessment Group (SARAG 45) was opened at 1.15 pm on 30 August 2012 by the Chair, Dr Malcolm Haddon.

SARAG 45 was preceded by the annual science/industry/management consultations for the Heard Island and McDonald Islands (HIMI) Fishery which was convened by the Australian Antarctic Division (AAD). All SARAG Members, apart from Mr Hay and Dr Robertson, and observers, apart from Mr Baker, attended the consultations. Some of the agenda items discussed were common to the consultations and SARAG meeting. Discussion on SARAG agenda items 5 (Fishing operations – update) and 6 (HIMI Fishery stock assessments) is reported on in the SARAG minutes from the consultation discussions.

#### **1.1 Declaration of interests**

Dr Haddon asked Members and Observers to declare their professions and their interests on specific agenda items. No Members or Observers were requested to leave the room during the meeting and they were able to participate in the discussions on all agenda items.

Dr Haddon advised he was employed by CSIRO and was 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).

Mr Exel declared his interest in all agenda items. He advised that his Company owns Statutory Fishing Rights (SFRs) in the HIMI Fishery and the MITF. 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. Messrs Carter and Arangio as employees of the same Company made similar declarations.



Mr Scott advised that his Company owns SFRs in the HIMI Fishery and the MITF and he 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 was a CSIRO employee and was undertaking work on the MITF stock assessments and Management Strategy Evaluation.

Drs Welsford and Ziegler advised they were employed by AAD and were undertaking work on stock assessments and Management Strategy Evaluation in the HIMI Fishery.

Mr Hay and Dr Robertson advised they were employed by AAD and were undertaking work on seabird bycatch and mitigation issues.

Mr Baker advised he was an environmental consultant with seabird expertise who had been invited to attend the meeting by industry.

Mr Neave advised he was employed by the Australian Fisheries Management Authority (AFMA) and was responsible for managing sub-Antarctic fisheries at AFMA. He advised he was the AFMA Member and Executive Officer to SARAG and the Sub-Antarctic Fisheries Management Advisory Committee (SouthMAC).

## 1.2 Apologies

Apologies were received from Dr Richard Hillary (CSIRO) and Dr Heather Patterson (ABARES).

## 1.3 Agenda

The agenda was adopted without change. A number of items were discussed under 'Other business' and are reported on under that agenda item.

### Agenda item 2 – Adoption of minutes from SARAG 44

SARAG noted that the minutes from SARAG 44, held in 8 March 2012, had been adopted out-of-session as a true and accurate record of the discussions.

### Agenda item 3 - Action arising from SARAG 44

SARAG discussed the status of action arising items from SARAG 44.

Item	Status
Macquarie Island Toothfish Fishery tags – AFMA undertook to seek further details of the tagging program and any tag recaptures made in New Zealand waters.	New Zealand authorities have been contacted and any advice received will be provided to Members out of session.
Natural mortality in the MITF - SARAG noted that future work would include an investigation of natural mortality (M) which is currently set at 0.13. Recent analysis by AAD and CCAMLR determined an M value of 0.155 for toothfish in the HIMI Fishery and SARAG recommended that the appropriateness, or otherwise, of this figure be investigated for the MITF.	Ongoing – to be considered at the next SARAG meeting.

Item	Status
<p><b>MITF tagging rate</b> - SARAG agreed that tagging toothfish at a rate of 2 tags per tonne caught was appropriate across the fishery as it continued to deploy large numbers of tags while simplifying instructions to observers doing the tagging. It was agreed that the tagging rate and strategy will be reviewed prior to the start of the 2013/14 season.</p>	<p>Ongoing – to be considered at the next SARAG meeting</p>
<p><b>MITF Plan amendment to allow season start date to be altered</b> - SARAG recognised that this was an issue that should be discussed by SouthMAC. Mr Neave undertook to include it on the agenda when SouthMAC would be discussing the MITF TAC recommendation from SARAG in mid March.</p>	<p>Following a recommendation from SouthMAC, the AFMA Commission supported the proposed amendment to the MITF Plan to have the season dates made through a Determination and noted the proposal to change to the season start date from 15 April to 1 May.</p>
<p><b>Observer program</b> - Mr Neave undertook to prepare a paper, with input from AAD, on the data that is currently collected, its use and importance, and whether it could be reasonably collected through e-monitoring technologies. SARAG agreed to discuss the issue further at its next meeting.</p>	<p>This issue was discussed and reported on under agenda item 9.</p>
<p><b>Fishery Status Reports</b> - SARAG discussed the 'Antarctic Waters Fishery' chapter in the ABARES Fishery Status Reports. Mr Exel queried why the chapter was included as it is not an Australian fishery. Given its status in the report as being overfished and subject to overfishing, he stated it was often confused with the HIMI Fishery and MITF which are subject to Australian management and are not overfished nor subject to overfishing. Dr Patterson advised that Australian operators can technically fish in the Antarctic Waters Fishery subject to CCAMLR approval, along with other CCAMLR members and the fishery was subject to export approval under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>. She undertook to look at restructuring the report to better distinguish the Antarctic Waters Fishery chapter from the HIMI Fishery and MITF chapters.</p>	<p>Ongoing</p>

#### Agenda item 4 – Correspondence

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

- a letter dated 15 March 2012 from the AFMA Chair to the SARAG Chair on the provision of RAG advice;
- an e-mail dated 3 April 2012 from Peter Neave advising that the toothfish total allowable catch for Macquarie Island had been set at 455 tonnes, which was the level recommended by SARAG and endorsed by SouthMAC; and
- an e-mail dated 4 June 2012 from Peter Neave attaching an AFMA media release on Marine Stewardship Council certification of toothfish in the MITF

## **Agenda item 5 – Fishing operations – update**

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

Mr Scott advised that his Company had finished longline operations in the HIMI Fishery and MITF.

Mr Exel advised that his Company had successfully completed the annual random stratified trawl survey (RSTS) with the trawler 'Southern Champion' and the recently refitted longline vessel 'Austral Leader II' had just completed its first trip to the HIMI Fishery.

## **Heard Island and McDonald Islands Fishery**

### **Agenda item 6 – Stock assessments**

Dr Welsford reported that the 2012 RSTS had been successfully undertaken in accordance with instructions. SARAG noted that 174 survey stations had been sampled and that Mackerel Icefish catches were twice as high as the long term average and Patagonian Toothfish catches were 1½ times higher than the long term average.

Dr Welsford reported that the preliminary stock assessment for Mackerel Icefish indicated the biomass was considerably higher in 2012 than it was in 2011. Accordingly the preliminary yield estimate showed projected total allowable catches of 842 tonnes in the 2012/13 season and 720 tonnes in 2013/14 season.

**Note:** following the SARAG meeting AAD refined the stock assessment and excluded the biomass contribution of the 4+ and 5+ cohorts as the short-lived nature of icefish means they are likely to be gone from the stock in future years. This is consistent with previous practice in the stock assessment. Accordingly, the yield estimates have been lowered to 679 tonnes in 2012/13 and 573 tonnes in 2013/14.

Mr Exel requested that AAD investigate whether the projected catch could be taken in one year, as had occurred in the past, as it provided operational advantages. Dr Welsford advised this issue could be considered by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Working Group on Fish Stock Assessments when they meet in October to discuss the icefish stock assessment.

Action arising

SARAG noted that a Patagonian Toothfish assessment for the HIMI Fishery would not be considered by CCAMLR this year as the total allowable catch had been determined at 2730 tonnes for each of the 2011/12 (current) and 2012/13 seasons. Dr Welsford indicated there were no issues of concern about the stock arising from the RSTS in relation to toothfish, and there was confidence in the peer-reviewed assessment as a number of uncertainties in the assessment had been addressed in recent years. He noted that the RSTS results indicated there appears to have been a significant recruitment event in the fishery.

## **Macquarie Island Toothfish Fishery**

### **Agenda item 7 – Stock assessment and Management Strategy Evaluation**

SARAG considered a CSIRO paper 'Update on MSE progress for Macquarie Island Toothfish' which briefly outlined possible management strategy evaluation (MSE) issues for future investigation.



Members noted that the next meeting of SARAG scheduled for March 2013 would focus on the MITF, and would include consideration of the stock assessment to apply to the 2013/14 season. SARAG agreed the focus of research should be on gender and cohort specific growth data, the appropriateness (or otherwise) of using a natural mortality (M) figure of 0.13 (recognising a M figure of 0.155 is used in the HIMI Fishery) and tagging issues including the strategy of tagging at a rate of 2 tags per tonne, tag shedding and post-tag mortality.

Action arising

Dr Welsford advised that it would be appropriate for CSIRO to contact Dr Steve Candy at AAD to discuss the natural mortality issue given Dr Candy's analysis of M in the HIMI Fishery.

### **Agenda item 8 – Bycatch catch limit**

SARAG reviewed the current bycatch arrangements in the MITF and noted a precautionary catch limit of 200 tonnes combined applies for all finfish species (excluding Patagonian Toothfish), crabs and sharks, with a 50 tonnes limit on any one species applied in the fishery.

SARAG noted that bycatch was low in both trawl and longline operations. The maximum total catch of bycatch (all species combined) was taken in the current season with around 39 tonnes of bycatch being taken in longline operations.

SARAG recommended that it was appropriate to adopt the CCAMLR approach which is adopted in the HIMI Fishery where a 50 tonnes catch limit was set for each bycatch species, and there was no need to retain an overall limit of 200 tonnes.

SARAG would continue to monitor the levels of bycatch in both the MITF and HIMI Fishery.

## **Observers**

### **Agenda item 9 – Observer coverage and duties**

SARAG discussed observer coverage and the range of duties undertaken in trawl and longline operations in the HIMI Fishery by the observer and data collection officer (DCO). Members noted that the current set of duties occupied a full 24 hour period and included many high priority biological, fish and bycatch data collection, tagging and wildlife observations.

Mr Neave advised that AFMA is looking to investigate the feasibility of having one observer on board each vessel and examining the required duties and data that would be best collected during a 12 hour shift each day, and which could be supplemented with electronic monitoring applications. AFMA is pursuing electronic monitoring in a number of fisheries and the results of an earlier trial indicate the feasibility of its use in the HIMI Fishery. He advised that AFMA is of the view that electronic monitoring could be successfully applied in longline operations for wildlife observations and monitoring the catch composition.

Mr Hay advised that the data collection requirements are prescribed by CCAMLR and any changes, such as the adoption of electronic monitoring technologies would require CCAMLR consideration. He also noted that the observer data had been crucial to getting season extensions to the longline season through the collection of seabird abundance data.

SARAG concluded that while adjustments to some tasks may be possible in the medium to longer term and would be useful in reducing the current high overall workload for observers and DCO, these were unlikely to result in a large enough reduction of duties to allow for only one observer to be carried on a voyage. Such adjustments would require work in CCAMLR to revise its requirements.



SARAG recognised that in the short term it would not be possible to deploy a single observer given the current set of duties and some closer analysis, including on the use of electronic monitoring, was required to determine what would be the appropriate levels of data collection and method(s) of observation.

Mr Exel advised that it would be appropriate that the review of research requirements (reported on under agenda item 10) for the HIMI Fishery and the broader Kerguelen Plateau include consideration of the observer duties required to undertake the work.

Dr Welsford agreed that the research review would be the appropriate time to consider observer duties and functions.

Industry members and observers advised they had no difficulty in having two observers/DCOs on the vessels continuing to collect the data which have been collected since operations first began in sub-Antarctic fisheries, but expressed concern at the costs of the observer program.

## **Research**

### **Agenda item 10 – Research issues**

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

SARAG noted that the Commonwealth Fisheries Research Advisory Body (ComFRAB) has supported the project, 'Developing robust assessment methods for spatially complex, multi-jurisdictional toothfish fisheries in the Southern Ocean' for Fisheries Research and Development Corporation (FRDC) funding in 2013/14. The project has been modified since it was rejected for 2012/13 funding by FRDC earlier this year. The project has secured funding from a number of sources including industry (\$165,000), the Institute for Marine and Antarctic Studies (\$270,000) and possibly France (€50,000). The FRDC component being sought is \$187,000, which is substantially lower than the amount sought in the previous application.

SARAG also noted that the FRDC tactical research fund project 'The spawning dynamics of Patagonian Toothfish in the Australian EEZ at Heard Island and the McDonald Islands and their importance to spawning activity across the Kerguelen Plateau' has been successfully completed. Dr Welsford advised that the project confirmed the presence of spawning toothfish in the HIMI Fishery zone.

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.

Mr Exel sought to review the research and data collection requirements for the HIMI Fishery. He proposed that the random stratified trawl survey (RSTS) be moved to every second year to align with the stock assessment timetable within CCAMLR. He advised that it would be desirable to undertake a Kerguelen Plateau wide RSTS every two years which linked with fishing activity in the adjacent French fishery at Kerguelen Island.

Mr Exel also sought to review the program to collect otoliths and the ongoing ageing of toothfish in both the HIMI Fishery and MITF, and the level of tagging being undertaken, with a view to increasing the number of tags if it were feasible to undertake stock assessments on toothfish based on tag recoveries, as in other fisheries.

SARAG recognised that moving the RSTS to a biennial survey would potentially free up vessel time and money which could be made available for other research programs, such as ongoing ageing and tagging.



Dr Welsford advised that there was merit in running the RSTS every two years, ideally across the whole Kerguelen Plateau. He confirmed the RSTS continues to be a key component in the stock assessment. He also advised that ongoing ageing was important and that a review of the tagging program was appropriate, ideally as part of a coordinated research program with France.

Messrs Scott and Carter raised the issue of overcatch and undercatch of toothfish in sub-Antarctic fisheries. SARAG recognised this was a policy issue for consideration by the Sub-Antarctic Fisheries Management Advisory Committee (SouthMAC), but agreed it could be considered in a Management Strategy Evaluation (MSE) context.

SARAG agreed to hold a discussion on future research and data requirements in the HIMI Fishery at their next meeting and it was agreed that:

- Mr Exel would prepare a paper on options to work with French industry in better coordinating research on the Kerguelen Plateau;
- Dr Welsford to test through MSE, once it was operating, the potential effects on the HIMI Fishery stock assessments of moving the RSTS to every other year;
- Dr Welsford would look at options for continued ageing work and the most effective use for and quantum of tagging in the trawl and longline components of the Fishery;
- Dr Welsford would provide an outline of how the overcatch/undercatch issue could be addressed under MSE and an indication of the timing required to undertake such work; and
- Mr Neave would investigate how a revised research program could operate under the Fisheries Assessment Plan, which is a requirement in the HIMI Fishery Management Plan.

Action arising

## Environment

### Agenda item 11 – Review of environmental interactions and gear loss

SARAG noted that no seabirds had been killed in either the HIMI Fishery or the MITF as a result of an interaction with the fishing gear this season.

SARAG noted that a southern royal albatross had been killed in the MITF when the bird collided with the vessel.

A southern elephant seal was killed in the HIMI longline fishery when it became hooked in the mouth and entangled around the mainline.

SARAG noted that there has been a significant increase in the amount of fishing gear lost in the HIMI Fishery and a significant decrease in the MITF compared to last season. Mr Scott advised that the use of heavier anchors and stronger integrated weight line had worked well in reducing the gear loss in the MITF, despite difficult sea and current conditions.

## Other

### Agenda item 12 – Other business

SARAG discussed a number of 'other business' items.

Dr Welsford sought advice about the general protocol for participation by invited observers at SARAG. SARAG agreed it was desirable to retain some flexibility on invited observer attendance/participation at meetings.



SARAG agreed it was desirable for all Members to receive advance notice of attendance by observers, preferably identifying which agenda items were to be observed and/or discussed with observer input, so Members could be given sufficient opportunity to raise any concerns they may have about such participation in advance of the meeting.

Mr Exel advised that industry had engaged seabird expert Barry Baker to assist with a proposal to extend the longline season in the HIMI Fishery. He advised that industry was seeking to extend the end of the longline season from 31 October to 30 November, and having the season start on 1 April.

Mr Exel advised industry was looking to maximise their toothfish catch by the longline fishing method and catch less by trawling. He advised that there were operational and economic efficiencies to be gained by targeting higher valued longline caught product and being able to operate the same boat in both the HIMI Fishery and MITF in the same season.

He noted the successful adoption of a range of best practice mitigation strategies which have resulted in a near zero level of seabird bycatch. He noted that a three seabird limit per vessel applied in the current season extension periods (15 – 30 April and 15 September to 31 October) and industry would support this measure being retained in further extension periods.

Mr Scott advised that operational flexibility is being sought and the extension would provide greater surety in the event of unforeseen circumstances, such as a vessel breakdown or crew members becoming ill which had occurred in recent seasons.

Mr Hay advised that the proposed season extensions move into a period of greater seabird abundance and activity, particularly with white-chinned petrels. He advised it would be desirable to have seabird abundance data from the current season extensions to assist in progressing a case.

Mr Hay advised that season extensions were an issue for consideration by CCAMLR and that a case needed to be prepared for consideration. He advised that at the 2011 CCAMLR meeting a two year trial of the removal of night setting in the April extension had been approved and that it may not be appropriate to introduce a new proposal while this was being trialled.

Dr Welsford advised that given the tight deadline (7 September 2012) for papers for the 2012 CCAMLR meeting that it would be advisable to flag the issue in 2012 and indicate that it would be an issue for consideration at the 2013 meeting. The results of the current trial in relation to day setting in the April extension would also be available for the 2013 meeting.

Industry members undertook to write to Dr Tony Fleming (Australian Commissioner to CCAMLR and AAD Director) outlining a proposal and timetable for consideration of the season extension.

#### **Action arising**

Mr Hay advised that AAD had reviewed their focus and activities in relation to seabirds, and there would be a move away from mitigation strategies in Antarctic fisheries, which had proved to be very successful, to a greater focus on pelagic fisheries and trawling. He advised that he intended to resign from SARAG as the work to minimise seabird interactions was complete and best practice approaches had received excellent results in sub-Antarctic fisheries. He thanked his colleagues on SARAG and SouthMAC for their support and collaboration in being able to achieve this outcome.



Mr Exel on behalf of SARAG thanked Mr Hay and Dr Robertson for their very valuable work that had been undertaken and effectively adopted in sub-Antarctic fisheries. The partnership with SARAG over many years had resulted in outstanding achievements, including the adoption of strategies to avoid seabird interactions which allowed for the successful introduction of longlining in the HIMI Fishery and MITF.

Mr Exel advised that he is seeking consideration within Government on the potential to use the extended continental shelf, which was recently proclaimed, to further control illegal, unreported and unregulated (IUU) fishing in those waters by controlling destructive fishing practices. He advised that AAD were considering the issue.

SARAG noted that a bycatch and discard workplan had not been developed for sub-Antarctic fisheries. The program's direction is to deal with high risk and threatened, endangered and protected species and to minimise discarding of target/quota species to as close to zero as practically possible. Mr Neave advised that AFMA Management has chosen not to prepare a work plan for sub-Antarctic fisheries as there are a range of management actions in place which address these issues, including:

- discarding of target and bycatch species is not permitted in the fishery;
- catch limits are in place for all bycatch species;
- SARAG regularly assesses the levels of bycatch against the agreed limits;
- move-on rules apply where the catch of bycatch species exceeds agreed thresholds;
- the ecological risk assessment process identified no species were at high risk as a result of fishing activity;
- a range of best practice mitigation strategies have been successfully adopted to prevent interactions TEP species; and
- there are two observers on each vessel to monitor fishing activities.

SARAG agreed that it would be useful have a document prepared which outlines the bycatch issues for sub-Antarctic fisheries and the strategies that have been adopted to address them. Mr Neave undertook to prepare a draft document for consideration at the next SARAG meeting.

#### **Action arising**

Martin Exel provided SARAG with an update on industry efforts to change the status of Australian caught toothfish on a number of seafood chooser websites, such as the influential one developed by the Monterey Bay Aquarium. He advised that he had engaged with the proponents of these sites to emphasise that Australia's sub-Antarctic fisheries were sustainably and well managed, as recently evidenced by the certification of toothfish in the HIMI Fishery and the MITF by the Marine Stewardship Council.

#### **Agenda item 13 – Next meeting**

SARAG agreed to hold its next meeting in March 2013 where the MITF stock assessment would be the main issue discussed.

SARAG noted that out-of-session advice would be sought in mid November 2012 to discuss the outcomes of the annual CCAMLR meeting and the resultant total allowable catch recommendations for the HIMI Fishery.

The meeting closed at 5.35 pm.

