



Australian Government

Australian Fisheries Management Authority



Sub-Antarctic Resource Assessment Group (SARAG)

MINUTES
SARAG 25
15 NOVEMBER 2005

SUB- ANTARCTIC RESOURCE ASSESSMENT GROUP (SARAG)

CHAIR: Dr Malcolm Haddon

Date: 15 November 2005

Attendance

Members

Dr Malcolm Haddon – Chair
Mr Peter Neave, AFMA
Dr Andrew Constable, AAD
Dr Geoff Tuck, CSIRO
Dr Fred Pribac, CSIRO
Ms Leanna Tedesco, ABARE
Mr Martin Exel, Industry Member
Mr Les Scott, Industry Member

Apologies

Mr Barry Baker, AAD
Dr Graham Robertson, AAD
Dr Nick Gales, AAD
Dr Rosemary Gales, DPIWE
Mr Stuart Richey, Industry

Observers

Mr Theo Kailis, Industry

Introduction

Agenda item 1 - Preliminaries

The twenty-fifth meeting of the Sub-Antarctic Resource Assessment Group (SARAG 25) was opened at 10.20 am by the Chair, Dr Malcolm Haddon. He welcomed the attendance of the new ABARE Member, Ms Leanna Tedesco, who has replaced Dana Hanna, and Mr Theo Kailis as an industry observer.

Apologies

Apologies were received from Dr Rosemary Gales (DPIWE), Mr Barry Baker (AAD), Dr Graham Robertson (AAD), Dr Nick Gales (AAD) and Mr Stuart Richey (Industry).

SARAG noted that several members do not regularly attend its meeting. SARAG agreed to discuss the attendance issue at its next meeting.

Action arising

Declaration of interests

Messrs Exel and Scott declared their interest on all agenda items. Mr Exel advised that his Company own SFRs in the HIMI Fishery and holds a Fishing Permit for the Macquarie Island Toothfish Fishery and he was not aware of any investigation or prosecution action by AFMA against his Company. Mr Scott advised that his Company own SFRs in the HIMI Fishery and he was not aware of any investigation or prosecution action by AFMA against his Company

Adoption of agenda

SARAG adopted the agenda without change.

Agenda item 2 – Adoption of Minutes from SARAG 24

Comments were received at the meeting and incorporated into the Minutes. The Minutes from SARAG 24 were accepted as a true and accurate record of the meeting.

Agenda item 3 - Action arising from SARAG 24

SARAG discussed the action arising from SARAG 24. Mr Neave updated the meeting on the status of each item.

1. **Logbook data from IUU vessels** - AFMA has been advised by the Australian Government Solicitor that the information cannot be provided to commercial fishers. Documents seized are not part of the forfeiture provisions. Mr Exel advised that he would make available to AAD for stock assessment purposes all the size data from the IUU product his Company had successfully tendered for.
2. **Seabird abundance data** - New formats and protocols have been agreed for use by observers. The abundance data will be directly entered into the fishlog database by observers, which will allow AAD immediate access to the data. SARAG requested that this data should be made available to SARAG Members for analysis, as it provided valuable data on the effectiveness of mitigation measures and abundance trends more generally.

Action arising

3. **Skate catch** - It was agreed at CCAMLR that tagged skates and those released alive would not be recorded as catch against the TAC. It was further agreed that information needed to be collected by observers on the condition of rays for future assessments, including providing life status information from live rays cut from lines. All catches would continue to be reported.
4. **Seabird bycatch** - Following SARAG 24 a meeting was convened between AAD and industry to prepare an issues paper. It was agreed the paper would be prepared by AAD and circulated to SARAG. The paper had not been circulated. This was further discussed under agenda item 13.
5. **Data plan for Antarctic fisheries** - A revised data plan was discussed under agenda item 14.
6. **Taruman logbook records** – SARAG previously discussed making the Taruman logbooks available for use in stock assessments. This issue is linked to action item 1 above. The matter will be investigated further by AFMA.

Agenda item 4 – Correspondence

SARAG noted the correspondence received in relation to outcomes of the October 2005 ComFRAB (Commonwealth Fisheries Research Advisory Board) meeting. It was discussed under agenda item 11.

Stock Assessment and Conservation Measures

Agenda item 5 – Report on the outcomes of CCAMLR XXIV

Mr Neave provided the meeting with report on the outcomes of CCAMLR XXIV. The meeting was held in Hobart during the period 24 October to 4 November 2005. A report prepared by AFMA on the outcomes is provided at Attachment A.

SARAG noted that the total allowable catches (TACs) for Patagonian toothfish, mackerel icefish and bycatch species were agreed for the HIMI Fishery, as were the applications for the sole Australian operator to longline in CCAMLR New and Exploratory fisheries. In the HIMI Fishery, pot fishing was approved as a fishing method and approval was given for an extension to the longline season to 30 September 2006 (subject to a seabird bycatch limit) and the continued use of integrated weight lines (IWL). It was also noted that the 'brickle curtain' developed by Petuna Sealord Pty Ltd had been adopted by CCAMLR as a seabird mitigation measure.

SARAG noted the continued success in reducing illegal, unregulated and unreported (IUU) toothfish removals which had also reduced the estimates of seabirds killed in IUU operations. As was the case in previous seasons, no seabirds were killed during the 2004/05 season by the Australian longliner 'Avro Chieftain' operating in the HIMI Fishery and New and Exploratory fisheries.



Agenda item 6 – Stock assessments and Conservation Measures for the HIMI Fishery

Dr Constable reported on the stock assessment outcomes from the CCAMLR meetings. SARAG discussed the catch limits prescribed by CCAMLR for the HIMI Fishery, as shown in the following table.

Target species (tonnes)		Bycatch Limits (tonnes)				
Patagonian toothfish	Mackerel icefish	Skates and rays	<i>Macrourus</i> spp.	Unicorn icefish	Grey rockcod	Each other species
2584	1210	120	360	150	80	50

Patagonian toothfish

Dr Constable advised that since SARAG 24 (19 September 2005), which had met to discuss the preliminary stock assessments for toothfish and icefish for the HIMI Fishery, AAD was able to finalise validation of the ages read from otoliths by the Central Ageing Facility. This meant that some of the early batches of readings had to be revised resulting in updating of some of the smaller fish to be one year older than originally read. As a consequence AAD revised the length-at-age vector to be used in the assessments. The result of the validated set of lengths at age meant that the fish are smaller at age than originally thought and grow slower which results in a lower estimate of productivity for the stock. This resulted in a lower catch limit.

Mr Exel raised concern over the late inclusion of the toothfish ageing data between the SARAG 24 meeting, which specifically discussed the stock assessments, and the start of the CCAMLR meetings (WG-FSA on 10 October 2005). He was of the view that new data should not be submitted following the SARAG meeting. He recognised that changes do occur at WG-FSA, but was concerned that new Australian data had been introduced without considered thought being given to the ramifications on other parameters in the model. As an example, changes to the natural mortality levels were required as a result and yet were not accepted by WG-FSA.

Mr Exel was also of the view that accurate data on vulnerability data should have been included in the assessment. The current model assumed that all fish, including IUU catch was the size and vulnerability of trawl caught fish. The IUU catch is all by longline, with considerable catches historically, and this fish is larger and therefore older with a different vulnerability. The use of trawl caught vulnerability parameters results in a more conservative TAC.

The CCAMLR Scientific Committee noted that the use of longlines and pots in the HIMI Fishery will result in the taking of larger fish because of their selectivity and because they will be operating in deeper water than the trawl fishery. Consequently, the overall vulnerability of the stock in future years is likely to include a greater proportion of larger fish than is currently the case in the trawl fishery. A vulnerability pattern that combines trawl, longline and pots was calculated for use in the assessments. They supported a model which used these gears and agreed to use natural mortality values of 0.13 – 0.165 based on validated age data.

The GYM, using the updated time series of recruitment estimates and the updated length-at-age vector was used to estimate the long-term annual yield that would satisfy the CCAMLR decision rules.

CCAMLR's Scientific Committee recommended that the catch limit for Patagonian toothfish be revised to 2,584 tonnes, representing the long-term annual yield estimate from the Generalised Yield Model (GYM) for the 2005/06 season. This is a reduction of 203 tonnes from the 2004/05 TAC of 2787 tonnes. The assessment took into account an estimated IUU catch of 265 tonnes from the HIMI Fishery.



As was the case last season the catch limit was recommended to pertain only to the assessment area, that is, within the HIMI EEZ. The remaining areas within CCAMLR Statistical Division 58.5.2, which lie outside the EEZ, were formally closed to fishing. The CCAMLR Scientific Committee agreed that the catch limit should apply to trawl, longline and pot fishing gears.

The CCAMLR Scientific Committee endorsed the Working Group on Fish Stock Assessment (WG-FSA) recommendations on future work. This included further development of an integrated assessment in CASAL, which includes an evaluation of the assessment methods and overall management strategy for the HIMI Fishery. Dr Haddon advised that the integrated assessment should provide for a more robust and stable assessment.

SARAG noted that the integrated assessment for toothfish would be completed around April 2006 and this would be the subject of a workshop to be run in conjunction with the next SARAG meeting. This would allow for full discussion and review of the model and its inputs well in advance of the CCAMLR meetings.

Mackerel icefish

Dr Constable advised that the CCAMLR Scientific Committee reassessed the catch limit for mackerel icefish in Statistical Division 58.5.2, and agreed to recommend a TAC of 1210 tonnes for the 2005/06 fishing season, for the area known as the Heard Island Plateau.

This is a reduction of 654 tonnes from the 2004/05 season, which was predicted due to poor recruitment to the fishery. This stock naturally exhibits a high level of recruitment variability. The catch-weighted length frequencies in the 2004/05 season were dominated by a single year class of 3+ fish. This cohort was observed to dominate the population in the survey undertaken in June 2005.

The CCAMLR Scientific Committee noted advice from WG-FSA which showed the projection of age 3+ fish from 2004/05 gave a projected yield of 647 tonnes in the 2005/06 season and 519 tonnes in the 2006/07 season if catch were spread over two years. If all the catch were taken in the first year and zero catch of this cohort in the second year then the recommended yield was 1210 tonnes. After consulting with industry members it was agreed that the TAC for 2005/06 should be 1210 tonnes.

It was recommended that the catch of age 4+ fish in 2006/07 be zero in order to satisfy the decision rule that the biomass of the stock should be greater than or equal to 75% of that which would have been present in the absence of fishing.

During the 2005 trawl survey at HIMI there was no indication of a strong 1+ year class which may result in a low TAC for 2007.

SARAG recommended that the TAC should be set at 1210 tonnes and noted that SFR holders agreed to not catch 10 tonnes of the TAC in the 2005/06 season. The 10 tonnes would be held back to cover any catch taken as bycatch or as part of the random stratified trawl survey undertaken in the 2006/07 season.

Bycatch species

SARAG noted that no new assessments were carried out on bycatch species in 2005 so the bycatch limits from the 2004/05 season were retained for 2005/06.

SARAG noted the CCAMLR recommendation that further information needed to be collected on skates and rays for future assessments, including providing life status information from fish cut from lines. CCAMLR agreed that skates and rays which were cut off the lines are not counted against the bycatch limit.



Recommendation – SARAG agreed to recommend to SouthMAC that the catch and size limits prescribed by CCAMLR XXIV be adopted for the HIMI Fishery for the 2005/06 season.

Agenda item 7 - New and Exploratory fisheries

SARAG noted that the proposals by the sole Australian operator, Petuna Sealord Pty Ltd, to fish in CCAMLR New and Exploratory fisheries in 2005/06 were approved by CCAMLR. SARAG endorsed the catch limits for the 2005/06 season, as outlined in the following table. The limits would apply to the operations of the Australian flagged longline vessel 'Avro Chieftain'.

SouthMAC noted that no new assessment of the stocks in these areas has been undertaken and the limits recommended are considered to be precautionary.

Area	Method	Target species limits (tonnes)	By-catch limits (tonnes)		
			Skates & Rays (per region)	Macrourus spp. (per region)	Other species (per SSRU)
		<i>Dissostichus</i> spp			
58.4.3(a)	Longline	250	50	26	20
58.4.3(b)	Longline	300	50	159	20
58.4.1	Longline	600	50	96	20
58.4.2	Longline	780	50	124	20

SSRU means small scale research unit.

Rules for catch limits for by-catch species adopted by CCAMLR XXIV

Skates and rays 5% of the catch limit for *Dissostichus* spp. or 50 tonnes, whichever is greater.

Macrourus spp. 16% of the catch limit for *Dissostichus* spp., except in Divisions 58.4.3a and 58.4.3b.

Other species 20 tonnes total per SSRU.

SARAG noted that for New and Exploratory fisheries, vessels from a number of other CCAMLR member countries were also given approval to operate in the various CCAMLR Statistical Divisions, and the catch limits for each Division will be taken on a competitive basis.

Recommendation - SARAG agreed to recommend to SouthMAC that the catch limits prescribed by CCAMLR XXIV be adopted for CCAMLR New and Exploratory fisheries for the 2005/06 season.

Heard Island and McDonald Islands Fishery

Agenda item 8 – Collaborative research between Australia and France

Dr Constable advised that delegates from Australia and France had met at CCAMLR to discuss the collaborative research program to look at the shared stock issue on the Kerguelen Plateau. He advised there was agreement to examine the haul by haul French data from the longline fleet, share bycatch data and that a mark recapture program would commence around the Crozet Islands. A trawl survey was likely to be undertaken by France in September 2006, with a joint meeting to be held in April 2007 to look the results of that survey.

Mr Exel advised that French industry had been keen to learn about potting as an alternative fishing method.



Agenda item 9 – Fisheries Assessment Plan 2005/06

SARAG noted that the proposal to amend the date for finalising the Fisheries Assessment Plan (FAP) would be changed from 1 December to 1 March. Mr Neave advised this amendment had been endorsed by the AFMA Board and will be progressed early in 2006.

Dr Constable advised that CCAMLR had placed an emphasis on mark recapture work. The aim at HIMI is continue to tag around 1000 toothfish on the current grounds and tag at a rate of 1 fish per tonne caught in other areas.

Dr Constable also suggested it would be desirable to tag some skates from longline operations and place them in pots to determine the survivorship. This would require cooperation with the longline vessel when it commenced operations.

The FAP for 2005/06 would require 23 days work, comprising 17 days for the random stratified trawl survey, 2 days for the juvenile icefish survey, 2 days for longline research transects and 2 days for pot research transects.

SARAG also noted that the FAP would need to be finalised before the annual random stratified trawl survey commenced in 2006.

Action arising

Macquarie Island Toothfish Fishery

Agenda item 10 – Stock assessment update

Dr Tuck provided SARAG with an update of progress with the integrated model for the Macquarie Island Toothfish Fishery. He advised that he had recently met with Dr Haddon and Dr Constable to improve efficiencies in the model. The modifications to the model would be discussed at SARAG 26, which was tentatively scheduled for April 2006. Dr Pribac would be undertaking much of the modelling work.

Mr Exel advised the 'Southern Champion' would fish at Macquarie Island in late January/early February 2006, and the data would be available after the boat returned to port. This meant that the stock assessment may not be available for the meeting, and may need to be considered out-of-session, based on the discussions around the model at SARAG 26.

Mr Exel requested that the current model and new model be compared using the same data, and using the latest ageing data for Macquarie Island from the Central Ageing Facility. Dr Constable undertook to discuss the data requirements with the relevant scientists at AAD and CSIRO.

Action arising

Mr Neave undertook to investigate the availability of the catch information from the 'Taruman' for use in the stock assessment.

Action arising

Mr Scott advised that the Macquarie Ridge was not necessarily going to be just a trawl fishery and that other fishing methods, such as potting, were possibilities in the future. He sought recognition of this when the TAC was set for Macquarie Ridge.

Research

Agenda item 11 – Applications for research funding

Mr Neave outlined the outcomes from the ComFRAB discussions in October 2005 on Antarctic fisheries research proposals.



1. Industry survey in the Heard Island and McDonald Islands Fishery 2006 and 2007 – this project was approved for funding through the AFMA Research Fund (80% industry collected through the levy base, 20% Government) for the Fisheries Assessment Plan work that gets undertaken each year.
2. Continued stock assessment and management strategy evaluation for Australian Sub-Antarctic fisheries 2006 -2007 – this is a continuation of Geoff Tuck's work at CSIRO and funding was recommended through the AFMA Research Fund (80% industry collected through the levy base, 20% Government).
3. Sub-Antarctic Resource Assessment Group – this is for the continued work of SARAG and funding was recommended through the AFMA Research Fund (25% industry collected through the levy base, 75% Government).
4. Demersal fishing interactions with marine benthos in the Australian EEZ for the Southern Ocean: an assessment of potential effects and effective mitigation measures – this was given a high priority for funding through FRDC.
5. Developing a machine vision system for at-sea data collection concerning Patagonian toothfish – this proposal from Pelagicus Pty Ltd for FRDC was not supported by ComFRAB.

Projects 2 and 3 while given a high priority and recommended for funding will be considered part of the budget preparation for 2006/07. The intention is to ensure that the budgetary implications of the fishery's research program are considered alongside other parts of the fishery budget. A final decision on these projects will be made by the AFMA Board in May 2006.

Environment

Agenda item 12 – Review of environmental interactions and gear loss

SARAG noted the tables provided by AFMA which summarised seabird interactions, marine mammal interactions, gear loss and gear recovered.

Mr Neave advised that as a result of the of interactions in midwater trawl operations in the mackerel icefish fishery earlier this year Austral Fisheries Pty Ltd had imposed a series of mitigation measures and these will be placed as conditions on statutory fishing rights for the 2005/06 season for mackerel icefish operations. The principle measures are:

- no midwater trawling for mackerel icefish during February and March; and
- at other times, midwater trawling will only occur at night;

Mr Exel advised that Austral Fisheries Pty Ltd would also remove the 'stickers' from the net prior to the trawl being shot away and ensure the trawl deck is swept clean of any fish. He advised that when the midwater trawl net is at the surface the vessel shall keep a practical speed to ensure the meshes in the net are kept closed as much as possible. The skipper will monitor the number of birds around the boat and not shoot away where there is a significant risk of seabirds becoming entangled. The Company will also trial net monitors being attached before the trawl is deployed and not removed before until the entire trawl is retrieved.

Agenda item 13 – Seabird bycatch limits

Following SARAG 24 a meeting between AAD and industry was convened to prepare an issues paper. It was agreed that a report from the meeting outlining the various issues involved would be prepared by AAD and circulated to SARAG. As the paper had not been prepared and the SARAG Members with seabird expertise were absent, it agreed to consider this issue at SARAG 26.



SARAG discussed the procedures for reviewing papers that are to be submitted to CCAMLR and its associated Committees and Working Groups. Members noted that an agreed procedure had been adopted for reviewing stock assessments carried out by AAD for Australian fisheries.

Mr Scott advised that some incorrect data had been reported in papers provided by the CCAMLR Secretariat on the compliance with Conservation Measures by the 'Avro Chieftain'. A correction was made at the meeting to reflect that 100% compliance had been achieved.

It was recommended that a similar procedure should be applied to papers going to forums, such as the Working Group on Incidental Mortality Associated with Fishing (IMAF), where it impacted on Australian fishing operations. This would ensure that operational data was reviewed prior to being submitted to CCAMLR and that a whole of Government approach was adopted.

SARAG requested that AFMA write to Dr Tony Press, Director of AAD, requesting that this procedure be considered. It was also agreed to include a request to have an environment policy expert attend SARAG meetings, as required, to be involved in discussions on environmental interaction issues in Antarctic fisheries.

Action arising

Data

Agenda item 14 – Data plan for Antarctic fisheries

SARAG noted the latest draft of the data plan for Antarctic fisheries prepared by Carolyn Robins, a consultant employed by AFMA.

Members were asked to provide any comments on the data plan to Mr Neave by 30 November 2005.

Action arising

Other

Agenda item 15 – Other business

No other business was discussed.

Agenda item 16 - Next meeting

The next meeting of SARAG was tentatively scheduled for early to mid April 2006. The meeting would run in conjunction with a one day workshop on the integrated assessments for the HIMI Fishery, and a one day Ecological Risk Assessment workshop. The timing of the meeting was dependent on progress with development of the integrated model by AAD.

The meeting closed at 5.15 pm.



