

AUSTRALIAN HEARD AND MCDONALD ISLANDS (HIMI) TOOTHFISH FISHERY

4TH SURVEILLANCE AUDIT REPORT 2016

Certificate Code: F-SCS-0083

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Glossary

AAD	Australian Antarctic Division
ABARES	Australian Bureau of Agricultural & Resource Economics & Sciences
ACBPS	Australian Customs and Border Protection Service
B _{MSY}	Biomass calculated for Maximum Sustainable Yield
CCAMLR	Commission for the Conservation of Marine Living Resources
CR	Certification Requirements (v1.3)
DAT	Default Assessment Tree
EEZ	Exclusive Economic Zone
ETP	Endangered, Threatened or Protected
F _{LIM}	Fishing Mortality Limit Reference Point
FRDC	Fisheries Research and Development Corporation
HIMI	Heard Island and Macquarie Island
IFMP	Integrated Fisheries Management Plan
ISO	International Standard Organization
IUU	Illegal, Unreported and Unregulated
MSC	Marine Stewardship Council
NGO	Non-Government Organisation
P1, P2, P3	The three guiding Principles of the MSC
PCR	Public Certification Report
PI	Performance Indicator
RSTS	Random Stratified Trawl Survey
SARAG	Sub-Antarctic Resource Assessment Group
SARPC	Syndicat des Armements Réunionnais de Palangriers Congélateurs (Syndicate of all licence holders for the toothfish fishery in the French EEZ around Kerguelen Island)
SC	Scientific Committee
SCS	SCS Global Services
SSB	Spawning Stock Biomass
TAAF	Terres Australes et Antarctiques Françaises
TAC	Total Allowable Catch
ULR	Upper Limit Reference Point
WG-FSA	Working Group on Fish Stock Assessment

1. General Information

Fishery name	Australian Heard and McDonald Islands (HIMI) Toothfish Fishery		
Unit(s) of assessment	Toothfish (<i>Dissostichus eleginoides</i>) fishery (demersal trawl and longline) operating in the vicinity of Heard Island and McDonald islands, Southern Ocean, Australian EEZ.		
Date certified	16 th March 2012	Date of expiry	15 th September 2017
Surveillance level and type	4 th Annual Surveillance Surveillance level 6. On-site audit.		
Date of surveillance audit	9 th August 2016		
Justification	The fishery was certified in March 2012, and the certification anniversary for the 4 th annual surveillance is in March 2016. The 4 th annual surveillance is being carried out in the same time period as the HIMI toothfish re-assessment, Macquarie Island Toothfish 4 th annual surveillance and re-assessment and Blue Grenadier 1 st annual surveillance. These fisheries share the same client, management agencies and research providers, and having these audits in succession will avoid the need for multiple meetings.		
Surveillance stage (tick one)	1st Surveillance		
	2nd Surveillance		
	3rd Surveillance		
	4th Surveillance	✓	
	Other (expedited etc)		
Surveillance team	Lead assessor: Dr. Sabine Daume Assessor(s): Mr. Alexander Morison		
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2. Background

The Australia Heard and McDonald Islands (HIMI) Toothfish Fishery was certified on 16th March 2012 by SCS Global Services. The MSC requires that each certified fishery undergo regular surveillance audits to ensure the basis of certification is maintained and that the fishery continues to address any conditional requirements identified during the full assessment process. This fishery is currently on a normal annual surveillance cycle.

The fourth surveillance audit focused on changes since the third surveillance audit in 2015 and on monitoring continued compliance with the MSC Principles and Criteria. Five conditions were raised during the recertification of the fishery in 2012, three in Principle 1 (for Performance Indicators 1.2.1, 1.2.2 and 1.2.4), one in Principle 2 (for Performance Indicator 2.4.3) and one in Principle 3 (for Performance Indicator 3.1.2). The Principle 2 condition was closed out during the second surveillance audit in 2013, and the Principle 3 condition was closed out during the third surveillance audit in 2014. During this year surveillance audit the three in Principle 1 conditions were closed out and rationales and re-scores provided.

It is SCS' view that the HIMI Toothfish fishery continues to meet the standard of the MSC and to comply with the 'Requirements for Continued Certification'. SCS recommends the continued use of the MSC certificate through to the re-assessment of the fishery to be completed in 2017.

Table 1. TAC and Catch Data (from CCAMLR 2015a).

TAC	Year	2014/15	Amount	4,410 t
UoA share of TAC	Year	2014/15	Amount	4,410 t
UoC share of TAC	Year	2014/15	Amount	4,410 t
Total green weight catch by UoC	Year (most recent)	2014/15	Amount	4,279 t
	Year (second most recent)	2013/14	Amount	2,750 t

Table 2. Summary of Assessment Conditions.

Condition number	Performance indicator (PI)	Status	PI original score	PI revised score
1	1.2.1	Closed	75	90
2	1.2.2	Closed	70	95
3	1.2.4	Closed	70	85

3. Assessment Process

3.1 MSC Certification and Conditions for Continued Compliance

An MSC certificate is valid for a period of 5 years. During the initial certification, five conditions were identified (see final report on MSC website), all of which are now closed out.

3.2 Consequences for Non-Compliance

Where a fishery is determined to be “behind target” for a condition, the surveillance team will work with the client representatives to determine a new timeframe for closing of the condition within the original certification period and will include interim milestones for completion. The client must provide evidence that the fishery is working toward compliance and identify the reason that the condition timelines are not met.

SCS reserves the right to enact 7.4 of the MSC Certification Requirements where a fishery certificate may be revoked or suspended if a condition is not back “on target” within 12 months of falling “behind target” following the MSC certification requirements 27.22.9.

3.3 Surveillance Audit Timing and Frequency

Surveillance audits, including this audit, were determined to take place annually with an onsite visit each year (normal surveillance cycle). The surveillance audit was conducted after the certificate anniversary (15th March 2016) to align with other audits involving the same client, management and research providers also taking place in August 2016.

3.4 Surveillance Team

Two auditors conducted the third surveillance audit, which fulfilled the requirements of the MSC Certification Requirements. The team collectively meets the same requirements of the MSC Certification Requirements (v.1.3, Annex CM) for assessment team members.

Team Leader: Dr. Sabine Daume

Team Member: Mr. Alexander Morison

Dr. Sabine Daume, SCS Global Services (SCS), Regional Director Australia and NZ

Dr. Daume is the Regional Director for the SCS Sustainable Seafood Program in Australia and NZ, which covers MSC, ASC and Fisheries Improvement programs. Since 2009, Dr. Daume has led numerous MSC evaluation audits on behalf of SCS, including several large and controversial assessments, and numerous in Australia. Dr. Daume is a marine biologist with special expertise in the biology and ecology of exploited marine resources with a particular emphasis on invertebrates. Dr. Daume has more than 20

years' experience working with the Invertebrate fishing and aquaculture industry in Australia and international. Prior to joining SCS, Dr. Daume worked as a Senior Research Scientist at the Research Division of the Department of Fisheries in Western Australia. Dr. Daume led the WA rock lobster, Heard Island and McDonald Islands (HIMI) icefish and toothfish as well as Macquarie Island toothfish assessments, annual surveillances and re-assessments. She also led the Australia Blue Grenadier assessment in 2015 and several new full assessments in Western Australia in 2015 and 2016 of which the WA Peel Harvey Estuarine and the WA Deep Sea Crab Fishery were recently certified. Dr. Daume has been trained by the MSC to use the Risk Based Framework (RBF) and the most recent MSC Certification Requirements (v2.0 Oct. 2015). She is a certified lead auditor under the ISO 9001:2008 standard.

Alexander (Sandy) Morison, Morison Aquatic Sciences

Mr. Morison is a consultant specializing in fisheries and aquatic sciences. He has over 30 years' experience in fisheries science and assessment at state, national and international levels and has held senior research positions for state and national organizations in Australia. These include being chair of a range of fishery assessment groups including the Victorian Southern Rock Lobster Assessment Group. Mr. Morison has participated as part of a team undertaking MSC pre-assessments for several fisheries and has been the Principle 1 expert for the MSC certification assessments or surveillance audits of assessments of the Heard Island and McDonald Islands (HIMI) Icefish Fishery, the HIMI Toothfish Fishery, the Macquarie Island Toothfish Fishery, the Kyoto Danish Seine Fishery, the Western Australian Rock Lobster Fishery, the Lakes and Coorong Fishery, the Partner's to the Nauru Agreement (PNA) Purse Seine Skipjack Tuna Fishery, and the expedited Principle 1 assessment of the PNA Purse Seine Yellowfin Tuna Fishery. He was also the Principle 2 expert on the assessment of the Eastern Pacific Ocean Yellowfin and Skipjack Tuna Purse Seine Fishery. Mr Morison is also trained as a lead auditor for MSC assessments including the use of the Risk Based Framework and was lead auditor (and Principle 1 and Principle 2 expert) for the assessment of the American Samoan Yellowfin and Skipjack Tuna Fishery. In other recent project work Mr Morison was engaged by the WA Fisheries Department to review an overview report on the biology and stock status of indicator species in the Gascoyne Coast Bioregion. He has undertaken work for the Australian Department of Environment (and its predecessors) including an assessment of risks posed by fishing methods to the conservation values of proposed marine parks, refinement of the issues paper and recovery plan for freshwater sawfish, and facilitation of an Oceania regional workshop on countries' requirements for CITES listed sharks and rays. Mr Morison has also worked on an assessment of the ecological risks from Queensland's East Coast Trawl Fishery that looked at the full range of ecological components as well as a separate assessment of this fishery's vulnerability to climate change. He has particular expertise with fish age and growth and has been involved in the development and implementation of harvest strategies for several fisheries. He has over 20 publications in peer-reviewed scientific journals (8 as senior author), 8 book chapters, and over 100 project reports, technical reports, client reports and papers in workshop and conference proceedings. The above positions encompass experience with the assessment of invertebrate, chondrichthyan and 7 teleost fisheries including commercial and recreational fisheries in freshwater, estuarine and marine habitats and fisheries operating in tropical, temperate and polar environments.

3.5 Surveillance Meeting

The surveillance audit for 2016 comprised:

1. SCS determined the surveillance level of the audit to be Level 6 with an onsite evaluation required. An announcement of the surveillance audit was posted on the MSC website on July 7th 2016. Stakeholders were informed of the announcement through the MSC website and through direct email outreach. An audit plan was provided to the client, management, scientists and interested stakeholders by SCS before the meeting.

2. Representatives from Austral Fisheries (client representative), Australian Antarctic Division (AAD) and Australian Fisheries Management Authority (AFMA) attended the audit on 9th August 2016 in Hobart, Tasmania. The meeting focussed on progress towards meeting conditions from the assessment, as well as any general updates. No other stakeholders attended and no other written submissions were received.

3. A closing meeting was held at the end of the audit on 9th August 2016 to discuss the findings of the team's assessment of progress towards the conditions. A list of meeting attendees at the onsite meeting is contained in Table 3.

4. A draft report was submitted to the client for review. Comments from the client were taken into account before posting the first annual surveillance report on the MSC website.

Table 3. Fourth Surveillance Audit Attendees

Name	Role	Organisation
Sabine Daume	Lead auditor, P2 Expert	SCS
Alexander (Sandy) Morison	P1 Expert	Consultant, SCS
Sascha Brand-Gardner	P3 Expert	Consultant, SCS
Martin Exel*	Client Representative	Austral Fisheries
Rhys Arangio*		Austral Fisheries
Dirk Welsford**	Stock Status and Harvest Strategy	AAD
Phillip Ziegler	Stock Status and Harvest Strategy	AAD
Jo Fisher*	Management	AFMA

*attended remotely

** provided input post onsite visit

3.6 Harmonisation discussions

The assessment team has given careful consideration to ongoing harmonisation issues with the French fishery on the adjacent Kerguelen Plateau by the Syndicate of all licence holders for the toothfish fishery in the French EEZ around Kerguelen Island (SARPC = Syndicat des Armements Réunionnais de Palangriers Congélateurs). This process included reviewing documents relevant to that fishery available through CCAMLR and provided by MacAlister Elliott and Partners, the CAB responsible for the MSC assessment

of this fishery. It also included email exchanges with members of this CAB and a conference call on the 11th November 2016. Proposed decisions to close conditions on the HIMI fishery were also provided to MSC and discussed in a conference call on the 18th October 2016 to identify any harmonisation concerns by the Standards Holder.

3.7 Data Submitted

AFMA (2015) Sub-Antarctic Resource Group (SARAG) Draft Minutes. SARAG 52. 8 September 2015.

AFMA (2015) Sub-Antarctic Fisheries Management Advisory Committee (SouthMAC). Minutes Teleconference 10 November 2015.

Barrington, J & Lamb, T. (2015) Season extensions in the longline fishery for *Dissostichus eleginoides* in Statistical Division 58.5.2. Australian Antarctic Division, Tasmania.

Commonwealth of Australia (2014) Heard and McDonald Islands Marine Reserve Management Plan 2014-2024. Department of the Environment, Australian Antarctic Division, Tasmania.

CCAMLR (2015a) Fishery Report 2015: *Dissostichus eleginoides* Heard Island Australian EEZ (Division 58.5.2).

CCAMLR (2015b) Fishery Report 2015: *Dissostichus eleginoides* Kerguelen Islands French EEZ (Division 58.5.1).

CCAMLR Conservation measures (CM) 33-02 - Limitation of by-catch in Statistical Division 58.5.2 in the 2015/16 season.

CCAMLR Conservation measures (CM) 41-08 – Limits on the fishery for *Dissostichus eleginoides* in Statistical Division 58.5.2 in the 2015/16 and 2016/17 seasons.

Dell, J., Maschette, D., Woodcock, E. & Welsford, D. (2015) Biology, population dynamics and preliminary assessment of the long-term yield of *Macrourus caml* by-caught by the Australian fishery at Heard Island and the McDonald Islands (CCAMLR Division 58.5.2). Department of the Environment, Australian Antarctic Division, Tasmania.

Maschette, D., Welsford, D.C & Gardner, C. (2015) Exploring age and growth dynamics of a historically overfished Sub-Antarctic fish species: The grey rockcod (*Lepidonotothen squamifrons*) in the vicinity of Heard Island and McDonald Island. Department of the Environment, Australian Antarctic Division, Tasmania.

Nowara, G.B., Lamb, T.D. & Welsford, D.C. (2015) The annual random stratified trawl survey in the waters of Heard Island (Division 58.5.2) to estimate the abundance of *Dissostichus eleginoides* and *Champscephalus gunnari* for 2015. Department of the Environment, Australia Antarctic Division, Tasmania.

Nowara, G.B., Lamb, T.D. & Welsford, D.C. (2016) The annual random stratified trawl survey in the waters of Heard Island (Division 58.5.2) to estimate the abundance of *Dissostichus eleginoides* and *Champsocephalus gunnari* in the waters of Heard Island (Division 58.5.2) for 2016. Department of the Environment, Australia Antarctic Division, Tasmania. WG-FSA-16/23.

Nowara, G.B., Burch, P., Gasco, N., Welsford, D.C., Lamb, T.D., Chazeau, C., Duhamel, G., Pruvost, P., Wotherspoon, S. & Candy, S.G. (2016) Distribution and abundance of skates (*Bathyraja* spp.) on the Kerguelen Plateau through the lens of the toothfish fisheries. Fisheries Research 186: 65-81.

Patterson, H. & Skirtun, M. (2016) Chapter 25: Heard and McDonald Islands Fishery. pp 421-431 In: Patterson, H, Noriega, R, Georgeson, L, Stobutzki, I & Curtotti, R 2016, Fishery status reports 2016, Australian Bureau of Agriculture and Resource Economics and Sciences, Canberra.

Peron, C., Welsford, D.C., Ziegler, P., Lamb, T.D., Gasco, N., Chazeau, C., Sinagre, R. & Duhamel, G. (2016) Modelling spatial distribution of Patagonian toothfish through life-stages and sex and its implications for the fishery on the Kerguelen Plateau. Progress in Oceanography 141: 81-95. ABARES Fishery status reports 2015.

Welsford, D.C., Ewing, G.P., Constable, A.J., Hibberd, T. & Kilpatrick, R. (2014) Demersal fishing interactions with marine benthos in the Australian EEZ of the Southern Ocean: An Assessment of the vulnerability of benthic habitats to impact by demersal gears. FRDC Project 2006/042 Final Report.

Welsford, D. C. & Arangio, R. (2015) Spatial and temporal patterns of sperm whale (*Physeter macrocephalus*) depredation on Australian longline vessels in the Patagonian toothfish (*Dissostichus eleginoides*) fishery at Heard Island and McDonald Islands (CCAMLR Division 58.5.2)

Welsford, D.C., Farmer, B., Lamb, T.D., Peron, C., Woodcock, E. & Ziegler, P.E. (2015). Updated description of Patagonian toothfish (*Dissostichus eleginoides*) tagging and ageing programs in Division 58.5.2, 1997-2015.

Ziegler, P. & Welsford, D. (2015) An integrated stock assessment for the Heard Island and the McDonald Island Patagonian toothfish (*Dissostichus eleginoides*) fishery in Division 58.5.2. Australia Antarctic Division, Department of the Environment., Tasmania.

4. Results

4.1 Principle 1: Stock Status and Harvest Strategy

The Australian toothfish fishery

The reported catch of Patagonian toothfish from the HIMI fishery in 2015 was 4,127 tonnes, below the determined total allowable catch (TACs) of 4,410 t for 2014/15 (CCAMLR 2015a).

The Random Stratified Trawl Survey (RSTS) continues to be undertaken to support estimates of Patagonian toothfish abundance and to collect data on population structure (**Figure 1**) (Nowara et al. 2015). The results of the survey conducted in May 2015 were used in the 2015 update of the stock assessment. The catch rate of Patagonian toothfish for 2015 in the survey was twice that in 2014 and two and a half times higher than the long-term average for the survey. The RSTS was again conducted in 2016 (Nowara et al. 2016) and the results will be used in the update of the toothfish assessment in 2017.

The results of an updated stock assessment for Patagonian toothfish were presented to the CCAMLR Working Group on Fish Stock Assessment (WG-FSA) in 2015 (Ziegler and Welsford 2015).

Ziegler and Welsford (2015) reported that this assessment incorporated (a) new fishery observations up to 2015 including new ageing data from the 2014-2015 RSTS and commercial fishery from 2009-2014, (b) tag-releases from 2014 and tag-recaptures from 2014 (complete) and 2015 (partial), (c) an updated growth model, (d) changes in priors for survey catchability q , unfished spawning biomass B_0 and year class strength, and (e) a split of the trawl sub-fishery into two periods. The updated assessment model estimated a smaller virgin spawning stock biomass B_0 than that obtained in 2014, with an MCMC estimate of 87 077 tonnes (95% CI: 78 500-97 547 tonnes). Estimated SSB status in 2015 was 0.64 (95% CI: 0.59-0.69). Using this model, a catch limit of 3405 tonnes was calculated to meet the CCAMLR decision rules. Similarly to the 2014 assessment, the projected stock remained above the target level for the entire projection period. This recommended catch limit was agreed by CCAMLR and implemented by AFMA.

Other new publications that are relevant to the fishery are listed in the references.

As reported in previous Surveillance Reports the stock assessments were reviewed through the regular SARAG meetings, the CCAMLR Consultative Forum and Interdepartmental Committee. A formal data sharing agreement between Australia and France that was signed in 2013 continues to be in place.

Patagonian toothfish in the HIMI fishery continue to be classified as not overfished and not subject to overfishing in the ABARES fishery status reports (Patterson and Skirtun 2016).

The above information indicates that the stock exploited by the fishery continues to meet the requirements for certification.

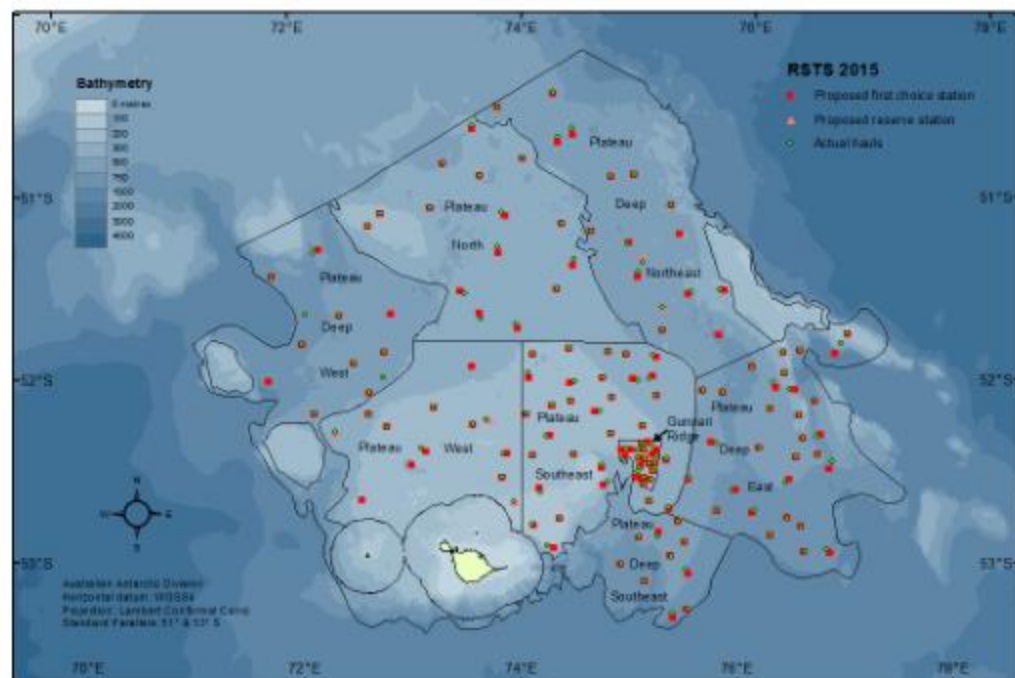


Figure 1. The distribution of sampling hauls within strata for the random stratified trawl survey of the Heard Island plateau region for 2015. Hauls on the main trawling ground (Ground B) are not shown (from Nowara et al. 2015).

The French toothfish fishery

Fishing in the French fishery was conducted by seven vessels using longlines and the total reported catch up to the end of July 2015 was 2,884 t against an unchanged catch limit of 5,100 t (CCAMLR 2015b). Catches in previous years were 5,377 t in 2013 and 5,326 t in 2014 exceeding the TAC of 5,100 t for each year. These excess catches are attributed to a 100 t allowance for funding of research cruises (every three years) being additional to the TAC and additional discretionary amounts granted to vessels (S. Des Clers, personal communication 14 Nov 2016).

There was also an updated assessment of an updated stock assessment of the fishery for Patagonian toothfish around Kerguelen Island, which included fishery data up to the 2015/16 season (Sinégre and Duhamel 2016). This assessment notes that movement of tagged toothfish is 'mainly negligible' in the Kerguelen area. It estimated that a catch of 5,323 t (including an allowance of 273 t for whale depredation) would be less than the maximum catch that would meet CCAMLR decision rules (6,082 t). The WG-FSA's comment on this assessment are not yet available, but WG-FSA-15 agreed that the results of the previous assessment could be used to provide management advice for the fishery in the French EEZ in Division 58.5.1 for 2016 and that although the long-term precautionary yield was not calculated, the catch limit set for 2016 by France of 5,300 tonnes was considered to satisfy the CCAMLR decision rules (CCAMLR 2015b).

Since the last surveillance audit for the HIMI Toothfish Fishery the second surveillance audit of the SARPC Fishery has been completed (MEC, 2015). This audit team reported that the TAAF had published a Management Plan for the fishery in the TAAF Official Journal in August 2015 (TAAF, 2015). They

reported that “the management plan documents bring together all recent regulatory changes and sets out an ambitious objective of the estimated toothfish stock biomass in Kerguelen to stabilise at 60% above the initial biomass (B_0), which is higher than the CCAMLR (and HIMI fishery) objective of 50% and may not be achievable in near future.” The overall conclusion from that audit was that progress had been made towards all conditions that were set and with non-binding recommendations and that the fishery’s overall progress was considered to be on target. No conditions were closed and despite the new Management Plan being in place it was assessed that the harvest control rules for the fishery were not yet sufficiently clear and transparent. The audit team accepted the argument that it was appropriate that more precise harvest control rules should wait for the final development of the stock assessment model and system.

4.2 Principle 2: Ecosystem Impact

There have been very little changes in terms ecosystem impacts of the fishery. The fishery has shifted almost entirely to longline gear resulting in a change of main bycatch species as well as less impact of the gear on habitat. Trawl surveys are still continuing.

Total by-catch in the toothfish fisheries is generally less than 10% of the total catch. Total landed by-catch in the longline fisheries ranged from 6 to 10% of the total catch (~ 7% in 2014/15). Grenadier spp. comprises approximately 6.5%, *Antimora rostrata* and grey rock cod, <1% of the total catch by weight and 0.4% of skates and rays from the longline fishery for the 2014/15 season

Catch limits are set for four retained and by-catch species groups (unicorn icefish, grey rock cod, macrourids and skates and rays) The bycatch limits of *Channichthys rhinoceratus* shall not exceed 1 663 tonnes, the by-catch of *Lepidonotothen squamifrons* shall not exceed 80 tonnes, the by-catch of *Macrourus caml* and *Macrourus whitsoni* combined shall not exceed 409 tonnes, the by-catch of *Macrourus holotrachys* and *Macrourus carinatus* combined shall not exceed 360 tonnes, and the by-catch of skates and rays shall not exceed 120 tonnes. All other bycatch species shall not exceed 50 tonnes together (CM 33-02). By-catch levels continue to be monitored by observers and reported to CCAMLR. No by-catch species were caught in quantities approaching their catch limits, the total catch (all *Macrourus* species combined) was 302 tonnes in the 2014/15 season so also well below the catch limit.

Vessels are encouraged to use two streamer/ tori lines and in the fishery (CM 25-02). In 2014/15, there were two seabird mortalities (Northern Giant Petrel) observed and 6 seals (southern elephant seals (*Mirounga leonina*) and Antarctic fur seal (*Arctocephalus gazella*) were caught in the longline sector which is higher than in previous years. There had been no reports of marine mammal mortalities in the trawl fishery since 2005 (CCAMLR 2015).

There is now a new voluntary industry move on provisions for sperm whales that ensures the next line shot is 50 miles away.

Squid are the main bait species used in the longline sector of the fishery (> 70% of total bait used) and are either *Nototodarus sloanii* imported from New Zealand or *Illex argentinus* from Argentina.

There were no conditions set on the fishery around impacts on non-target catch and it remains highly unlikely that current catch levels will have any adverse effect on the impacts of the fishery on, or the status of, retained species, bycatch, ETP species, or trophic function.

The condition that had been placed on the fishery during the assessment which related to habitat impacts (PI 2.4.3) which was closed at the second surveillance audit.

4.3 Principle 3: Fishery Management

Management of the HIMI Toothfish fishery remains stable, with the same fishery manager for the past 2.5 years (2014-2016). The following management changes have occurred in the fishery since the last Surveillance Report.

Department name changes

The Department of Agriculture, Fisheries and Forestry (DAFF) is now the Department of Agriculture and Water Resources (DAWR). The Department of the Environment (DotE) is now the Department of the Environment and Energy (DotEE).

TAC changes

There have been changes in the TAC in recent seasons consistent with the outputs of updated assessments. The TAC has changed from 2730 t in 2013/14, to 4410 t in 2014/15 and 2015/16, and will be 3405 t in 2016/17.

The TAC is set for two years by CCAMLR, however AFMA will continue to set it each year before December to monitor the fishing season. Fishers are spreading their effort and looking for new grounds following low catch rates this year.

A Catch Document Scheme (CDS) is currently being reviewed by a subgroup of CCAMLR.

Fishing Season

In 2014/15 there was an extended season from 14th November to 30th November as a response to request from industry.

The season was extended by two weeks at the beginning of the season (from 1-14 April 2015). The seabird mitigation measures were extended accordingly to include integrated weight (IW) hooklines while deploying longline (IWL) in addition to paired streamer lines. The season extension was also subject to the total catch limit of three birds per vessel (see CM 25-02, CM 41-08).

IUU updates

No illegal foreign fishing vessels have been detected inside the Australian Fishing Zone of the HIMI area since 2005 (AFMA 2014). There were 142 surveillance patrol days by Australian Government vessels in 2014-15 in the Southern Ocean (against a target of 172 days) (ACBPS 2015) compared to 329 patrol days in the previous year. Cooperative arrangements continue with the French Government remain and electronic surveillance methods continue to be used. A new patrol vessel, the *ACV Ocean Shield* entered service in November 2014 and commenced its inaugural Southern Ocean patrol on 16 April 2015 as part of Australian Government efforts to enforce the Heard Island and MacDonald Islands EEZ, waters covered by the international Convention on the Conservation of Antarctic Marine Living Resources, and in the French EEZ around Kerguelen Island (ACBPS 2015). A range of other approaches are also used to assist in combating risks from IUU fishing in areas outside Australia's jurisdiction (AFMA 2014).

Other changes

- Austral have announced their carbon offset credentials.
- Austral Leader II vessel has been sold. There are currently 3 vessels operating in the fishery.

Table 4. Condition 1

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Original Score
Performance Indicator(s) & Score(s)	PI 1.2.1	<p>The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.</p> <p>The harvest strategy may not have been fully tested, but monitoring is in place and evidence exists that it is achieving its objectives.</p>	75
Condition	At the fourth annual surveillance audit, the client shall provide information to demonstrate that the harvest strategy is robust and precautions are in place. The client shall also provide evidence that it is achieving its objectives for all significant fisheries that target this stock and, in particular, for the fishery that operates within the French EEZ around Kerguelen Island.		
Milestones	see below		
Client action plan	<p>At each annual surveillance audit AAD, AFMA and Industry to provide updates on progress by Australian and French fishery management agencies towards developing a robust and precautionary harvest strategy for the whole stock across the Kerguelen Plateau.</p> <p>By the 4th annual surveillance audit client will provide evidence of the robust and precautionary harvest strategy in place for the entire fishery, incorporating the French fishery.</p>		
Progress on Condition [Year 1]	There has been progress towards this condition in the form of collaboration between Australian and French scientists that has assisted in developing an improved stock assessment for the French fishery and continues to progress the development of a joint plateau-wide stock assessment. The assessment of the French fishery was accepted by the CCAMLR Scientific Committee as being adequate for management advice for the 2012/13 fishing season.		
Status of condition	On target		
Progress on Condition [Year 2]	<p>There continues to be progress towards this condition in the form of collaboration between Australian and French scientists and in particular through the commencement of a new FRDC project that (among other objectives) is aimed at progressing a joint plateau-wide stock assessment, and through the signing of a formal data sharing agreement and the subsequent exchange of data.</p> <p>The assessment of the French fishery was accepted by the CCAMLR Scientific Committee as being adequate for interim management advice for the 2012/13 fishing season and no new assessment was presented in 2013.</p> <p>Although this surveillance audit of the HIMI Fishery is the first since the SARPC Fishery has been certified, the information included in the Public Comment Draft Report for this fishery was considered during the first surveillance audit. The assessment team are not aware of any additional information that would justify the closure of this condition and the rescoring of the HIMI Fishery at this stage.</p>		

	Nevertheless, progress towards meeting this condition is considered to be good.
Status of condition	On target
Progress on Condition [Year 3]	<p>Collaboration has continued between Australian and French scientists through the continuation of the FRDC project (as reported in Welsford 2014) and through the regular exchanges at CCAMLR meetings. There was also a special French and Australian Science and Industry consultative meeting held in Norway in June 2015 (Anon 2015) that covered a range of issues including the requirements for ongoing MSC certification of both fisheries.</p> <p>The audit team was advised that the data exchange procedures have been effective. Knowledge of the inter-relationships between HIMI and Kerguelen stocks continue to improve as data continue to accrue from the ongoing tagging work and from other work on the biology of toothfish. There are ongoing improvements to the data available and the assessments they support that are used to provide management advice for both the Australian and French fisheries. These have been noted in the WG-FSA report (CCAMLR 2014a).</p> <p>Discussions have also taken place about the sources of differences in results of French and Australian surveys including the effects of different mesh sizes. The potential for harmonizing the survey activities of both countries is the subject of active discussions. The need for a plateau-wide assessment has also been the subject of ongoing discussions.</p> <p>It is noted that the assessment of the SARPC fishery scored this PI at 80 and therefore no condition was imposed.</p> <p>Progress towards meeting this condition was considered to be still on target.</p>
Status of condition	On target
Progress on Condition [Year 4]	<p>The 2015 surveillance audit of the SARPC fishery (MEC 2015) reported that the TAAF had published a Management Plan for the fishery in the TAAF Official Journal in August 2015 (TAAF, 2015). They reported that “the management plan documents brings together all recent regulatory changes. The plan sets out an ambitious objective of the estimated toothfish stock biomass in Kerguelen to stabilise at 60% above the initial biomass (B₀), which is higher than the CCAMLR (and HIMI fishery) objective of 50% and may not be achievable in near future.”</p> <p>As noted above, there is no condition on this PI for the SARPC fishery and we consider that this condition on the HIMI fishery, which was imposed for perceived deficiencies with the harvest strategy for the SARPC fishery, should be closed for the following reasons.</p> <ul style="list-style-type: none"> • The SARPC fishery has been certified by MSC without a condition on this PI so it has been accepted as meeting the SG80 requirements of this PI. • It is unreasonable to maintain a condition on the HIMI fishery that concerns the HS for the SARPC fishery when no similar condition has been imposed on that fishery. • Requirements for harmonisation also suggest that the condition on the HIMI fishery should be closed. • The CCAMLR Working Group on Fish Stock Assessment (WG-FSA) has accepted that “Although the long-term precautionary yield was not calculated, the current the catch limit set for 2015/16 by France of 5 300 tonnes satisfied the CCAMLR decision rules” (WG-FSA 2015, paragraph 4.42). It has accepted this assessment as the basis for management advice for several years. Therefore the body responsible for reviewing the results of the assessment of this fishery has concluded the current TACs for the French fishery is not leading to catches that would threaten the sustainability of the target stock.

	<ul style="list-style-type: none"> Projections made in the 2016 stock assessment (Sinegre and Duhamel 2016) also support this position. <p><u>Harmonisation with the French fishery</u> There is no condition for this PI for the French fishery. Closing this condition will align the scores for both fisheries and achieve full harmonisation.</p>
Status of condition	Closed.

Table 5. Condition 2

Performance Indicator(s) & Score(s)	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Original Score
	PI 1.2.2	<p><u>Well-defined</u> harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.</p> <p>The <u>selection</u> of the harvest control rules takes into account the <u>main</u> uncertainties.</p> <p><u>Available evidence indicates</u> that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</p>	70
Condition	By the fourth annual surveillance audit the client shall ensure that the harvest control rules take into account the main uncertainty in the assessment. This can be achieved once the stock assessment has been updated to incorporate the identified interactions between toothfish across the Kerguelen Plateau. The client shall provide evidence that the harvest control rule application will also explicitly account for the distribution of future catches of Patagonian toothfish in both the Australian and the French zones.		
Milestones	see below		
Client action plan	<p>Continued development of research and scientific programs on toothfish stock status and toothfish interchanges across the Kerguelen plateau. (AAD – Annually)</p> <p>Development of alternative stock assessment approaches so that the application of the CCAMLR harvest strategy will take into account toothfish stock interchange across the Kerguelen Plateau, should this be shown to be significant, and if rapid implementation of joint international management arrangements are not feasible. (AAD – by March 2015)</p> <p>Investigation of cooperative management arrangements with France for identified interactions on stock(s) across the Plateau. (AAD – by March 2016)</p> <p>Research program completed on spawning stock definition for Australian side of the plateau. (Industry/SARAG – by March 2014)</p>		

	Joint research projects for cross boundary Toothfish investigations such as tagging, annual stock survey approaches, and stock assessment methodologies. (SARAG/AAD – Annually)
Progress on Condition [Year 1]	Work on the location of spawning grounds for toothfish around HIMI and ongoing tagging work continue to improve knowledge of the linkages between toothfish found in Australian and French EEZs. This will assist in assessing the need for harvest control rules to explicitly account for catches in both EEZs and the value in employing a single plateau-wide stock assessment.
Status of condition	Open, on target
Progress on Condition [Year 2]	<p>1) & 5) There is continued development of research and scientific programs on Toothfish stock status and Toothfish interchanges across the Kerguelen plateau, particular through the commencement of a new FRDC project that (among other objectives) is aimed at progressing a joint plateau-wide stock assessment, and through the signing of a formal data sharing agreement and the subsequent exchange of data.</p> <p>2) This new research project will also contribute to the development of alternative stock assessment approaches.</p> <p>3) Ongoing liaison between French and Australian scientists in particular is contributing to the development of cooperative management arrangements with France for identified interactions on stock(s) across the Plateau.</p> <p>4) As reported last year, the project on the location of spawning grounds for Toothfish around HIMI has been completed and clarified that there are spawning grounds in both the Australian and French EEZs. Ongoing tagging work, also continues to improve knowledge of the linkages between Toothfish found in Australian and French EEZs. This will assist in assessing the need for harvest control rules to explicitly account for catches in both EEZs and the value in employing a single plateau-wide stock assessment, or similar cooperative arrangement.</p> <p>Progress towards meeting this condition is considered to be good but may still require improved international collaboration on management.</p>
Status of condition	Open, on target
Progress on Condition [Year 3]	<p>The activities described above have all continued and an additional Australian and French science and industry consultative meeting was held in 2015 (Anon 2015). Milestone reports on the FRDC project provided to the assessment team (e.g. Welsford 2014) indicated that.</p> <p>The audit team were informed that there were no immediate plans to undertake a joint assessment and that the benefits of such an assessment approach are still being examined. It is considered unlikely there will be a single assessment across the Kerguelen Plateau, but rather the more precautionary approach of having two separate assessments is continuing, with increasing cooperation between Australian and French industry, science and government evident and positive.</p> <p>The assessment of the SARPC fishery also imposed a condition on this PI. It is noted that progress towards meeting this condition was considered to be behind target at the first surveillance audit of the French fishery.</p>
Status of condition	Open, on target
Progress on Condition [Year 4]	This condition on the HIMI fishery was imposed because of a lack of knowledge of the linkages between the stocks in the Australian and the French EEZs and the view that the current harvest control rules applied to the HIMI fishery did not take this uncertainty into account. The concern was that stocks of toothfish within the Australian EEZ could become depleted by fishing in the French EEZ if that was not adequately constrained.

	<p>Originally, the condition required that the client provide evidence that the harvest control rule would explicitly account for the distribution of future catches of Patagonian toothfish in both the Australian and the French zones. This was a more prescriptive requirement than would be acceptable under recent instructions about setting conditions (e.g. if following CR 1.3 - 27.11.1.2). The original rationale also indicated an expectation that meeting the condition would require a joint plateau-wide stock assessment and catch sharing arrangements to be in place.</p> <p>As noted in previous surveillance audits, knowledge of the distribution of spawning grounds has improved with separate spawning locations identified within each EEZ (Welsford et al. 2014). The use of the plateau habitats by Patagonian toothfish has also been modelled (Peron and Welsford 2016). Furthermore tagging work, which is ongoing and has increased, has demonstrated that there is very little fish movement around the whole plateau with less than 5% of fish tagged in the Australian EEZ being recaptured in the French EEZ (Welsford et al. 2015). Such movement will be incorporated in the Australian assessment model in 2017 but, given that it is at such low levels, not currently accounting for it is considered to be a low risk in the short to medium term (Dirk Welsford personal communication November 2016). Movement within the French EEZ is also considered to be negligible (Sinegre and Duhamel 2016).</p> <p>Since the last surveillance audit collaboration among the relevant Australian and French science groups has continued. The assessment of the stock within the French EEZ has continued to improve and is consistent in approach to that for the Australian fishery. Assessments of both fisheries are evaluated by CCAMLR's WGFSa. This group requested a range of improvements to the Australian assessment in 2013 and these were delivered in 2015 through a structured program that has been described in previous surveillance reports (SCS 2014, SCS 2015). The assessment of the French fishery remains at an earlier stage of development but it provides estimates of the level of catch that would meet the CCAMLR decision rules (Sinegre and Duhamel 2016). As noted under the update for PI 1.2.1, WG-FSA has accepted that the current catch limit set for 2015/16 by France satisfied the CCAMLR decision rules (WG-FSA 2015, paragraph 4.42).</p> <p>Also, in reviewing progress against this condition we note the view expressed last year that separate assessments may be a more conservative approach than one based on the assumption of a single shared stock.</p> <p>Overall, we consider that the issue of uncertainty about the linkage between the toothfish in the Australian and French EEZs is no longer a major issue for the HCR that is applied to the Australian fishery. The Australian HCR requires (and the assessment clearly demonstrates) that catches are in full compliance with CCAMLR objectives. And as catches within the French EEZ are also determined to be within CCAMLR requirements there is very little likelihood of the total combined catch putting the status of the stock as a whole at risk. The HCR for the HIMI fishery is otherwise compliant with MSC requirements, and arrangements for the SARPC fishery do not hinder the achievement of CCAMLR objectives for the stock as a whole, so there are no longer any main sources of uncertainty that are not taken into account.</p> <p>Thus, we consider the condition to be closed.</p> <p>In doing so we note that this has been achieved by an approach that is different to that originally envisaged in the condition. It has not required a joint assessment or catch sharing arrangements. It has been sufficient that catches in each fishery are sufficiently</p>
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	<p>precautionary by being consistent with CCAMLR objectives. Such a result is an example of what was anticipated by updated MSC requirements and guidance (CR v 1.3 and 2.0) which indicates that conditions should not specify the means by which desired outcomes need be achieved.</p> <p><u>Harmonisation with the French fishery</u></p> <p>Conditions were imposed on both fisheries for this PI but the rationales differed. Although the condition for the HIMI fishery was based on scoring issue b not being met, for the SARPC fishery the condition was based on scoring issue a not being met. Therefore, closing this condition for the HIMI fishery should not have any direct implications for the condition on the SARPC fishery. The assessment of the SARPC fishery has judged this PI to require a condition and the most recent audit (MEC 2015) assessed the condition as being still open.</p> <p>We note that MSC Interpretation of harmonisation requirements for fisheries (16 December 2015) states that “P1 always considers the impacts of all fisheries on a stock, so any fisheries which have the same P1 species (stocks) should be harmonised.” We consider that the HIMI and SARPC fisheries are harmonised for this PI to the extent that the impacts on the whole stock have been taken into account. The differences that remain are justified as they pertain to the fishery-specific aspects of their harvest strategies and these differences do not threaten the achievement of P1 outcomes. Therefore, as required by CI3.1, having differences in the conditions between the Australian and French fisheries would not “undermine the integrity of MSC fishery assessments”. Separate scoring of these fishery-specific aspects of the harvest strategies is also consistent with the approach for fishery-specific management arrangements under P3.</p>
Status of condition	Closed

Table 6. Condition 3

Performance Indicator(s) & Score(s)	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Original Score
	PI 1.2.4	There is an adequate assessment of the stock status.	70
Condition	By the fourth annual surveillance audit the client shall ensure that the assessment is appropriate for the stock and specifically that it accounts for fishing impacts on the entire known range of the stock including the proportion found and fished in the French zone.		
Milestones	see below		
Client action plan	Stock assessment for Kerguelen Plateau incorporating known interactions and extent of Toothfish stock boundaries prepared by Australia. (AAD – by March 2016)		
Progress on Condition [Year 1]	As noted above for other conditions		
Status of condition	Open, on target		
Progress on Condition [Year 2]	As noted above for other conditions		
Status of condition	Open, on target		
Progress on Condition [Year 3]	There has been a range of improvements to the stock assessment model as noted above. In particular, these have facilitated the incorporation of tagging data in the		

	<p>assessment which has proven to be influential. There has also been a joint technical workshop with French scientists on management strategy evaluation including implementation of operating models and integration with stock assessment frameworks including tagging data.</p> <p>The incorporation of tagging data into assessments is likely to be key mechanism for accounting for potential interactions between the fisheries.</p> <p>A condition was also placed on the SARPC fishery for this PI and it is noted that at the first surveillance audit progress was assessed as being on target.</p>
Status of condition	Open, on target
Progress on Condition [Year 4]	<p>This condition was originally imposed because the assessment was judged as not being appropriate for the stock in that it did not account for fishing impacts on the entire known range of the stock including the proportion found and fished in the French zone.</p> <p>As for Condition 2, there was an expectation that, for this deficiency to be overcome, a joint plateau-wide stock assessment would be required. Following similar logic to that used above for Condition 2, however, we now argue that the assessment can be considered as appropriate for the stock, given the evidence now available that the catch limits for the SARPC fishery also meeting CCAMLR objectives. The WG-FSA has also accepted this position for several years. Thus, there is now no need for the assessment of the HIMI fishery to extend its scope to more explicitly the catches by the French fishery. As noted above, there is only minimal movement of fish between the two zones but the next assessment of the HIMI fishery will be explicitly incorporating data on such movement from the Australian to the French EEZ.</p> <p>We therefore consider this condition to be closed.</p> <p><u>Harmonisation with the French fishery</u></p> <p>A condition was also imposed on the SARPC fishery but, as for PI 1.2.2, although conditions were imposed on both fisheries for the same scoring issue the rationales differed. The rationale for the condition on the SARPC fishery was that the WG-FSA considered that the stock assessment was appropriate for the HCR only in the short term (until next season), after which a more robust stock assessment would be required. Thus, unlike the HIMI fishery, the condition on the French fishery was based on its preliminary nature and was not associated with the need for a broader scope for the assessment. Therefore, closing the condition on the HIMI fishery should not have any direct implications for the condition on the SARPC fishery. The assessment of the SARPC fishery has judged this PI to require a condition and the most recent audit (MEC 2015) assessed the condition as being still open.</p> <p>As noted above, MSC Interpretation of harmonisation requirements for fisheries (16 December 2015) states that “P1 always considers the impacts of all fisheries on a stock, so any fisheries which have the same P1 species (stocks) should be harmonised.” Nevertheless, we consider that the HIMI and SARPC fisheries are also harmonised for this PI to the extent that the impacts on the whole stock have been taken into account. The differences that remain are justified as they pertain to the fishery-specific aspects of their harvest strategies and these differences do not threaten the achievement of P1 outcomes. Therefore, as required by CI3.1, having differences in the conditions between the Australian and French fisheries would not “undermine the integrity of MSC fishery assessments”. Separate scoring of these fishery-specific aspects of the harvest strategies is also consistent with the approach for fishery-specific management arrangements under P3.</p>
Status of condition	Closed

5. Conclusion

It is SCS's view that the Heard Island Mc Donald Islands Toothfish fishery continues to meet the standards of the MSC and complies with the 'Requirements for Continued Certification.' In this audit cycle, the three remaining conditions under Principle 1 were closed out (1.2.1, 1.2.2 and 1.2.4) were closed out and rescored. SCS recommends the continued use of the MSC certificate through to the re-assessment of the fishery due to be completed in 2017.

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Appendices

Appendix 1. Re-scoring evaluation tables

Changes to scoring rationales and scores are indicated in red text.

PI 1.2.1

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	The harvest strategy is expected to achieve stock management objectives reflected in the target and limit reference points.	The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.	The harvest strategy is responsive to the state of the stock and is designed to achieve stock management objectives reflected in the target and limit reference points.
	Met?	Y	Y	Y
	Justification	<p>The harvest strategy that is used for the Australian Patagonian toothfish Fishery contains all of the required elements (monitoring, stock assessment, harvest control rules, and management actions that follow the agreed rules. It is designed to meet stock management objectives and its elements work together to achieve this. The strategy is also responsive to the state of the assessed component of the stock, as catch limits are determined based on a range of data sources that will reflect stock status including the results of the annual fishery-independent survey of abundance. The management objectives that the harvest strategy is designed to achieve are articulated in the precautionary approach that was adopted by CCAMLR in the mid-1990s and include the objective of maintaining a stock at a proportion of its pre-exploitation abundance such that:</p> <ol style="list-style-type: none"> 1. escapement of the spawning stock must be sufficient to avoid the likelihood of declining recruitment, and 2. abundance under exploitation must maintain a sufficient resource for the needs of dependent species (usually predators). <p>The undertaking of annual biomass surveys as the basis for setting TACs each year, and the adoption of a relatively low exploitation rate with a high degree of certainty, indicate that the elements of this harvest strategy are designed to achieve these objectives.</p> <p>This meets the requirements of SG60, SG80 and SG100.</p>		

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
b	Guidepost	The harvest strategy is likely to work based on prior experience or plausible argument.	The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.	The performance of the harvest strategy has been fully evaluated and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels.
	Met?	Y	Y	N
	Justification	<p>There is evidence from results of the RSTS and the outputs of the stock assessment modelling that the harvest strategy is achieving its objectives and has clearly been able to maintain the stock within the Australian EEZ at target levels.</p> <p>This meets the requirements of SG60 and SG80 levels and some of those of the SG100 level.</p> <p>Nevertheless, the harvest strategy has not been fully evaluated which means that it does not meet all the requirements of the SG100 level.</p>		
c	Guidepost	Monitoring is in place that is expected to determine whether the harvest strategy is working.		
	Met?	Y		
	Justification	<p>The monitoring of stock status and the fishery is quite comprehensive including a fishery-independent trawl survey and monitoring by observers of all trips. This level of monitoring is sufficient to determine whether the harvest strategy is working.</p> <p>This meets the requirements of the SG 60 level.</p>		
d	Guidepost			The harvest strategy is periodically reviewed and improved as necessary.
	Met?			Y
	Justification	<p>The Australian harvest strategy was reviewed to check that it complied with the requirements of Australia's Harvest Strategy Policy which was introduced in 2007. Also, given that the harvest strategy has maintained the biomass of Patagonian toothfish above target levels, additional reviews have not been necessary.</p> <p>This therefore meets the requirements of the SG100 level.</p>		

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
e	Guidepost	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.
	Met?	Not relevant	Not relevant	Not relevant
	Justification	Not relevant. Sharks are not a target species		
References				
OVERALL PERFORMANCE INDICATOR SCORE:				
<p>Updated consideration of the French Fishery:</p> <p>In assigning a score for the Australian fishery we have also considered the French fishery which, since the original assessment was completed, had been assessed as meeting all the SG80 requirements, but none of the SG100 requirements. Most weight has been given here to the scores for the HIMI fishery, however, as there is now evidence that there is only a minor level of movement of fish between the two areas and there are separate spawning areas. This means that the status of the stock component exploited by the HIMI fishery is mostly affected by the harvest strategy used for this fishery.</p> <p>The HIMI fishery would be scored at 95 (two of three SG100 scoring issues are met) but the score has been reduced to 90 to reflect the lower score for the French fishery.</p>				90
CONDITION NUMBER (if relevant):				

PI 1.2.2

PI 1.2.2		There are well defined and effective harvest control rules in place		
Scoring Issue		SG 60	SG 80	SG 100
A	Guidepost	Generally understood harvest rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.	Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.	
	Met?	Y	Y	

PI 1.2.2		There are well defined and effective harvest control rules in place		
	Justification	There are well defined harvest control rules in place for the Australian fishery for Patagonian toothfish that are consistent with the harvest strategy, and they will act to reduce the exploitation rate as a LRP is approached. This therefore meets the requirements of the first elements of both the SG60 and SG80 levels.		
B	Guidepost		The selection of the harvest control rules takes into account the main uncertainties.	The design of the harvest control rules takes into account a wide range of uncertainties.
	Met?		Y	Y
	Justification	In the initial assessment, it was concluded that the Australian harvest control rules did not take into account a key uncertainty arising from the lack of knowledge of the nature of any inter-dependencies between the Patagonian toothfish population in the HIMI area and the population fished by the French around the Kerguelen Islands. As outlined in Section 4.1, this uncertainty has now been resolved and the precautionary features of the harvest control rules (which are those used by CCAMLR) can now be considered to take a wide range of uncertainties into account. This meets the requirements of the SG 80 and SG 100 levels.		
C	Guidepost	There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.
	Met?	Y	Y	Y
	Justification	There is evidence from the fact that the reliably recorded catch statistics have never exceeded the TAC that the tools used to implement these harvest control rules (including mandatory logbooks and 100% observer coverage) are effective in controlling the exploitation level from this fishery to required levels. The results of the stock assessments and RSTS add confidence to this and the evidence is clear that the tools in use are effective in achieving the exploitation levels required under the harvest control rules. This meets the requirements of the SG60, SG80 and SG100 levels.		
References				
OVERALL PERFORMANCE INDICATOR SCORE:				
Updated consideration of the French Fishery: In assigning a score for the Australian fishery we have also considered the French fishery which, since the original assessment was completed, had been assessed as not meeting the first of the SG80 requirements because the harvest control rule was not well defined. Most weight has been given here to the scores for the HIMI fishery, however, as there is now evidence that there is only a minor level of movement of fish between the two areas and there are separate spawning areas. This means that the status of the stock component exploited by the HIMI				95

PI 1.2.2	There are well defined and effective harvest control rules in place	
fishery is mostly affected by the harvest strategy and harvest control rule used for this fishery.		
The HIMI fishery would be scored at 100 but the score has been reduced to 95 to reflect the lower score for the French fishery. As noted in Section 4.1, we consider that the HIMI and SARPC fisheries are harmonised for this PI to the extent that the impacts on the whole stock have been taken into account. The differences that remain are justified as they pertain to the fishery-specific aspects of their harvest strategies and these differences do not threaten the achievement of P1 outcomes. Therefore, as required by CI3.1, having differences in the conditions between the Australian and French fisheries would not “undermine the integrity of MSC fishery assessments”. Separate scoring of these fishery-specific aspects of the harvest strategies is also consistent with the approach for fishery-specific management arrangements under P3.		
CONDITION NUMBER (if relevant):		

PI 1.2.4

PI 1.2.4	There is an adequate assessment of the stock status		
Scoring Issue	SG 60	SG 80	SG 100
a	Guidepost	The assessment is appropriate for the stock and for the harvest control rule.	The assessment is appropriate for the stock and for the harvest control rule and takes into account the major features relevant to the biology of the species and the nature of the fishery.
	Met?	Y	Y
	Justification	<p>In the original assessment, the stock assessment was not considered to be appropriate for the stock because it did not cover the proportion found and fished in the French zone. As outlined in Section 4.1 above, there was originally an expectation that, for this deficiency to be overcome, a joint plateau-wide stock assessment would be required.</p> <p>More recent evidence from the latest assessment of the French fishery (Sinegre and Duhamel 2016) indicates that the catch limits for the SARPC fishery are also meeting CCAMLR objectives. This has been accepted by the WG-FSA as the basis for advice in the short term (WG-FSA 2015). There is only minimal movement of fish between the two zones (Welsford et al. 2015) but the next assessment of the HIMI fishery will be explicitly incorporating data on such movement from the Australian to the French EEZ.</p> <p>We conclude, therefore that there is now no need for the assessment of the HIMI fishery to extend its scope to include the catches by the French fishery. The assessment can be considered as appropriate for the stock, and that it takes into account the major features of the biology of Patagonian toothfish and the nature of the fishery.</p> <p>This meets the requirements of the SG 80 and SG 100 levels.</p>	

PI 1.2.4		There is an adequate assessment of the stock status		
b	Guidepost	The assessment estimates stock status relative to reference points.		
	Met?	Y		
	Justification	The assessment for the Australian fishery estimates stock status through the CASAL assessment model which provides estimates of current biomass and current biomass relative to unfished levels. Projections of this assessment are used to identify future catches which are consistent with the reference points. This meets the requirements of the SG 60 level.		
c	Guidepost	The assessment identifies major sources of uncertainty.	The assessment takes uncertainty into account.	The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way.
	Met?	Y	Y	Y
	Justification	The major sources of uncertainty have been identified and are recorded in a range of documents presented to the Stock Assessment Working Group. The assessment takes this uncertainty into account in a range of ways. It explores the sensitivity of outputs to a range of plausible values for model parameters and makes projections that also consider such uncertainties. The fishery-independent data from the RSTS that are a key input to the stock assessment should reflect the impacts of any fishing activity that impacts on the component of the population found in the Australian EEZ. Stock status is evaluated relative to the reference points using Monte Carlo Markov Chains (MCMC) sampling that provide the probabilistic estimates of catches that satisfy the decision rules. This meets the requirements of the SG 60, SG 80 and SG 100 levels.		
d	Guidepost			The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.
	Met?			N
	Justification	The assessment method was developed for krill and although there is evidence that it is performing as intended for Patagonian toothfish we are not aware of evidence that the current assessment approach has been rigorously tested and its performance compared against other hypotheses and approaches. Some sensitivity analyses are conducted as part of the assessment and the results show a level of robustness of the approach but further testing is required to meet this performance indicator. This does not meets the requirements of the SG 100 level.		

PI 1.2.4		There is an adequate assessment of the stock status		
e	Guidepost		The assessment of stock status is subject to peer review.	The assessment has been internally and externally peer reviewed.
	Met?		Y	N
	Justification	The assessment is regularly reviewed both by SARAG and by the scientific processes of CCAMLR, but the assessment team regards those as comprising an internal review only. Aspects of the assessment have been published in peer-review journals but there has been no external peer review of the assessment as a whole. This meets the requirements of the SG 80 level but not of the SG 100 level.		
References				
OVERALL PERFORMANCE INDICATOR SCORE:				
<p>Updated consideration of the French Fishery:</p> <p>In assigning a score for the Australian fishery we have also considered the French fishery which, since the original assessment was completed, had been assessed as not meeting the first of the SG80 requirements because the WG-FSA considered that the stock assessment was appropriate for the HCR only in the short term, after which a more robust stock assessment would be required. Thus, unlike the HIMI fishery, the condition on the French fishery was based on its preliminary nature and was not associated with the need for a broader scope for the assessment.</p> <p>Most weight has been given here to the scores for the HIMI fishery, however, as there is now evidence that the connectivity between the two areas is not great. This means that the status of the stock component exploited by the HIMI fishery is best reflected in the results of the stock assessment used for the HIMI fishery.</p> <p>The HIMI fishery would be scored at 90 but the score has been reduced to 85 to reflect the lower score for the French fishery. As noted in Section 4.1, we consider that the HIMI and SARPC fisheries are harmonised for this PI to the extent that the impacts on the whole stock have been taken into account. The differences that remain are justified as they pertain to the fishery-specific aspects of their harvest strategies and these differences do not threaten the achievement of P1 outcomes. Therefore, as required by CI3.1, having differences in the conditions between the Australian and French fisheries would not “undermine the integrity of MSC fishery assessments”. Separate scoring of these fishery-specific aspects of the harvest strategies is also consistent with the approach for fishery-specific management arrangements under P3.</p>				85
CONDITION NUMBER (if relevant):				

Appendix 2. Stakeholder submissions (if any)

No stakeholder submissions were received in 2016 for the surveillance audit.

Appendix 3. Surveillance audit information (if necessary)

Appendix 4. Additional detail on conditions/ actions/ results (if necessary)

Appendix 5. Revised Surveillance Program (if necessary)

If it is proposed that the surveillance program be revised due to changes in the information basis for the fishery, i.e. information cannot be provided remotely, the CAB shall:

1. Include a rationale for any changes to the default surveillance level following FCR 7.23.2 & 7.23.4 in Table 5.1, if necessary
2. Include a rationale for any deviations from carrying out the surveillance audit before or after the anniversary date of certificate in Table 5.2, if necessary
3. Include a completed fishery surveillance program in Table 5.3, if necessary

[Reference: FCR 7.23.10]

Table 5.1 : Surveillance level rationale

Year	Surveillance activity	Number of auditors	Rationale
<i>e.g. 3</i>	<i>e.g. On-site audit</i>	<i>e.g. 1 auditor on-site with remote support from 1 auditor</i>	<i>e.g. From client action plan it can be deduced that information needed to verify progress towards conditions 1.2.1, 2.2.3 and 3.2.3 can be provided remotely in year 3. Considering that milestones indicate that most conditions will be closed out in year 3, the CAB proposes to have an on-site audit with 1 auditor on-site with remote support – this to ensure that all information is collected and because the information can be provide remotely.</i>

Table 5.2: Timing of surveillance audit

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
<i>e.g. 1</i>	<i>e.g. May 2014</i>	<i>e.g. July 2014</i>	<i>e.g Scientific advice to be released in June 2014, proposal to postpone audit to include findings of scientific advice.</i>

Table 5.3: Fishery Surveillance Program

Surveillance Level	Year 1	Year 2	Year 3	Year 4
<i>e.g. Level 5</i>	<i>e.g. On-site surveillance audit</i>	<i>e.g. On-site surveillance audit</i>	<i>e.g. On-site surveillance audit</i>	<i>e.g. On-site surveillance audit & re-certification site visit.</i>