Harmonisation Meeting for North Atlantic swordfish fisheries managed under the auspices of the International Commission for the Conservation of Atlantic Tunas (ICCAT)

Background

In January 2016, the MSC Board of Trustees signed off the MSC proposal for a limited trial of annual harmonisation pilots to help improve harmonisation in response to difficulties for fisheries with RFMO-managed highly migratory species.

A draft proposal for annual harmonisation pilots was sent for public consultation from 30 October to 29 November 2015. Improvements based on stakeholder feedback were made to this model and the process was first piloted in March 2016 for assessed and in-assessment fisheries managed under the auspices of the Western & Central Pacific Fisheries Commission (WCPFC). After lessons learned from this pilot, further changes were suggested and approved by the MSC Technical Advisory Board in June 2016.

Read more about the annual harmonisation for highly migratory species >

This harmonisation pilot meeting took place in Washington DC, USA, on 22-23 August for assessed and in-assessment North Atlantic swordfish fisheries managed under the auspices of the International Commission for the Conservation of Atlantic Tuna (ICCAT).

Funding for the pilot was provided by MSC and CABs. MSC funded the logistical costs for P1 and P3 assessors, an independent peer reviewer, meeting facilitator, and MSC advisory staff. A participant list can be found in Appendix 4.

Meeting outcome

The meeting outcomes are listed in the ICCAT harmonisation process. Outputs from the harmonisation meeting are:

> Harmonised, updated scores for all P1 PIs with rationales and conditions for any PIs <80) for each UoC considered (for fisheries in full assessment);
>
> Harmonised, updated scores for P1 with rationales and conditions for any PIs <80 for each UoC considered (for fisheries in surveillance audits).
>
> *Note that the scores and status of conditions should be consistent, except where status may differ due to different times of entry into assessment (consistent with harmonisation interpretation point 5).*
>
> *Note that client action plans may still differ between clients.*

Fisheries announced participation in the ICCAT harmonisation pilots on 7 July; stakeholders were allocated 25 days to comment. CAB Assessment Teams then had 20 days to collate information before the harmonisation workshop.

Document overview

This document presents the outcome from the pilot harmonisation meeting. The meeting record is a working document prepared by all involved assessors to inform and guide CAB teams as they assess ICCAT North Atlantic swordfish fisheries. It is intended as a point of reference for multiple on-going assessments, as of July 2016. If new information becomes available – including from fisheries under assessment, ICCAT, other swordfish fisheries, MSC interpretations etc. Further harmonisation between assessment teams will still be required.

After this meeting, the draft outcomes are being made publicly available (in this report) and circulated to registered stakeholders, who have 30 days to provide comments using the stakeholder comment template.

The assessment teams note this report has been prepared as rapidly as possible to enable stakeholder consultation. Hence, there may be some typo and formatting issues. The teams are aware that references may need to be updated.

Meeting record

Key Source Assessment Documents include:

SSLLC US North Atlantic Swordfish Longline Public Certification Report (PCR):
https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/ssllc-us-north-atlantic-swordfish-longline/assessment-downloads-1/20150610_PCR_SWO371.pdf

US North Atlantic Swordfish PCR:
https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/us-north-atlantic-swordfish/assessment-downloads-1/20130328_PCR_revised_SWO350.pdf

US North Atlantic Swordfish Second Annual Surveillance Report:
https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/us-north-atlantic-swordfish/assessment-downloads-folder/20150723_SR_SWO350.pdf

North West Atlantic Canada Longline Swordfish PCR (Vol 1):
https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/north_west_atlantic_canada_longline_swordfish/assessment-downloads-1/PCR.pdf

North West Atlantic Canada Longline Swordfish Third Annual Surveillance Report:
https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/north_west_atlantic_canada_longline_swordfish/assessment-downloads-1/20160215_SR_SWO220-rev.pdf

North West Atlantic Canada Harpoon PCR: https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/north-west-atlantic-canada-harpoon-swordfish/assessment-downloads-1/18.06.2010-ns-swordfish-harpoon-public-certification-report.pdf

North West Atlantic Canada Harpoon Fifth Annual Surveillance Report:
https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/north-west-atlantic-canada-harpoon-swordfish/assessment-downloads-1/20150729_SR_SWO85.pdf

The P1 scoring rationales for the on-going assessment of the North and South Atlantic Swordfish Spanish Longline were provided to the assessment teams participating in the pilot harmonisation meeting, and were taken into account during the harmonisation discussions:
https://www.msc.org/track-a-fishery/fisheries-in-the-program/in-assessment/north-atlantic/north-and-south-atlantic-swordfish-spanish-longline/north-and-south-atlantic-swordfish-spanish-longline

The full assessment report for this fishery is still at the preliminary client draft report stage and so cannot be shared with stakeholders at this time. It will be made available, via publication on the MSC website, following the completion of an agreed client action plan and peer review by members of the MSC peer review college, in accordance with MSC FCR v2.0 process requirements.

The process that was followed

Prior to the meeting, the MSC appointed Harmonisation Team Leader (HTL) populated the v1.3 P1 scoring table with consolidated text from the scoring rationales and observations from the PCRs and surveillance reports from the most recently certified fisheries, i.e. SSLLC, US North Atlantic Swordfish longline, and the US North Atlantic Swordfish.

This text was provided to assessment team members prior to the meeting, as were current ICCAT documents relating to swordfish stock assessment and management.

An independent expert, appointed by the MSC, facilitated the meeting process.

The HTL invited the group of assessment team members to review, discuss, agree and, where necessary, amend scoring rationale text for each scoring issue under each scoring guidepost using CR v1.3, but following the normative scoring process set out in MSC FCR v2.0.

Two stakeholder submissions were received by the MSC as input to the harmonisation pilot. These were reviewed and taken into account within the rationale drafting and scoring process above.

On completing the P1 scoring, the opportunity was taken to review PI 3.1.3. Harmonisation on this PI had not been achieved in two previous audit cycles for the US North Atlantic Swordfish Longline and the North West Atlantic Canada Longline and the North West Atlantic Canada Harpoon fisheries. It had therefore been agreed that this harmonisation pilot should be used for this purpose.

An independent peer reviewer with P1 expertise was appointed by the MSC Peer Review College and participated in the meeting. Once text and score for each PI was agreed by the group of assessment teams the peer reviewer provided comments. These comments and responses can be seen in Tables 2 and 3.

Given the non-normative approach to harmonisation, the MSC's third party accreditation provider, Accreditation Services International (ASI), was present to observe and evaluate the auditability of the process.

Members of MSC Standards Team and regional outreach staff were also present to provide guidance and answer any questions related to interpretation.

Three tables follow:

Table 1 is a summary of the PI scores from recent PCRs and surveillance reports, with the scores agreed at the harmonisation meeting shown as a final row.

Table 2 is a record of the key points of discussion and conclusions for each P1 Scoring Issue (SI) and includes the Peer Review Comments.

Table 3 is a record of the key points of discussion and conclusions for PI 3.1.3 and includes the Peer Review Comments.

There then follows a summary of the harmonisation pilot outcomes and a next steps section.

Appendices are also included:

Appendix 1: Draft P1 Harmonised Scoring Table

Appendix 2: Draft P3 Harmonised Scoring Table

Appendix 3: The stakeholder submissions and agreed responses from the assessment teams

Appendix 4: Participants List

Table 1. Summary of P1 scores in most recent reports for ICCAT swordfish and new scores agreed by the meeting.

Date published	**CR Version**	**Fishery Name**	**1.1.1**	**1.1.2**	**1.2.1**	**1.2.2**	**1.2.3**	**1.2.4**	**Principle 1 Score**
June 2015 (PCR)	v1.2	Sustainable Swordfish LLC	80	75	85	75	80	90	80.0
Jan 2016 (Surv 2)	v1.2	US NA Swordfish	80	75	85	75	80	90	80.0
Feb 2016 (Surv 3)	v1.1	NWA Canada Longline	80	75	90	75	80	90	80.6
Jan 2016 (Surv 5)	v1.1	NWA Canada Harpoon	80	75	90	75	80	90	80.6
Harmonised scores			90	80	85	75	80	90	83.3

Performance indicator scores with conditions are shown in red text.

Table 2. Summary of discussion points and agreed scores for each SI from the P1 pilot harmonisation ICCAT swordfish fisheries

PI (Harmonised score)	**SI (Harmonised score)**	**Issues and workshop conclusions**
1.1.1	A	Minor text editing…the stock is estimated to be above the point where recruitment might be impaired with a high degree of certainty

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
		Agreed score, SG 100 met. (For on-going surveillances for certified fisheries, if this PI was previously scored at 80, then it was agreed to take new scoring rationale and revised score and include in "Appendix 1. Re-scoring Evaluation" in surveillance report template).
	B	Discussion around text for scoring SG100, in order to meet SG100 (CB 2.2.2.2) evidence is required that shows stock has fluctuated around TRP for longer periods. To meet SG100 a high degree of certainty is required that the stock has been above the TRP in recent years (CB 2.2.1.3 defines this as 95%). The latest stock assessment suggests B/Bmsy is above 90%. Therefore, SG100 is not met. Overall score for this PI is now rescored at 90.
Peer review comments		Pleased to see clearer summarises compared to previous PCRs. Scoring rationales are appropriate and obviously will be re-visited when the new stock assessment is complete, which is expected to be in 2017.
1.1.2	A	Simplified text proposed by Harmonisation Team Leader (HTL) for SG 80 discussed and agreed.
	B	This PI has been one that a harmonised outcome could not be achieved during previous audits of US North Atlantic and Canadian swordfish certifications. Implicit LRP and TRP are acceptable. Revised scoring rationale and score agreed at 80. The conditions will be closed. This will require revised rationale and score to be included in next surveillance audit reports for existing certified fisheries.
	C	Text and score agreed at 80
	D	Text agreed (Clearly not an LTL species). Overall score for this PI is rescored to 80.
Peer review comments		Good discussion and consistent with MSC guidance. Observation on SIb, implicit LRP as opposed to explicit, this may have implications for HCRs and whether they are, "generally understood" or "well defined."
1.1.3		Not applicable
1.2.1	A	HTL text, "While the strategy is responsive to the resource, it makes no explicit mention of a limit reference point (see PI 1.1.2) or how the Commission

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
		should react to changes in biomass or exploitation status. While the strategy is intended to achieve the target Bmsy, it is not fully specified or designed as a clear set of rules" Discussion around what "designed" means. In the absence of MSC guidance, it was suggested/proposed that design would constitute taking into account responses of stock to different strategies. Outcome of discussion was SG 80 met but SG 100 not.
	B	Discussion surrounding evaluation of performance of harvest strategy. Discussion confirmed no evidence of fully evaluating the performance of the harvest strategy, but noted that ICCAT are developing HCR using Management Strategy Evaluation (MSE).
	C	With 3-4 year cycle for stock assessment. Includes a review of the catch, fishery dependent indices of abundance, models of historical population size as well as biological reference points. TAC and other management measures are reviewed annually. Agreed meets single SG 60.
	D	The SCRS reviews the elements of harvest strategy annually and provides advice to ICCAT on whether the strategy has been successful. Although no evidence that the current harvest strategy has been evaluated in detail, the review demonstrates that the strategy has achieved its rebuilding objectives. ICCAT has clearly recognised limitations and has agreed to develop HCR using Management Strategy Evaluation (MSE). Therefore, SCRS is in regular discussion with the Commission to develop and further improve assessment methods and evaluate reference points. The harvest strategy is periodically reviewed and improved as necessary. Group agreed that SG100 is met. Overall PI score of 100.
	E (Shark finning)	Not scored as no shark finning taking place.
Peer review comments		Comment on discussion and conclusion for SId, there is a basis for interpreting in either direction. The reviewer would be more inclined to interpret it literally, i.e. is the strategy reviewed?

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
		Discussion did go both ways and while finally not taking this literal approach, the groups conclusion was reasonable.
1.2.2	A	Question posed to MSC if assessments using v1.3 could use v2.0 version of PI 1.2.2 as per MSC advice (November 24, 2014). MSC confirmed it could be used if it was thought appropriate and clear rationale provided. Group agreed no need to use PI 1.2.2 v2.0 in this instance. The assessment teams used the most recent MSC Interpretation on HCR. ICCAT has a history of taking management action to reduce the exploitation rate in the NA swordfish fishery in response to stock and fishing mortality status estimates, e.g. In 1999 ICCAT implemented a rebuilding plan. There is no reason to expect that this management responsiveness to SCRS advice, showing status and projections in relation to indicators (see PI1.1.2), will not continue. In 2011, ICCAT adopted Recommendation setting out principles of decision making for conservation and management measures, this describes a generally understood decision-making framework, management measures should be designed to maintain the stock at, or rebuild to, Bmsy, with a high probability. The framework is designed around achieving targets with high probability, considering both stock status and exploitation rate with requirements to reduce exploitation rate when it is above Fmsy. The framework is designed to achieve the TRP with high probability and maintain fishing mortality below Fmsy, it will also act to maintain the stock above the implicit LRPs. This represents generally understood HCR that is consistent with the harvest strategy. Agreed the SG60 are met. ICCAT has not yet established well-defined HCR for NA swordfish but a process to develop HCR using Management Strategy Evaluation (MSE) is in effect. Agreed SG80 not met. This is one of the PIs that the Canadian client provided a submission providing a rationale that it met SG 80. This will be reviewed following completion of initial round of scoring PIs.

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
	B	The SCRS assessments estimates of projected biomass for a range of TAC options along with the associated probability of being at or above BMSY. It has also advised the Commission on TACs that would achieve a specified probability of being at or above Bmsy. Probabilities are based upon the main uncertainties in the stock assessment. The HCR can therefore be considered to take account of the main uncertainties. Agreed SG80 met. The HCR framework incorporates uncertainties due to the scientific processes but does not account for other uncertainties such as environmental or ecological processes. Agreed SG100 not met.
	C	SG 100 not scored as per CR v1.3 (27.10.5.3), i.e. SG80 not met under one of the PIs (SIa). The generally understood harvest control rule is to maintain fishing mortality below Fmsy to achieve the TRP with high probability. ICCAT controls fishing mortality by setting annual TACs and catch limits for each Contracting Party. Minimum size regulations in place in the Convention area. Countries can implement domestic controls above and beyond these limits. There is evidence these tools are appropriate and effective in achieving the required exploitation levels. Agreed SG 80 met Overall PI score 75. The existing conditions remain open.
Peer review comments		Agreed the approach and rationales for SIa and SIb. Re' SIc if it is about the tools being effective then it may be worthwhile considering and describing the tools and how they are being effective. NB. As a result of the above comment text was revised in the scoring rationale that specifically took account of this point.
1.2.3	A	There is a good understanding of stock structure, which is considered sufficient to support the harvest strategy. Several studies have described Swordfish growth and have been used to characterize historical trends in the catch at length in the fishery. It is not considered possible to say that information on stock productivity is comprehensive. Landings are generally

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
		monitored and information on removals from all fleets considered adequate to inform the harvest strategy. Agreed SG60 and SG80 met. Overall, information on the fishery not considered to be comprehensive (e.g. for growth and maturity trends). Agreed SG100 not met.
	B	The composition and operation of fleets well understood. This species is available to a large number of fishing countries over broad geographical range. Requirement for CPC to report information regarding fishing activities, including catches, catches by size, effort and CPUE and biological data. Landings are recorded either through logbooks, dealer records or dockside monitoring. Most swordfish landed as individual fish so comprehensive information on the age/size composition. Discards are estimated through observer coverage for some countries (e.g. US, Canada and Spain). Although SCRS have expressed concern due to overall reporting of dead discards in recent years. Nevertheless, overall unreported landings and discards, do not appear to be significant. Stock abundance is monitored through the SCRS assessment process. No independent indices available so stock abundance indices are restricted to fishery dependent sources. The CPUE data and stock assessment support the setting of annual TACs and catch limits. CPUE indices available and monitored sufficiently to support HCR. Agreed SG 60 met. The last stock assessment was 2013, next assessment planned for 2017. Monitoring of abundance in between based on CPUE indices. Stock estimates from the assessment are now several years old. Therefore, not all information required is monitored with high frequency and a high degree of certainty. Agreed SG 80 met.

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
		Agreed SG100 not met.
	C	Discussion about whether this refers to ICATT catch or other non ICATT fisheries, e.g. IUU and recreational. US recreational fisheries are taken account of and reported to ICATT annually. ICATT recognise the need to take account of recreational fisheries for some CPCs (SSLLC report). So only IUU to be mentioned with respect to other fishery removals. Agreed SG 80 met
Peer review comments		Good in depth discussion. Separating out SG 60, 80,100 helps with clarity. Should include a reference of IUU not being an issue.
1.2.4	A	NA swordfish not possible to reliably age 5+ fish and, for the age groups in the fishery (less than age 5), spatial and temporal dynamics, may vary considerably by region. This makes a stock production approach an appropriate option until these issues are resolved. Agree SG80 met. The point was made if ICCAT have recognised that a MSE should be undertaken owing to uncertainties can this meet the SG100. Furthermore, given the stock assessment only take place every 3-4 years it cannot benefit from catch and CPUE data on incoming recruitment. So SG100 not met.
	B	SCRS provided estimates of current and historical biomass relative to Bmsy and current and historical fishing mortality rate relative to Fmsy for at least last 10 yrs. While there is no explicit limit reference point, the assessment calculates biomass relative to a number of reference points which might be adopted as limit reference points in the future. Agreed SG60 met.
	C	Major sources of uncertainty are identified in the assessment. Observation uncertainty is taken into account through use of a number of CPUE indices and their synthesis into a combined index through General Linear Modelling. Process error is taken into account through consideration of alternate surplus production functions. Age-structured statistically integrated

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
		models are compared to those of the age-aggregated models. Agreed SG60 and 80 are met. The assessment, either uses age-aggregated or age-structured approaches, takes uncertainty into account by examining the implications of observation, process and model error. Agreed SG 100 met
	D	SCRS has looked at ICCAT implications of alternative model formulations and a range of hypotheses for each of the two stock production models. Management advice based on the base case assessment model has been explored, estimates of trends in biomass and fishing mortality were similar across model formulations and a range of assumptions. Agreed SG100 met.
	E	The assessment of the stock status is subject to peer review. Internal peer review of stock assessments are conducted by the ICCAT SCRS. Agreed SG80 met. While a broad range of international expertise participates in the SCRS this is considered as internal review. No external review for swordfish takes place. Agreed SG100 not met.
Peer review comments		Considered the discussion covered the points in the PISGs in detail and the rationale and scores meet the requirements of the Scoring Guideposts

Table 3. Summary of discussion points and agreed scores for each SI from the PI 3.1.3 pilot harmonisation ICCAT swordfish fisheries

PI (Harmonised score)	SI (Harmonised score)	Issues and workshop conclusions
3.1.3	A	At its 2015 meeting, ICCAT adopted a Resolution (2015-12) which states that the Commission should apply a precautionary approach, in accordance with relevant international standards. Formulation of the Resolution is consistent with the UN Fish Stock

		Agreement and with the FAO Code of Conduct for Responsible Fisheries. A further 2015 Resolution (2015-11) states that the Commission should apply an ecosystem-based approach to fisheries management. These Resolutions deal explicitly with Principle 1 and Principle 2 of the MSC Principles and Criteria. ICCAT Recommendation (11-13) applies to both Principle 1 species (swordfish) and Principle 2 species such as other tunas, marlins, and sharks. Agreed SG 60, 80, 100 met
Peer Review Comments		These ICATT documents and supporting articles, e.g Article 8 use “shall” and “should”. It may be prudent clarify their different uses.

Next Steps

The draft P1 scoring table (Appendix 1) and draft P3 scoring table (Appendix 2) will be made publicly available and circulated to registered stakeholders by the CABs that have certified the SSLLC US North Atlantic Swordfish Longline, the US North Atlantic Swordfish, the the North West Atlantic Canada Longline and the North West Atlantic Canada Harpoon fisheries, who have 30 days to provide comments using the stakeholder comment template

Following the 30 days consultation, the assessment teams will convene remotely to review, respond and where appropriate, amend any of the scoring rationales or scores. Written response to any stakeholder input will be provided in accordance with MSC FCR v2.0.

At the next audit of the certified fisheries, the audit teams will take account of the outcomes of the harmonisation pilot meeting.

Appendix 1

NORTH ATLANTIC SWORDFISH, PRINCIPLE 1

DRAFT RATIONALES AND SCORES FOR CONSULTATION

24TH AUGUST 2016

Evaluation Table for PI 1.1.1

PI 1.1.1		**The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing**		
Scoring Issue		SG 60	SG 80	SG 100
a	**Guidepost**	It is likely that the stock is above the point where recruitment would be impaired.	It is highly likely that the stock is above the point where recruitment would be impaired.	There is a high degree of certainty that the stock is above the point where recruitment would be impaired.
	Met?	(Y/N) Y	(Y/N) Y	(Y/N) Y
	Justification	The most recent stock assessments for North Atlantic swordfish are reported in ICCAT (2013) with the most recent advice on status, outlook, and management in ICCAT (2015). Status advice based on the 2013 assessments, includes a consideration of outlook based on catches since those assessments which made estimates of status up to 2011. Three assessment approaches were used (see PI 1.2.4), with reporting on two stock production models. Multiple sensitivity tests were conducted for all assessment approaches. The base case used for reporting uses the ASPIC model with assumed Schaefer dynamics. The assessment results suggest that in 2011, the stock was above Bmsy with 90% probability, implying there is a high degree of certainty that in 2011 it was above the point where recruitment would be impaired, taken here as the default MSC LRP of 0.5Bmsy (CR v1.3 CR 2.3.3.3). The outlook statement in ICCAT (2015) clearly indicates that the stock is estimated in 2015 to have a greater than 90% probability of being above Bmsy and that at constant future annual catches of 13,700 mt, would remain above Bmsy with 83% over the next decade. However, if annual catches reach 15,000 mt the probability of falling below Bmsy increases to over 50%. Taken as a whole, in 2016, the stock is estimated to be above the point where recruitment might be impaired with a high degree of certainty. SG100 is met.		

PI 1.1.1		The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing		
b	Guidepost		The stock is at or fluctuating around its target reference point.	There is a high degree of certainty that the stock has been fluctuating around its target reference point, or has been above its target reference point, over recent years.
	Met?		(Y/N) Y	(Y/N) N
	Justification	The most recent stock assessments for North Atlantic swordfish are reported in ICCAT (2013) with the most recent advice on status, outlook, and management in ICCAT (2015). Status advice based on the 2013 assessments includes a consideration of outlook based on catches since those assessments, which made estimates of status up to 2011. Three assessment approaches were used (see PI 1.2.4), with reporting on two stock production models with assumed Schaefer dynamics. Multiple sensitivity tests were conducted for all assessment approaches. The base case used for reporting uses the ASPIC model. CB2.2.2.1 states that at SG80, there shall be evidence that the stock is at the target reference point now or has fluctuated around the target reference point for the past few years. The 2013 assessment shows that the lower 80% confidence bound of stock biomass was at the TRP, taken as Bmsy (see PI1.1.2), in 2009-10 and increased above this level in 2011 (Figure 12 ICCAT 2013). The most recent advice on status (ICCAT 2015) indicates that the stock biomass continued to increase after 2011. The stock has therefore been at or fluctuating around its target reference point for the past few years. SG80 requirements are met. To meet SG100 there needs to be a high degree of certainty that the stock has been fluctuating around its target reference point, or has been above its target reference point, over recent years. CB2.2.1.3 defines a high degree of certainty as 95%. CB2.2.2.2 clarifies “over recent years” as meaning for a period longer than the past few years (the standard for SG80). The 2013 stock assessment and the 2015 update advice indicate that the stock had rebuilt from below the TRP to the TRP in 2007, and has continued to increase since then. However, the most recent estimate of biomass from the stock assessment is in 2011. The update in 2015 did not use a revised stock assessment but is based on projections accounting for catches since the 2013 assessment. A new assessment is planned for 2017. There is evidence that the stock size has been above the TRP for several years, but not with a high degree of certainty. SG100 requirements are therefore not met.		

PI 1.1.1	The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing		
References	• ICCAT (2013) Report of the 2013 Atlantic Swordfish Stock Assessment Session. Doc. No. SCI-036/2013 • ICCAT (2015) Report of the Standing Committee on Research and Statistics (SCRS) PLE 104/2015		
Stock Status relative to Reference Points			
	Type of reference point	**Value of reference point**	**Current stock status relative to reference point**
Target reference point	Bcurrent/Bmsy Where Bmsy is model defined as 0.5K	Bmsy (2011) = 65,060 mt (+/- 80% range of 54,870-78,600 mt)	In 2011: 1.14 (+/- 80% range of 1.04-1.23) Based on Table 16 of ICCAT (2013) In 2013: Above Bmsy with 90% probability. Based on ICCAT (2015) Outlook statement
Limit reference point	0.5Bmsy MSC default (CR v1.3 CR2.3.3.3)	As above	Not provided but given status relative to TRP, very high probability of being above default LRP
OVERALL PERFORMANCE INDICATOR SCORE: si(a): 100; si(b): 80			**90**
CONDITION NUMBER (if relevant):			**NONE**

Evaluation Table for PI 1.1.2

PI 1.1.2		Limit and target reference points are appropriate for the stock		
Scoring Issue		SG 60	SG 80	SG 100
a	**Guidepost**	Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category.	Reference points are appropriate for the stock and can be estimated.	
	Met?	(Y/N) Y	(Y/N) Y	
	Justification	The key reference point used is stock biomass as a proportion of Bmsy. Bmsy is estimated analytically using a range of models subject to sensitivity testing (see PI 1.2.4) with appropriate data inputs and model fitting using a range of appropriate diagnostics. Assessments are not conducted annually but outlook updates of the stock relative to Bmsy are provided by considering projections given updated catch estimates. The reference points used are appropriate for the stock and can be (and are) estimated. SG60 and SG80 requirements are met.		
b	**Guidepost**		The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity.	The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of precautionary issues.
	Met?		(Y/N) Y	(Y/N) N

PI 1.1.2		Limit and target reference points are appropriate for the stock
	Justification	ICCAT has not yet established by Recommendation or Resolution any LRP for NA swordfish. ICCAT (2015b) Recommendation 15-07 is on the development of HCR (see also PI 1.2.2) and includes specifications for the SCRS to advise the Commission on setting, amongst other things, LRPs for all stocks, including a 5-year schedule for the establishment of species-specific HCRs. At this stage, therefore, ICCAT planning for HCR development, including LRP, TRP and other settings, is well developed and in-train, but no explicit LRP exists. CR v1.3 CB2.3.2.1, however, allows for the use of implicit LRP (and TRP) used for managing the stock. Use of explicit or implicit RPs is available at all SG. Management action on NA swordfish relates to ensuring the stock is at or above the objectives laid out in the Convention; that is, Bmsy (see also PI 1.1.2 si(c)). This is well exemplified in ICCAT (1999) Recommendation 99-2 which established a rebuilding program for NA swordfish when the stock was estimated to be at 0.65 Bmsy and with fishing mortality estimated as 1.34Fmsy. The Commission adopted rigorous measures (catch reductions and various technical measures) and has followed through since that time to ensure rebuilding, with the stock currently above Bmsy with a high probability (see PI1.1.1), going beyond the rebuilding objective of achieving Bmsy with a greater than 50% probability. The Commission introduced rebuilding measures in response to stock and fishing mortality status estimates, effectively treating either or both of those estimates as triggers, or thresholds for action. The trigger was to rebuild to meet Convention objectives but implicitly also to avoid further stock decline. These 1999 status estimates might generally be interpreted as management threshold reference points but it is not unreasonable here to treat them as LRPs which the Commission sought to avoid with a high probability by rebuilding to Bmsy within a specified timeframe and taking appropriate, sustained action to meet that goal. SG80 requirements are met. There is no explicit rationale presented in ICCAT documentation that precautionary matters (such as environmental variability, CR2.3.10), was considered when developing the rebuilding plan in 1999. SG100 requirements are not met.

PI 1.1.2		Limit and target reference points are appropriate for the stock		
c	Guidepost		The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome.	The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome, or a higher level, and takes into account relevant precautionary issues such as the ecological role of the stock with a high degree of certainty.
	Met?		(Y/N) Y	(Y/N) N
	Justification	The ICCAT Basic Texts (2007) include repeated language reflecting the preambular reference to "*maintaining the populations of these fishes at levels which will permit the maximum sustainable catch*". Article VIII states that "*The Commission may, on the basis of scientific evidence, make recommendations designed to maintain the populations of tuna and tuna-like fishes that may be taken in the Convention area at levels which* *will permit the maximum sustainable catch. These recommendations shall be applicable to the Contracting Parties under the conditions laid down in paragraphs 2 and 3 of this Article."* All evidence from SCRS and Commission reports, Recommendations and Resolutions, including rebuilding provisions for North Atlantic swordfish (ICCAT (1999) Rec 99-2) supports that the ICCAT core objective follows the Basic Texts, with clear use of Bmsy as a TRP used in management decisions for swordfish. SG80 requirements are met. There is no explicit rationale presented in ICCAT documentation that the ecological role of the stock, or other precautionary matters, is considered in setting the TRP. SG100 requirements are not met.		
d	Guidepost		For key low trophic level stocks, the target reference point takes into account the ecological role of the stock.	
	Met?		Not relevant	
	Justification	Swordfish is not considered to be a LTL.		

PI 1.1.2	Limit and target reference points are appropriate for the stock	
References	• ICCAT (2007) Basic Texts (5th Revision) • ICCAT (1999) Recommendation on Rebuilding Program for North Atlantic swordfish, Rec 99-2 • ICCAT (2015b) Recommendation by ICCAT on the Development of Harvest Control Rules and of Management Strategy Evaluation, Rec 15-07	
OVERALL PERFORMANCE INDICATOR SCORE: SI(a): 80; SI(b): 80; SI(c):80; SI(d):n/r		**80**
CONDITION NUMBER (if relevant):		

Evaluation Table for PI 1.1.3

PI 1.1.3		**Where the stock is depleted, there is evidence of stock rebuilding within a specified timeframe**		
Scoring Issue		SG 60	SG 80	SG 100
a	**Guidepost**	Where stocks are depleted rebuilding strategies, which have a reasonable expectation of success, are in place.		Where stocks are depleted, strategies are demonstrated to be rebuilding stocks continuously and there is strong evidence that rebuilding will be complete within the specified timeframe.
	Met?	(Y/N)		(Y/N)
	Justification	Not applicable		
b	**Guidepost**	A rebuilding timeframe is specified for the depleted stock that is the shorter of 30 years or 3 times its generation time. For cases where 3 generations is less than 5 years, the rebuilding timeframe is up to 5 years.	A rebuilding timeframe is specified for the depleted stock that is the shorter of 20 years or 2 times its generation time. For cases where 2 generations is less than 5 years, the rebuilding timeframe is up to 5 years.	The shortest practicable rebuilding timeframe is specified which does not exceed one generation time for the depleted stock.
	Met?	(Y/N)	(Y/N)	(Y/N)
	Justification	Not applicable		
c	**Guidepost**	Monitoring is in place to determine whether the rebuilding strategies are effective in rebuilding the stock within a specified timeframe.	There is evidence that they are rebuilding stocks, or it is highly likely based on simulation modelling or previous performance that they will be able to rebuild the stock within a specified timeframe.	
	Met?	(Y/N)	(Y/N)	

PI 1.1.3		**Where the stock is depleted, there is evidence of stock rebuilding within a specified timeframe**
	Justification	Not applicable
References		
OVERALL PERFORMANCE INDICATOR SCORE:		**N/A**
CONDITION NUMBER (if relevant):		

Evaluation Table for 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/N) Y	(Y/N) Y	(Y/N) N
	Justification	The harvest strategy consists of an objective (Bmsy), annual monitoring (of catch and CPUE) and assessment (either full or update by the SCRS) of biomass and fishing mortality and setting of TACs, catch limits, and other measures by the Commission to achieve the objective. While an explicit biomass LRP has not been defined, an implicit LRP can be inferred from rebuilding measures started in 1999 (see PI 1.1.2). The strategy of setting quotas to achieve the target biomass over the long term has maintained the stock above the MSC default limit reference point (0.5Bmsy=B25%) and has rebuilt the stock to well above Bmsy. Continued use of the strategy would be expected to ensure this continues. SG60 requirements are met. The Commission has set annual TACs consistent with the advice of the SCRS. The most dramatic example of this is the implementation of the 10-year rebuilding plan in 1999 (ICCAT, 1999) in response to SCRS-assessed declines in stock biomass. This resulted in reductions in TACs until signs of stock recovery in 2003, at which time the TACs were permitted to increase. Therefore, as the stock conditions changed, the TACs of the rebuilding plan were amended to respond to these changes. SG80 requirements are met. While the strategy is responsive to the state of the resource, it makes no explicit mention of a limit reference point (see PI 1.1.2) or how the Commission should react in a well-defined way to changes in biomass or exploitation status. While the strategy is intended to achieve the target Bmsy, it is not fully specified or designed as a clear set of rules. This is reflected by the agreement of ICCAT to develop HCR using Management Strategy Evaluation (MSE), effectively to 'design' a strategy to achieve explicit objectives reflected in specified LRP and TRP (see PI1.2.2). SG100 requirements are not met		

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/N) Y	(Y/N) Y	(Y/N) N
	Justification	The SCRS carries out stock assessments based on fisheries-dependent, and provides advice to the Commission relative to Bmsy. The SCRS evaluates management measures in place and recommends changes as required to meet management objectives. In the case of swordfish, this advice has been used to set TACs and other measures. Since 1999 the stock has rebuilt and been maintained above Bmsy (see PI1.1.1). SG60 and SG80 requirements are met. There is no evidence that the harvest strategy has been evaluated. ICCAT has agreed to develop HCR using Management Strategy Evaluation (MSE), effectively to evaluate and design a harvest strategy (see PI1.2.1a). SG100 requirements are not met.		
c	Guidepost	Monitoring is in place that is expected to determine whether the harvest strategy is working.		
	Met?	(Y/N) Y		
	Justification	Every three – four years, the SCRS undertakes a full assessment of the stock. This includes a review of the catch, fishery dependent indices of abundance, models of historical population size as well as biological reference points. TAC and other management measures are reviewed annually and changed as required. This process provides the monitoring to determine whether or not the strategy is working. The SG60 requirements are met.		
d	Guidepost			The harvest strategy is periodically reviewed and improved as necessary.
	Met?			(Y/N) Y

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
	Justification	The SCRS reviews the elements of harvest strategy annually and provides advice to ICCAT on whether the strategy has been successful, and ICCAT takes the advice under consideration. The SCRS updates data every year, regularly reviews and conducts stock assessments, re-estimates (re-calculates) and re-evaluates appropriateness of the reference points, and whether the objectives of the Convention are met. Although there is no evidence that the current harvest strategy as a whole has been evaluated in detail, the review demonstrates that the strategy has achieved its rebuilding objectives. ICCAT has clearly recognised limitations and has agreed to develop HCR using Management Strategy Evaluation (MSE), effectively to evaluate and design an explicit and more robust harvest strategy (see PI1.2.2). Therefore, SCRS is in regular discussion with the Commission to develop and further improve assessment methods and evaluate reference points. The harvest strategy is periodically reviewed and improved as necessary. SG 100 requirements are met.		
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?	(Y/N/Not relevant)	(Y/N/Not relevant)	(Y/N/Not relevant)
	Justification	Not relevant. CB2.5.3 states that this scoring issue shall be scored if the target species is a shark.		
References		• ICCAT (1999) Recommendation on Rebuilding Program for North Atlantic swordfish, Rec 99-2 • ICCAT (2015) Recommendation on the development of harvest control rules and of management strategy evaluation, Rec 15-07		
OVERALL PERFORMANCE INDICATOR SCORE: si(a):80; si(b):80; si(c):60; si(d):100; si(e):n/r				**85**
CONDITION NUMBER (if relevant):				

Evaluation Table for 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/N) Y	(Y/N) N	

	Justification	The MSC Interpretation on Harvest Control Rules (HCRs) distributed to CABs on 16 December 2015, explains that "…'*generally understood' HCRs do not need to be well defined or explicitly agreed, but there should be at least some implicit agreement supported by past management actions from which to understand that 'generally understood' rules exist, and there should be no reason to expect that management will not continue to follow such generally understood rules in future and act to be responsive to changes in indicators of stock status with respect to explicit or implicit reference points."* ICCAT has a history of taking management action to reduce the exploitation rate in the NA swordfish fishery in response to stock and fishing mortality status estimates. In 1999 ICCAT implemented a rebuilding plan under Recommendation 99-2 (see PI1.1.2) and has set TACs, catch limits, and other technical regulations regularly since that time, following advice from the SCRS, to rebuild and maintain the NA swordfish stock above Bmsy. There is no reason to expect that this management responsiveness to SCRS advice, showing status and projections in relation to indicators (see PI1.1.2), will not continue. In 2011, ICCAT adopted Recommendation 11-13 setting out principles of decision making for ICCAT conservation and management measures (ICCAT 2011). This describes a generally understood decision-making framework based on a harmonized format for tuna RFMO science bodies to convey advice (Strategy Matrix) agreed at the Second Joint Meeting of Tuna RFMOs in June 2009 in San Sebastian, Spain. Recommendation 11-13 guides the Commission in developing management measures responsive to stock status as represented on the Kobe Plot (a standardized "four quadrant, red-yellow-green" format, which is widely embraced as a practical, user-friendly method to present stock status information). The Recommendation sets out clearly how management measures should be designed depending on where status is estimated in the Kobe quadrants, generally codifying the type of action taken in Recommendation 99-2. In all cases, the requirement set out is that management measures should be designed to maintain the stock at, or rebuild to, Bmsy, with a high probability. Where appropriate (overfishing and overfished) the adoption of a rebuilding plan is required. The framework does not specify actions with respect to approaching limits but is designed around achieving targets with high probability, considering both stock status and exploitation rate with requirements to reduce exploitation rate when it is above Fmsy. By definition, as the framework is designed to achieve the TRP with high probability and maintain fishing mortality below Fmsy, it will also act to maintain the stock above the implicit LRPs (see PI1.1.2 si(b)). This represents generally understood HCR that is consistent with the harvest strategy. The SG60 requirements are met.

	Justification	ICCAT has not yet established well-defined HCR for NA swordfish but a process to develop HCR using Management Strategy Evaluation (MSE) is in effect. Recommendation 15-07 (ICCAT 2015) is on the development of HCR using MSE and includes specifications for the SCRS to advise the Commission on setting reference points for all stocks, including a 5-year schedule for the establishment of species-specific HCRs. At this stage, therefore, ICCAT planning for HCR development, including LRP, TRP and other settings, is in-train, but a well-defined HCR cannot be said to exist, as required for SG80. The SG80 requirements are not met.		
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/N) Y	(Y/N) N
	Justification	The SCRS assessments provide the Commission with estimates of projected biomass for a range of TAC options along with the associated probability of being at or above BMSY. It has also advised the Commission on TACs that would achieve a specified probability of being at or above Bmsy (e.g. 75% in ICCAT, 2012). These probabilities are based upon the main uncertainties in the stock assessment, with consideration of alternative assessment approaches and multiple sensitivity tests (see PI 1.2.4). The HCR can therefore be considered to take account of the main uncertainties (due to data, assumptions and assessment model) in setting harvest levels. SG80 requirements are met. The HCR framework is an instruction to the Commission on how to proceed given status estimates and outlook advice from the SCRS. It naturally incorporates uncertainties due to the scientific processes but does not account for other uncertainties related, for example, to implementation error or issues not considered in the stock assessment processes, such as environmental or ecological processes. SG100 requirements are not met.		
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/N) Y	(Y/N) Y	(Y/N) Not Scored

	Justification	The Scoring Guideposts in this case are cumulative. A single narrative is used to demonstrate that SG100 would be met, although SG80 is the highest level assessed because SG80 is not met at PI1.2.2 si(a) (see CR v1.3 27.10.5.3). The generally understood harvest control rule is to maintain fishing mortality below Fmsy to achieve the TRP with high probability (see PI1.2.2 si(a)). ICCAT controls fishing mortality by setting annual TACs and catch limits for each Contracting Party and Cooperating non-Contracting Party, Entity and Fishing Entity (CPC). Recommendation 15-03 (ICCAT 2015) specified TACs and catch limits for 2014, 2015 and 2016 and an aggregate limit for this three-year management period. Should the total catch in any of the three years exceed the annual TAC, ICCAT must adjust the TAC(s) for the following year(s) to ensure that the three-year limit is not exceeded. If the total catch in the last year of the management period exceeds the TAC and the three-year total catch exceeds the aggregate limit, the exceeded amount over the three years must be adjusted in the next management period. In general, these adjustments are carried out through *pro rata* reduction of the quota for each CPC. ICCAT relies on its CPCs to constrain domestic harvesting within each country's or entity's catch limit. In addition, minimum size regulations have been established for the Convention area. Countries can implement domestic controls above and beyond these limits to further the conservation of NA swordfish. For example, US-specific tools include fleet quotas, individual quotas, time/area closures, observer coverage requirements, VMS requirements, dockside monitoring requirements, hail in/out requirements, logbook requirements, season, transfer processes and bycatch reduction measures. There is evidence that clearly shows these tools used to implement the generally understood harvest control rule is appropriate and effective in achieving the required exploitation levels (ICCAT, 2009b; 2012a). While there is evidence that the catch was reduced further than required by the TAC reductions implemented as part of the rebuilding plan, the successful rebuilding of the stock to Bmsy between 1999 and 2009 nevertheless shows that these tools are appropriate and effective in controlling exploitation. The consistent decline in fishing mortality from 1999 to recent years (since when it has been stable) is shown in the stock assessment outputs (for example, Figure 8 of ICCAT, 2015a). The Commission is committed to implementing the TACs (ICCAT, 2011) and has put in place carryover mechanisms to ensure this (see above). SG80 requirements are met.

References	• ICCAT (2009) Supplemental Recommendation by ICCAT to amend the Rebuilding Program for North Atlantic swordfish, Rec 09-02 http://www.iccat.int/Documents/Recs/compendiopdf-e/2009-02-e.pdf • ICCAT (2011) Recommendation by ICCAT on the Principles of decision making for ICCAT Conservation and Management Measures, Rec 11-13. http://www.iccat.int/Documents/Recs/compendiopdf-e/2011-13-e.pdf • ICCAT (2011). Recommendation by ICCAT for Conservation of North Atlantic Swordfish, Rec. 11-02. • ICCAT (2012a) Report of the Standing Committee on Research and Statistics (SCRS), Madrid, Spain, October 2012. 303 pp. http://www.iccat.int/Documents/Meetings/SCRS2012/2012_SCRS_R • ICCAT (2013). Report of the 2013 Atlantic Swordfish Stock Assessment Session, Portugal, 2013. Doc. No. SCI-036 / 2013. • ICCAT (2015). Report of the Standing Committee on Research and Statistics (SCRS). Spain, October 2015. https://www.iccat.int/Documents/Meetings/SCRS2015/SCRS_PROV_ENG.pdf • ICCAT (2015) Recommendation on the development of harvest control rules and of management strategy evaluation, Rec 15-07
OVERALL PERFORMANCE INDICATOR SCORE: si(a): 60; si(b): 80; si(c): 80	**75**
CONDITION NUMBER (if relevant): **NOTE: Condition 1 at PI1.1.2 has been closed. This condition number, 2, is retained for continuity.**	**2**

Evaluation Table for PI 1.2.3

PI 1.2.3		Relevant information is collected to support the harvest strategy		
Scoring Issue		SG 60	SG 80	SG 100
a	**Guidepost**	Some relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.	Sufficient relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy.	A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.
	Met?	(Y/N) Y	(Y/N) Y	(Y/N) N
	Justification	There is a good understanding of stock structure (ICCAT, 2007b). On-going tagging, genetic and morphological studies have generally confirmed stock structure, indicating that it is sufficient to support the harvest strategy. Several studies (ICCAT, 2006a) have described Swordfish growth and have been used to characterize historical trends in the catch at length in the fishery (ICCAT, 2009b), indicating that this information is also sufficient to support the harvest strategy. Information on growth is time invariant which does not allow for examination of production-associated temporal trends. The same appears to be the case with maturity changes. It is not therefore possible to say that information on stock productivity is comprehensive. Landings are generally dockside monitored and information on removals from all fleets exploiting the stock is considered adequate to inform the current harvest strategy (and future HCR development). SG60 and SG80 requirements are met. Overall, information on the fishery, while sufficient for the harvest strategy (and future HCR development), is not considered comprehensive (e.g. for growth and maturity trends). SG100 requirements are not met.		

PI 1.2.3		Relevant information is collected to support the harvest strategy		
b	**Guidepost**	Stock abundance and fishery removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.	Stock abundance and fishery removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.	All information required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of inherent uncertainties in the information [data] and the robustness of assessment and management to this uncertainty.
	Met?	(Y/N) Y	(Y/N) Y	(Y/N) N

	Justification	The composition and operations of fleets involved in the NA swordfish fishery are well understood. This species is available to a large number of fishing countries due to its broad geographical distribution in the Atlantic. Directed swordfish fisheries (longline and harpoon) across the whole Atlantic include fleets from Canada, EU-Spain, United States, Brazil, Morocco, Namibia, EU-Portugal, South Africa, Uruguay, and Venezuela. The primary by-catch or opportunistic fisheries that take swordfish are tuna fleets from Chinese Taipei, Japan, Korea and EU-France. ICCAT requires members to report information regarding fishing activities, including catches, catches by size, effort and CPUE and biological and distributional/migration data. Recommendation 13-02 states that *all CPCs catching swordfish in the North Atlantic shall endeavor to provide annually the best available data to the SCRS, including catch, catch at size, location and month of capture on the smallest scale possible, as determined by the SCRS. The data submitted shall be for broadest range of age classes possible, consistent with minimum size restrictions, and by sex when possible. The data shall also include discards (both dead and alive) and effort statistics, even when no analytical stock assessment is scheduled. The SCRS shall review these data annually.* Responsibility for reporting lies with the CPCs. Landings are recorded either through logbooks, dealer records or dockside monitoring. As most if not all swordfish are landed as individual fish, there is comprehensive information on the age/size composition of the landings. Reporting of catch data is reasonably up to date although there are some time lags. ICCAT (2013) reported catches up to 2012, noting that at the time of the assessment no 2012 catches were reported for eight CPCs. For these CPCs, the ICCAT swordfish stock assessment group used the average value of catches reported for 2009-2011 as an estimate for 2012 to use in the projections. This amounted to approximately a 6% increase in the reported catch of 13,134. Discards are estimated through observer coverage for those countries with this type of monitoring (e.g. US, Canada and Spain). Evaluations have been conducted which provide estimates of the uncertainty in these data and give guidance on the appropriate level of observer coverage. Observer coverage of the US pelagic longline fishery is consistent with NMFS guidelines (8%) and is sufficient to characterize discards. Observer coverage of the Spanish pelagic longline fishery is consistent with the recommendations of IEO scientists and the General secretariat for Fisheries (1%).Observer coverage of the Canadian longline fishery is consistent with the DFO recommended minimum coverage (5%).The SCRS reported in 2015 that several fleets have reported dead discards since 1991. The volume of Atlantic-wide reported discards has ranged from a minimum of 157 t in 2009 to a maximum of 1,139t in 2000, with 198t reported for 2014). In 2015, the SCRS expressed concern due to the low percentage of fleets that have reported annual dead discards (in t) in recent years. Nevertheless, overall unreported landings and discards, do not appear to be significant. The uncertainties in these data are quantified through GLMs as part of the assessment process. Stock abundance is monitored through the SCRS assessment process (see PI 1.2.4). A number of indices of fishable biomass (from 1963) and abundance at age (from 1978) are available and are used in the stock assessment (e.g. ICCAT 2013) from a number of harvesting nations (Japan, Portugal, Morocco, Canada 1 and 2, Spain age-specific and age-aggregated, and USA 1 and 2) (ICCAT, 2013). These represent about 3 – 5 swordfish generations of monitoring. There are no fishery independent indices available so stock abundance indices are restricted to fishery dependent sources. The CPUE data and stock assessment support the setting of annual TACs and catch limits by ICCAT (see PI1.2.2 si(c)). Stock abundance and fishery removals are therefore regularly monitored at a level of accuracy and coverage consistent with the generally understood harvest control rule (see PI1.2.2 si(a)), and CPUE indices are available and monitored with sufficient frequency to support the harvest control rule. The SG60 and SG80 requirements are met. The last stock assessment was conducted in 2013 using data up to 2012. The next stock assessment is planned for 2017. Monitoring of abundance in the intervening period is based on CPUE indices. Stock estimates from the assessment are now several years old. Therefore, not all information required by the generally understood harvest control rule is monitored with high frequency and a high degree of certainty. The SG100 requirements are not met.

PI 1.2.3		Relevant information is collected to support the harvest strategy		
c	Guidepost		There is good information on all other fishery removals from the stock.	
	Met?		(Y/N)Y	
	Justification	All other fishery removals from the stock comprise only IUU fishing. ICCAT (2009) reported that IUU vessels were no longer considered to be a significant concern due to the actions taken by ICCAT and the member countries to curtail those activities. The SG80 requirements are met.		
References		• ICCAT (2013) Report of the 2013 Atlantic Swordfish Stock Assessment Session. Doc. No. SCI-036/2013 • ICCAT 2006a. ICCAT Manual. Available a *http://www.iccat.es/en/ICCATManual.asp?mId=4* • ICCAT. 2006. Report of the 2006 Atlantic swordfish stock assessment session. Madrid, Spain. September, 2006. • http://www.iccat.int/Documents/CVSP/CV060_2007/no_6%5CCV060061787.pdf • ICCAT 2007b. Report of the 2006 ICCAT workshop on swordfish stock structure. Col. Vol. Sci. Pap. ICCAT.61: 1 – 23. *http://www.iccat.int/en/pubs_CVSP.htm* • ICCAT 2009b. Report of the 2009 Atlantic Swordfish Stock Assessment Session, Madrid, September 7 to 11,2009. SCRS/2009/016 – SWO ATL Stock Assessment. 78pps.*http://www.iccat.int/Documents/SCRS/DetRep/DET-SWO-ATL.pdf* • ICCAT (2013). Report of the 2013 Atlantic Swordfish Stock Assessment Session, Portugal, 2013. Doc. No. SCI-036 / 2013. • ICCAT 2015. Report of the standing committee on research and statistics (SCRS). Spain, October 2015. https://www.iccat.int/Documents/Meetings/SCRS2015/SCRS_PROV_ENG.pdf		
OVERALL PERFORMANCE INDICATOR SCORE: si(a):80; si(b):80; si(c):80				**80**
CONDITION NUMBER (if relevant):				

Evaluation Table for 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/N)Y	(Y/N)N
	Justification	Stock production (that is, age-aggregated) and/or age-based models are commonly used in assessments to assess stock biomass and fishing mortality in relation to reference points associated with harvest control rules. Age-structured approaches, but not stock production ones, allow a description and consideration of year-class specific processes. For North Atlantic swordfish, it is not possible reliably to age 5+ fish and, for the age groups in the fishery (less than age 5), spatial and temporal dynamics, which may vary considerably by region in the North Atlantic, further complicate an age-structure approach. These make a stock production approach an appropriate option until these issues are resolved. The SCRS uses two production approaches to provide advice to the ICCAT Commission relative to Bmsy. The assessments are appropriate for the HCR in use (see PI1.2.2). SG80 requirements are met. While the assessment models are appropriate for the stock and HCR and consider some of the major features of Swordfish biology and the fishery, the use of the stock production model to provide harvest advice implies the lack of explicit consideration of age-specific processes (e.g. recruitment) in management advice. While this is not completely true as the SCRS has also used age-structured assessment models as a check of the production model results, harvest projections are only made based on the latter. This is further complicated by the fact that full assessments are only conducted every 3 – 4 years. This implies that interim advice provided during updates cannot benefit from information that may be available in catch and CPUE data on incoming recruitment, or consider changes in selectivity due to changes in the nature of the fishery and technical regulations. SG100 requirements are not met.		
b	**Guidepost**	The assessment estimates stock status relative to reference points.		
	Met?	(Y/N) Y		

PI 1.2.4		There is an adequate assessment of the stock status		
	Justification	Each assessment conducted by the SCRS for the last decade has provided estimates of current and historical biomass relative to Bmsy and current and historical fishing mortality rate relative to Fmsy. While there is no explicit limit reference point, the assessment calculates biomass relative to a number of reference points which might be adopted as limit reference points in the future. SG60 requirements are met.		
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/N) Y	(Y/N) Y	(Y/N) Y
	Justification	Major sources of uncertainty are identified in the assessment and include observation uncertainty in the combined biomass index and process uncertainty in the stock's intrinsic rate of growth, r, and carrying capacity, K. Alternate models of surplus production dynamics are also considered (SPM vs BSM). Model uncertainty is somewhat examined through comparing the results of age-structured (VPA) and age aggregated (SPM and BSM) formulations. Observation uncertainty is taken into account through use of a number of CPUE indices and their synthesis into a combined index through General Linear Modelling. Error in the catch and its associated proportions at age is assumed to be negligible. Process error is taken into account through consideration of alternate surplus production functions (e.g. Schaefer vs Fox) as well as uncertainty in the intrinsic rate of stock growth, r, and carrying capacity, K. It is less clear how model uncertainty is taken into account although the results of an age-structured statistically integrated model are compared to those of the age-aggregated models and narrative on this included in the assessment. In addition, retrospective analyses explore how the models perform when updated with new data. The SG60 and 80 requirements are met. The assessment, either using age-aggregated or age-structured approaches, takes uncertainty into account through examination of the implications of observation, process and model error. Retrospective analyses are undertaken to determine how the models perform when updated with new information. Key model parameters are described in probabilistic terms including the ratio of current biomass and fishing mortality to BMSY and FMSY respectively. SG100 requirements are met.		

PI 1.2.4		There is an adequate assessment of the stock status		
d	Guidepost			The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.
	Met?			(Y/N) Y
	Justification	ICCAT (2013) explored the implications of alternative model formulations and a range of hypotheses under each model. For the two stock production models there was a rigorous evaluation of each model while there was less time available to do the same for exploratory age structured model. Overall, noting the base case model used is a stock production model, ICCAT (2013) explored the implications of alternative model formulations and a range of hypotheses in a rigorous manner. Importantly, management advice based on the base case assessment model has been rigorously explored and estimates of trends in biomass and fishing mortality were similar across model formulations and a reasonable range of assumptions. The SG100 requirements are met.		
e	Guidepost		The assessment of stock status is subject to peer review.	The assessment has been internally and externally peer reviewed.
	Met?		(Y/N)Y	(Y/N)N
	Justification	The assessment of the stock status is subject to peer review. Internal peer review of stock assessments are conducted by the ICCAT SCRS which usually meets in October of every year. Additionally, working group meetings are held within a year on an ad-hoc as needed basis. Usually these are used to prepare data and analyses prior to an assessment meeting. Once an assessment has been reviewed by the full SCRS, an executive summary is presented to the Commission. The SG80 requirements are met. The SCRS is the scientific committee within ICCAT responsible for preparing and reviewing assessments. It is composed of scientists from the countries of ICCAT. While a broad range of international expertise participates in the SCRS this is considered as internal review. External review would require ICCAT to request individuals or a group outside of the SCRS to undertake a review of assessments. While ICCAT has a process for this which has been used for other stocks, it has not been applied to Swordfish. The SG100 requirements are not met.		
References		• ICCAT (2013) Report of the 2013 Atlantic Swordfish Stock Assessment Session. Doc. No. SCI-036/2013		

PI 1.2.4	There is an adequate assessment of the stock status	
OVERALL PERFORMANCE INDICATOR SCORE: si(a):80; si(b):60; si(c):100; si(d):100; si(e):80		**90**
CONDITION NUMBER (if relevant):		

Appendix 2

Draft Evaluation Table for PI 3.1.3 – Long term objectives (All UoC)

PI 3.1.3		The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach.		
Scoring Issue		SG 60	SG 80	SG 100
a	Objectives			
	Guide post	Long-term objectives to guide decision-making, consistent with the MSC Principles and Criteria and the precautionary approach, are **implicit** within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach are **explicit** within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are **explicit** within **and required by** management policy.
	Met?	Y	Y	Y
	Justification	At its 2015 meeting, ICCAT adopted Resolution 2015-12[1] which states that the Commission should apply a precautionary approach, in accordance with relevant international standards. The formulation of the resolution is entirely consistent with the UN Fish Stock Agreement and with the FAO Code of Conduct for Responsible Fisheries. Resolution 2015-11[2] states that the Commission should apply an ecosystem-based approach to fisheries management. The formulation of the resolution is consistent with international texts. These Resolutions deal explicitly with Principle 1 and Principle 2 of the MSC Principles and Criteria. Clauses 1, 2, and 3 of Article VII of the ICCAT convention, and therefore, management policy, require that contracting parties implement the recommendations of the Commission, with the possibility of exceptions of a party files an objection. Further, ICCAT REC 11-13 applies to both Principle 1 species (swordfish) and Principle 2 species such as other tunas, marlins, and sharks. This is		

[1] http://iccat.int/Documents/Recs/compendiopdf-e/2015-12-e.pdf
[2] http://iccat.int/Documents/Recs/compendiopdf-e/2015-11-e.pdf

PI 3.1.3		**The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach.**
		reflected in the SCRS's efforts to classify species according to the conceptual framework of the Kobe Plot even when information is limited (see http://www.iccat.int/Documents/Meetings/Docs/2013-SCRSREP_ENG.pdf). For example, blue shark, mako shark, and porbeagle shark are all classified according to the Kobe Plot framework in spite of data limitations that make assessment of these species particularly difficult and uncertain. SG100 requirements are met.
References		• ICCAT. 2015. 15-12 Resolution by ICCAT concerning the use of a precautionary approach in implementing ICCAT conservation and management measures. • ICCAT. 2015. 15-11 Resolution by ICCAT concerning the application of an ecosystem approach to fisheries management. • https://www.iccat.int/Documents/Commission/BasicTexts.pdf
OVERALL PERFORMANCE INDICATOR SCORE:		**100**
CONDITION NUMBER (if relevant):		**NA**

Appendix 3

STAKEHOLDER SUBMISSIONS

(Responses from assessment teams in red)

Comments from the Nova Scotia Swordfishermen's Association

The following conclusions were drawn with respect to PI 1.1.2 and PI 1.2.2 during surveliance audits conducted with respect to the North West Atlantic Canada Longline Swordfish Certification by the assessment team:

PI 1.1.2

The audit team noted that the first annual surveillance report for the US North Atlantic Swordfish UoC was published in May 2014. As per the CR requirement defined in CI 3.2.3.4, (The team responsible for the new assessment shall consider the findings of the surveillance report(s) produced for the overlapping certified fishery, if any.), the IFC audit team considered and took account of MRAG's First Annual Surveillance Audit results prepared for the US North Atlantic swordfish UoC. After review, the IFC audit team concluded that harmonization requirements only pertain to the Principle 1 species, North Atlantic swordfish. The IFC team noted that the MRAG report confirmed progress against defined milestones on the two conditions of relevance (PI 1.1.2 and 1.2.2).

The condition requires that by the fourth surveillance audit, evidence must be provided to show that the Limit Reference Point (LRP) is set above the level at which there is an appreciable risk of impairing reproductive capacity for the North Atlantic Swordfish stock. The requirement of the second surveillance audit is provision of evidence that initial discussions commenced within ICCAT groups (i.e. SCRS) to develop an appropriate LRP for North Atlantic swordfish. ICCAT has undertaken work on LRPs which meets the requirement of this year's milestone, as well as those of year 3 (provision of an update of on-going work undertaken by the SCRS to develop an appropriate LRP) and year 4 (provision of evidence to indicate that the SCRS has developed an appropriate LRP and that the LRP has been implemented and is set above the level at which there is an appreciable risk of impairing reproductive capacity).

An interim LRP of 0.4 * BMSY or any more robust LRP established through further analysis has been adopted (ICCAT, 2013c). It is important to note that the LRP is recognized by ICCAT (2013a) as the biomass below which fishing mortality would be set to zero i.e. the point where fisheries would be closed. This is interpreted as the point at which there would be an appreciable risk of impairing reproductive capacity for the North Atlantic Swordfish stock. This interim LRP is consistent with that proposed for North Atlantic albacore and the robust limits recommended for a number of Pacific tuna stocks (Preece, et al. 2011) and is based upon the production dynamics (e.g. steepness of the stock – recruitment relationship) of these resources. A full range of candidate LRPs will be evaluated in a Management Strategy Evaluation (MSE) to be undertaken in time for the next assessment (2017). ICCAT is undertaking its evaluation of reference points and harvest control rules (HCR) strategically across all the resources it manages to ensure that changes are being implemented in a consistent manner. The decision-making

framework under which this work is being undertaken has been established (ICCAT, 2011c); initial MSE testing of HCRs will be undertaken on skipjack and albacore tuna with testing on swordfish to follow. During the surveillance audit, DFO scientists indicated that initial results of MSE testing of HCRs on swordfish should be available by 2016.

As a further limit on potential harm to the stock, ICCAT (2013c) notes that while the HCRs are being developed, should the biomass approach the level which triggered the establishment of the previous rebuilding plan [Rec 99-02], management measures should be considered to avoid further decline and begin to rebuild the stock. Stock rebuilding was initiated when the biomass was 65% of BMSY (65,060 t) or about 33 % of the unfished biomass which is higher than the interim LRP. Thus, management action will be taken before the LRP is approached.

The IFC assessment team's opinion is that establishment of the interim LRP meets the second scoring issue of SG80.

IFC assessment team concluded that Condition 1 has been met but harmonization could not be agreed with the MRAG assessment team. So, in the interests of moving forward, IFC have reported that the annual milestones for these conditions have been met, the conditions remain open and IFC has requested MSC to provide direction to IFC and MRAG for the harmonization of next year's audit and, in doing, highlighted that neither fishery should be disadvantaged by the harmonization approach.

PI 1.2.2

The audit team noted that the first annual surveillance report for the US North Atlantic Swordfish UoC was published in May 2014. As per the CR requirement defined in CI 3.2.3.4, (The team responsible for the new assessment shall consider the findings of the surveillance report(s) produced for the overlapping certified fishery, if any.), the IFC audit team considered and took account of MRAG's First Annual Surveillance Audit results prepared for the US North Atlantic swordfish UoC. After review, the IFC audit team concluded that harmonization requirements only pertain to the Principle 1 species, North Atlantic swordfish. The IFC team noted that the MRAG report confirmed progress against defined milestones on the two conditions of relevance (PI 1.1.2 and 1.2.2).

The condition requires that by the fourth surveillance audit, evidence is to be presented by the client which showed that well defined Harvest Control Rules (HCR) are to be in place to ensure that the exploitation rate is reduced as LRPs are approached. The requirement of the second surveillance audit is the provision of evidence that initial discussions by the SCRS were commenced to develop an appropriate LRP and associated HCR. ICCAT has undertaken work which meets the requirement of this year's milestone, as well as those of year 3 (update on work undertaken by the SCRS to develop an appropriate LRP and associated HCRs) and year 4 (evidence of development of an appropriate LRP and adoption of a HCR that is consistent with the harvest strategy and ensures that the exploitation rate is reduced as limit reference points are approached).

ICCAT (2011c) has adopted a decision – making framework (as represented by the Kobe plot) which is based upon stock status in relation to BMSY and fishing mortality in relation to FMSY (see Figure 2). For each quadrant, management actions are outlined:

• For stocks that are not overfished and not subject to overfishing (i.e. green quadrant), management measures shall be designed to result in high probability of maintaining the stock within this quadrant.
• For stocks that are not overfished, but are subject to overfishing, (i.e. upper right yellow quadrant), management measures shall immediately be adopted designed to result in a high probability of ending overfishing in as short a period as possible.
• For stocks that are overfished and subject to overfishing (i.e., red quadrant), management measures shall immediately be adopted designed to result in a high probability of ending overfishing in as short a period as possible. In addition, ICCAT shall adopt a plan to rebuild these stocks
• For stocks that are overfished and not subject to overfishing (i.e. lower left yellow quadrant), ICCAT shall adopt management measures designed to rebuild these stocks in as short a period as possible

ICCAT (2013a) suggests that FMSY is now being interpreted as a fishing mortality limit. The SCRS provided its assessment results (ICCAT, 2013d) to the Commission according to this framework, which based its decision on 2014-2016 TACs on the stock being in the green quadrant. Specific probabilities associated with this framework have yet to be established. These will be explored in MSE testing of HCRs that has been initiated on key ICCAT stocks. ICCAT has been making progress on MSE since about 2010, the background of which is provided in ICCAT (2013a). A generic HCR has been outlined (ICCAT, 2010b) which describes how fishing mortality is reduced as it approaches BLIM, at which point fishing mortality is to be reduced to zero. A variety of HCRs are being considered in the MSEs. ICCAT is taking a strategic approach in its MSEs to ensure consistent application across all Convention stocks. Initial work will be undertaken on albacore, the experience of which will be applied to North Atlantic swordfish. During the surveillance audit, it was indicated that this work would be complete by 2017 (in time for the next assessment), with initial results available in 2016.

Until the HCR for swordfish is fully explored in the MSE, ICCAT has adopted an interim HCR which uses 0.4 * BMSY as an LRP (see condition 1). ICCAT (2013c) provides recommendation 13-02 which states that the SCRS and the Commission shall begin dialogue to allow for the development of HCRs for consideration in any subsequent recommendations. Further, while the HCRs are being developed, should the biomass approach the level which triggered the establishment of the previous rebuilding plan [Rec 99-02], then management measures should be considered to avoid further decline and begin to rebuild the stock. Stock rebuilding was initiated when the biomass was 65% of BMSY (65,060 t) or about 33 % of virgin biomass which is higher than the interim LRP.

FAM 2 (6.3.9) notes that the requirement that a HCR reduce fishing mortality as the LRP is approached should not necessarily be interpreted as requiring the control rule deliver a fishing mortality that is a monotonically decreasing function of biomass. Any function may be acceptable so long as it acts to keep the biomass above the LRP and attempts to maintain the stock at the target reference point (TRP). Rec 13-02 indicates that fishing mortality would be reduced before the interim LRP is reached. As well, the decisionmaking framework indicates that rebuilding is intended to keep biomass above BMSY.

The IFC assessment team’s opinion is that this meets the requirements of the first scoring issue of SG80 of this performance indicator (Harvest Control Rules and Tools: 1.2.2), allowing rescoring to 80.

The first scoring issue at SG100 requires that the design of the HCR take into account a

wide range of uncertainties. The IFC assessment team's opinion is that it was possible to score this scoring issue at SG80 due to uncertainties considered in the stock assessment. However, it is not possible to state that a wide range of uncertainties are considered in the HCR until the MSE has been completed.

The second scoring issue at SG100 requires that the evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the HCR. The rebuilding of the stock under TAC management since 1999 provides this evidence. Hence, the IFC assessment team's opinion is that this scoring issue is met. Scoring of all SG80 and one of two SG100 scoring issues would allow this performance indicator to be rescored to 90.

IFC assessment team concluded that Condition 2 had been met but harmonization could not be agreed with the MRAG assessment team. So, in the interests of moving forward, IFC have reported that the annual milestones for these conditions have been met, the conditions remain open and IFC has requested MSC to provide direction to IFC and MRAG for the harmonization of next year's audit and, in doing, highlighted that neither fishery should be disadvantaged by the harmonization approach.

It is our view, based on the above, that PI 1.1.2 should be scored at 80 and that PI 1.2.2 should be scored at 90.

At the harmonisation meeting, the assessment teams agreed to a new scoring rationale at PI1.1.2. This is reported in the public comment draft circulated for consultation (ending 17:00 GMT 24 September). The revised PI1.1.2 score is 80.

The assessment teams also considered PI1.2.2 in detail and made revisions to the rationales for all scoring issues. The teams agreed a score of 60 for scoring issue (a). Scoring issues (b) and (c) are scored at 80, noting that scoring issue (c) can only be scored at 80, not 100, because scoring issue (a) is scored less than 80. The PI score is 75.

The key issue for scoring at issue (a) is the distinction between 'generally understood' (SG60) and 'well defined' (SG80) HCR. The teams considered carefully CR v1.3 and Guidance, and an MSC Interpretation on the issue, and agreed unanimously that 'well defined' rules, as required for SG80, do not at this time exist. The teams note that their conclusion also took in to account rationales for multiple other highly migratory species certifications, harmonisations, and independent adjudications related to this issue.

The teams invite the Nova Scotia Swordfishermen's Association to consider the revised rationales and scores during the consultation.

Comments from the Ecology Action Center

It is difficult to submit substantial comments on the Harmonization 2nd Phase Pilot with the swordfish ICCAT fisheries at this time, as there are no specific documents available in advance of the meeting on the P1 guideposts that will be discussed and other issues the experts will touch on at the upcoming meeting. The assessment teams note that the opportunity for fuller stakeholder comments will be provided in the consultation period starting 24 August, ending on 17:00 GMT 24 September.

Our review of the P1 scoring for these fisheries show only one discrepancy in scoring

at 1.1.2 and we support a score of 85 as the full range of scenarios are not tested against the HCRs to determine level of success fully. The assessment teams do not understand this comment. The teams agreed a score of 80 for PI1.1.2 in the harmonisation meeting but all existing PCRs score 75. The teams invite the EAC to comment on the harmonised rationales and scores.

We are unsure if guideposts under 1.2 will also be up for review. The scoring rationale for these should look at both ICCAT level regulations on observer and monitoring coverage and stock information availability along with fishery specific information collected through observer coverage, research, monitoring. This varies between the fisheries with some doing much more the bare minimum required by ICCAT. There should be allowance for differing scores to recognize and incentivize practices individual fisheries undertake that are raising the standard. The teams understand this comment relates to PI1.2.3 and invite the EAC to comment on the harmonised rationales and scores.

It is important to remain vigil during the harmonization effort that it does not result in watering down scoring rationales to come to consensus. The teams note that the harmonisation meeting has considered rationales to support scores at each SG. Each SG has very specific text and guidance and the teams have paid close attention to ensure the rationales are appropriate. Further, the meeting was attended by a peer reviewer appointed by the MSC Peer Review College and had technical support from the MSC. The meeting had an independent facilitator. ASI also acted as an observer to consider auditability of the process, including adherence to all requirements.

Until we have the opportunity to comment on specific outcomes of the meeting, we have the following general comments we would like to submit on the harmonization process:

-the harmonization process should ensure the independence built into the current process is not compromised. It is important to have independent review of the RFMO process and regulations if we are to continue to improve the status quo and push them to a higher standard. It would be easy in this process to built a space where experts who make the ICCAT rules also christen them as sustainable by being on these harmonization assessment teams as well The assessment teams note there are strict conflict of interest requirements in the MSC Certification Requirements and for each Certification Assessment Body. There are no members of ICCAT SCRS or other Commission-related bodies serving as assessment team members.

-Independent peer review should remain in place and should not be dependent as stated in the hamronization overview document on having less than 3 experts involved in the harmonization meeting. Peer review of the harmonization should remain a separate step to help stakeholders view the process as independent and transparent The assessment team notes that an independent peer reviewer participated in the harmonisation meeting.

We want to state at this time that we would be very concerned if this harmonization process for ICCAT fisheries was extended into P2 or P3 scoring. The assessment team notes this is a pilot process and is still under review by the MSC.

We feel a very important exercise that should be undertaken, potentially instead of the harmonization pilots, is bringing CABs together to identify instances where experts have come to differing scoring in such fisheries and understand the interpretation reasons that lead to the difference in scoring. Inconsistencies may be

justified in some cases and should stand. This type of work would help build the standard and improve guidance. The assessment team refers the EAC to the report of the harmonisation meeting and notes this is what we did.

Appendix 4

Participants list

Attendee	Role	Organisation
Bob Trumble	Assessment team member	MRAG Americas
Graeme Parkes	Assessment team member	MRAG Americas
Macarena Garcia	Assessment team member	Bureau Veritas
Jose Rios	Assessment team member	Bureau Veritas
Kevin Stokes	Harmonisation team leader; Assessment team member	Acoura Marine
Paul Knapman	Assessment team member	Acoura Marine
Stephen Smith	Facilitator	Independent
Rich Lincoln	Peer reviewer	MSC Peer review college
Colin Brannen	Observer	Accreditation Services International
Adrian Gutteridge	Observer	Marine Stewardship Council
Stephanie Good	Observer	Marine Stewardship Council
Jay Lugar	Observer	Marine Stewardship Council
Marin Hawk	Observer	Marine Stewardship Council