Marine Stewardship Council 1st Surveillance Report

For The

CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery

Facilitated By the

Canadian Highly Migratory Species Foundation (CHMSF)

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Foreword

The Canadian Highly Migratory Species Foundation (CHMFS) North Pacific Albacore Tuna Fishery was certified by SAI Global (Formerly known as Global Trust) in March 2010 against the MSC Principles and Criteria for Sustainable Fishing and reassessed again in May 2015. There were two conditions found on the first assessment (PI 1.1.2,1.2.2) that remained open after the conclusion of the reassessment of this fishery. In view of the foregoing, SAI Global has determined that the 1st Annual Surveillance Audit of the (CHMSF) North Pacific Albacore Tuna reassessment have to be conducted as a Level 6 (default) fishery surveillance audit in accordance with the provisions of the MSC Fisheries Certification Requirements v.2.0 (effective 1 April 2015) 7.24.2 1,7.24.2 2. A notification to this effect was published on the MSC website on 19th May 2016.

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Glossary

ALBWG	Albacore Working Group of ISC
B_{lim}	Stock size below which the recruitment would be impaired
B_{MSY}	Stock size that can produce maximum sustainable yield when it is fished at a level equal to F_{MSY}
CAB	Conformity Assessment Body
CHMSF	Canadian Highly Migratory Species Foundation
C&P	Conservation and Protection (DFO Enforcement Unit)
CoC	Chain of Custody
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPUE	Catch per Unit Effort
CR	Certification Requirements
DFO	Fisheries and Oceans Canada
DMP	Dockside Monitoring Program
EAM	Ecosystem Approach Management
EEZ	Exclusive Economic Zone
ESBA	Ecologically and Biologically Significant Areas
ETP	Endangered, Threatened and Protected species
F	Fishing Mortality Rate
F_{lim}	Fishing mortality rate that causes a stock to fall below B_{lim}
F_{MSY}	Fishing mortality rate at the level that would produce maximum sustainable yield from a stock that has size of B_{MSY}
FAO	United Nations Food and Agriculture Organization
IATTC	Inter-American Tropical Tuna Commission
IFMP	Integrated Fisheries Management Plan
ISC	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
HCR	Harvest Control Rule
LRP	Limit Reference Point
MPA	Marine Protected Area
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield, it is the largest average catch that can be continuously taken from a stock under existing environmental conditions
PA	Precautionary Approach
P1	MSC Principle 1
P2	MSC Principle2
P3	MSC Principe 3
PI	MSC Performance Indicator
PNCIMA	Pacific North Coast Integrated Management Area
SAR	Science Advisory Report
SARA	*Species At Risk Act*

SFF	Sustainable Fisheries Framework
SG	Scoring Guidepost
SPC	Secretariat of Pacific Community
SSB	Female spawning biomass
UoC	Unit of Certification
WCPFC	Commission for the Conservation and Management of Highly Migratory Fish

1. Executive Summary

This report contains the findings of the 1st surveillance audit in relation to the Canadian Highly Migratory Species Foundation (CHMSF) certificate of the CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery.

The 1st surveillance audit focused on the any changes to the fishery and its management since the re-certification in June 2015, and monitoring continued compliance with the MSC Principles and Criteria. Also, the assessment team evaluated progress against the 2 conditions (PIs PI No. 1.1.2 Reference Points, and PI No. 1.2.2 Harvest Control Rules).

SAI Global determines that:

- **The CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery continues to operate a well-managed and sustainable fishery and therefore, continued certification to the MSC Principles and Criteria for Sustainable Fishing is awarded.**

Table 1 summarizes conditions status, Performance Indicator (PI) and Principle score changes.

Table 1. Summary of Assessment Conditions

Condition number	Performance indicator (PI)	Status	PI original score	PI revised score
1	1.1.2	On target	70	65*
2	1.2.2	On target	60	Not revised

* Score revised to 65 (see section 9.1.2 and 9.2).

On behalf of the MSC client, the Canadian Highly Migratory Species Foundation (CHMSF), SAI Global would like to extend thanks to the management organisations and stakeholders of the CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery who took part in this surveillance audit.

- Lead Assessor: Dr. Ivan Mateo is a fishery assessment officer for SAI Global and an approved MSC Fishery Team Leader.

- Assessor: Dr. Max Stocker is a contractor for SAI Global with extensive experience in fisheries science, he held the position of research scientist with DFO at the Pacific Biological Station conducting population dynamic studies, conducting peer reviewed stock assessments of many marine species, and communicating results to fisheries managers and stakeholders.

Both Ivan and Max were part of the re-assessment team. Skills and experience are summarized below.

Dr. Ivan Mateo

Dr. Mateo has over 20 years' experience working with natural resources population dynamic modelling. His specialization is in fish and crustacean population dynamics, stock assessment, evaluation of management strategies for exploited populations, bioenergetics, ecosystem-based assessment, and ecological statistical analysis. Dr. Mateo received a Ph.D. in Environmental Sciences with Fisheries specialization from the University of Rhode Island. He has studied population dynamics of economically important species as well as candidate species for endangered species listing from many different regions of the world such as the Caribbean, the Northeast US Coast, Gulf of California and Alaska. He has done research with NMFS Northeast Fisheries Science Centre' Ecosystem Based Fishery Management on bio-energetic modelling for Atlantic cod. He also has been working as environmental consultant in the Caribbean doing fieldwork and looking at the effects of industrialization on essential fish habitats and for the Environmental Defence Fund developing population dynamics models for data poor stocks in the Gulf of California. Recently Dr. Mateo worked as National Research Council postdoc research associate at the NOAA National Marine Fisheries Services Ted Stevens Marine Research Institute on population dynamic modelling of Alaska sablefish.

Dr Max Stocker

Dr. Stocker is a scientist with over 30 years of extensive experience in fisheries science. Dr. Stocker held the position of research scientist with DFO at the Pacific biological Station conducting population dynamic studies, conducting peer reviewed stock assessments of many marine species, and communicating results to fisheries managers and stakeholders. He authored and co-authored over 90 scientific papers and reports. In 2007-07 he acted as marine fisheries consultant under contract with Fisheries and Oceans Canada (DFO) to provide scientific advice on highly migratory species in the Pacific Ocean. He was the lead Canadian scientist for highly migratory species for the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC).

2. General Information

Fishery name	CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery		
Unit(s) of assessment	**Species:** *Thunnus alalunga*, Albacore tuna **Geographical Area:** Fishing for this UoC is within the Canadian EEZ, the U.S. EEZ and the North Pacific Ocean. **Method of Capture**: Troll and jig **Client Group:** Canadian Highly Migratory Species Foundation (CHMSF) **Other eligible fishers:** There are no other eligible fishers.		
Date certified	9th June, 2015	Date of expiry	8th June, 2020
Surveillance level and type	Surveillance level 6 (Default Surveillance), on-site surveillance audit.		
Date of surveillance audit	22th June 2016		
Surveillance stage (tick one)	1st Surveillance	X	
	2nd Surveillance		
	3rd Surveillance		
	4th Surveillance		
	Other (expedited etc)		
Surveillance team	Lead assessor: Dr Ivan Mateo Assessor(s): Dr Max Stocker		
CAB name	SAI Global		
CAB contact details	Address	3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland	
	Phone/Fax	+353 (0) 42 932 0912	
	Email	jean.ragg@saiglobal.com	
	Contact name(s)	Jean Ragg	
Client contact details	Address	4829 Maplegrove Street Victoria, BC Canada, V8Y 3B9	
	Phone/Fax	(250) 658-0179	
	Email	clayton@ieccorporate.com	
	Contact name(s)	Lorne Clayton	

3. Introduction

This report sets out the results of the 1st annual surveillance assessment of:

1st surveillance audit in relation to the Canadian Highly Migratory Species Foundation (CHMSF) Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery

- CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery

To be awarded an MSC certificate for the fishery, the applicants agreed in a written contract to develop an action plan for meeting the required 'Conditions' against the performance indicators that scored below 80% in the initial assessment. Action Plans for each Condition were submitted by the fishery client and these were approved by SAI Global as the certification body of record.

The applicant also agreed in a written contract to be financially and technically responsible for surveillance visits by an MSC accredited certification body, which would occur at a minimum of once a year, or more often at the discretion of the certification body (based on the applicant's action plan or by previous findings by the certification body from annual surveillance audits or other sources of information).

Announcement of Surveillance Audit
An announcement of the surveillance site visit was published on the MSC website on the 19th of May 2016 to provide an opportunity to stakeholders to meet with or submit information on the fishery to the assessment team. Additionally, written notification was sent to the list of stakeholders representing the consultation plan during the initial assessment of this fishery and in many cases follow up e-mails were also made to ensure that stakeholders had been provided with sufficient opportunity to participate in consultation.
Table 10 provides a list of the stakeholders and management organizations engaged in the process either through meetings, conference call or submission of information. These consultations focused on the questions and evidence that demonstrates the performance of the fishery throughout the year and measures that supported the fulfilment of the Conditions of Certification placed upon at the re-certification decision.

Meetings were held with the following management and scientific organizations responsible for the The CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery:

- **Fisheries and Oceans Canada (DFO), Pacific Region**
- **NOAA National Marine Fisheries Service (NMFS) La Jolla**
- **International American Tropical Tuna Commission (IATTC)**
- **British Columbia Ministry of Agriculture**

A number of scientific and meeting reports were also examined by the surveillance team in producing this report, as detailed in the information sources section

4. Background

5.1 Fishery Observations

In total 83,462 t of North Pacific albacore were caught in 2014. Of the 83,462 t caught, 4,781 t were caught by 160 vessels that are members of the client group (Holmes and Chen, 2015). Table 2 details the total catch, and the UoA and UoC shares of the catch as well as total catch by the UoC (i.e., the total certified catch in 2015).

Table 2. Catch Data

Total North Pacific albacore tuna catch (Note – no TAC is applied)	**Year**	2014	**Amount**	83,462 t (estimated-ISC 2014)
Total UoA catch of North Pacific albacore tuna (Note – no TAC)	**Year**	2014	**Amount**	4,781 t
Total UoC catch of North Pacific albacore tuna (Note – no TAC)	**Year**	2015	**Amount**	4,418 t
Total green weight catch by UoC	**Year (most recent)**	2015	**Amount**	4,418 t
	Year (second most recent)	2014	**Amount**	4,781 t

In 2014, the Canadian fleet of 160 vessels targeted juvenile North Pacific albacore tuna (NPALB) exclusively and operated primarily in the coastal waters of Canada and the United States. Very little effort or catch occurred outside of these areas in 2014. Preliminary estimates of catch and effort in 2014 are 4,781 t and 4,747 vessel days, respectively, which represent a 6% decrease in catch and a 27% decrease in effort relative to 2013. Catch and effort were split primarily between Canadian waters (55% of the catch and 62% of the effort) and U.S. waters (44% of the catch and 37% of the effort). More than 85% of the catch was made in sea surface temperature band of 16-18 °C. The pattern of seasonal change in nominal CPUE peaked well above average in July and then was below average through August and September. The fishery stopped by October 10, which is about three weeks earlier than in recent years. Fifty-seven (57) vessels participated in the size sampling program and measured 11,208 fish for a sampling rate of 1.6% of the reported catch. These measurements were dominated by fish between 65-71 cm fork length (FL) corresponding to 2-year old fish, and a significant number of fish between 76-81 cm FL, which are 3-years old. The Canadian fishery was highly coastal in 2014 and shifted north to Haida Gwaii (bordering southeast Alaska) in late August and September, consistent with reports (unverified) of NPALB in the waters of southeast Alaska. The anomalously warm water in the northeast Pacific Ocean may have influenced this northward distribution of albacore tuna. Research in 2014 was focused on modelling climatic effects on albacore stock productivity and distribution and abundance in the EPO (Holmes and Chen, 2015).

5.2 Stock Status observations

The last North Pacific albacore stock assessment was conducted in 2014 (ISC, 2014). Therefore the stock status descriptions presented in the CHMSF MSC re-assessment report (Criquet, Mateo and Stocker, 2015) are still current.

The ALBWG used the base-case assessment model to determine north Pacific albacore trends in population biomass, spawning stock biomass, recruitment and fishing intensity from 1966 to 2012 (ISC, 2014). The ALBWG concluded that based on results from the 2014 base-case stock assessment, the north Pacific albacore stock is probably not in an overfished condition, and is not being overfished.

Estimates of total stock biomass (age-1 and older) show a long term decline from the early 1970s to 1990 followed by a recovery through the 1990s and subsequent fluctuations without trend in the 2000s (Figure 1). Female spawning biomass (SSB) exhibits similar long-term changes, with a decline from the early 1970s to the early 1990s, a recovery in the late 1990s and a leveling off in the late 2000s. Female SSB was estimated to be approximately 110,101 t in the terminal year of the assessment (2012) and stock depletion is estimated to be 35.8% of unfished SSB (Figure 2).

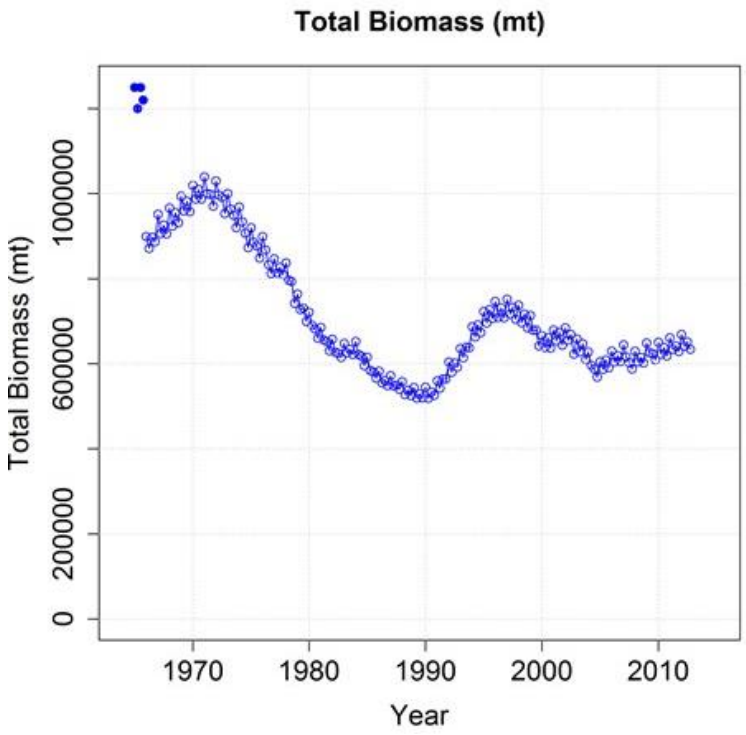

Figure 1. Estimated total age-1+ biomass of north Pacific albacore tuna (*Thunnus alalunga*) (ISC, 2014).

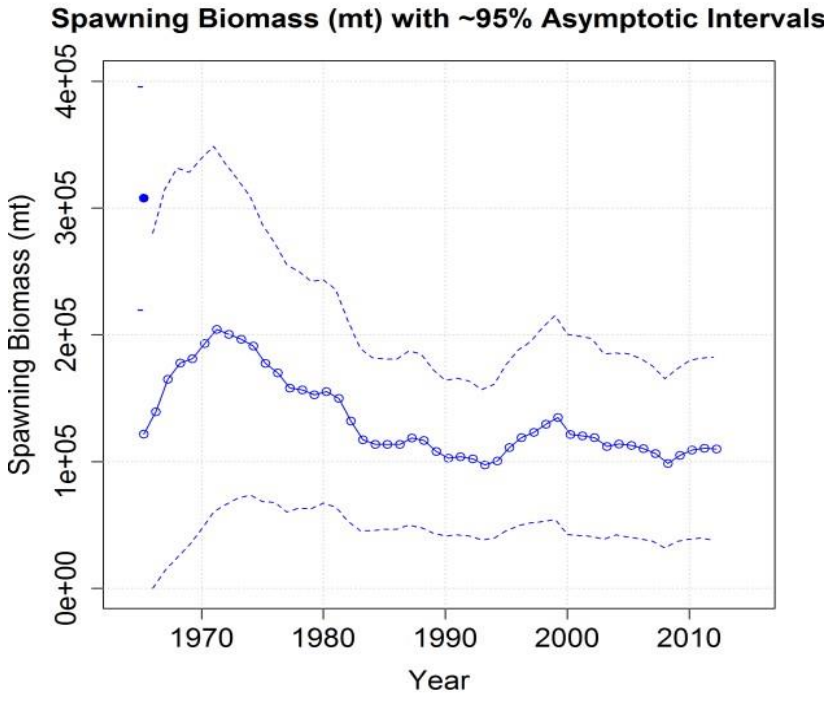

Figure 2. Estimated female spawning biomass of north Pacific albacore tuna (*Thunnus alalunga*). The open circles represent the maximum likelihood estimates and the dashed lines are the 95% asymptotic intervals of the estimates (± 2 standard deviations) in lognormal space. (ISC, 2014).

The Kobe plot (Figure 3) illustrates the stock status of north Pacific albacore relative to MSY-based reference points from the base case model indicating that the albacore remains in the healthy zone (ISC, 2014).

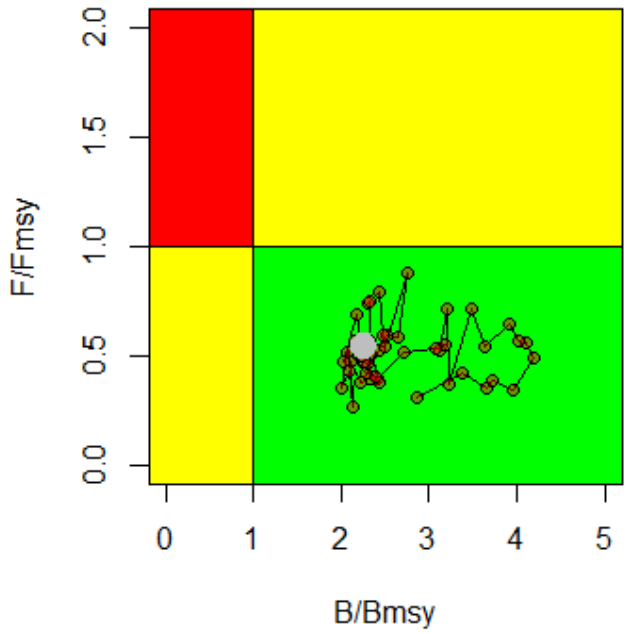

Figure 3. Kobe plot showing north Pacific albacore (*Thunnus alalunga*) stock status based on $F_{2010\text{-}12}$ relative to MSY-based reference points. Grey dot is the terminal year 2012 of the assessment (ISC, 2014).

In 2015 the ISC Plenary confirmed that because the calculated Fs for 2010-2012 relative to most candidate reference points, except F_{MED} and $F_{50\%}$ (which the ALBWG considers to be poor choices as reference points for this stock), are below 1.0, NPALB is not experiencing overfishing. The 2014 assessment estimated that spawning biomass in 2012 (110,101 t) was more than two times greater than the $20\%SSB_{CURRENT\ F=0}$ limit reference point established by the WCPFC, which means that the stock is not in an overfished state. Thus, the ISC concludes that overfishing is not occurring and that the stock is not in an overfished state (ISC, 2015a).

In 2015 the ALBWG noted that new information reviewed since the 2014 assessment did not raise conservation concerns and does not recommend any changes to the conservation advice provided by ISC14. The ISC concluded that the North Pacific albacore stock is healthy (SSB_{2012} >> $20\%SSB_{current\ F=0}$) and that current productivity (SSB_{2012}) is sufficient to sustain recent exploitation ($F_{2010\text{-}2012}$), assuming average historical recruitment (about 42.8 million fish annually) continues (ISC, 2015a).

The ALBWG is conducting a new stock assessment in 2017 (ISC, 2016) at a workshop in Shimizu Japan in April 2017. Prior to the assessment workshop a data preparation workshop will be held in November 2016 in Nanaimo, BC. Following the stock assessment workshop the ISC will review the stock assessment report at ISC 17 in July in Vancouver. A stock assessment summary document will be provided to the IATTC Scientific Advisory Committee (SAC) meeting in May of 2017.

5.3 Harvest strategy and harvest control rules

NC10 adopted a precautionary management framework including a limit reference point of 20%SSBF=0, which superseded FSSB-ATHL. NC11 recommended the incorporation of an emergency rule paragraph in the measure for when drastic drops of recruitment are detected. Discussions on North Pacific albacore included the development of reference points and harvest control rules, with agreement to advance the work on MSE at a workshop in April 2016.

At the Eleventh Regular Session of the Northern Committee, the USA introduced its North Pacific albacore Evaluation of Candidate Harvest Control Rules proposal (WCPFC, 2015b). As the follow-on to the adoption of the precautionary management framework for NP albacore and in preparation for the ISC to perform the management strategy evaluation, the USA proposed a series of candidate harvest control rules and reference points to be evaluated. The candidate harvest control rules include a set based on total allowable catch and a set based on total allowable effort. The reference points proposed for evaluation include combinations of B limits and F targets (WCPFC, 2015b).

In 2014 WCPFC NC10 tasked the ALBWG with developing an MSE process to evaluate the performance of target reference points (WCPFC, 2014a). The ISC and the Japan Fisheries Research Agency sponsored a workshop on MSE for tuna manager/stakeholders in Yokohama, Japan, 16-17 April 2015. Immediately afterward (20-22 April), the ALBWG held a mini-workshop at NRIFSF in Shimizu to begin the process of developing an MSE process for NPALB (ISC, 2015b). Work plans were developed for the next year for review and approval by ISC15. The April 2015 ALBWG workshop identified some principles for the MSE development and identified several areas in which managers/stakeholders will need to be engaged in the process. A follow up 2nd ISC sponsored MSE workshop on fishery objectives and harvest control rules for managers was held 24-25 May 2016 in Yokohama, Japan (ISC, 2016: Attachment 5).

The ISC has begun work on the Management Strategy Evaluation (MSE) for the North Pacific Albacore stock. The ALB MSE process is detailed in the framework proposed by the ALBWG (available in https://www.wcpfc.int/node/23394). An initial proposal of five objectives for the management of the

North Pacific Albacore tuna stock were made by managers, scientists and other stakeholders during the second ISC MSE Workshop (Yokohama, Japan, May 24-25, 2016). The ALBWG at its latest meeting (Shimizu, Japan, May 26-30, 2016) subsequently proposed one additional objective to facilitate the evaluation of target reference points (ISC, 2016). ALBWG then proposed performance indicators related to these management objectives. The six proposed management objectives for initial evaluations are:

1. Maintain spawning biomass (SSB) above the limit reference point;
2. Maintain the total biomass, with reasonable variability (x%), around the average depletion level in the recent 10 years of the latest stock assessment;
3. Maintain harvest ratios by fishery (fraction of the SSB harvested) at current average
4. Maintain catches by fishery above average historical catch; limit the magnitude of change to effort or catch to < 15% at any one time due to management actions by fishery; maintain F at the target value (proposed by the ALBWG to facilitate performance.

The IATTC ALB MSE process proposal was not endorsed by the Commission (IATTC, 2016). Canada was pleased with the steps taken to begin the MSE process for North Pacific Albacore, building upon the Precautionary Approach Framework adopted in 2014 (WCPFC, 2014a). Canada noted the ISC-led workshop in April to finalize management objectives and trusted that other NC members will also participate (WCPFC, 2015a).

5.4 Research update

Canadian highly migratory species research in the Pacific Ocean has focused on improving understanding of the biology and ecology of north Pacific Albacore Tuna to enhance assessments of the effects of fishing and the environment on stock dynamics and status (Holmes and Chen, 2015). The studies highlighted below have recently been completed or are ongoing and are conducted largely in cooperation with stakeholders and in collaboration with both Canadian and international colleagues.

Chen and Holmes (2015) describe the best practices currently available for the age determination of North Pacific Albacore Tuna. The described techniques and recommendations are the result of outcomes from the Pacific Bluefin Tuna and North Pacific Albacore Tuna Age Determination Workshop, held November 13-16, 2013, at the National Research Institute of Far Seas Fisheries in Shimizu, Shizuoka, Japan.

Xu *et al*. (2015a) examined the association of albacore tuna distribution with subtropical fronts in the Northeast Pacific on seasonal and interannual scales from 1982 to 2011. Spatial analyses were performed on commercial logbook data from US and Canadian troll and pole-and-line fisheries targeting albacore tuna that were matched with corresponding satellite images from the Advanced Very High Resolution Radiometer (AVHRR). Subtropical fronts were detected by deriving sea surface temperature (SST) gradients on large basin-scales and by using an improved version of the Cayula–Cornillon frontal detection algorithm. Based on the results, Xu *et al*. (2015a) suggested that areas with high albacore catch-per-unit-effort (CPUE) tend to occur in regions with high SST gradients, such as the North Pacific Transition Zone (NPTZ) and the North American coast.

Xu *et al*. (2015b) used an “approximate length-conditional” approach, which assumes that each fish is a random sample from a length bin based on an equilibrium population age structure, to fit age-length data from three previous studies. Results of the length-conditional approach resulted in a sex-combined growth curve that is similar to the previous estimates over the young and mid ages (age 2–6) but with different asymptotic lengths.
Nieto et al. (2015) used satellite sea surface temperature (SST) data to characterize coastal fronts and then tested the effects of the fronts and other environmental variables on the distribution of the albacore tuna

(*Thunnus alalunga*) catches in the coastal areas (from the coast to 200 nm offshore) of the Northeast Pacific Ocean.

5.5 MSC Harmonisation Meeting for Western and Central Pacific Tuna Fisheries

In July 2015 the Marine Stewardship Council (MSC) Board signed off an internal MSC Tuna Strategy that was developed to address concerns in regard to the certifications of highly migratory species that are managed by Regional Fisheries Management Organisations (RFMOs). Specifically, strategy aimed to develop recommendations and actions in relation to tuna and swordfish fisheries. Among a number of key risks and recommendations identified, was the need to reduce Conformity Assessment Bodies (CAB) inconsistencies in the application of the MSC standard. In early 2016 the MSC developed and consulted on a pilot harmonisation workshop proposal that would apply to RFMO managed stocks, including tuna and swordfish. A key aim of the pilot harmonisation meeting was to create a single point for harmonisation among 'certified' and 'in assessment' fishery assessments, with a focus of harmonising the scores and justifications for Principle 1. The first pilot workshop for the proposed harmonisation process for fisheries with multiple assessments on one stock/region was held in Hong Kong on 21-22 April 2016. The first pilot considered four stocks in the western Pacific managed by the Western and Central Pacific Fisheries Commission (WCPFC). These stocks were: yellowfin tuna, skipjack tuna, North Pacific albacore, South Pacific albacore (MSC, 2016). It is noted that for the CHMSF Unit of Certification no P1 re-scoring was required following the harmonisation pilot workshop. For details see Appendix 9.4.

5.6 Relevant changes to Legislation and Regulations

As of 2015, there are no relevant changes to legislation and regulations.

5.7 Relevant changes to the Management Regime

At the conclusion of the April 2014 meeting in Portland, OR, the U.S.A and Canada agreed to a three-year fishing regime under the Canada/US Albacore Tuna Treaty for the 2014 to 2016 fishing seasons

5.8 Changes to personnel in science and management

The following DFO Pacific Region personnel changes have been noted:

- Corey Jackson has been appointed A/Pelagics Resource Manager
- Wellesley Hamilton has been appointed A/Resource Manager, Tuna and Sardine

Under the guidance of the ALBWG, an analyst is being hired at the Southwest Fisheries Science Center to make sustained progress on the Management Strategy Evaluation (MSE) project.

Dr. John Holmes was re-elected to a final one-year term as Chair of the ALBWG at ISC16 in July 2016

5.9 General Conditions of Certification

The general 'Conditions' set out for the Canadian Highly Migratory Species Foundation (CHMSF) as the certificate holder at initial full assessment were as follows:

- The Client must recognize that MSC standards require regular monitoring inspections at least once a year, focusing on compliance with the 'Conditions' set forth in this report (as outlined below) and continued conformity with the standards of certification;

- The Client must agree by contract to be responsible financially and technically for compliance with required surveillance audits by an accredited MSC certification body, and a contract must be signed and verified by SAI Global prior to certification being awarded;

- The Client must recognize that MSC standards require a full re-evaluation for certification (as opposed to yearly monitoring for update purposes) every five years;

- Prior to receiving final certification, the Clients fulfilled the requirement to document an 'Action Plan' for Meeting the Conditions for Continued Certification' and have these approved by SAI Global.

- The Client must provide a list of all the entities eligible for certification as well as a list of active vessels fishing under the certificate. This list must be updated annually prior to each annual surveillance audit activity.

Fulfilment of General Conditions- Surveillance Audit 1

- An Action Plan was submitted and accepted prior to the re-certification of the Canadian Highly Migratory Species Foundation (CHMSF) Fishery and actions undertaken against the milestones of each Condition in the intervening period are reported upon in the next following sections.

- An up-dated list of members of the client group has been provided and a list of active vessels during the 2015 fishery.

5.10 The Specific Conditions of Certification

During the re-assessment of the Canadian Highly Migratory Species Foundation (CHMSF) albacore tuna (*Thunnus alalunga*) North Pacific fishery, a conditional score was allocated for PIs (PI 1.1.2 Limit and target reference points are appropriate for the stock, and PI 1.2.2 There are well defined and effective harvest control rules in place).

Table 3. Summary of Assessment Conditions

Condition number	Performance indicator (PI)	Status	PI original score	PI revised score
1	1.1.2	On target	70	65*
2	1.2.2	On target	60	Not revised

* Score revised to 65 (see section 9.1.2 and 9.2)

The fishery is considered to be on target with respect to the milestones for conditions 1 and 2 as specified in the public certification report (Criquet, Mateo, and Stocker, 2015).

It is noted that the WCPFC (2014b) and IATTC (2014, 2015) set out definitions of harvest strategies to be developed and implemented. The definitions include target and limit reference points and decision rules or ("harvest control rules"), with a clear intention that harvest control rules, tested using simulation approaches (MSE), will be part of the implemented harvest strategies. The WCPFC agreed to adopt a work plan at the 2015 Commission meeting, with potential revision in 2017, with application to skipjack, bigeye, yellowfin, Pacific bluefin, and South and North Pacific albacore tunas. In fact, work towards establishing reference points and harvest control rules is already well underway through the Management Objectives Workshop (MOW) process. IATTC (2014, 2015) has also adopted measures to progress development and adoption of TRP, LRP, and HCR. The ISC ALBWG held a Stock Assessment Workshop: Management Strategy Evaluation Mini-Workshop, 20-22 April 2015, in Shimizu-ku, Japan, with the aim to develop a MSE plan. A follow up 2nd ISC sponsored MSE workshop on fishery objectives and harvest control rules for managers was held 24-25 May 2016 in Yokohama, Japan (ISC, 2016: Attachment 5).

The assessment team considers these to be very positive developments, and present critical steps towards the introduction of appropriate biological reference points effective harvest control rules for North Pacific albacore. According to the ISC work plan, the full MSE process is likely to take several years, and there is optimism that formal RPs and HRCs will be adopted before the end of the CHMSF fishery's existing certification period.

More details are provided in the results section (Section 6) below.

6 Assessment Process

The surveillance audit followed the current version of MSC procedures implemented by SAI Global's accredited MSC Procedures (QP).

MSC Scheme Document	Issue Date	Implementation
MSC Certification Requirements v1.3	January 14th, 2013	Standard
MSC FCR and Guidance v2.0	October 1st, 2014	Process
General Certification Requirements v.2.1	February 20th, 2015	Process
Surveillance Reporting Template v1.0	October 8th, 2014	Process

Table 4. Fishery Surveillance Program

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 6	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit & re-certification site visit.

The surveillance audit was conducted as a normal onsite audit.

The Surveillance Audit was comprised in general of:

1. To review any changes in the management of the fishery, including regulations, key management or scientific staff or stock evaluation.
2. To evaluate the progress of the fishery against any Conditions of Certification raised during the Main Assessment.
3. To review any developments or changes within the fishery which impact traceability and the ability to segregate MSC from non-MSC products.
4. To review any other significant changes in the fishery.

The surveillance audit consisted of the announcement to stakeholders and interested parties as required through the MSC website and more direct stakeholder contact with the original stakeholders that took part in the initial assessment and management organizations that comprise the management system and regime for the CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery. Through this process, a stakeholder consultation plan was developed as part of the on-site assessment.

Emails and information on objectives of the surveillance audit were sent to stakeholders and management agencies. From this, a surveillance on-site meeting plan was organized and appointments for each individual meeting set. Due to the nature of the management of the CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery, and the geographic location of the respective clients and stakeholders, the on-site audit meeting was proposed to be in Vancouver.

- On site Surveillance Audit date was 22 June, 2016.
- On-site audits were performed by Ivan Mateo (Lead Auditor), and Max Stocker (Auditor).

The surveillance audit meeting was informed by a pre-determined agenda. The agenda was set out so as to allow specific stakeholder interests and concerns to be covered through a structured approach.

In addition to the site visit, 3 separates calls were held with the British Columbia Ministry of Agriculture on June 22, 2016, the IATTC on June 23, 2016, and the NMFS Southwest Fisheries Science Center on June 24, 2016. The surveillance audit team also met with the client (CHMSF) on June 22, 2016.

Information and notes from the consultation phase of the assessment were combined with a review of formal documentation from science and management agencies, and the direct evidence collected during each of the client consultation meetings.

6.1 Summary of stakeholder and client meetings

Arising out of the stakeholder consultation plan preparation a considerable number of stakeholders were contacted directly by surface mail and e-mail and a final direct consultation plan for the audit was prepared. Table 5 details the dates, meeting locations and organisations that were consulted through direct meetings or conference calls during the on-site surveillance assessment. All meetings were conducted by the Surveillance Team Assessors.

Table 5. Consultation Meetings during the On Site Surveillance Assessment of the CHMSF Fishery.

Name Organization	Present at Meeting	Location	Meeting Type	Date/Time
CHMSF	Lorne Clayton, Executive Director CHMSF	DFO Offices, 200-401 Burrard Street, Vancouver, BC	Meeting	22 June 2016 11:30 AM
Fisheries and Oceans Canada (DFO)	Wellsley Hamilton, Corey Jackson, Gary Miller, John Holmes	DFO Offices, 401 Burrard Street, Vancouver, BC	Meeting	22 June 2016 10:00 AM
BC Ministry of Agriculture Victoria, BC	Barron Carswell, Larry Nielsen	DFO Offices, 401 Burrard Street, Vancouver, BC	Teleconference	22 June 2016 2:00 PM
IATTC 8901 La Jolla Shores Drive La Jolla CA 92037-1509, USA	Rick Deriso, Mark Maunder, Carolina Minte-Vera	IATTC 8901 La Jolla Shores Drive La Jolla CA 92037-1509, USA	Teleconference	23 June 2016 1:00 PM
NOAA/NMFS Southwest Fisheries Science Center, 8901 La Jolla Shores Dr La Jolla, CA 92037-1508, USA	Steve Teo, John Childers	Fisheries Science Center, 8901 La Jolla Shores Dr La Jolla, CA 92037-1508, USA	Teleconference	24 June 2016 10:00 AM

MRAG conducted the 3rd surveillance audit for the AAFA and WFOA North and South Pacific albacore tuna fisheries from June 24 – 28 June, 2016 (MRAG, 2016). In order to avoid duplication the assessment teams of SAI Global and MRAG jointly conducted conference calls with IATTC and NMFS.The Surveillance Audit followed the current version of MSC procedures implemented by SAI Global's accredited MSC Procedures (QP).

7 Results

Tables below show updates for conditions 1 and 2 as per the findings of the first surveillance audit following the re-certification of the CHMSF North Pacific albacore tuna fishery.

Table 6. Condition 1

	Insert Relevant PI Number(s)	**Insert Relevant Scoring Issue/ Scoring Guide Post Text**	**Score**
Performance Indicator(s) & Score(s)	1.1.2	SG 80: • Reference points are appropriate for the stock and can be estimated (**met**). • The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity (**NOT met**). • 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 (**Not met**). • For key low trophic level stocks, the target reference point takes into account the ecological role of the stock (not relevant).	65*
Condition	The client must provide evidence of implementation of limit reference point set above the level at which there is an appreciable risk of impairing reproductive capacity, and target reference point such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome.		
Milestones	By Year 1: The Assessment team shall be provided with documentary evidence that CHMFS worked actively through DFO and the Canadian/US delegations to the IATTC to promote the development and determination of an appropriate reference points that apply uniformly and equitably to all fishery mortality of North Pacific albacore tuna stock. (score remains 70) By Year 2: The Assessment team shall be provided with documentary evidence that CHMFS worked actively through DFO and the Canadian/US delegations to the IATTC to promote the consideration toward adoption of appropriate reference points for North Pacific albacore tuna stock. (score remains 70) By Year 3: The Assessment team shall be provided with documentary evidence that appropriate reference points for North Pacific albacore tuna stock should have been adopted by the IATTC (or their designated bodies) and this condition would be closed.(score reaches 80)		
Client Action Plan	Action plan: 1. CHMSF will continue its active work to develop and promote the determination of appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) for the North Pacific albacore tuna stock. These efforts will work in conjunction with the CHMSF ongoing support for appropriate measures to further increase compliance with conservation and management measures of the appropriate regional fishery management organization. CHMSF will continue its ongoing work with the Government of Canada and international bodies to support		

	recommendations for reference points and harvest control rules for adoption at the IATTC and WCPFC. 2. CHMSF will continue to actively work toward having the IATTC and WCPFC adopt appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) for the North Pacific albacore tuna stock. CHMSF will continue to work with the Government of Canada and provide evidence of the work and collaboration with Canadian and regional managers, attend and participate in international and regional meetings and forums, where appropriate, to continue to support the adopting of appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) will be provided in the form of RFMO meeting papers and minutes. 3. In accordance with these actions, CHMSF will continue to work with, and will report on, ongoing efforts to explore appropriate opportunities with other tuna fisheries, associations, or organizations with complimentary objectives. 4. In addition, CHMSF agrees to fulfil Condition 1 before proceeding beyond the site visit stage for the next recertification process. Responsible parties 1. The client will support all activities of DFO in development and implementation of the Reference Points. 2. DFO, in consultation with the Canadian Highly Migratory Species Foundation and the Canadian Albacore Tuna fishery stakeholders/participants, will develop appropriate Reference Points. 3. DFO, in consultation with client harvester groups, will ensure that the Reference Points are consistent with MSC Principles 1. 4. DFO will conduct consultations with relevant stakeholders groups. Timeframe for Milestones 1. By the first annual surveillance audit the CAB will be presented with evidence that consultations regarding Reference Points have occurred. 2. By the second surveillance audit the CAB will be presented with evidence that Reference Points have been defined and approved. 3. By the third surveillance audit the CAB will be presented with evidence that reference pints have been implemented.
Progress on Condition [Year 1]	In 2014 a Precautionary Approach Management (PA) Framework was adopted by the WCPFC for NP Albacore tuna. The framework aims to ensure the stock's long term sustainability and protect against increased effort by establishing a management objective, setting a Limit Reference Point (LRP), and establishing management actions that would be triggered if it is determined that the LRP is being breeched. A Management Strategy Evaluation (MSE) process was proposed by the U.S., and supported by Canada, as a next step. The MSE process was jointly initiated by the IATTC, the WCPFC, and the ISC in 2015. It will help to better identify potential target reference points and harvest control rules for NP Albacore. It is anticipated that the MSE processes will take a number of years to complete given the number of Parties involved and the high level of engagement required. Once complete, the results of the MSE process will be incorporated into the WCPFC PA framework and Canada will work with the U.S. and others to have the revised framework adopted by the IATTC. Canada has sought advice on the MSE objectives from Canadian industry representatives including CHMSF through the Tuna Advisory Board (TAB).

Evidence for Year 1	It is noted that the WCPFC (2014b) and IATTC (2014, 2015) set out definitions of harvest strategies to be developed and implemented. The definitions include **target and limit reference points** and **harvest control rules**, with a clear intention that harvest control rules, tested using simulation approaches (MSE), will be part of the implemented harvest strategies. The following evidence has been presented to the surveillance audit team that consultations regarding Reference Points have occurred: As advisers to the DFO Tuna Advisory Board (TAB) CHMSF (Lorne Clayton) and eight albacore tuna fishing boat owners (TAB Advisors) have worked actively with DFO in the ALB MSE process. Specifically, CHMSF and TAB Advisors) contributed to the identification of management objectives. The management objectives (see Section 4. above) were presented at the second ISC MSE Workshop in Yokohama, Japan, May 24-25, 2016. Furthermore NC10 adopted a precautionary management framework including a limit reference point of 20%SSBF=0, which superseded FSSB-ATHL Additional detail on CHMSF actions is presented in Section 9.4; Appendix 4 below).
Conclusion and Outcome on Condition 1 from 1st surveillance audit	The audit team concludes that CHMSF has met the first annual milestone, and we therefore find that the fishery is currently on target to meet Condition 1. The score for PI 1.1.2 remains at 70.
Status of Condition	On target. Score remains at 70.

***** Score revised to 65 (see section 9.1.2 and 9.2)

Table 7. Condition 2

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
Performance Indicator(s) & Score(s)	1.2.2	SG 80: • 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 point are approached (**Not met**). • The selection of the harvest control rules takes into account the main uncertainties (**Not met**). • Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules (**Not met**).	60
Condition	The client must provide evidence of implementation of well- defined harvest control rules that reduce exploitation rates as the limit reference point is approached.		
Milestones	By Year 1: The Assessment team shall be provided with documentary evidence that CHMFS worked actively through DFO and the Canadian/US delegations to the IATTC to promote the development and determination of an appropriate harvest rules that apply uniformly and equitably to all fishery mortality of North Pacific albacore tuna stock (score remains 60). By Year 2: The Assessment team shall be provided with documentary evidence that CHMFS worked actively through DFO and the Canadian/US delegations to the IATTC to promote the consideration toward adoption of appropriate harvest rules for North Pacific albacore tuna stock (score remains 60). By Year 3: T The Assessment team shall be provided with documentary evidence that appropriate h a r v e s t r u l e s for North Pacific albacore tuna stock should have been adopted by the IATTC (or their designated bodies) (score reaches 80).		
Client Action Plan	Action plan: 1. CHMSF will continue it's ongoing, through its regional and Federal delegations to IATTC and WCPFC to promote the development and determination of an appropriate harvest control rule that applies uniformly and equitably to all fishery mortality of North Pacific albacore tuna stock. CHMSF will continue to endorse presentations by Federal Canadian delegates to IATTC and WCPFC. 2. CHMSF will continue its ongoing work, through collaboration with its regional and Federal delegations to IATTC and WCPFC, to promote the development and determination of an appropriate harvest control rule that applies uniformly and equitably to all fishery mortality of North Pacific albacore tuna stock. CHMSF will continue to: endorse presentations by Federal Canadian delegates to IATTC and WCPFC. CHMSF; will continue to work with the Government of Canada and provide evidence of the work and collaboration with Canadian and regional managers; attend and participate in international and regional meetings and forums, where appropriate; and, to continue to support the adopting of appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) will be provided in the form of RFMO meeting papers and minutes.		

	3. In accordance with these actions, CHMSF will continue to work with, and will report on, ongoing efforts to explore appropriate opportunities with other tuna fisheries, associations, or organizations with complimentary objectives. 4. In addition, CHMSF agrees to fulfil Condition 2 before proceeding beyond the site visit stage for the next recertification process. Responsible parties: 1. The client will support all activities of DFO in development and implementation of the Harvest Control Rules (HCRs). 2. DFO, in consultation with the Canadian Highly Migratory Species Foundation and the Canadian Albacore Tuna fishery stakeholders/participants, will develop the draft HCR's. 3. DFO, in consultation with client harvester groups, will ensure that the HCR's are consistent with MSC Principles 1. 1. DFO will conduct consultations with relevant stakeholders groups. DFO will publish and make publicly available the final HCR's. Timeframe for Milestones 1. By the first annual surveillance audit the CAB will be presented with evidence that consultations have occurred. 2. By the second surveillance audit the CAB will be presented with evidence that the HCR's have been defined and approved. 3. By the third surveillance audit the CAB will be presented with evidence that the HCR's have been implemented.
Progress on Condition [Year 1]	In 2014 a Precautionary Approach Management (PA) Framework was adopted by the WCPFC for NP Albacore tuna. The framework aims to ensure the stock's long term sustainability and protect against increased effort by establishing a management objective, setting a Limit Reference Point (LRP), and establishing management actions that would be triggered if it is determined that the LRP is being breeched. A Management Strategy Evaluation (MSE) process was proposed by the U.S., and supported by Canada, as a next step. The MSE process was jointly initiated by the IATTC, the WCPFC, and the ISC in 2015. It will help to better identify potential target reference points and harvest control rules for NP Albacore. It is anticipated that the MSE processes will take a number of years to complete given the number of Parties involved and the high level of engagement required. Once complete, the results of the MSE process will be incorporated into the WCPFC PA framework and Canada will work with the U.S. and others to have the revised framework adopted by the IATTC. Canada has sought advice on the MSE objectives from Canadian industry representatives including CHMSF through the Tuna Advisory Board (TAB).
Evidence for Year 1	It is noted that the WCPFC (2014b) and IATTC (2014, 2015) set out definitions of harvest strategies to be developed and implemented. The definitions include **target and limit reference points** and **harvest control rules**, with a clear intention that harvest control rules, tested using simulation approaches (MSE), will be part of the implemented harvest strategies.

	The following evidence has been presented to the surveillance audit team that consultations regarding Reference Points have occurred: As advisers to the DFO Tuna Advisory Board (TAB) CHMSF (Lorne Clayton) and eight albacore tuna fishing boat owners (TAB Advisors) have worked actively with DFO in the ALB MSE process. Specifically, CHMSF and TAB Advisors) contributed to the identification of management objectives. The management objectives (see Section 4. above) were presented at the second ISC MSE Workshop in Yokohama, Japan, May 24-25, 2016. Additional detail on CHMSF actions is presented in Section 9.4; Appendix 4 below).
Conclusion and Outcome on Condition 2 from 1st Surveillance Audit	The audit team concludes that CHMSF has met the first annual milestone, and we therefore find that the fishery is currently on target to meet Condition 2. The score for PI 1.2.2 remains at 60.
Status of Condition	On target. Score remains at 60.

7.1 Summary of Status of Conditions

Table 8. Summary of Status of Conditions by Performance Indicators.

Condition	Performance Indicator	Status
1	1.1.2	Open – **On target**
2	1.2.2	Open – **On target**

8 Conclusion

The assessment team conducting this 1st surveillance audit following recertification confirms that Canadian Highly Migratory Species Foundation has met the general requirements for continued certification to the MSC Principles and Criteria for Sustainable Fishing.

The assessment team concludes that there is sufficient evidence and information provided by the client and substantiated through the course of the consultation meeting during the surveillance audit to confirm that commitment to meeting the Year 1 Milestone of conditions 1 and 2 of certification has been met.

The assessment team recommends that continued certification be awarded to the respective client fishery:

- The CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery .

8.1 Outcome of SAI Global Assurance Services Decision

SAI Global determines that:

- The CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery **continues to operate a well-managed and sustainable fishery and therefore, continued certification to the MSC Principles and Criteria for Sustainable Fishing is awarded.**

9 References

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10 Appendices

10.1 Additional details on conditions/actions/results

10.1.1. Additional details on conditions

Evidence submitted by CHMSF with reference to specific Conditions of Certification

- CHMSF is a member of the Association of Sustainable Fisheries

Log of activities undertaken by CHMSF representatives in 2014 and 2015

- January 7, 2014. Tuna Advisory Board (TAB) Meeting, Conference Call.
- January 20, 2014. Tuna Advisory Board (TAB) Meeting, Vancouver, B.C.
- January 21, 2014. Canada-United States Albacore Tuna Treaty Consultations.
- February 12, 2014. Meeting with MSC Staff in Seattle.
- March 7, 2014. Surveillance Audit. Meeting re MSC in Vancouver
- March 16-18, 2014. Boston Seafood Show- Boston, USA including meeting with MSC.
- March 26, 2014. Tuna CHSMF/BCTFA Conference Call
- April 8, 2014. MSC Meetings in Vancouver.
- April 15-17, 2014. Canada-United States Albacore Tuna Treaty Consultations. Portland, Oregon.
- April 29, 2014. Annual General Meetings CHMSF/BCTFA- Shawinigan Lake, BC
- August 7, 2014 CHMSF Executive Meeting. Victoria.
- May 6-8, 2014. Brussels, Belgium - ESE including meet up with Dave Garforth/SAI.
- August 11, 2014. Testing for Mercury – MAXXAM Laboratories. Vancouver, BC.
- September 5, 2014. Testing Product for Radio-Active Residue. SRC-Saskatchewan Research Council. Saskatchewan, Canada.
- September 6-8, 2014. Asian Seafood Exhibition- Hong Kong and presenting MSC Albacore to chefs.
- September 20-October 2 Spain-(Seafood Expo Southern Europe 2014) L. Clayton- CHMSF.
- November 2-4, 2014. CFSE 2014 - China Fisheries & Seafood Expo 2014 Qingdao International Exposition Center (China).
- Dec 10, 2014. US-Canada Treaty Data Working Group.
- January 8, 2015. Tuna Advisory Board (TAB), Victoria, B.C.
- Feb 4, 2015. Tuna Advisory Board (TAB) Meeting, Victoria, B.C.
- March 2-7, 2015. Government/Industry meetings in Honduras/Costa Rica.
- March 13, 2015. Albion Fisheries – Albacore Tuna Representation. Vancouver, BC.
- March, 15-17, 2015. Boston Seafood Show- Boston, USA including meeting with MSC.
- April 16, 2015. CHMSF Annual Meeting. With representation of DFO and USA Industry.
- April 21- 23, 2015. Brussels, Belgium - ESE including meet up with Dave Garforth/SAI.
- May 29, 2015. Canada-United States Albacore Tuna Treaty Consultations.
- June 22, 2015. Hong Kong Seafood Show. Hong Kong. Incl meeting with MSC.
- August 11, 2015. Testing for Mercury – MAXXAM Laboratories. Vancouver, BC.
- August 25,2015. Testing Product for Radio-Active Residue. SRC-Saskatchewan Research Council. Saskatchewan, Canada.
- October 27. 2015. National Debrief on US Treaty and Fishing Year. DFO
- November 4-6, 2015. Qingdao International Exposition Center (China).
- November 7-9, 2015. Japan Industry Meetings/follow up from China Show.
- November, 19-21, 2015. Taiwan Seafood Show. Taiwan.
- December 15, 2015. Tuna Advisory Board (TAB) Meeting, Victoria, B.C.

10.1.2. Additional details on actions

Marine Stewardship Council Harmonisation Meeting for Western and Central Pacific Tuna Fisheries (MSC, 2016)

The proposed outcomes of this process leading into the meeting were a complete set of updated P1 scores, rationales and updated condition statuses. In order to get to these outputs, a harmonisation team leader was assigned to each stock and tasked to gather new information (namely the latest scientific and management advice from WCPFC) and reports containing the rationales for Principle 1 Performance Indicators from the most recent assessment (PCDR or PCR

The proposed outcome of the pilot was a complete set of updated P1 scores, rationales and updated condition statuses for each of the four stocks (skipjack, yellowfin, South Pacific albacore and North Pacific albacore). However, while the process successfully dealt with harmonisation and aided CAB and team discussions, the meeting did not result in definitive text. Therefore, the CAB experts agreed that the information from this meeting would be considered at the next surveillance or full assessment audit for individual fisheries. Additionally, if new information presented at those audits resulted in a change of score/condition, they would initiate further harmonisation discussions to update scores as needed. This was agreed by the MSC and deemed appropriate.

North Pacific Albacore (NPA)

A total of 3/6 PIs and 17/20 Sis were already harmonised among three existing assessments. PIs that were pre-harmonised include 1.1.1, 1.1.2 and 1.2.2. A total of 5 SIs differed, were discussed, and consensus reached.

With regard to scoring at PI 1.2.2 (Harvest Control Rules, HCR), consideration was given to December 2015 MSC Interpretation, IA Rulings, and recently published Maldives Pole and Line 3rd surveillance report. It was agreed that for all stocks, at this time, SG60 scoring at SI(A) and SI(C) should use the “availability” criteria as previously agreed in harmonisation calls in 2015.

For North Pacific albacore Unit of Certification (UoC), the most recent scores are tabulated below to show where differences in overall PI exist and where Conditions currently exist or may be raised. During the meeting, for each UoC, one IE led the discussion, working through each SI to check consistency of rationales used and scoring. Where Conditions were identified, consideration was given to harmonising milestones and timelines. However, it should be noted that the meeting was a pilot and that the time available did not allow for a detailed review of all conditions and milestones.

Table 9. Summary of scores from most recent reports for three North Pacific albacore UoC and new scores agreed by the meeting.

CR version	Fishery Name	Gear(s)	1.1.1	1.1.2	1.1.3	1.2.1	1.2.2	1.2.3	1.2.4	P1
CR v1.2	AAFA & WFOA Pacific albacore tuna - north	Handlines, pole lines, Trolling lines	100	70	-	85	60	100	95	85
CR v1.3 (PI1.2.2 use v2)	CHMSF British Columbia Albacore Tuna North Pacific	Trolling lines	100	70	-	90	60	90	100	85
CR v1.3 (PI1.2.2 use v2)	Japanese pole & line	Pole and line	100	70		80	60	90	100	83.8
Scores after harmonisation Day 2			100	70		80	60	90	100	

Performance indicator scores with conditions are shown in red text.

The following table shows for each PI/SI, whether scores and rationale are aligned between the 3 assessments or need to be amended for harmonization. The basis for comparing scores and rationales is the most recent CHMSF assessment published in June 2015. Scores for the CHMSF assessment are shown in brackets for PI and SI.

Table 10. Summary of outcome by SI for North Pacific albacore

PI (harmonised score)	SI (harmonised score)	Issues and preliminary conclusions
1.1.1 (100)	A (100)	All reports are in alignment for scores but use different approaches in justifying scores. It was suggested that alternative graphical displays could be considered in the CHMSF report.
	B (100)	All reports are in alignment for rationales and provided scores
1.1.2(70)	A (80)	All reports are in alignment for scores. Since the WCPFC adopted at its 8th Annual Session a hierarchy of SSB LRPs, with the lower Level default being 20%$SSBB_{F=0}$. Rationales for CHMSF and WFOA/AAFA can be aligned
	B (-)	All reports are in alignment for scores (80 N; 100 N) but use different approaches in justifying scores. The WCPFC LRP should be updated to 20%$SB_{F=0}$
	C (-)	All reports are in alignment for scores (80 N; 100 N) but use different approaches in justifying scores. NB Score for all the three fisheries for PI 1.2.2 should be 65
	D (N/R)	All reports are in alignment for rationales and provided scores
1.2.1(90)	A (80)	All reports are in alignment for scores but use different approaches in justifying scores
	B (80)	All reports are in alignment for scores but use different approaches in justifying scores
	C (60)	All reports are in alignment for rationales and provided scores
	D (100)	Japanese P&L denies 100 score. AAFA/CHMSF score at 100. Since no harvest strategy has been formalized and it is not subject to a formal review process the score of 100 is not justifiable. Alignment is needed.
1.2.2(60)	A (60)	All reports are in alignment for rationales and provided scores In scoring issue (A) the rationales need to explicitly state which elements of SA2.5.2 and SA2.5.3 are used. Note that discussion on HCR Interpretation, E IA Rulings, recently published Maldives Pole and Line 3rd surveillance, etc led to reaffirmation to score using SG60 “availability” criteria as agreed in harmonization calls in 2015. It was agreed to follow the logic used for the other stocks.
	B (-)	All reports are in alignment for rationales and provided scores
	C (60)	All reports are in alignment for rationales and provided scores In SI (C) the rationales need to explicitly state which element (a or b) of SA2.5.5 is used.

		Note that discussion on HCR Interpretation, E IA Rulings, recently published Maldives Pole and Line 3rd surveillance, etc led to reaffirmation to score using SG60 "availability" criteria as agreed in harmonization calls in 2015. It was agreed to follow the logic used for the other stocks.
1.2.3(90)	A (100)	All reports are in alignment for scores but use slightly different approaches in justifying scores – needs to be attended to.
	B (80)	Because there are some sources of uncertainty such as the absence of updated estimates of life history parameters, and the simplified treatment of the spatial structure of north Pacific albacore population dynamics, it was agreed that the fishery does not meet the SG 100 as scored by the AAFA/WFOA. A score of 80 was agreed during the meeting.
	C (80)	All reports are in alignment for rationales and provided scores
1.2.4(100)	A (100)	All reports are in alignment for rationales and provided scores
	B (60)	All reports are in alignment for rationales and provided scores
	C (100)	All reports are in alignment for rationales and provided scores
	D (100)	All reports are in alignment for rationales and provided scores
	E (100)	AAFA/WFOA only scored 80 as no external review of the stock assessment was done. The CHMSF and Japanese P&L scored 100, noting the 2011 assessment was externally reviewed by CIE. Agreed to score as 100.

10.2 Rescoring evaluation tables

PI 1.1.2

An original score of 70 was given for PI 1.1.2 (Criquet, Mateo, and Stocker, 2015). The harmonization workshop concluded that the correct score for PI 1.2.1 for all 3 fisheries should be 65 not 70 (see Table 10 above).

Table 11. Evaluation Table for PI 1.1.2 with Revised Score

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	Y	
	Justification	Reference points are appropriate for the stock and can be estimated. Biomass and fishing mortality target reference points are appropriate and have been estimated based on an analytical stock assessment. The $F_{SSB-ATHL}$ reference point is currently the interim default reference point chosen by the Northern Committee of the WCPFC. The probability that current F ($F_{2010-2012}$) will lead to SSB falling below the SSB-ATHL threshold is well below 50% under average future recruitment conditions. Potential reference points and estimated F-ratios for North Pacific albacore tuna are shown in Table 3 (Section 4.3.2). Current F ($F_{2010-2012}$) is estimated to be less than the $F_{2002-2004}$ which led to the implementation of conservation and management measures (CMMs) for northern albacore (IATTC Resolution C-05-02; WCPFC CMM 2005-03). Since current F ($F_{2010-2012}$) is well below F_{MSY} it is concluded that North Pacific albacore is not experiencing overfishing, and that current F ($F_{2010-2012}$) is less than commonly applied F- based reference points (except F_{MED} and $F_{50\%}$). To further formal establishment of reference points, the IATTC adopted, in 2013, Resolution C-13-03 (supplemental resolution on north Pacific albacore) to resolve that: “The IATTC scientific staff shall review work undertaken within the ISC and the WCPFC towards the development of a precautionary approach framework for North Pacific albacore that includes target and limit reference points and harvest control rules, and make recommendations in respect of such a framework for consideration by the Commission.” Therefore, the SG80 is 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?		N	N
	Justification	The F_{SSB}-ATHL reference point is currently the interim implicit limit reference point chosen by the Northern Committee of the WCPFC. While the level of SSB that would be reached applying $F_{SSB-ATHL}$ is well above the level where an appreciable risk of impairing recruitment would occur, the L_{RP} is only implicit, so the SG80 is not met.		
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?		N	N
	Justification	While there is no explicit biomass target reference point, there is an implicit biomass target reference point based on the 2010 IATTC Antigua Convention Article 7.1.c: *"adopt measures that are based on the best scientific evidence available to ensure the long-term conservation of and sustainable use of the fish stocks covered by this Convention and to maintain or restore populations of harvested species at levels of abundance which can produce the MSY inter alia, through the setting of the total allowable catch of such fish stocks as the Commission may decide and/or the total allowable level of fishing capacity and/or level of fishing effort for the Convention Area as a whole".* Article 6 of the WCPFC Convention on the application of the precautionary approach contains similar text. Thus, since maintaining biomass levels at levels that produce MSY is only an implicit target, so the SG80 is 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			

References	ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. *In*: Report of the Fourteenth Meeting of the International Scientific Committee on Tuna and Tuna-like Species in the North Pacific. Ocean. Plenary Session, 16-21 July, 2014, Taipei, Taiwan. 131 p. WCPFC. 2009. Commission for the Conservation and management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Fifth Regular Session. 8-12 December, 2008, Busan, Korea. 208 p.
OVERALL PERFORMANCE INDICATOR SCORE:	**65**
CONDITION NUMBER (if relevant):	**1**

Table 12. Evaluation Table for PI 3.2.3 with revised score

PI 3.2.3		**Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with**		
Scoring Issue		SG 60	SG 80	SG 100
a	**Guidepost**	Monitoring, control and surveillance mechanisms exist are implemented in the fishery under assessment and there is a reasonable expectation that they are effective.	A monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.	A comprehensive monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.
	Met?	Y	Y	N
	Justification	A monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules. Monitoring, control and surveillance mechanisms are applied at the international and local levels. At the international level, the IATTC Antigua Convention Article XVIII states that implementation, compliance and enforcement by parties, the WG on Compliance examine compliance of vessels and documents issues identified to the Commission, and the Committee for Review of Implementation of Measures adopted by the Commission monitors compliance with conservation and management measures. WCPFC Convention Article XXV establishes that each member of the Commission shall enforce the provisions of the Convention and any conservation and management measures issued by the Commission, Article XXVI establishes boarding and inspection procedures, Article XXVII establishes port-state inspection procedures which allows the port-state to prohibit landings and transhipment of catch and transhipment of catch taken through non-compliance, and Article XXIX outlines procedures for in-port and at-sea transhipment. Members of the WCPFC shall not grant a vessel authorization to fish if it is on the respective Convention's IUU vessel list. The implementation system of control, monitoring and surveillance is described specifically in the IFMP Performance measures to ensure conservation and protection (Section 8.1 of the IFMP 2013):		

		To ensure conservation and protection of Pacific albacore tuna stocks through the application of scientific management principles applied in a risk averse and precautionary manner based on the best scientific advice available. The fishing activity and catch reporting of the IFMP requires: • Hail Requirements; • Hail-out Report (Start Fishing or Transiting Report); • Specific to the United States of America Zone; • Hail-in Report (Stop Fishing Report); • Change of Intent Report (Changing Zone or Cancelling Report); • Vessel Monitoring System Reporting Requirements; • Fishing in the United States of America Exclusive Economic Zone; • Vessel Marking Requirements; • Landing Locations; • United States of America Vessels Fishing in Canadian Waters; • Catch and Fishery Data. DFO has an offshore over flight enforcement program. The C&P program is informed by compliance and enforcement strategy for the fishery that is adjusted by means of a recurring planning, priority-setting, monitoring and evaluation function. Compliance risks are assessed against a mitigation strategy consisting of enforcement activities and tools that are intended to ensure compliance with the requirements of the management system and measures for the fishery. In addition, the information on catch and effort provided by fishers is collected and monitored through hail out system and information from cross checking logbooks and sales slips. Compliance is also recorded with regard to albacore catch reporting on the IATTC and WCPFC websites. Albacore catch must be reported every 6 months. A monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules. However, the assessment team assigned a “N” to 100a as it cannot be said that the MCS system is comprehensive at the international level.		
b	**Guidepost**	Sanctions to deal with non-compliance exists and there is some evidence that they are applied.	Sanctions to deal with non-compliance exists, are consistently applied and thought to provide effective deterrence.	Sanctions to deal with non-compliance exists, is consistently applied and demonstrably provides effective deterrence.
	Met?	Y	Y	Y
	Justification	Sanctions to deal with non-compliance exist, are consistently applied and are believed to provide effective deterrence. This is especially the case at the local level. Actions available include a comprehensive scale of warnings; fines; forfeiture of catch, permits, and vessels; and incarceration. Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence. The management system for the fishery consists of a range of legal and administrative sanctions, including licence suspension, catch and equipment seizures and forfeitures, and monetary fines. Federal prosecutors		

		are experienced in prosecuting fisheries charges, and magistrates have a good understanding of fisheries law. In relation to sanctions to deal with non-compliance The Fisheries Act: *"Except as otherwise provided in this Act every person who contravenes this Act or the regulations is guilty of (a) an offense punishable on summery conviction and liable, for a first offense, to a fine not exceeding one hundred thousand dollars, and for any subsequent offence, to a fine not exceeding one hundred thousand dollars or to imprisonment for a term not exceeding one year, or both; or (b) an indictable offense and liable, for a first offense, to a fine to a fine not exceeding five hundred thousand dollars and for any subsequent offence, to a fine to a fine not exceeding five hundred thousand dollars or to imprisonment for a term not exceeding two year, or both"* Court-imposed sanctions have been consistently levied year-over-year which is thought to provide effective deterrence. Media coverage of fisheries prosecutions also serve to reinforce deterrence. Evidence of performance indicators to measure the effectiveness of its activities, including whether sanctions demonstrably provide effective deterrence is documented on this site visit. On the 1st Surveillance site visit the assessment team were informed by DFO staff (John Holmes, Wellsley Hamilton) that there has been nearly 100% log book compliance since the mid-2000, 100% compliance of hailout, and there have been few violations (a total of eleven violations for this fishery). Because of this new evidence a score of 100 on issue b is justified preventing the fishery from meeting 100b.		
c	**Guidepost**	Fishers are generally thought to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.	Some evidence exists to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.	There is a high degree of confidence that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.
	Met?	Y	Y	Y
	Justification	There is a high degree of confidence that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery. There is a high degree of confidence that fishers comply with the management system and measures for the fishery. Harvester organizations routinely provide information of importance to the effective management of the fishery through their participation in a variety of formal and informal advisory and assessment processes. Logbook compliance in 2011-2015 was 98-100 %. Non-compliance is followed by letter from DFO enforcement. DFO has a system of recording violations. Up to date		

		there have been no charges with hail in/hail out requirement. DFO has an offshore over flight enforcement program. No one has been discovered illegally fishing under this program. In addition fishers provide accurate and timely catch and effort data, the information is collected and monitored through hail out system and information from cross checking logbooks and sales slips indicates a 98%-100 of compliance from the last 5 years. Finally there is no evidence of systematic non-compliance. Compliance is also recorded with regard to albacore catch reporting on the IATTC and WCPFC websites. Albacore catch must be reported every 6 months.		
d	**Guidepost**		There is no evidence of systematic non-compliance.	
	Met?		Y	
	Justification	Based on information and program data provided by C&P enforcement staff and comments from industry representatives, the Assessment Team considers the level of recidivism in the fishery to be extremely low. Therefore, there is no indication of systematic non-compliance in the fishery. Since 2011 Logbook compliance has been at least is 98%. Non-compliance is followed by letter from DFO enforcement. DFO has a system of recording violations. Up to date there have been no charges with hail in/hail out requirement. C&P violations data indicate that licence suspensions were only issued by the Court in 2 of 22 cases of guilty pleas/findings between 2011 and 2013. In addition fishers provide accurate and timely catch and effort data, the information is collected and monitored through hail out system and information from cross checking logbooks and sales slips indicates a 98-100% of compliance. Finally there is no evidence of systematic non-compliance. Compliance is recorded with regard to albacore catch reporting on the IATTC and WCPFC websites. Albacore catch must be reported every 6 months.		
References		Refer to statistical information, analyses and outcomes provided in the main report DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.		
Revised Score:				**90**
CONDITION NUMBER (if relevant):				**NA**

Table 13. Revised principle score for (CHMSF) North Pacific Albacore Tuna fishery

Final Principle Score	Score
Principle 1 – Target Species	83.8
Principle 2 - Ecosystem	95.70
Principle 3 – Management System	93

Table 14. Principle scoring for (CHMSF) North Pacific Albacore Tuna fishery.

Principle	Wt (L1)	Component	Wt (L2)	PI No.	Performance Indicator (PI)	Wt (L3)	Weight in Principle	Score
One	1	Outcome	0.5	1.1.1	Stock status	0.5	0.25	100
				1.1.2	Reference points	0.5	0.25	65
				1.1.3	Stock rebuilding	0.333	0.1667	n/a
		Management	0.5	1.2.1	Harvest strategy	0.25	0.125	90
				1.2.2	Harvest control rules & tools	0.25	0.125	60
				1.2.3	Information & monitoring	0.25	0.125	90
				1.2.4	Assessment of stock status	0.25	0.125	100
Two	1	Retained species	0.2	2.1.1	Outcome	0.333	0.0667	100
				2.1.2	Management	0.333	0.0667	100
				2.1.3	Information	0.333	0.0667	85
		By-catch species	0.2	2.2.1	Outcome	0.333	0.0667	100
				2.2.2	Management	0.333	0.0667	100
				2.2.3	Information	0.333	0.0667	80
		ETP species	0.2	2.3.1	Outcome	0.333	0.0667	100
				2.3.2	Management	0.333	0.0667	85
				2.3.3	Information	0.333	0.0667	85
		Habitats	0.2	2.4.1	Outcome	0.333	0.0667	100
				2.4.2	Management	0.333	0.0667	100
				2.4.3	Information	0.333	0.0667	100
		Ecosystem	0.2	2.5.1	Outcome	0.333	0.0667	100
				2.5.2	Management	0.333	0.0667	100
				2.5.3	Information	0.333	0.0667	100
Three	1	Governance and policy	0.5	3.1.1	Legal & customary framework	0.25	0.125	85
				3.1.2	Consultation, roles & responsibilities	0.25	0.125	95
				3.1.3	Long term objectives	0.25	0.125	100
				3.1.4	Incentives for sustainable fishing	0.25	0.125	100
		Fishery specific management system	0.5	3.2.1	Fishery specific objectives	0.2	0.1	100
				3.2.2	Decision making processes	0.2	0.1	85
				3.2.3	Compliance & enforcement	0.2	0.1	90
				3.2.4	Research plan	0.2	0.1	90
				3.2.5	Management performance evaluation	0.2	0.1	80

10.3 Stakeholders Submissions

Stakeholder submissions not received.

10.4 Surveillance Programs

Surveillance program is not revised.