

Marine Stewardship Council Re-Assessment

Public Certification Report

For the

Canadian Highly Migratory Species Foundation (CHMSF)

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

Assessors: Géraldine Criquet, Ivan Mateo, Max Stocker

Report Author: Géraldine Criquet, Ivan Mateo, Max Stocker

Report Author SAI Global Assurance Service

Association: 3rd Floor Block 3
Quayside Business Park
Mill Street
Dundalk, Co. Louth
Ireland

Tel: +353 42 9320912

Fax: + 353 42 9386864

W: www.saiglobal.com

Client Name: Canadian Highly Migratory Species Foundation

Report Code: **MSC 01-02**

Report Date: 9th June 2015

Table of Contents

Glossary.....	5
1. MSC Fishery Assessment Report.....	7
2. Executive Summary.....	8
2.1 CHMSF Albacore Tuna North Pacific fishery key strengths and weaknesses	9
2.2 Assessment Results	9
2.3 Conditions for continued certification	9
2.4 Certification Recommendation	10
2.5 Assessment Process	10
3. Authorship and Peer Reviewers.....	11
3.1 Assessment team	11
3.2 Peer Reviewers.....	12
4. Description of the Fishery	13
4.1 Unit of Certification and scope of certification sought.....	13
4.1.1 Eligibility for Certification against the MSC Standard.....	13
4.1.3 Scope of Assessment in Relation to Enhanced Fisheries	13
4.1.4 Scope of Assessment in Relation to Introduced Species Based Fisheries (ISBF)	14
4.2. Overview of the fishery.....	14
4.2.1. Biology of the target species.....	14
4.2.2. Fishing area	17
4.2.3. History of the Canadian albacore tuna fishery	19
4.2.4. Catches.....	20
4.2.5. Fishing season	21
4.2.6. Fishing method and fleet description	21
4.2.7. Market information.....	21
4.3. Principle One: Target Species Background	22
4.3.1. Stock assessment	22
4.3.2. Stock status	23
4.3.3. Uncertainties.....	28
4.3.4. Reference points	29
4.3.5. Harvest Strategy, Harvest Control Rules and Tools	30
4.4. Principle Two: Ecosystem Background	31
4.4.1. Retained Species and Bycatch Species.....	31
4.4.3. ETP species	32
4.4.4. Habitat.....	36

4.4.5. Ecosystem	42
4.5. Principle Three: Management System Background.....	46
4.5.1 The Legal Basis and Scope of the Management System	46
4.5.2 Consultation Processes	50
4.5.3 Long Term Objectives.....	51
4.5.4 Incentives for Sustainable Fishing.....	53
4.5.5 Fishery Specific Objectives	54
4.5.6 Decision-Making Process	55
4.5.7 Monitoring, Control and Surveillance	58
4.5.8 Research Plan	59
4.5.9 Monitoring and Evaluation of the Albacore Management System	60
5. Evaluation Procedure.....	61
5.1 Harmonised Fishery Assessment	61
5.2 Previous assessments	72
5.3 Assessment Methodologies	73
5.4 Evaluation Processes and Techniques	77
5.4.1 Site Visit.....	77
5.4.2 Consultations	77
5.4.3 Evaluation Techniques	78
6. Traceability.....	81
6.1 Eligibility Date	81
6.2 Traceability within the Fishery.....	81
6.2.1 Introduction	81
6.2.2 Traceability within the fishery	81
6.3 Eligibility to Enter Further Chains of Custody	85
7. Evaluation Results	87
7.1 Principle level score	87
7.2 Summary of Scores	87
7.3 Summary of Conditions.....	88
7.4 Determination and Formal Conclusion	88
References	89
List of websites.....	91
Appendices.....	92
Appendix 1 Scoring and Rationales.....	92
Appendix 1.1 Performance Indicator Scores and Rationale	92

Appendix 1.2 Risk Based Framework (RBF) Outputs	177
Appendix 1.3 Conditions and Client Action Plan	178
Appendix 2. Peer Review Reports.....	184
Appendix 3. Stakeholder submissions	219
Appendix 4. Surveillance Frequency	233
Appendix 5. Client Agreement.....	234
Appendix 5.1 Objections Process.....	235

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 Principle 2
P3	MSC Principle 3
PI	MSC Performance Indicator
PNCIMA	Pacific North Coast Integrated Management Area
SAR	Science Advisory Report
SARA	<i>Species At Risk Act</i>
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 Stocks in the Western and Central Pacific Ocean

1. MSC Fishery Assessment Report

Fishery Unit	This assessment report under the 'Unit of Certification' (UoC) covers one target species and one method of capture and the resulting scores are for troll and jig landings by registered licence holders. Fishing for this UoC is within the Canadian EEZ, the U.S. EEZ and the North Pacific Ocean.	
Report Issue	28 th October 2014	• Client Report
	12 th December 2014	• Peer Review
	24 th February 2015	• Public Comment Draft Report
	12 th May 2015	• Final Report and Determination
	9 th June 2015	• Public Certification Report
Correspondence to	SAI Global Assurance Service 3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland. Website: www.saiglobal.com Programme Administrator: Jean Ragg Jean.Ragg@saiglobal.com	
Client Name & Contact Details	Client Group: Canadian Highly Migratory Species Foundation (CHMSF) Contact details: Lorne Clayton, Client Representative 4829 Maplegrove Street Victoria, British Columbia Canada, V8Y 3B9 Email: clayton@ieccorporate.com	

The aim of this re-assessment is to determine the degree of compliance of the fishery with the Marine Stewardship Council's (MSC) Principles and Criteria for Sustainable Fishing.

This Public Certification Report is written for the stakeholders after the site visit, scoring, client review, peer review, the stakeholder consultation period on the PCDR, and the objection period and includes:

- The MSC Standard and Certification Requirements (CR) used, the MSC Fishery Standard - Principles and Criteria for Sustainable Fishing v1.1 and the MSC CR v1.3
- The scores, weighting and certification outcome (Section 7)
- All intended conditions set and the Client Action Plan (Appendix 1.3)

'Conditions provide for agreed further improvement in the fishery and provide one of the bases for subsequent audit. They are intended to improve performance against the MSC Principles'.

- The assessment team certification recommendation.
- The final decision from the Certification Committee on the fishery certification.
- The assessment followed the current versions of MSC scheme requirements and these were implemented by SAI Global accredited MSC Procedures.
- All relevant information and sources used in the assessment are identified throughout the report and full references for published, unpublished data and main websites accessed as documented at the end of this report in the reference section.
- The peer reviewer's comments and the assessment team's responses in Appendix 2.
- The stakeholder submissions and the assessment team's responses in Appendix 3.
- The Client Agreement in Appendix 5.

2. Executive Summary

This report sets out the details of the MSC re-assessment for the CHMSF Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery against the MSC Principles and Criteria for Sustainable Fisheries. The report details the background, results and justification of the re-assessment of the fishery, as carried out by SAI Global.

The re-assessment process began in February 2014.

The MSC Guidelines to Conformity Assessment Bodies (CABs) specify that the Unit of Certification (UoC) is “The fisheries or fish stock (biologically distinct unit) combined with the fishing method/gear and practice (vessel(s) pursuing the fish of that stock) and management framework”. Accordingly, the CHMSF Albacore Tuna North Pacific Fishery proposed for certification is defined according the UoC:

Species	<i>Thunnus alalunga</i> , Albacore tuna
Geographical Area	North Pacific Ocean
Stock	North Pacific
Method of capture	Troll & Jig
Management system	When operating in the Canadian EEZ, the fishery is under the domestic management of the Fisheries and Oceans Canada (DFO) Pacific Region. When operating in the US EEZ, the fishery is under US jurisdiction and operates under the requirements of the Canada/US Tuna Treaty. When operating in international waters, the fishery is within the jurisdictions of both the Inter-American Tropical Tuna Commission (IATTC) and the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC).
Client Group	Canadian Highly Migratory Species Foundation (CHMSF)

This fishery has previously been assessed against the MSC Principles and Criteria for Sustainable Fishing under their previous certificates. The current re-assessment did require harmonization taking into account other assessments led by different CABs to ensure consistency of assessment outcomes as there are other albacore tuna fisheries undergoing certification and there are existing fishery assessments that overlap at present (See Section 5.1).

The re-assessment covers the North Pacific albacore stock. It is recognized that this fishery represents a relative small proportion of the total fishing effort on this stock. As a consequence the status of the North Pacific stock as a whole is assessed, together with fishing practices and consequences within the CHMSF troll & jig fleet only. A full and up to date active list of fleet licences will be made available by the client group and provided to the SAI Global on an annual basis as a requirement of surveillance conditions. It is to be interpreted in strict accordance with operational practices, including adherence to the certificate sharing mechanism defined in CR 27.23.1. The Client Sharing Letter can be seen at:

http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/pacific/CHMSF-British-Columbia-North-Pacific-Albacore-Tuna/reassessment-downloads-folder/20140226_Client_Sharing_letter_TUN29.pdf

2.1 CHMSF Albacore Tuna North Pacific fishery key strengths and weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none">• Albacore tuna is believed to be in high abundance in the North Pacific• Negligible catches of incidental species• The fishery is highly unlikely to disrupt key elements underlying ecosystem structure and function• Robust governance and management policies	<ul style="list-style-type: none">• Absence of appropriate reference points• Well-defined harvest control rules are not in place

2.2 Assessment Results

A rigorous assessment against the MSC Principles and Criteria was undertaken by the assessment team and detailed, fully referenced scoring rationale is provided in Appendix 1 of this report.

The UoC achieved the minimum required score of 80 or above on each of the three MSC Principles independently and did not score less than 60 against any Performance Indicator (PI).

Final Principles scores are shown in the table below.

Principle	Score	PASS/FAIL
Principle 1 – Target Species	85	PASS*
Principle 2 – Ecosystem	95.7	PASS
Principle 3 – Management System	91.5	PASS

*Although the assessment team found the overall Principle and Unit of Certification in overall compliance with MSC Standard, it also found the performance of two performance indicators (PI 1.1.2 and 1.2.2) to be below the required compliance mark (Score of 80). Rationale and full explanation of the conditions attached to these PIs is provided in Appendix 1.3.

2.3 Conditions for continued certification

The assessment team identified two PIs, contributing to the overall assessment, assessed as scoring less than the unconditional pass mark, and therefore two conditions were attached to the fishery. These two conditions must be addressed within a specified timeframe. The conditions are applied to improve performance to at least the 80 level within a period set by the certification body but no longer than the term of the certification. A full explanation of how the Client intends to meet these conditions is provided in the client action plan in Appendix 1.3 of the report. As a standard requirement of the MSC CR, the fishery shall be subject to (as a minimum) annual surveillance audits. These audits shall be publicized and reports made publicly available.

Condition number	Condition	Performance Indicator	Related to previously raised condition? (Y/N/A)
1	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.	1.1.2	Y
2	The client must provide evidence of implementation of well-defined harvest control rules that reduce exploitation rates as the limit reference point is approached.	1.2.2	NA

2.4 Certification Recommendation

On completion of the re-assessment and scoring process, the assessment team has recommended that the CHMSF Albacore Tuna North Pacific Fishery is eligible to be certified according to the MSC Principles and Criteria for Sustainable Fishing.

2.5 Assessment Process

The assessment followed set procedures as described in the MSC CR v1.3. Key stages of the assessment were:

- **Stage 1: Fishery Announcement and Assessment Team Formation**
 - Stakeholder Notification: Fishery enters re-assessment – 27th February 2014
 - Stakeholder Notification: Assessment team nominated – 27th February 2014
 - Stakeholder Notification: Assessment team confirmation - 10th March 2014
- **Stage 2: Building the Assessment Tree**
 - Stakeholder Notification: Use of the default assessment tree - 27th February 2014
- **Stage 3: Information gathering, stakeholder meetings and scoring**
 - Stakeholder Notification: Site Visit scheduled – 27th February 2014
- **Stage 4: Client and peer review**
 - Stakeholder Notification: Revised timeline – 26th August 2014
 - Stakeholder Notification: Proposed Peer Reviewers – 20th November 2014
- **Stage 5: Public review of the draft assessment report**
 - Stakeholder Notification: Revised timeline – 6th January 2015
 - Stakeholder Notification: Public Comment Draft Report released – 24th February 2015
- **Stage 6: Final Report and Determination**
 - Variation request and response: certificate extension – 19th March 2015
 - Variation request and response: certificate extension – 30th April
 - Stakeholder Notification: Final Report and Determination released – 12th May 2015
- **Stage 7: Objection period/public certification report and certificate issue**

- Stakeholder Notification: PRC and certificate issued– 9th June 2015

3. Authorship and Peer Reviewers

3.1 Assessment team

Dr. Géraldine Criquet (Lead Assessor, Responsibilities on Principle 2)

Géraldine manages technical functions of SAI Global's MSC Fishery Program and is an approved MSC Fishery Team Leader. Géraldine holds a PhD in Marine Ecology (École Pratique des Hautes Études, France) which focused on coral reef fisheries management, Marine Protected Areas and fish ecology. She has also been involved during 2 years in stock assessments of pelagic resources in the Biscay Gulf, collaborating with IFREMER. She worked 2 years for the Institut de Recherche pour le Développement (IRD) at Reunion Island for studying fish target species growth and connectivity between fish populations in the Indian Ocean using otolith analysis. She served as Consultant for FAO on a Mediterranean Fisheries Program (COPEMED) and developed and implemented during 2 years a monitoring program of catches and fishing effort in the Marine Natural Reserve of Cerbère-Banyuls (France). Geraldine joined SAI Global in August 2012 as Fisheries Assessment Officer and is involved in FAO RFM and MSC fisheries assessments.

Dr. Ivan Mateo (Assessor, Responsibilities on Principle 3)

Dr. Mateo has over 15 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 Center Ecosystem Based Fishery Management on bioenergetics modelling for Atlantic cod. He also has been working as environmental consultant in the Caribbean doing field work and looking at the effects of industrialization on essential fish habitats and for the Environmental Defense Fund developing population dynamics models for data poor stocks in the Gulf of California. Recently Dr. Mateo worked as National Research Council postdoctoral research associate at the NOAA National Marine Fisheries Services Ted Stevens Marine Research Institute on population dynamic modelling of Alaska sablefish.

Dr. Max Stocker (Assessor, Responsibilities on Principle 1)

Dr. Stocker is a scientist with over 30 years of extensive experience in fisheries science. He is currently proprietor of Stocker & Associates Consultants conducting Marine Stewardship Council certification projects.

Dr. Stocker 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). He served as co-chair of the Stock Assessment Working Group of the Scientific Committee of the WCPFC and chaired the ISC Albacore Working Group.

From 1978-2006 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, and made over 50 presentations in national and international scientific meetings.

Dr. Stocker chaired the Pacific Scientific Advice Review Committee (PSARC) for many years and edited and published over 30 advisory documents on the stock status of marine species and the implications of harvest management on these stocks. Additionally, Dr. Stocker served as in-house stock assessment consultant to the New Zealand Fishing Industry Board in the early 1990s conducting peer reviewed stock assessments, participating in the peer review process, and advising the Board on inshore and deepwater fisheries.

3.2 Peer Reviewers

Nancie Cummings

Ms. Cummings has over 35 years of experience working in marine and estuarine fisheries science in the U.S. She has been actively involved in conducting marine fish stock assessments, in the optimal design of fisheries data collections, and in providing inputs required for management of U.S. federally managed species. As a lead stock assessment analyst she has been involved for more than 30 years with analyses of highly migratory species (albacore and Bluefin tuna), coastal migratory species (king and Spanish mackerels, cobia, and dolphin fish), and reef fish stocks (amberjacks, groupers and shallow and deep-water snappers) in the US Gulf of Mexico and South Atlantic and Caribbean. Ms. Cummings has conducted primary fishery stock evaluations for status determinations required by U.S. fishery management councils and has conducted stock rebuilding projections of U.S. federally managed marine resources including reef fish, mackerels, tunas, and shellfish. Ms. Cummings also has experience conducting analyses of salmonid resources off Washington State, including in-season run-size forecasting, escapement estimations, and developing creel census estimations. Ms. Cummings has extensive experience working with commercial and recreational fisheries constituent groups, tribal groups, national and international advisory groups, and academic institutions. Ms. Cummings has experience in application of data poor stock assessment techniques and recent experience developing and leading Data Limited Stock Assessment Workshops in the U.S. and in an International forum. Ms. Cummings received her M.S. degree in Fisheries from the College of Fisheries, University of Washington working on a stock assessment of Pacific cod in the North Pacific Bering Sea. She holds a Bachelor of Science degree in Biology from Erskine College (South Carolina).

Alan Sinclair

Alan Sinclair recently retired from a fisheries research career with Fisheries and Oceans Canada. His research included stock assessment methods and application with a recent emphasis on management strategy evaluation through feedback loop simulation and the application of the Precautionary Approach in achieving sustainable fisheries. He studied changes in fish population demographic characteristics including growth, juvenile survival, and adult natural mortality and the implications of these changes on productivity and management reference points. He investigated geologic and oceanographic factors influencing the spatial distribution of fish species, and the influence of environmental factors on recruitment. He worked with a number of national and international fisheries organizations including the Pacific Scientific Advice Review Committee (PSARC) chair of Groundfish Subcommittee; Canadian Atlantic Fisheries Advisory Committee (CAFSAC) chaired the Groundfish Subcommittee, the Statistics Sampling and Surveys Subcommittee; NAFO stock assessments and symposia; ICES annual science conferences, symposia and working groups; PICES annual science conference. He participated in fishery stock assessment meetings as reviewer and presenter in PSARC, CAFSAC, NAFO, ICES, and US National Marine Fisheries Service (NMFS) Stock Assessment Review (STAR) Panels. Alan Sinclair is currently a member of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) where he is the co-chair of the Marine Fishes Species Specialist Subcommittee.

4. Description of the Fishery

4.1 Unit of Certification and scope of certification sought

The MSC Guidelines to CAB specify that the UoC is “The fisheries or fish stock (biologically distinct unit) combined with the fishing method/gear and practice (vessel(s) pursuing the fish of that stock) and management framework”. Accordingly, the CHMSF Albacore Tuna North Pacific Fishery proposed for certification is defined according to the UoC:

Species	<i>Thunnus alalunga</i> , Albacore tuna
Geographical Area	North Pacific Ocean
Stock	North Pacific
Method of capture	Troll & Jig
Management system	When operating in the Canadian EEZ, the fishery is under the domestic management of the Fisheries and Oceans Canada (DFO) Pacific Region. When operating in the US EEZ, the fishery is under US jurisdiction and operates under the requirements of the Canada/US Tuna Treaty. When operating in international waters, the fishery is within the jurisdictions of both the Inter-American Tropical Tuna Commission (IATTC) and the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC).
Client Group	Canadian Highly Migratory Species Foundation (CHMSF)

4.1.1 Eligibility for Certification against the MSC Standard

The fishery is eligible for certification and able to be assessed within the scope of the MSC Principles and Criteria for Sustainable Fishing as:

- The fishery is not conducted under a controversial unilateral exemption to an international agreement;
- Fishing operations do not use destructive fishing practices such as fishing with poisons or explosives;
- The fishery applying for certification is not the subject of controversy and/or dispute;
- The fishery has not previously failed an assessment or had a certificate withdrawn;
- The Client Group is prepared to consider how other eligible fishers may share the certificate;
- There are no catches of non-target stocks that are inseparable or practicably inseparable (IPI) from the target stock; and
- The assessment of the CHMSF Albacore Tuna North Pacific Fishery will result in an overlapping assessment (See section 5.1).

4.1.2 Eligible fishers

There are other Albacore tuna fisheries in the North Pacific Ocean. They may become eligible to join the Client Group under a certificate sharing arrangement.

4.1.3 Scope of Assessment in Relation to Enhanced Fisheries

The fishery under assessment is not an enhanced fishery.

4.1.4 Scope of Assessment in Relation to Introduced Species Based Fisheries (ISBF)

The fishery under assessment is not an Introduced Species Based Fishery.

4.2. Overview of the fishery

4.2.1. Biology of the target species

There are numerous articles in the primary literature, grey literature and books documenting details of the life-history and ontogeny of north Pacific albacore. The best historical source of this information is summarized by Foreman (1980), whereas the best recent information can be found in the 2014 stock assessment (ISC 2014).

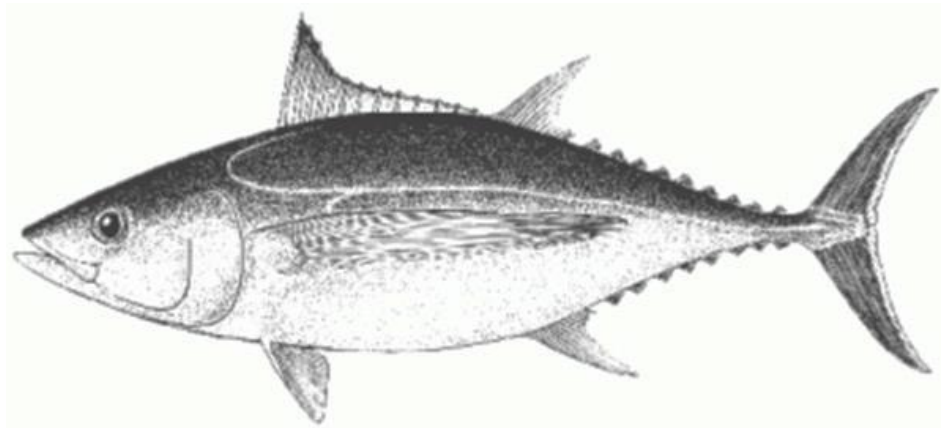


Figure 1. Albacore tuna. Source: FAO species fact sheet¹.

Albacore tuna, *Thunnus alalunga*, is a highly migratory species (HMS) caught in commercial fisheries throughout the world's oceans and the Mediterranean Sea. Albacore have unique biological characteristics that enable them to swim continuously at very high speeds and cover vast areas during annual migrations. Albacore are metallic dark blue along the back, with dusky to silvery white coloration along the sides and on the belly. Albacore are negatively buoyant fish that lack a swim bladder and have lost many structures needed to pump water over their gills to obtain oxygen, which collectively, translates to a life history strategy that requires constant swimming.

Stock structure

Albacore tuna in the Pacific Ocean consists of two distinct stocks, the north Pacific stock (the subject of this evaluation) and the south Pacific stock. The equator is considered the north-south boundary between albacore stocks. Based on analysis of genetic data there is differentiation between north and south Pacific albacore (Takagi *et al.* 2001). Other relevant information providing supports the discreteness of the two stocks includes fishery data, tagging data and ecological data (ISC 2014).

Distribution and Migration

North Pacific albacore are highly migratory (Figure 2). Particularly the juvenile fish (2-5 year olds), typically undergo an expansive annual migration that begins in the spring and early summer in waters

¹ <http://www.fao.org/fishery/species/2496/en>

off Japan, continues throughout the late summer into inshore waters off the North American Pacific coast, and ends between fall and winter in the western Pacific Ocean. It is generally believed that oceanic conditions strongly influence both the timing and geographical extent of the albacore's migration in a given year. Migrating albacore concentrate along thermal discontinuities (oceanic fronts) associated with waters of the Transition Zone in the North Pacific Ocean (Polovina *et al.* 2001, Zainuddin *et al.* 2006, 2008). The vast majority of albacore are caught in waters with sea-surface temperatures (SSTs) ranging from 15° to 19.5° C. The migrating fish are typically bounded by these thermal gradients as they conduct their round-trip travel across the Pacific Ocean. Although the bulk of the migrating stock is usually observed within this SST range, telemetry studies support that this species will spend brief periods of time in much colder water (9.5° C).

Upwelling is another important factor associated with oceanic fronts and ultimately, an event that highly influences the distribution of the migrating albacore. It is likely that the albacore are attracted to upwelling fronts, given these areas are very productive and contain much forage for predatory fish. Other oceanographic parameters such as salinity, and thermal density also influence the migratory behavior of the stock. In general, catches from the commercial fisheries indicate the albacore are most abundant along the warm side of upwelling fronts in clear blue oceanic waters that are associated with salinity gradients between 33 and 35 parts per thousand and well-defined thermoclines.

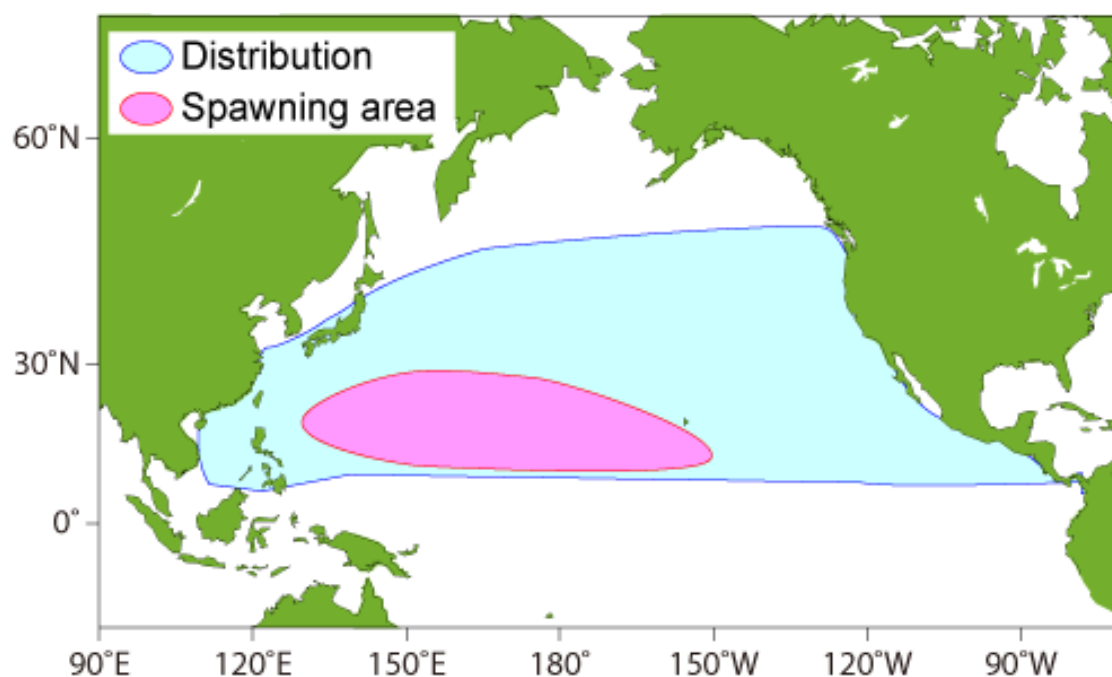


Figure 2. Distribution and spawning area of albacore in the North Pacific Ocean. Source: http://isc.ac.affrc.go.jp/working_groups/albacore.html

Physiology and Morphology

Albacore are literally 'built for speed' in an ocean environment, with torpedo-shaped (fusiform) bodies, smooth skin (tiny, cycloid scales), and streamlined fins, which enable the fish to reach speeds of over 80 kilometers h⁻¹ for short periods of time. Their tail fin is deeply forked and lunate in shape, enabling the tremendous thrust needed to maintain high speeds. Albacore have highly specialized physiological functions that allow for rapid movement and sustained endurance. They have a highly evolved circulatory system that includes countercurrent exchangers that act to reduce the loss of heat generated by increased muscular activity. This circulatory system allows them to regulate their body temperature. They maintain their body temperatures at higher levels than the temperature of the water in which they swim (Graham and Laurs 1982).

Maturity and Reproduction

North Pacific albacore mature at roughly 5-6 years of age (approximately 85 cm in length). Ueyanagy (1957) estimated that 50% of the albacore were mature at age 5 and that 100% of age 6 and older were mature. Based on recent histological assessment of gonadal status and maturity albacore are assumed to have one spawning and recruitment period per year (Chen *et al.* 2010).

The North Pacific albacore stock spawns from March through September in the western and central Pacific (Figure 2). Peak spawning (April-June) of albacore is generally believed to occur in tropical and subtropical waters between Hawaii (155°W) and the east coast of Taiwan and the Philippines (120°E) and between 10 and 25°N latitude at depths exceeding 90 m (ISC 2014).

Albacore are batch spawners, broadcasting hydrated oocyte, in open water, often near the surface, with fertilization being external. Estimates of female fecundity (number of eggs) range from 0.8 to 2.6 million eggs per spawning (Ueyagany 1957, 1969; Yoshida 1968; Chen *et al.* 2010). Eggs are approximately 1 mm in diameter and remain buoyant by an enclosed oil droplet. Eggs develop rapidly, with hatching occurring in 24 to 48 hours. The early life history of albacore is not clearly understood at this time, but very young albacore (larvae and juveniles in their first year of life) are believed to remain relatively close to the spawning grounds and eventually, congregate in waters south and east of Japan prior to beginning their first migration.

Mortality

A single female albacore produces millions of eggs over her lifetime. However, the majority of these eggs do not survive to the adult stage. Larvae and juveniles also experience high mortality, given their vulnerability as prey for other marine animals, including adult albacore, which have been observed to be cannibalistic. Instantaneous rate of natural mortality (M) is assumed to be 0.3 yr^{-1} (ISC 2014). The oldest known age of albacore is 15 years (Wells *et al.* 2013).

Growth

Growth is rapid in immature albacore followed by slowing growth rates in mature and adult albacore (ISC 2014). Albacore in the north Pacific may grow to 45-64 cm in their first year (Clemens 1961, Chen *et al.* 2012, Wells *et al.* 2013) and reach about 60 cm when they recruit into the surface fishery at age 2. Maximum recorded size of a north Pacific albacore has been 128 cm (ISC 2014).

Albacore growth is usually modelled using the von Bertalanffy growth model. Xu *et al.* (2014) calculated the von Bertalanffy growth parameters (L_{inf} , K and t_0) using conditional age-at-length data derived from otolith samples. The otolith samples were collected by Chen *et al.* (2012) and Wells *et al.* (2013). The resulting growth models suggest differences in the growth of male and female albacore as well as between the different regions of the North Pacific. Male albacore growth is faster than females after age 7-8 and results in a larger L_{inf} of approximately 119 cm fork length (FL) (based on combined Chen/Wells dataset), compared to 106 cm for female albacore (Xu *et al.* 2014).

Behavior

Albacore tuna show a broad range of behavioral differences. In Baja California, the tuna make frequent dives to depths exceeding 200m (660ft) during the day and remain near the surface at night, while off the coast of Washington and Oregon the tuna remain near the surface the entire day (Childers *et al.* 2011).

Similar size albacore travel together in school 'groups' that contain small aggregations of fish, which collectively, can be up to 30 km wide. At the onset of the migration, during the spring and summer

months in the western Pacific Ocean, the young albacore form relatively small, loose, and broadly scattered groups. As the seasons progress, the groups become more compact and contain greater numbers of schools. The more sedentary, older albacore typically form more compact schools (Foreman 1989). Although albacore spend much of their time in the surface waters of the ocean (epipelagic zone), they will also explore deeper waters of the thermocline (mesopelagic zone) in search of prey.

Trophic structure

Albacore are top carnivores in the ocean ecosystem. They prey opportunistically on schooling species, such as sardine, anchovy, and squid. Albacore consume enormous amounts of food to fuel their high metabolism. Albacore are preyed upon by man, as well as the larger species of billfish, tuna, and sharks. Given albacore are routinely harvested by both surface-fishing gear (e.g., troll and pole-and-line) and subsurface-fishing gear (e.g., longline), it is likely that they feed in at least the upper 500 m of the ocean. Albacore feed primarily during the daylight hours. However, it has been shown that they will also feed at night (Foreman 1980).

4.2.2. Fishing area

Fishing activities by Canada's coastal fleet primarily take place from the northern tip of Vancouver Island to the Southern Oregon coast. While this fishery normally peaks in August and September, the time-period may change depending on ocean and weather conditions, albacore migration, fuel costs, market prices, and other factors. Offshore fishing in the North Pacific usually starts in June and lasts through the late fall (again, depending on the weather and tuna abundance).

In 2013 The Canadian troll fleet operations occurred in a latitudinal band between 40 and 54°N and from the west coast of North America to 155° W (Figure 3 and 4). Spatial distribution of the fleet was closer latitudinally than in 2012. This finding is consistent with the average operational area of the fishery in the eastern Pacific Ocean since the 2006 fishing season. The Canadian fishery operations occurred north of the equator primarily within the Inter-American Tropical Tuna Commission (IATTC) convention area east of 150°W, but a minor amount of catch (<1 t) occurred in the Western and Central Pacific Fisheries Commission (WCPFC) convention area west of 150°W. This follows up a continuing trend of concentrating effort and catch by this fishery in the eastern Pacific Ocean (EPO) that began in 2005. Approximately 90% of the fishing effort and catch took place within the coastal waters of Canada and the United States in 2013, although the proportion of effort and catch occurring within United States waters is much lower (24% and 31%, respectively) than average (78% of effort and 79% of catch) over the 1995 to 2011 period. This reversal of the fishing pattern in 2013 relative to the period prior to 2012 is the result of a new fishing regime in the bilateral albacore tuna treaty negotiated for 2013. Albacore were caught in waters with sea surface temperatures ranging between 12 and 24°C in 2013, but 94% of the fish were harvested in waters within a narrow temperature band of 15-19 °C.

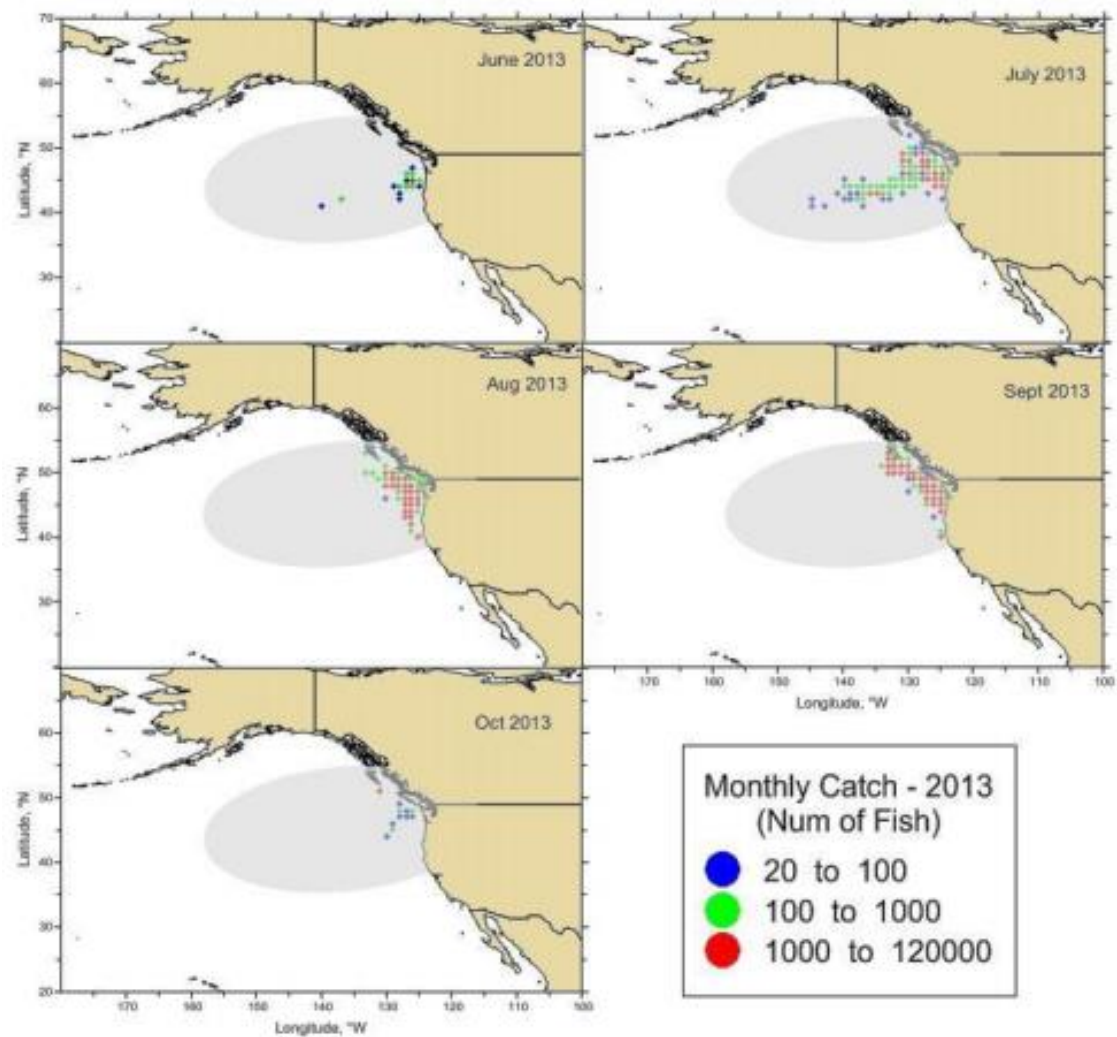


Figure 3. Monthly spatial distribution of reported catch in Canadian albacore troll fishery in 2013. Data are plotted on a 1° x 1° grid with symbols located on the bottom-right corner of each cell. Cells in which fewer than three vessels reported are not shown. Grey area is the approximate operational area of the Canadian fishery in 2013.

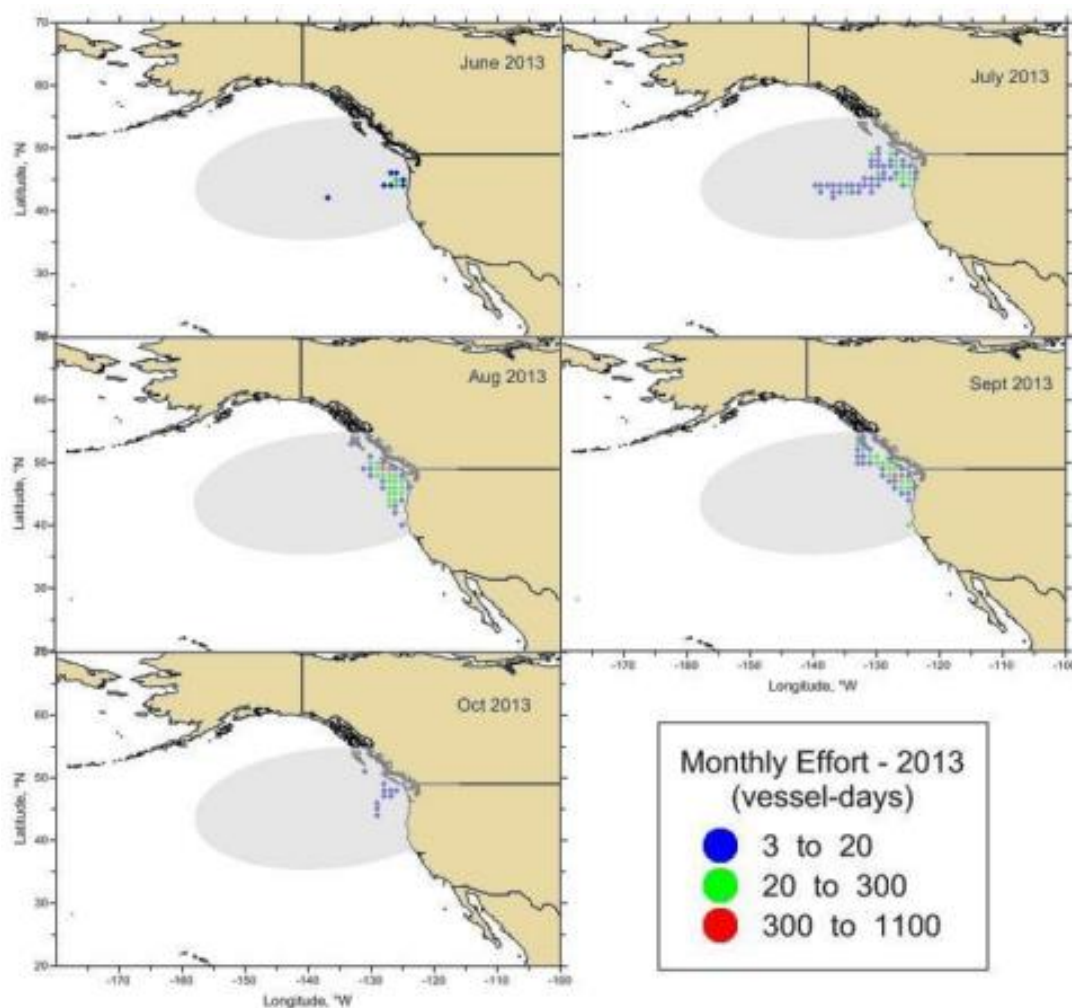


Figure 4. Monthly spatial distribution of Effort in Canadian albacore troll fishery in 2013. Data are plotted on a 1° x 1° grid with symbols located on the bottom-right corner of each cell. Cells in which fewer than three vessels reported are not shown. Grey area is the approximate operational area of the Canadian fishery in 2013.

4.2.3. History of the Canadian albacore tuna fishery

The Pacific Canadian fishery involving highly migratory Albacore Tuna generally used troll gear. Pacific Albacore are commonly caught using hook and line (jig) gear, primarily by troll, which consists of towing artificial lures behind vessels travelling at approximately 6 knots. Net gear is not permitted. The Canadian fishery harvests Albacore from the north Pacific stock and also the South Pacific stock, but historically harvests of North Pacific Albacore are larger and have occurred over a longer time period.

Total Pacific-wide catches of North Pacific Albacore by all fleet have ranged between 37,000 and 126,000 t per year since the 1950's, mostly taken by longline as well as pole and line vessels. Canadian fishermen have been catching Albacore since the late 1930's in the north Pacific and since the 1980's in the south Pacific (Ware and Yamanaka 1991, Shaw and Argue 2000). The Canadian fishery got its first start in the coastal waters off British Columbia (B.C.) and developed into a fishery with two distinct fleet categories, smaller vessels fishing coastal B.C. and USA waters, and larger vessels fishing on the high seas of the north and South Pacific Ocean. The north Pacific fishery occurs from June through

October each year when Albacore are abundant offshore and in coastal waters. The South Pacific fishery lasts from December through March (Argue et al. 1999).

North Pacific Albacore catches by the Canadian troll fishery ranged from a low of 2,166 t in 1997 to a high of 7,857 t in 2004, with an average catch of 4,981 tonnes from 1996-to 2013. In recent years most of the reported Canadian catch has occurred along the North American coast and adjacent waters outside the US and Canadian Exclusive Economic Zones (EEZs) while the offshore fleet operating in the central Pacific Ocean has decreased its effort in this area. A small number of Canadian vessels operating in the South Pacific Ocean have reported catches ranging from 38 to 313 t of South Pacific Albacore, though there has been no reported catch since 2007.

4.2.4. Catches

Total north Pacific wide albacore catches since the 1950s have ranged from around 50,000 to around 130,000 t per year (Figure 5). The reported catch in 2013 was 92,509 t (ISC plenary 2014). Catch has fluctuated between 69,000 and 92,000 t during the period 2006-2012. Troll, and pole and line gear account for roughly twice as much catch as longline gear (ISC 2014).

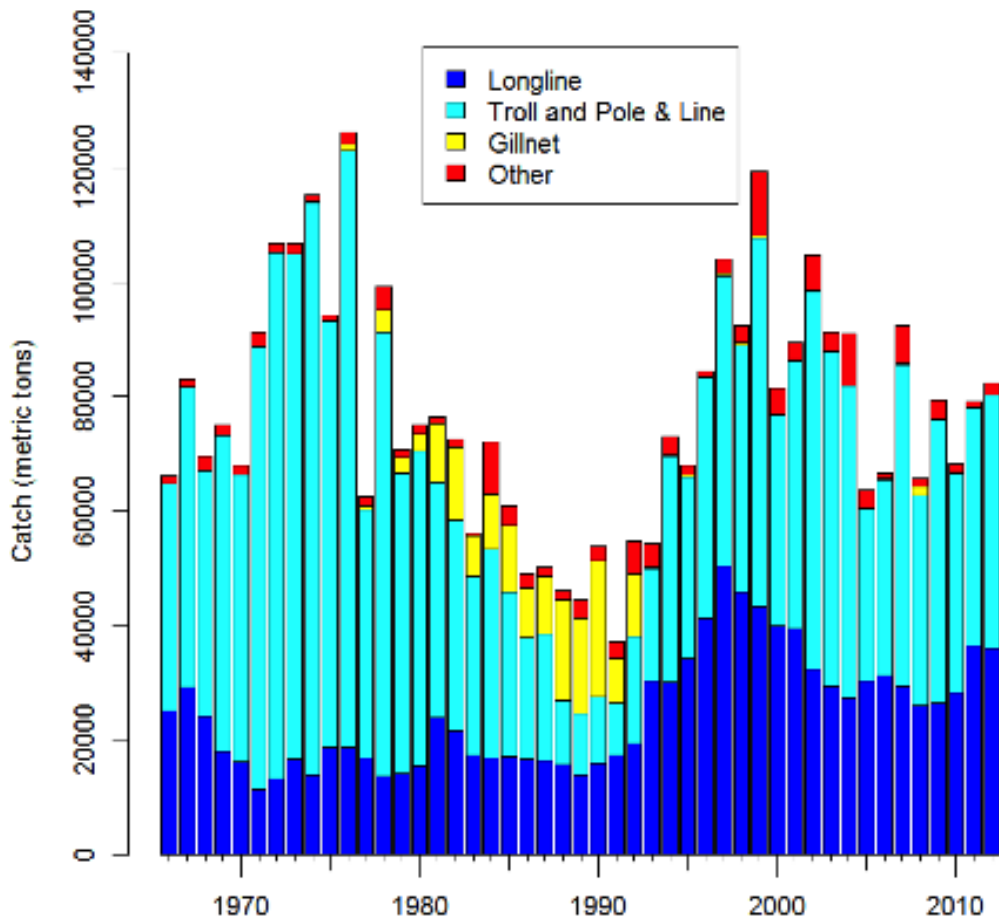


Figure 5. Catch of north Pacific albacore (*Thunnus alalunga*) by major gear types, 1966-2012. Other gear category includes purse seine, recreational, hand line and harpoon catches (ISC 2014).

In recent years as in the past a large proportion of the albacore catch has mostly been taken by Japanese longline and pole and line vessels (Table 1).

Table 1. Percentage average annual catch by country from 2003-2012 (ISC 2014).

Country	Average Annual Catch (2003-2012)
Japan	63.5%
USA	17.7%
Canada	7.3%
Chinese Taipei	4.9%
China	1.6%
Korea, Mexico	0.27%
Tonga, Belize, Cook Islands, Vanuatu, Vietnam, Ecuador	4.6%

4.2.5. Fishing season

Historically the majority of catch and effort for north Pacific albacore has occurred in a four month period from early July to the end of October.

4.2.6. Fishing method and fleet description

Fleet structure

The Canadian albacore jig fishery is composed of two fleets. The coastal fleet fish within the Canadian and United States EEZ in accordance within the arrangements under the US/Canada Tuna Treaty (amended 2013). The length of the vessels is of mostly 35 to 60 feet, and fishing activities occur from the southern California coast to as far north as the west coast. The size and distribution of the fleet are influenced annually by ocean conditions, albacore availability, and abundance and distribution of salmon. There is an abundance peak in effort in September, after the salmon season for trollers has wound down. However, in recent years, the coastal fleet has been initiating operations on tuna at an earlier date. Coastal fleet is normally sold both into the canned and blast-frozen tuna markets.

The Canadian high seas fleet consists of larger jig vessels (most greater than 60 feet) with two to four fishermen that remain at sea for trips of several months. These vessels fish primarily from west of the dateline to the Canadian zone in the north Pacific. Offshore fishing in the north Pacific starts in late May or June around the Wake island, and lasts through late fall when albacore moves towards the North American coast. Catches from offshore vessels are sold mainly into the sashimi food market.

Catching method

Trolling fishing method for albacore consists of towing artificial lures with barbless hooks at a speed of about 6 knots. Individual trolling lines are generally 3 to 20 fathoms long and often constructed from 1/8" braided nylon line, with a 1-6 fathom leader made from 150-400 pound test nylon monofilament, to which is attached an artificial feathered jig with a barbless double hook. Fish are caught one at a time on the trolling line and, upon striking the jig, are retrieved immediately with a hydraulic gurdy or line-puller, or by hand pulling. Usually about 8-14 lines are trolled by an albacore fishing vessel.

4.2.7. Market information

Tuna fisheries are valuable industries in Canada. The North Pacific albacore tuna fishery is worth more than \$25 million annually. Catch from the offshore fleet is sold primarily to the blast bled frozen sashimi market. Catch from the inshore fleet is sold into the canned and blast bled tuna markets.

4.3. Principle One: Target Species Background

4.3.1. Stock assessment

North Pacific albacore stock assessments are regularly conducted by the Albacore Working Group (ALBWG) of the ISC. Prior to 2005 this work was done by the North Pacific Albacore Workshop established in 1974 (Stocker 2005). The ALBWG consists of members from coastal states and fishing entities in the North Pacific Ocean (Canada, Chinese-Taipei, Japan, Korea, Mexico and USA) and representatives of the IATTC and the Secretariat of Pacific Community (SPC) (ISC 2014).

The 2014 albacore stock assessment was carried out at the Southwest Fisheries Science Center in La Jolla, California from April 14-28, 2014 (ISC 2014). The previous stock assessment was conducted in 2011 (ISC 2011).

Stock Assessment Methods

The 2014 albacore stock assessment was carried out using fishery data through 2012 and using the Stock Synthesis (SS) modelling platform (Methot 2000, Methot and Wetzel 2013). The ALBWG developed a sex-specific, length-based, age-structured, forward simulating, fully-integrated, statistical model. The assessment assumes a single well-mixed stock of albacore in the North Pacific Ocean (ISC 2014).

Relevant input into the SS model included catch and size composition data from ISC countries, some IATTC and WCPFC member countries and China, and standardized catch and effort data for 11 abundance indices were considered. The assessment model included 24 distinct fisheries defined according to fishing location, gear, and season (quarter of year). The final base assessment model was fitted to 4 relative abundance indices consisting of early and late Japan pole and line and long-line indices and 15 age classes were assumed.

The value for steepness (h) in the Beverton-Holt stock recruitment model was assumed to be 0.9 and recruitment variability (σ_R) was fixed at 0.5 and rescaled in the final model. Sex-specific growth curves were used, a 1:1 sex ratio was assumed, and 50% of the fish were assumed mature at age-5 and all fish were assumed fully mature at age-6. Natural mortality (M) was fixed at 0.3 yr^{-1} for both sexes and all ages. Selectivity curves were fishery-specific, specified as time varying and assumed to be a function of albacore size (ISC 2014).

The ALBWG used model diagnostics to assess issues with model convergence, model structure, parameter mis-specification and data conflicts. Diagnostic tools included model convergence tests, profiles of estimated recruitment at unfished equilibrium R_0 , residual analysis, and retrospective analysis (ISC 2014).

The ALBWG conducted sensitivity analysis to examine the impact on model results from changes in data series, growth curve parameters, natural mortality, stock recruitment steepness, selectivity and catchability parameters specifications and assumptions made regarding weighting of size composition data (ISC 2014).

Abundance Indices

The ALBWG aggregated catch and effort data into monthly $1^0 \times 1^0$ strata for the surface fishery, and $5^0 \times 5^0$ strata for the longline fisheries for standardization using generalized linear models (ISC 2014). Kiyofuji (2014) described an updated abundance index for north Pacific albacore caught by the distant Japanese pole and line fleet. Ijima and Satoh 2014 calculated areal and seasonal dependent abundance indices of albacore caught by the Japanese longline fleet.

The ALBWG considered 11 standardized CPUE indices for inclusion in the assessment. Based on a closer examination of the indices the ALBWG concluded that the Japan pole and line and longline indices were most representative of juvenile and adult albacore abundance trends. The base case assessment model was fitted to the Japanese pole and line (S3, S4) and Japan longline (S1, S2) only (Figure 6).

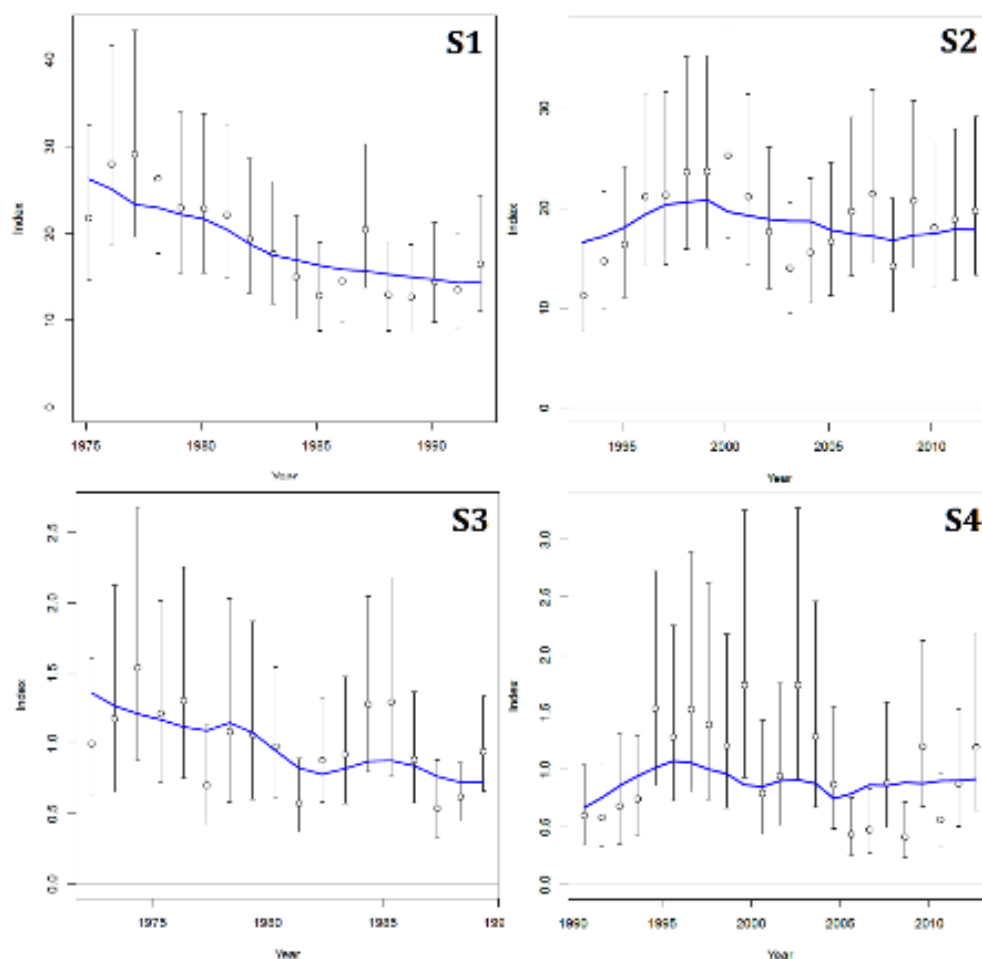


Figure 6. Observed (open circles) and predicted (blue line) relative abundance from adult (S1, S2) and juvenile (S3, S4) abundance indices in the base case model. Error bars indicate 95% confidence intervals. Source: ISC 2014.

4.3.2. Stock status

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.

Abundance

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 the 2012 stock assessment, the north Pacific albacore stock is probably not in an overfished condition, and is not being overfished.

Total biomass (age 1+ male and female combined) of north Pacific albacore has fluctuated widely during the assessment period, ranging from a low of 544,126 t in 1989 to a high of 1,041,570 t in 1971. In recent years biomass has increased from 605,744 to 669,405 t (Table 2). Estimates of spawning biomass (SSB) and female spawning biomass show a long-term decline from the early 1970s to 1993 (Figure 7 and 8). This period of lower female biomass was followed by a recovery period that peaked in 1999 and subsequent fluctuations without trend in the 2000s (ISC 2014). SSB was estimated to be approximately 220,201 t (95%CI 187,180-251,042 t) in 2012. Stock depletion in 2012 has been estimated to be 35.8% of SSB_0 . SSB_0 was estimated to be 615,660 t (95%CI 525,748 – 705,572 t). Uncertainty in the assessment model estimates of SSB were large (Figure 8) and related to difficulties in estimating the virgin recruitment parameter. In addition, estimates of SSB during the early years had large uncertainty and were not well-informed due to general lack of abundance information (indices) and limited size-composition data during the early period (ISC 2014).

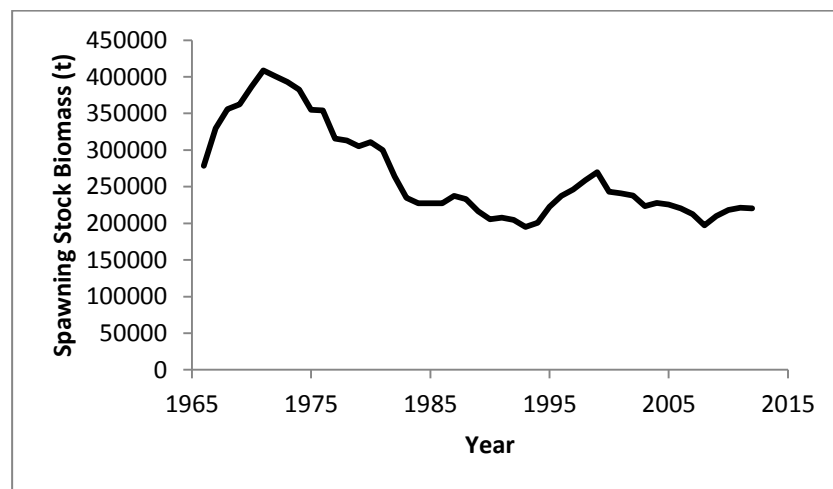


Figure 7. Estimated spawning stock biomass of north Pacific albacore, *Thunnus alalunga*, 1966-2012. Source: ISC 2014.

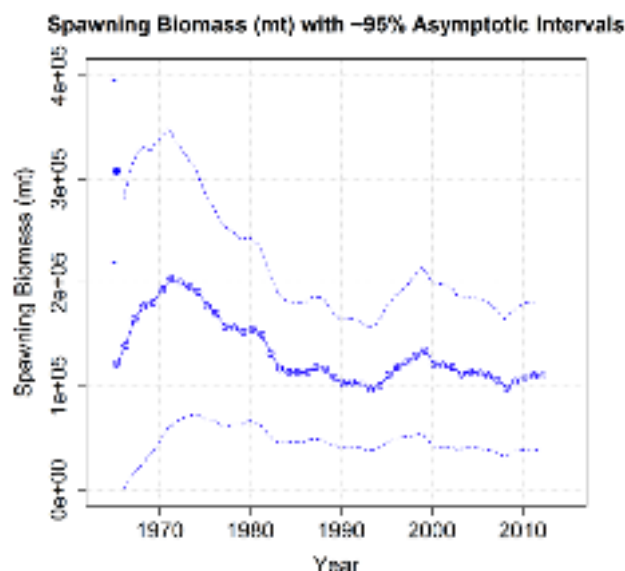


Figure 8. Estimated female spawning biomass of north Pacific albacore (*Thunnus alalunga*). The open circles represent the maximum likelihood estimates and the dashed lines are the 95% asymptotic

intervals of the estimates in lognormal space. The closed circle and error bars indicate estimated SSB at unfished equilibrium and 95% intervals respectively. Source: ISC 2014.

The 2012 SPR, spawner per recruit relative to SSB_0 , was estimated to be 0.41. This corresponds to a relatively low exploitation level of 0.59 (i.e., $1-SPR=0.59$).

Table 2. Total biomass (Q1, age1+), female spawning biomass (Q2), depletion, and fishing intensity (1-SPR) in recent years estimated in the base-case assessment model (ISC 2014).

Year	Total biomass age-1 + (t)	Female spawning biomass (t)	Depletion (SSB/SSB_0)	Fishing intensity (1-SPR)
2003	658,252	111,833	0.36	0.62
2004	627,681	113,844	0.37	0.66
2005	605,744	112,767	0.37	0.54
2006	629,541	110,282	0.36	0.54
2007	644,255	106,245	0.35	0.66
2008	629,823	85,622	0.32	0.53
2009	649,248	105,012	0.34	0.60
2010	651,095	109,212	0.35	0.53
2011	661,489	110,655	0.36	0.57
2012	669,405	110,101	0.36	0.59

Based on an evaluation of $F_{2010-2012}$ against various F-based reference points (Table 3) the ALBWG concluded that the north Pacific albacore stock (ISC 2014):

- is not currently experiencing overfishing
- is likely not in an overfished position at the present

Table 3. Potential reference points and estimated F-ratios using current F ($F_{2010-2012}$) to assess current stock status, associated SSB and equilibrium yield for north Pacific albacore (ISC 2014).

Reference Point	$F_{2010-2012}/F_{RP}$	SSB (t)	Equilibrium Yield (t)
$F_{SSB-ATHL}$	0.72	100,344	90,256
F_{MSY}	0.52	49,680	105,571
$F_{0.1}$	0.51	73,380	93,939
F_{MED}	1.30	156,291	74,640
$F_{10\%}$	0.63	22,867	96,590
$F_{20\%}$	0.71	54,530	105,418
$F_{30\%}$	0.81	86,192	99,612
$F_{40\%}$	0.94	117,855	89,568
$F_{50\%}$	1.13	149,517	77,429

The Kobe plot (Figure 9) 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).

However it is worth noting that the assessment model indicated that F's were generally higher on juveniles than on adults for most of the assessment period. The exception to this is for the current

period (2010-2012) where F 's on adults is higher than F 's on juveniles. Also, females experienced lower F 's than males as females general do not attain similar maximum sizes as males and some of the fisheries (longline) have higher selectivity for larger-sized albacore (ISC 2014).

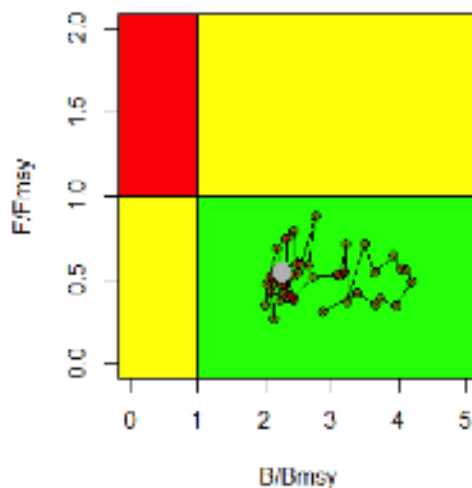


Figure 9. Kobe plot showing north Pacific albacore (*Thunnus alalunga*) stock status based on $F_{2010-12}$ relative to MSY-based reference points. Grey dot is the terminal year 2012 of the assessment. Source: ISC 2014.

Recruitment

The results from the base-case assessment model show that estimated recruitment of North Pacific albacore tuna has fluctuated widely during the assessment period 1966-2012 (ISC 2014). The estimated recruitments ranged from a low of 21.8 m in 1987 to a high of 64.6 m in 1971 (Figure 10). Average recruitment during the period 1966-2010 was 42.8 million age-0 fish, which was slightly below the estimate of R_0 the recruitment of 47.7 million fish at unfished equilibrium (Figure 10). Standard deviations of the recruitment estimates showed that there is large uncertainty in the year class strengths (ISC 2014). As noted earlier (Abundance section) the uncertainty in recruitment is due in part to uncertainty in model estimate of virgin recruitment parameter (ISC 2014). It was also noted that as in other tuna species, the wide recruitment fluctuations are strongly influenced by changes in environmental conditions (ISC 2014).

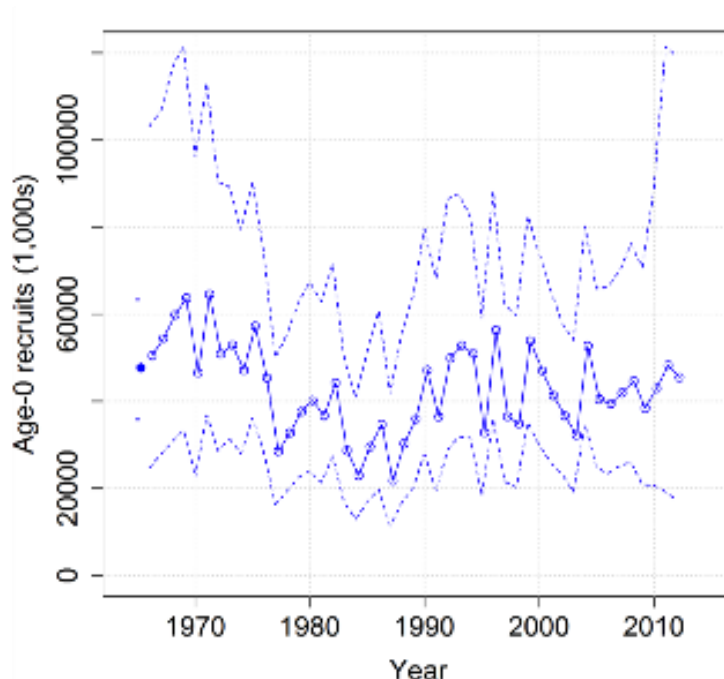


Figure 10. Estimated recruitment of the 2014 base-case model. Dashed lines indicate 95% confidence intervals. The closed circle and error bars indicate estimated recruitment at unfished equilibrium (R_0) and 95% intervals respectively. Source: ISC 2014.

4.3.3. Uncertainties

The ALBWG noted that factors such as the lack of sex-specific size data, the absence of updated estimates of important life history parameters (natural mortality, maturity), and the simplified treatment of the spatial structure (i.e., assuming distinct time-varying fishery selectivity patterns for a proxy of the true spatial dynamics-ISC 2014) of north Pacific albacore population dynamics and concern of non-representative size composition data for some fisheries, in particular fisheries capturing juvenile albacore are important sources of uncertainty in the assessment. There were recommendations developed to improve the stock assessment model:

- Size composition sampling should be raised to the catch (most of the size composition data in the current assessment were not raised) so that observation error and process error can be partitioned and dealt with appropriately;
- All member countries are encouraged to collect sex ratio information from their fleets;
- Changes in sex ratio and size by depth should be investigated. WG believe there is either a depth-size-sex or a spatial area-sex-size effect that is influencing population dynamics of this stock;
- Comprehensive sex-specific age and growth data are needed to improve understanding of growth in the North Pacific albacore stock; and

- Cubic spline functions to estimate selectivity in the assessment model should be investigated. This approach was explored during the 2014 assessment workshop, but there was insufficient time to develop it adequately.

4.3.4. Reference points

Explicit reference point have not been established for north Pacific albacore, except of the $F_{SSB-ATHL}$ interim reference point established by the Northern Committee of the WCPFC in 2008 (WCPFC 2008). $F_{SSB-ATHL}$ is the fishing mortality reference point that results in future projected SSB falling below the average of the 10 historical lowest SSB estimates with a 50% probability (Figure 11). The estimate of SSB-ATHL is 235,670 t (ISC 2014).

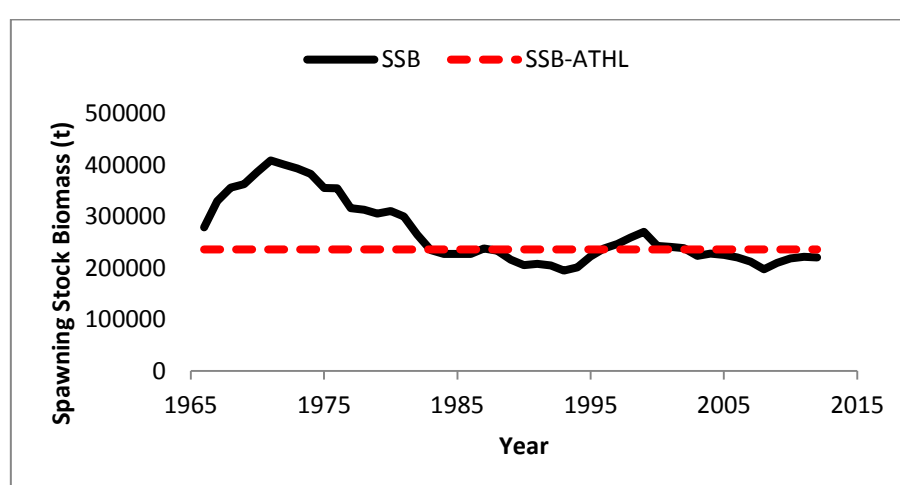


Figure 11. SSB and the SSB-ATHL threshold (average of the 10 historical lowest SSB estimates) 1966-2012. Source: ISC 2014.

Estimates of $F_{2010-2012}$ relative to several potential F-based reference points show that the ratios of $F_{2010-2012}/F_{RP}$, except for F_{med} and $F_{50\%}$, are less than 1.0. The SSB-ATH threshold is estimated to be 235,670 t, which is more than twice the SSB_{MSY} level of 99,360 t (Table 4).

For the first time, the ALBWG computed MSY-based reference points, and confidence intervals, in the 2012 north Pacific albacore stock assessment (Table 4).

Table 4. Reference points estimated in ALBWG 2014 north Pacific albacore stock assessment (ISC 2014).

Reference point	Point estimate (t)	2.5 th Percentile	97.5 th Percentile
MSY	105,571	90,812	120,330
SSB_{MSY}	49,680	42,941	56,419

4.3.5. Harvest Strategy, Harvest Control Rules and Tools

In response to the scientific advice resulting from North Pacific albacore stock assessments conducted by the ALBWG, both the IATTC and the WCPFC have adopted management measures for this stock. In 2005, the IATTC adopted Resolution C-05-02 which resolved that: “The total level of fishing effort for North Pacific albacore tuna in the Eastern Pacific Ocean not to be increased beyond current levels.” The resolution also requires all fishing entities within the IATTC convention Area to take necessary measures to ensure that their vessels’ fishing effort is not increased, and that they report all albacore catches every six months.

The WCPFC adopted CMM-05-03, in the same year, that: “The total level of fishing effort for North Pacific albacore in the Convention Area north of the equator shall not be increased beyond current levels.”

For the IATTC harvest strategy, the harvest control rule is set out in C-05-02:

1. The total level of fishing effort for North Pacific albacore tuna in the Eastern Pacific Ocean not to be increased beyond current levels.
2. The CPCs shall take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore tuna is not increased;
3. All CPCs shall report all catches of North Pacific albacore tuna by gear type to the IATTC every six months.
4. The Director shall, in coordination with other scientific bodies conducting scientific reviews of this stock, monitor the status of North Pacific albacore tuna and report on the status of the stock at each annual meeting;
5. The CPCs shall consider future actions with respect to North Pacific albacore tuna as may be warranted based on the results of such future analysis.
6. The CPCs call upon the members of the WCPFC to consider, at the earliest opportunity, taking such action as may be necessary to ensure the effective conservation and management of North Pacific albacore tuna throughout its range including, in particular, measures to ensure that fishing effort on the stock in the WCPFC area does not increase and, as necessary, measures to reduce fishing effort to levels commensurate with the long-term sustainability of the resource.

For the WCPFC harvest strategy, the harvest control rule is set out in CMM-05-03:

1. The total level of fishing effort for North Pacific albacore in the Convention Area north of the equator shall not be increased beyond current levels.
2. The Members, Cooperating Non-Members and participating Territories (hereinafter referred to as CCMs) shall take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore in the WCPF Convention Area is not increased beyond current levels;
3. All CCMs shall report all catches of North Pacific albacore to the WCPFC every six months, except for small coastal fisheries which shall be reported on an annual basis. Such data shall be reported to the Commission as soon as possible and no later than one year after the end of the period covered.
4. All CCMs shall report annually to the WCPFC Commission all catches of albacore north of the equator and all fishing effort north of the equator in fisheries directed at albacore.

The IATTC harvest control rules are based on B/B_{MSY} and F/F_{MSY} benchmarks. We can reasonably argue by analogy with bigeye tuna that the IATTC will take action when these benchmark levels are approached or exceeded.

While an interim reference point ($F_{SSB-ATHL}$) has been established by the Northern Committee, no well-defined harvest control rule has been established, either by the IATTC or the WCPFC, to ensure that exploitation rates will be reduced.

4.4. Principle Two: Ecosystem Background

4.4.1. Retained Species and Bycatch Species

Canadian trolling vessels are only permitted to land Albacore tuna under their Section 68 licence in US waters and while operating in Canadian waters, Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches.

Under licence conditions 2014/2015, fishermen fishing in Canadian waters are allowed to retain Northern Bluefin tuna (*Thunnus thynnus*), Pacific bonito (*Sarda chiliensis*), Skipjack tuna (*Katsuwonus pelamis*) and Yellowfin tuna (*Thunnus albacares*). Furthermore, there is a tolerance for non-target species that can be kept by the harvesters such as Mahi-Mahi, bigeye or Rainbow trout (Table 5) as the incidental catch level is so low in the fishery (*pers. comm.* with DFO October 2014).

Trolling operations are carried out at or close to the surface of the ocean and catches of non-target species are generally negligible in troll fisheries world-wide. Trolling gear does not make contact with the seabed and contact with the epipelagic zone is minimal because of the nominal dimensions of the fishing gear. Incidental catch reported in the Canadian north Pacific Albacore fishery includes Skipjack Tuna (*Katsuwonus pelamis*), Pacific Bluefin Tuna (*Thunnus orientalis*), Dolphinfish or Mahi-Mahi (*Coryphaena hippurus*), Yellowfin tuna (*Thunnus albacares*), Blue Shark (*Prionace glauca*) and Shortfin Mako Shark (*Isurus oxyrinchus*). Species which have no commercial value may be returned to the sea alive immediately after hooking, as fish are caught individually and barbless hooks are commonly used, so stress and injuries can be kept to a minimum.

Reported catches of non-target species are presented in Table 5.

Table 5. Reported catches (numbers) of non-target species (retained and released) in 2012 and 2013. Source: DFO Pacific Region, September 2014.

Year	Species	Retained	Bycatch (released)	Total
2012	Mahi-Mahi	3		3
	Bluefin tuna	2		2
	Skipjack tuna	3		3
	Yellowfin tuna	35	2	37
				45
2013	Pacific Bonito	1		1
	Blue shark		3	3
	Bigeye	1		1
	Mahi-Mahi	1		1
	Bluefin tuna	3	3	6
	Various sharks		1	1
	Skipjack tuna	9		9
	Rainbow trout	1		1
	Yellowfin tuna	29	2	31
				54

The total weight of non-target species, including both retained and bycatch species, was estimated to be approximately 148 kg for 2012 (Holmes 2013), which represents approximately 2% of the total catch. Yellowtail amberjack catches were estimated at 101 kg, which represented less than 2% of the total catch of Albacore tuna.

Bait

CB3.5.5 The assessment team shall consider species used as bait in a fishery, if they are caught by the fishery under assessment or elsewhere under the Retained Species component in P2.

Fishing with troll & jig uses generally no bait but rather 10 to 15 feather or plastic jigs with double non-barbed hooks which are trolled behind the boat at 5-6 knots on the surface. Occasionally, fishermen try to “chum” albacore with frozen chunks of dead anchovies. However this practice is not usually used as part of the troll & jig fishing method, 95% of troll/jig fishermen carry no bait on board.

In conclusion, catch of non-target species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.

4.4.3. ETP species

According to MSC (CB3.11.1), ETP species are defined as those that are recognised by national legislation and those that are listed in Appendix 1 of the Convention on International Trade in Endangered Species (CITES). Species that appear exclusively on non-binding list such as IUCN Red List or that are only the subject of intergovernmental recognition (such as FAO International Plans of Action) and that are not included under national legislation or binding international agreement are not considered as ETP species under MSC standards.

Legislative framework^{2,3,4}

The *Species at Risk Act* (SARA) is a piece of Canadian federal legislation implemented in 2002. The purposes are to prevent Canadian indigenous species, subspecies and distinct populations of wildlife from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species, and to encourage the management of other species to prevent them from becoming at risk. In June 2003, the SARA recognized the *Committee on the Status of Endangered Wildlife in Canada* (COSEWIC) as an advisory body, thus ensuring that wildlife species will continue to be assessed using the best available scientific and Aboriginal Traditional Knowledge. The COSEWIC, created in 1977, is a committee of experts that assesses and designates which wildlife species are in some danger of disappearing from Canada. Under the SARA, the government of Canada will take COSEWIC's designations into consideration when establishing the legal list of wildlife species at risk.

More specifically, the Act:

- requires that the best available knowledge be used to define long and short-term objectives in a recovery strategy and action plan;
- creates prohibitions to protect listed threatened and endangered species and their critical habitat;
- recognizes that compensation may be needed to ensure fairness following the imposition of the critical habitat prohibitions;

² http://www.sararegistry.gc.ca/approach/act/sara_e.pdf

³ http://www.cosewic.gc.ca/eng/sct6/sct6_3_e.cfm#hist

⁴ http://www.sararegistry.gc.ca/approach/strategy/Framework_e.cfm

- creates a public registry to assist in making documents under the Act more accessible to the public; and
- is to be consistent with Aboriginal and treaty rights and respect the authority of other federal ministers and provincial governments.

The SARA is a result of the implementation of the Canadian Biodiversity Strategy, which is in response to the United Nations Convention on Biological Diversity. The Act provides federal legislation to prevent wildlife species from becoming extinct and to provide for their recovery.

Species at risk conservation is built on a cycle of assessment, protection, recovery planning, implementation, and monitoring and evaluation, as shown in Figure 31. It is premised on an adaptive management approach whereby monitoring progress towards achieving the stated conservation and protection objectives and evaluating the effectiveness of adopted strategies are performed on an ongoing basis and are incorporated into each of the different components of the conservation cycle. Early action at appropriate points on the cycle will be encouraged to expedite implementation of effective protection and recovery measures. Consistent with the 1996 Accord, lack of full scientific certainty will not delay measures to avoid or minimize threats to species at risk.

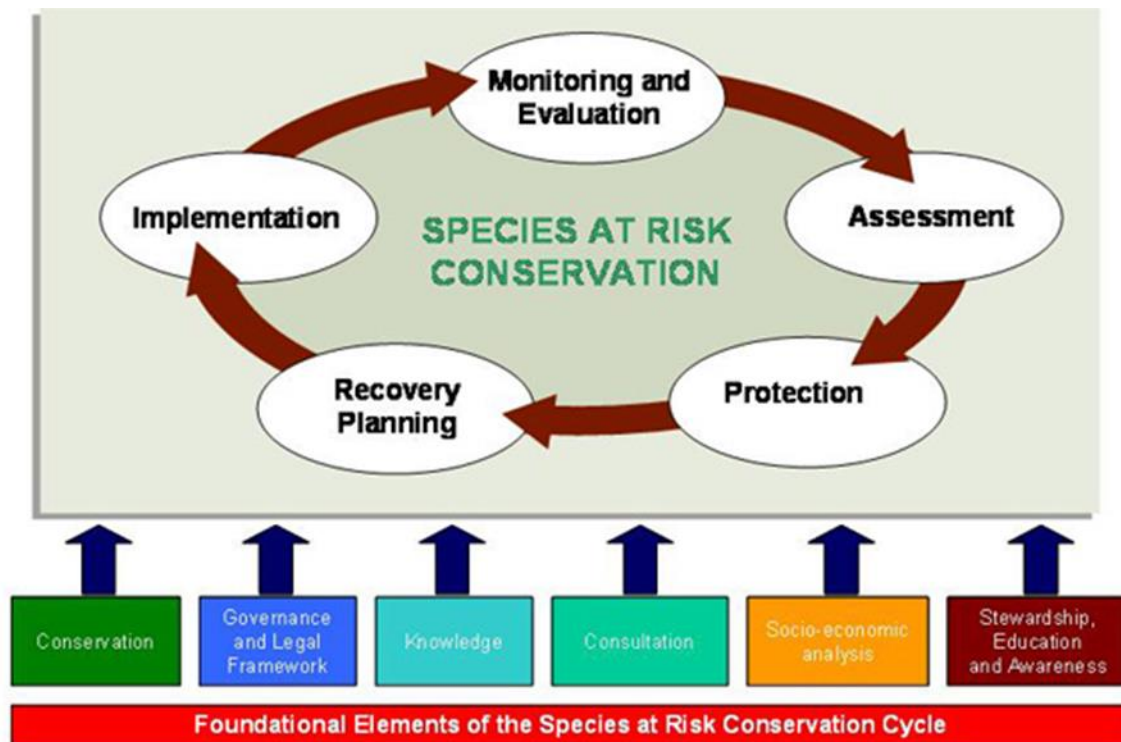


Figure 12. Diagram showing the *Species at Risk* conservation process.

Under the SARA, species are classified according to status, namely **extinct, extirpated, endangered, threatened or special concern**⁵.

Furthermore, species listed as threatened, endangered or extirpated are subject to immediate prohibitions. The Act prohibits killing, harming, harassing, capturing or taking such species and makes it illegal to destroy their critical habitat. DFO must plan their recovery by developing recovery strategies followed by action plans within the timelines set out in the Act. Recovery strategies must

⁵ http://www.sararegistry.gc.ca/species/default_e.cfm

identify recovery objectives for the species to reach population objectives and specify the recovery feasibility.

Species listed as special concern under the SARA are not subject to any prohibitions. However, DFO must develop management plans containing the actions needed for the conservation of these species and their habitats in order to ensure that they do not become threatened or endangered due to human activity.

ETP species with possible interaction with the North Pacific Albacore tuna fishery

Table 6 shows the endangered, threatened and special concern species that might be incidentally caught in the North Pacific Albacore tuna fishery.

Table 6. Species with possible interactions with the North Pacific Albacore Tuna fishery, their status under the COSEWIC and the SARA are given⁶.

Common name	Scientific name	COSEWIC	SARA
Basking shark	<i>Cetorhinus maximus</i>	Endangered	Endangered
Blue whale	<i>Balaenoptera musculus</i>	Endangered	Endangered
Fin whale	<i>Balaenoptera physalus</i>	Threatened	Threatened
Humpback whale	<i>Megaptera novaeangliae</i>	Special concern	Threatened
North Pacific right whale	<i>Eubalaena japonica</i>	Endangered	Endangered
Sei whale	<i>Balaenoptera borealis</i>	Endangered	Endangered
Killer whale (Northeast Pacific transient population)	<i>Orcinus orca</i>	Threatened	Threatened
Killer whale (Northeast Pacific northern resident population)	<i>Orcinus orca</i>	Threatened	Threatened
Killer whale (Northeast Pacific southern resident population)	<i>Orcinus orca</i>	Endangered	Endangered
Killer whale (Northeast Pacific offshore population)	<i>Orcinus orca</i>	Threatened	Threatened
Harbour porpoise	<i>Phocoena phocoena</i>	Special concern	Special concern
Stellar Sea Lion	<i>Eumetopias jubatus</i>	Special concern	Special concern
Leatherback turtle	<i>Dermochelys coriacea</i>	Endangered	Endangered
Short-tailed albatross	<i>Phoebastria albatrus</i>	Threatened	Threatened
Black-footed albatross	<i>Phoebastria nigripes</i>	Special concern	Special concern

The basking shark is also listed by the International Union for Conservation of Nature (IUCN) Red List as vulnerable species⁷.

Under the SARA, a recovery strategy has been implemented for the basking shark (DFO 2011).

Also, Canadian commercial fishing licences have been amended to include a Condition of Licence for Basking shark that specifies mitigation measures in accordance with SARA permit requirements (DFO 2014a).

Additionally, two “Code of Conduct for Shark Encounters” have been developed to reduce the mortality of Basking Shark. These guidelines include boat handling procedures during visual encounters with Basking Sharks, as well as best practices for handling Canadian Pacific shark species during entanglement encounters (DFO 2014).

⁶ http://www.sararegistry.gc.ca/sar/index/default_e.cfm?type=species&lng=e&index=1&common=&scientific=&population=&taxid=0&locid=18&desid=0&schid=0&desid2=0&

⁷ <http://www.iucnredlist.org/details/4292/0>

All shark interactions must be recorded in the tuna harvest logbook, as per section 5 of the licence conditions (DFO 2014b).

The blue and sei whales are also listed by the IUCN Red List as endangered species and are included in the Convention on International Trade in Endangered Species of Wild Fauna and flora (CITES), which reduces commercial exploitation of species at risk, and the fin whale and the North Pacific right whale are also listed by the IUCN Red list as endangered species⁸.

The humpback whale is listed on the IUCN Red list as least concern species.

Under the SARA, a recovery strategy has been proposed for blue, fin and sei whales in Pacific waters (Gregar et al 2006). A DFO 2013 report documents the progress of this recovery strategy, for the period 2006-2011 (DFO 2013).

The leatherback turtle is also listed by the IUCN Red list in Critically Endangered Species of Wild Fauna and Flora, and is included in the CITES, which reduces commercial exploitation of species at risk⁹.

Under the SARA, a recovery strategy has been implemented for the leatherback turtle (Pacific Leatherback Turtle Recovery Team 2006).

Contact details are available in the IFMP for reporting of sightings of any whale, basking shark and leatherback turtle and for reporting sick, injured, distress or dead marine mammals and sea turtles. Sightings of whales, basking shark and leatherback turtle are infrequent in Pacific waters, and the collection of sightings data is very useful to scientists in determining population size and distribution, information that can help in the recovery planning under SARA (DFO 2014).

The harbour porpoise is also on the IUCN Red list as least concern species, and is included in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which reduces commercial exploitation of species at risk¹⁰.

The Stellar sea lion is also listed by the IUCN Red List as near threatened species.

The short-tailed albatross and the black-footed albatross are also listed by the IUCN Red List as vulnerable species and near threatened species, respectively.

Under the SARA, a recovery strategy has been implemented for the short-tailed albatross in 2008 (Environment Canada 2008).

No ETP species catch has been reported in either mandatory logbooks or in independent observer reports while fishing activities occur in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.

⁸ <http://www.iucnredlist.org/search>

⁹ <http://www.iucnredlist.org/>

¹⁰ http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=493

4.4.4. Habitat

Legislative and Policy framework

On June 29, 2013 amendments to the *Fisheries Act* were approved. The Fisheries Protection Program and its Policy Statements (November 2013) support changes made to the *Fisheries Act*. The mandate of the Fisheries Protection Program is to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries¹¹. The Fisheries Protection Policy Statement (FPPS) focuses on the management of impacts to fish resulting from habitats degradation or loss and alterations to fish passage and flow.

Through the FPPS, DFO objectives are to provide consistent guidance through regulations, standards and directives, and to make regulatory decisions in a timely manner. In this way, proponents will have the necessary information and direction to avoid, mitigate and offset harmful impacts to fish and fish habitat so that they will meet the goal of this policy, and thereby comply with the fisheries protection provisions of the *Fisheries Act*.

The prohibition against *serious harm to fish* applies to fish and fish habitat that are part of or support commercial, recreational or Aboriginal fisheries. Section 35 of the *Fisheries Act* prohibits *serious harm to fish* which is defined in the Act as “the death of fish or any permanent alteration to, or destruction of, fish habitat”.

Proponents are responsible for avoiding and mitigating serious harm to fish that are part of or support commercial, recreational or Aboriginal fisheries. When proponents are unable to completely avoid or mitigate serious harm to fish, their projects will normally require authorization under Subsection 35(2) of the Fisheries Act in order for the project to proceed without contravening the Act.

The Subsection 35(1) prohibition will be applied to those projects that have the potential to cause serious harm to fish. These projects are likely to reduce the ability of the fish habitat to directly or indirectly support the life processes of fish or result in the death of fish. Relationships between typical project impacts (e.g., temperature change, sedimentation, infilling, reduction of nutrients and food supply, etc.) and the consequences to fish or fish habitat are described in various Pathways of Effects diagrams.

Projects requiring authorization are those likely to result in a localized effect to fish populations or fish habitat in the vicinity of the project. Localized effects may also lead to more widespread impacts on fish and fish habitat and, in turn, affect the ability of the area to produce fish.

DFO interprets serious harm to fish as:

- the death of fish;
- a permanent alteration to fish habitat of a spatial scale, duration or intensity that limits or diminishes the ability of fish to use such habitats as spawning grounds, or as nursery, rearing or food supply areas, or as a migration corridor, or any other area in order to carry out one or more of their life processes;
- the destruction of fish habitat of a spatial scale, duration, or intensity that fish can no longer rely upon such habitats for use as spawning grounds, or as nursery, rearing or food supply areas, or as a migration corridor, or any other area in order to carry out one or more of their life processes.

In 2009, DFO published the *Policy for Managing the Impact of Fishing on Sensitive Benthic Areas* under the auspices of the Sustainable Fisheries Framework in response to the 2006 United Nations

¹¹ <http://www.dfo-mpo.gc.ca/pnw-ppe/fpp-ppp/index-eng.html>

Resolution 61/105¹². The purpose policy is to help DFO manages fisheries to mitigate impacts of fishing on sensitive benthic habitats or avoid impacts of fishing that are likely to cause serious or irreversible harm to sensitive marine habitat, communities and species. This national policy applies to all commercial, recreational and Aboriginal fishing activities licenced and/or managed pursuant to the *Fisheries Act* and the *Coastal Fisheries Protection Act*, including fishing inside and outside of Canada's EEZ.

A key tool for use in the implementation of the policy is the Ecological Risk Assessment Framework¹³ (ERAF) which outlines a process for identifying the level of ecological risk of fishing activity and its impacts as sensitive benthic areas in the marine environment. DFO has developed this framework specifically for use in managing coldwater corals and sponge-dominated communities. Both are currently the focus of international efforts to reduce the impacts of fishing on benthic environments (e.g. Food and Agriculture Organization International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, Northwest Atlantic Fisheries Organization Vulnerable Marine Ecosystem impact assessments), and hence they are among the most well understood from a management perspective.

The (ERAF) outlines a process whereby the ecological risk of fishing impacts is determined through the examination of two factors:

1. *consequence*, which examines the anticipated degree of impact on a sensitive benthic area resulting from an overlap between it and the fishing gear, and
2. *likelihood*, which examines the probability that the fishing gear will overlap with sensitive benthic areas.

The development of management options are guided by the ecological risk level. Where the fishing activity presents a low risk to the benthic habitat, no additional management options are generally required. Where risk levels are determined to be moderate, additional management options may be required based on the specific circumstances of the fishery and benthic habitat being investigated. Examples may include changes to the fishing methods. Where the risk has been determined to be high, additional management options will usually be required. Examples include fisheries closures or gear modifications and/or restrictions. Options would be determined on a case-by-case basis, in consultation with stakeholders and Aboriginal groups, using existing processes that would be adapted to the specific circumstances.

Marine Protected Areas (MPAs)

There are a number of MPAs designated under the *Ocean Act* (1996), including several areas of interest that are at various stages of progress towards designation¹⁴. These areas are ecologically significant, with species and/or properties that require special consideration.

MPAs are one among various other management tools that contribute to the improved health, integrity and productivity of Canada's marine ecosystems and help advance integrated ocean management. These areas are part of Canada's network of MPAs.

The MPA designation process includes public input to determine the costs and benefits of MPA designation. Areas of Interest (AOI) are identified and will undergo a detailed biophysical and socio-economic evaluation and public consultations before a decision is made to formally designate it as a

¹² <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/benthi-eng.htm>, <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/risk-ecolo-risque-back-fiche-eng.html>

¹³ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/risk-ecolo-risque-eng.pdf>

¹⁴ <http://www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/mpa-zpm/index-eng.htm>

Marine Protected Area. Consultation with First Nations, stakeholders, industry and interested groups will provide opportunities to contribute to the evaluation and analysis of impacts of MPA designation, establishment of appropriate conservation and management objectives, and development of the regulatory package.

Two MPAs and two AOIs have been implemented in the Pacific Region¹⁵.

The Bowie Seamount MPA encompasses a complex of three offshore submarine volcanoes (Figure 13). It is located 180 km off shore of Haida Gwaii and rises from a depth of 3,000 metres to within 24 meters of the surface making it the shallowest seamount in Canada. It is a rare habitat in the northeast Pacific Ocean and one of Earth's most biologically rich submarine volcanoes.

The Bowie Seamount ecosystem is an area of high biological productivity and unique oceanographic conditions. At Bowie, there is a unique blend of ocean dwelling and near-shore species living in the same ecosystem. Also, a number of species listed under the SARA have been observed at the Bowie Seamount, including the Ancient Murrelet, Steller Sea Lion, Orca, and Boccacio rockfish.

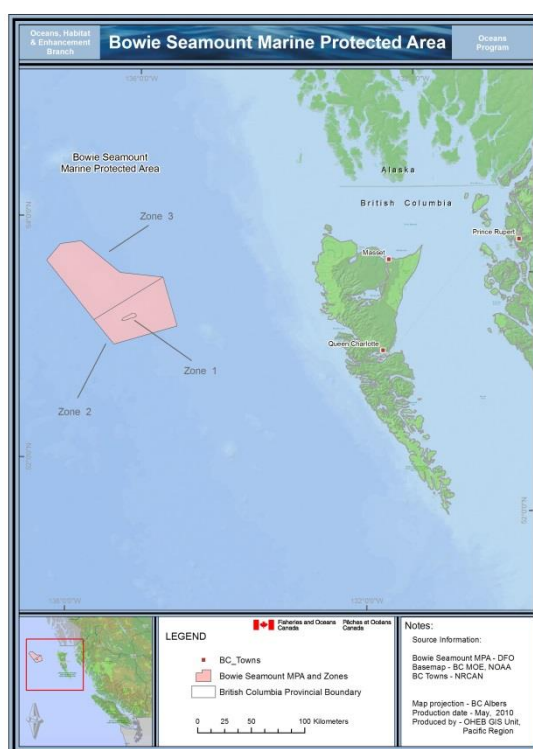


Figure 13. The Bowie Seamount MPA.

Source: <http://www.pac.dfo-mpo.gc.ca/oceans/images/bowie.JPG>.

The Endeavour Hydrothermal Vents were designated as the first Marine Protected Area under Canada's Oceans Act in 2003. The designation of the Endeavour Hydrothermal Vents as a MPA provides for the long-term protection of this biologically diverse and productive ecosystem. The Endeavour area of the Juan de Fuca Ridge is a seismically active area of seafloor formation and

¹⁵ <http://www.pac.dfo-mpo.gc.ca/oceans/protection/mpa-zpm/index-eng.html>

hydrothermal venting. The Endeavour Hydrothermal Vent area is located 250 km offshore from Vancouver Island, 2250 m below the ocean's surface (Figure 14).

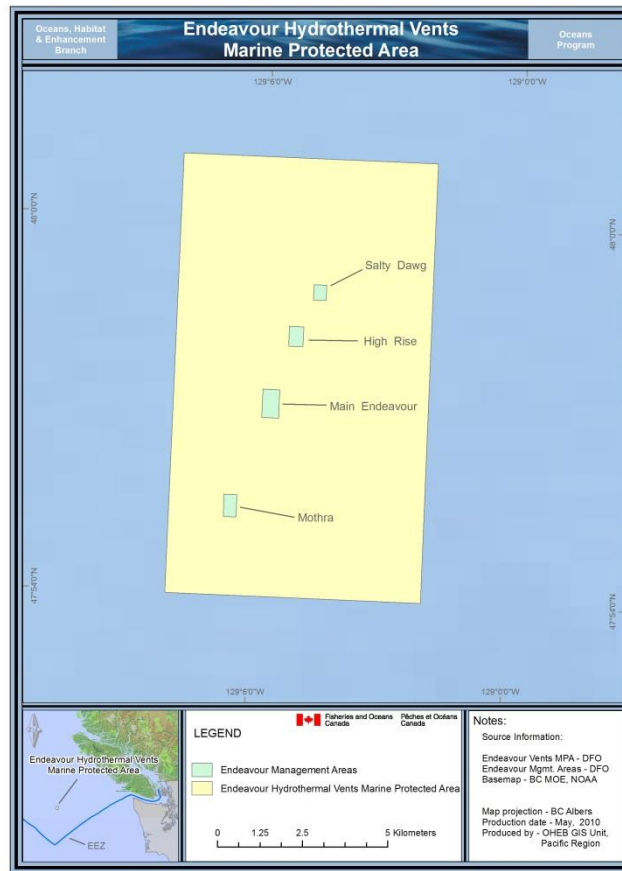


Figure 14. The Endeavour Hydrothermal Vents MPA.

Source: <http://www.pac.dfo-mpo.gc.ca/oceans/images/end-map-carte.jpg>.

The Race Rocks AOI was identified in 1998. Race Rocks was named for its strong tidal currents and rocky reefs. High velocity tidal currents, climate and chemical properties of the water contribute to an abundance of nutrients and dissolved oxygen in the area. These factors contribute to an ecosystem of high biodiversity and biological productivity. Race Rocks is a showcase for Pacific marine life; including large marine mammals, seabirds, fish, invertebrates and plants. Race Rocks has a rich marine heritage and is culturally significant for several First Nations in the area. The waters surrounding Race Rocks are also an important nursery and recruitment area for Northern abalone, currently listed as a threatened marine species by the COSEWIC. Protecting this area will enhance the protection of this threatened species.

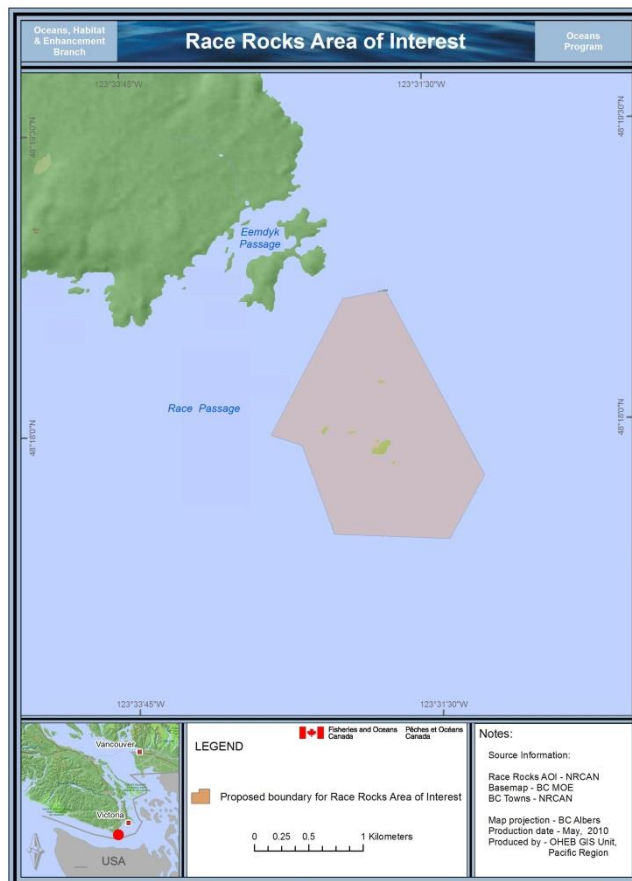


Figure 15. The Race Rocks AOI.

Source: <http://www.pac.dfo-mpo.gc.ca/oceans/images/racerocks-map-carte.JPG>.

The Hecate Strait/Queen Charlotte Sound Glass Sponge Reef AOI encompasses a very large area of reefs, covering a total of about 1000 km². Thought to be extinct worldwide, the four reefs in Hecate Strait were determined to be over 9000 years old. They are located at depths of 140 to 240 m below the surface, with the largest being 35km long, 15km wide and 25m tall.

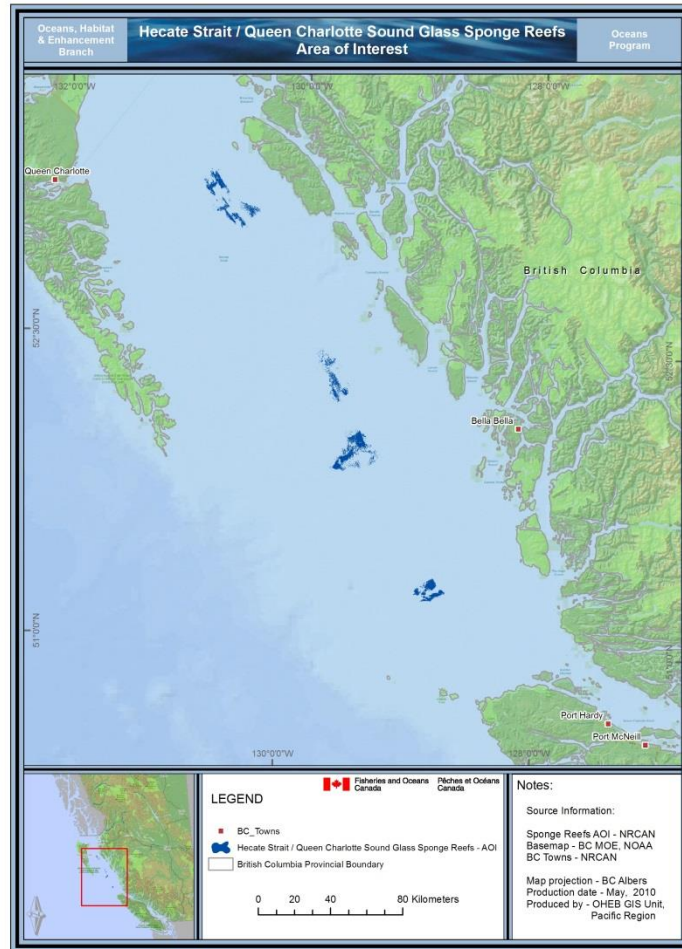


Figure 16. Hecate Strait/Queen Charlotte Sound Glass Sponge Reefs AOI.

Source: <http://www.pac.dfo-mpo.gc.ca/oceans/images/hecate.JPG>.

Impact of North Pacific Albacore tuna fishery on habitats

Trolling for North Pacific albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.

Therefore, the assessment team considered that there is evidence that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.

4.4.5. Ecosystem

Framework and Policies

Under the *Oceans Act* and the *Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada*, DFO is committed to the development of large-scale and local integrated management plans for all of Canada's oceans. This includes implementation by DFO of an Ecosystem Approach to management in all activities for which it has management responsibility. The governance, regulation and management of activities within and surrounding the Pacific Canadian waters are shared between a wide variety of government departments and agencies involved in, or with an interest in, the use and management of resources within its coastal, estuarine and marine environments. The process is intended to involve all stakeholders. There is a strategy in place that is being implemented and will continue to develop under new national policies.

Canada has developed a Sustainable Fisheries Framework (SFF)¹⁶ which builds on existing fisheries management practices to form a foundation for implementing an ecosystem approach in the management of its fisheries to ensure continued health and productivity while protecting biodiversity and fisheries habitat. The primary goal of the SFF is to ensure that Canada's fisheries are environmentally sustainable, while supporting economic prosperity. It is designed to foster a more rigorous, consistent, and transparent approach to decision making across all key fisheries in Canada. It incorporates existing policies with new and evolving policies using a phased-in approach. It also includes tools to monitor and assess results of conservation and sustainable use in order to identify areas that may need improvement. Overall, the SFF provides the foundation of an ecosystem-based and precautionary approach to fisheries management in Canada.

The Framework comprises two main elements: (1) conservation and sustainable use policies, and (2) planning and monitoring tools.

The Conservation and Sustainable Use policies incorporate precautionary and ecosystem approaches into fisheries management decisions. These policies include:

- A Fishery Decision-Making Framework Incorporating the Precautionary Approach (April 2009)¹⁷
- Managing Impacts of Fishing on Benthic Habitat, Communities and Species (April 2009)¹⁸
- Policy on New Fisheries for Forage Species (April 2009)¹⁹
- Ecological Risk Assessment Framework for Coldwater Corals and Sponges dominated communities (April 2013)²⁰
- Policy on Managing Bycatch (April 2013)²¹
- Guidance on Implementation of the Policy on Managing Bycatch (April 2013)²²

The implementation process will use adaptive management principles, whereby experience applying the policies to fisheries management will guide future applications. Integrated Fisheries Management Plans (IFMPs) will continue to play a critical role as the primary resource management tool through which the Framework's policies are applied.

¹⁶ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

¹⁷ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/precaution-eng.htm>

¹⁸ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/benthi-eng.htm>

¹⁹ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/forage-eng.htm>

²⁰ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/risk-ecolo-risque-eng.htm>

²¹ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/bycatch-policy-prise-access-eng.htm>

²² <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/bycatch-guide-prise-access-eng.htm>

Ecosystem Science is the foundation for the science needed to support the integrated management of diverse human activities and is needed to inform departmental policies and management practices. The Ecosystem Science Framework was developing to provide an effective and comprehensive approach for identifying, monitoring, and interpreting trends important to ecosystem sustainability and integrating knowledge about the effects of human activities on ecosystem components²³. A Five-Years Research Plan (2008-2013) has been developed to support the ecosystem science through its 20 components and their connections.

This Research Plan showed how four of the priority areas will be addressed primarily through Ecosystem Research Initiatives (ERIs) that address regional research including: Fish Population and Community Productivity, Habitat and Population Linkages, Climate Change / Variability, Ecosystem Assessment and Management Strategies. Each of the Ecosystem Research Initiatives, Centres of Expertise and the Climate Change Science Initiative are strongly influenced by the Ecosystem Science Framework and will produce new knowledge and improve existing knowledge that will be needed for integrated management and demonstrate a strong commitment to research to our clients and partners. Each ERI will serve as a pilot for DFO's ecosystem-based approach by focusing on regional research priorities. This will allow integrated research on a particular ecosystem with predefined geographical boundaries and the knowledge gained from large-scale ecosystem studies will allow the development and testing of tools required to manage human activities within our aquatic ecosystems. Before we can begin to understand how human activities might impact ecosystem components we need to first understand how ecosystems function and how they respond to drivers or perturbations. Thus, the general themes within each ERI include: 1) understanding ecosystem processes, 2) understanding the impacts of climate variability, and 3) developing tools for ecosystem-based management. The Ecosystem Research Initiatives focused on seven geographically-distinct areas including the Strait of Georgia (White et al 2013).

Because of the wide variety of human use and pressure, the Pacific North Coast was recognized as a Large Ocean Management Areas (LOMA) that required action by the Government of Canada under the *Ocean Act* to ensure the sustainable development of its human uses²⁴.

The Pacific North Coast Integrated Management Area (PNCIMA) initiative's aim is to ensure a healthy, safe, and prosperous ocean area by engaging all interested parties in the collaborative development and implementation of an integrated management plan for the PNCIMA²⁵. PNCIMA stretches from Canada's northern border with Alaska south to Bute Inlet on the mainland, across to Campbell River on the east side of Vancouver Island and the Brooks Peninsula on the west side of Vancouver Island (Figure 17). Its western boundary is the base of the shelf slope.

A draft integrated management plan for the PNCIMA was released for public review in May 2013²⁶. Implementation will take place once the final plan is approved.

²³ <http://www.dfo-mpo.gc.ca/science/publications/fiveyear-plan-quinquennal/index-eng.html>

²⁴ <http://www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/loma-zego/index-eng.htm>

²⁵ <http://www.pncima.org/>

²⁶ <http://www.pncima.org/media/documents/pdf/draft-pncima-plan-may-27--2013.pdf>



Figure 17. PNCIMA boundary. Source: <http://www.pncima.org/site/where.html>.

DFO has many tools for protecting habitats and ecological areas, and adheres to federal policies and practices of good risk management and application of precaution. Identifying Ecologically and Biologically Significant Areas is not a general strategy for protecting all habitats and marine communities that have some ecological significance. Rather, it is a tool for calling attention to an area that has particularly high Ecological or Biological Significance, to facilitate provision of a greater-than-usual degree of risk aversion in management of activities in areas of especially high ecological and biological significance (DFO 2004).

15 areas have been identified as EBSAs in the PNCIMA (Figure 18).

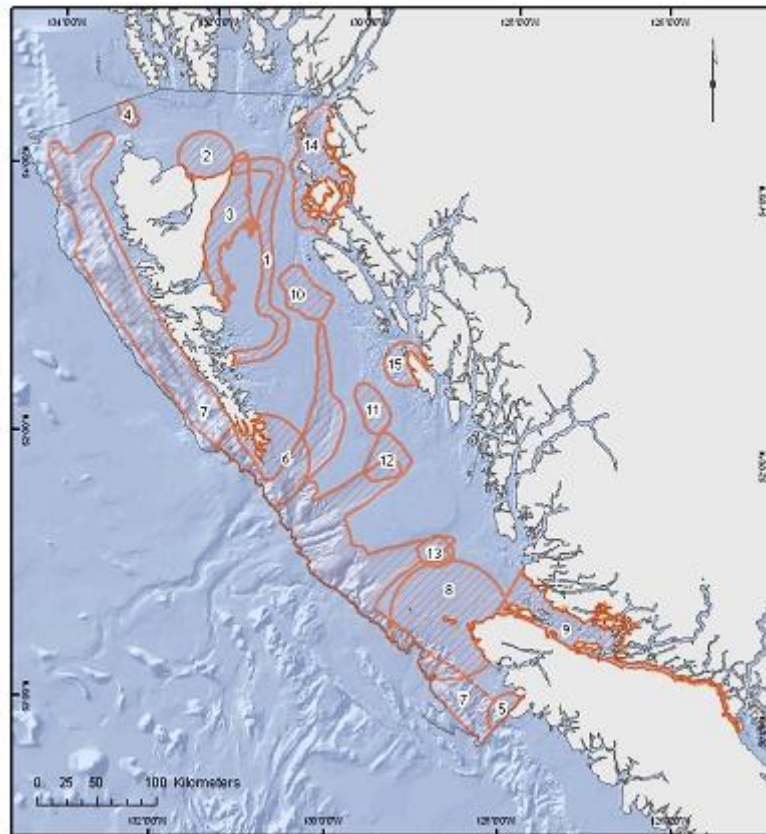


Figure 18. EBSAs for PNCIMA. 1) River Mouths and Estuaries, 2) Hecate Strait Front, 3) McIntyre Bay, 4) Dogfish Bank, 5) Learmouth Bank, 6) Brooks Peninsula, 7) Cape St-James, 8) Scott Islands, 9) North Islands Straits, 10-13) Sponge reef bioherms, 14) Chatham Sound, and 15) Caamano Soud. Source: Clarke and Jamieson (2005).

Albacore tuna in the North Pacific food web

North Pacific Albacore are found in the epipelagic zone of sub-tropical and temperate waters of the open ocean and are strongly associated with frontal structures as these are areas of sharp temperature changes (fronts) and often high primary production, which attracts prey species. Albacore maintain a fast, continuous swimming lifestyle and are opportunistic top predators, feeding primarily on fish. Small schooling pelagic species including sardine (*Sardina pilchardus*, *Sardinops sagax*), anchovy (*Engraulis spp.*), and mackerel (*Scomber spp.*, *Trachurus spp.*) are the most common fish encountered in the diet of Albacore in all oceans. Along the west coast of North America, Pacific Hake (*Merluccius productus*), Pacific Saury (*Cololabis saira*), Pacific Herring (*Clupea pallasii*), Northern Anchovy (*Engraulis mordax*), and squids are important prey in the diet of juvenile Albacore while sardine (*S. sagax*) are not important, despite a resurgence in sardine abundance. Adult Albacore have few predators, although they occasionally may be preyed on by large marine mammals, sharks, and billfishes.

Impact of North Pacific Albacore tuna fishery on the Ecosystem

There is a large amount of literature which describes the undesired effects of fishing on marine ecosystems. Fishing impacts include changes in size composition of target species, impacts on benthic communities, loss of diversity, disequilibrium of food web and impacts on habitats (Goñi 1998, Pauly et al 1998).

A study carried out by Fuller et al (2008) examined the ecological impacts of the most common types of fishing gear used in Canada and assessed the relative severity of these impacts to seafloor habitat and discarded bycatch of target and non-target species. They determined that hook and line, including troll and jig, used mainly on the west coast of Canada have a low impact on the seafloor, a medium low impact on forage fish, sharks and large pelagics and seabirds, and a low impact on marine mammals.

The assessment team could not find any concern indicating that the North Pacific Albacore Tuna fishery causes any disruption of the key elements underlying ecosystem structure and function. The main impact of the fishery on target, bycatch and ETP species, and habitat are identified and there is no indication that the fishery causes disruption to the ecosystem main structure and function. There is a comprehensive assessment of the target species, and information is available to show the negligible impact on retained, bycatch and ETP species. There is no indication that the fishery causes serious or irreversible harm to habitats.

4.5. Principle Three: Management System Background

4.5.1 The Legal Basis and Scope of the Management System

Federal Legislative Authority

The mature Canadian fisheries management system is based primarily on the extensive powers contained in the *Fisheries Act (1867)*²⁷ of Canada. The Act gives the Minister of Fisheries and Oceans broad discretionary powers including the absolute authority to enact regulations for the management of those subsistence, recreational and commercial fisheries which fall within the scope of section 91 of the *Constitution Act, 1982 (formerly the British North America Act, 1867)*. Various regulations pertaining to fish harvesting operations are made pursuant to the *Fisheries Act*; the principal ones for Pacific fisheries include the *Fishery (General) Regulations (1993)*²⁸, the *Pacific Fishery Regulations (1993)*²⁹, and the *Aboriginal Communal Fishing Licenses Regulations (1993)*³⁰. The *Coastal Fisheries Protection Act (1985)*³¹ (and the regulations made thereunder) which apply to the activities of foreign vessels operating within the Canadian EEZ is the other main source of the Minister's fisheries management powers. Fisheries and Ocean Canada's primary legislation also includes the *Oceans Act (1996)*³², which, among other things, gives the Minister the authority to lead integrated oceans management and to implement the precautionary approach. DFO is also one of the three responsible federal authorities under the *Species at Risk Act (2002)*³³ which provides the legal framework for the protection of species that are determined to be endangered, threatened or of special concern. Canada's national network of marine protected areas is administered by Parks Canada pursuant to the *Canada National Marine Conservation Areas Act*

²⁷ http://www.sustainablefisheries.ca/download_files/LSP_Grafto_CH30.pdf

²⁸ <http://laws.justice.gc.ca/eng/regulations/SOR-93-53/>

²⁹ <http://laws-lois.justice.gc.ca/eng/regulations/sor-93-54/index.html>

³⁰ <http://laws-lois.justice.gc.ca/eng/regulations/sor-93-332/index.html>

³¹ <http://laws-lois.justice.gc.ca/eng/acts/C-33/index.html>

³² <http://laws-lois.justice.gc.ca/eng/acts/O-2.4/>

³³ <http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html>

(2002)³⁴.

The legal basis and scope of the management system for federally-managed fisheries in Canada is also influenced by a number of other legal instruments including the *Charter of Rights and Freedoms*, the *Financial Administration Act*, the *Canadian Environmental Assessment Act*, and statutes governing marine transportation. From time to time, legal rulings arising from Canada's judicial system will impact the use and scope of the Minister's authorities over such matters as fisheries access, enforcement and control, aboriginal inherent and treaty rights, and trade.

Transport Canada administers a number of acts and regulations related to transportation, including marine transportation. Chief among its marine legislation is the *Canada Shipping Act (2001)*³⁵ whose key objectives are to protect the health and well-being of vessel crews, promote safety in marine transportation, protect the marine environment, and establish an effective inspection and enforcement program. Regulations of relevance to the fishing industry include *Small Fishing Vessel Inspection Regulations*, the *Marine Personnel Regulations*, and the *Collision Regulations*.

Domestic Management System

The fishery management system is also characterized by a comprehensive array of strategic national and regional policy frameworks and supporting procedures (including notices and orders) which compliments the regulatory system and guide the implementation of programs and services. Examples of DFO policy frameworks of relevance to this albacore tuna fishery assessment include such topics as fisheries sustainability, protecting fragile marine areas and species, ecosystem science, ecosystem-based fisheries management, commercial licensing, implementation of the precautionary approach, and stakeholder consultations. DFO is a duly constituted department of the Canadian Federal Government by virtue of the *Department of Fisheries and Oceans Act*.³⁶ Section 4 of the act stipulates that the powers, duties and functions of the Minister extend to and include all matters over which Parliament has jurisdiction, not by law assigned to any other department, board or agency of the Government of Canada, relating to:

- sea coast and inland fisheries;
- fishing and recreational harbours;
- hydrography and marine sciences; and
- coordination of the policies and programs of the Government of Canada respecting oceans.

The powers, duties and functions of the Minister also extend to and include such other matters, relating to oceans and over which Parliament has jurisdiction, as are by law assigned to the Minister. Organizationally, the department's headquarters is located in Ottawa which is where the majority of its most senior executives are based. With few exceptions, the department's programs and services are structured within "sectors" and accountabilities and authorities assigned accordingly. Many of the programs and services are decentralized where their impacts are most felt and are best evaluated. The organizational structure of the department is outlined at Figure 19. DFO reports that in 2011-12, more than eight of every ten employees worked outside national headquarters in one of its six regions. National objectives, policies, procedures, and standards for DFO and the Canadian

³⁴ <http://laws-lois.justice.gc.ca/eng/acts/C-7.3/index.html>

³⁵ <http://laws-lois.justice.gc.ca/eng/acts/C-10.15/page-2.html>

³⁶ <http://laws-lois.justice.gc.ca/eng/acts/F-15/index.html>

Coast Guard are established at national headquarters. Regions are responsible for delivering programs and activities in accordance with national and regional priorities and within national performance parameters.

For the purpose of this fishery assessment, the Albacore Tuna North Pacific fishery is managed by DFO Pacific Region located in Vancouver, British Columbia. Its geographical boundary includes the province of British Columbia and the transboundary northern rivers of the Yukon. It encompasses more than 27,000 km of coastline.

International Management System

Canada is a signatory to the United Nations Convention on the Law of the Sea (UNCLOS) as well as the subsequent United Nations Fish Stocks Agreement (UNFA). It has adopted the FAO Code for Responsible Fisheries and assisted the local development of the Canadian Code of Conduct for Responsible Fishing operations. The Canadian Code has been ratified by some 60 Canadian fisheries organizations representing 80% of local landings³⁷ Canada has also supported the four International Plans of Action (IPOA) (on seabirds, sharks, fishing capacity and illegal, unreported and unregulated fishing) that have emerged under the FAO Code.

Canada is a member of several Regional Fisheries Management Organizations (RFMO) around the world, including (but not limited to) the Northwest Atlantic Fisheries Organization (NAFO), the North Pacific Anadromous Fish Commission (NPAFC), the Inter-American Tropical Tuna Commission (IATTC), the International Commission for the Conservation of Atlantic Tunas (ICCAT), the North Atlantic Salmon Conservation Organization (NASCO) and the Western and Central Pacific Fisheries Commission (WCPFC).

Dispute Resolution Mechanisms

Unresolved disputes within the Canadian fisheries management system can be, and have been, taken to the Canadian judicial system for a final decision. The most notable of these over the last two decades have been the "Sparrow", "Marshall" and "Larocque" decisions. The first two affirmed aboriginal rights to fish under specific circumstances subject to conservation requirements and the latter outlawed the use of fish to pay for services provided to, or on behalf of, government without the approval of Parliament³⁸. The Minister's power to allocate for reasons other than conservation (such as for social or economic purposes) was also confirmed in another earlier court challenge. There is provision for an appeal of licensing decisions to independent Regional and Atlantic License Appeal Boards but the Minister is not legally bound to accept recommendations made by them.

DFO regularly obtains legal advice from Department of Justice lawyers assigned to DFO prior to providing recommendations to the Minister on such undertakings as new policy initiatives, changes to management strategies, regulatory amendments, and new licence conditions for the fishery. Legal advice may reflect any number of elements of constitutional, administrative, aboriginal, fisheries and criminal law. Seeking legal opinions will often avoid legal disputes before the implementation of programs, activities or policies, thus ensuring compliance with applicable legislation prior to implementation.

³⁷ http://www.dfo-mpo.gc.ca/international/media/bk_fao-eng.htm

³⁸ The *Fisheries Act* was subsequently amended in 2013 to grant the Minister of Fisheries and Oceans the authority to allocate fishery resources to parties under formal agreements for the purpose of undertaking specific activities in support of fisheries management and research.

The North Pacific albacore tuna fishery has an operational framework that follows local, national and international laws or standards. This is supported through documents such as the IFMP, the condition of license, the Canada/USA Treaty, as well its membership of the WCPFC and being a member to the IATTC. The albacore tuna fishery management system follows procedures that are consistent with international laws and standards. For example, Canada is a participant to the UN Convention on the Law of the Sea (1982), Rio Declaration (1992), FAO Code of Conduct for Responsible Fisheries (1995), UN Straddling Stocks Agreement UNFA (1995).

The consultative process of the fishery management framework is explained in the IFMP. There is a Tuna Advisory Board (TAB) which acts as consensus decision-making group. Thus, everyone in this organization have the opportunity to make an opinion on a particular issue. This approach provides a considerable dispute resolving solution within TAB. In cases that there still unresolved disputes within the advisory bodies the Fisheries Minister has the ultimate authority over resolution of disputes. There are also legal venues for participants through Canada's court system if there are existing issues with DFO's decisions.

There exists a mechanism within the Annual Harvest Plan of the IFMP which provides a formal commitment to the legal rights created explicitly or established by custom of people dependent on fishing for food: 'First Nations access to fish for food, social or ceremonial purposes is managed through communal licenses, which can permit the harvest of tuna species'.

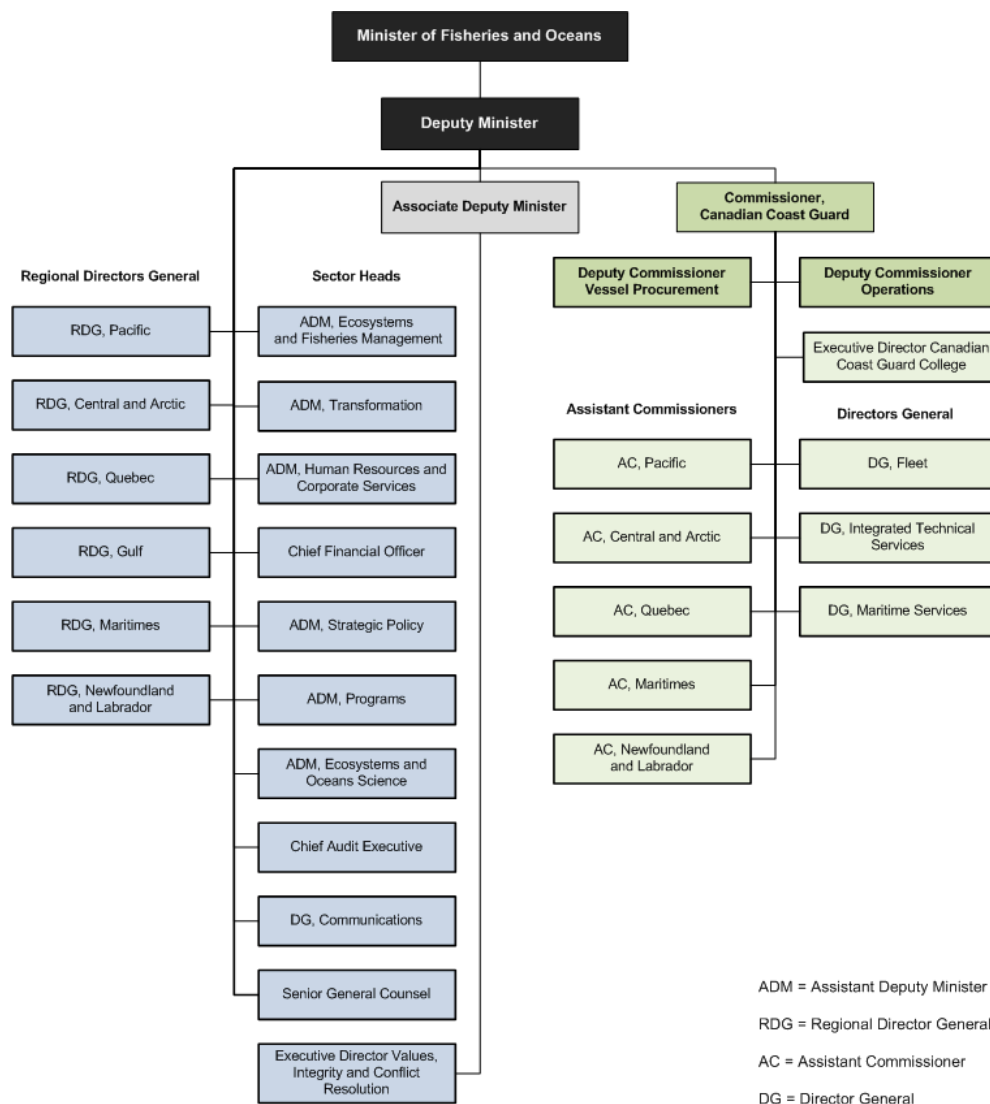


Figure 19. Organizational Chart of Fisheries and Oceans Canada.

4.5.2 Consultation Processes

DFO regularly undertakes both formal and informal consultations with fishing industry stakeholders and other groups in the exercise of its mandate and delivery of its programs and services. The formal consultative process is overseen by a departmental framework first published in 2004³⁹ and which consists of 3 broad themes, 9 principles and 37 guidelines, all of which are in support of building a common understanding and coordinated approach to consultation and the decision-making process. A consultation toolbox was developed to guide staff in planning and evaluating consultation processes⁴⁰. A second, parallel framework, approved for use by the Treasury Board Secretariat in 2011, addresses how the federal government can meet its specific legal duty to consult and accommodate aboriginal peoples when their aboriginal and treaty rights may be impacted.

The North Pacific Albacore tuna fishery has an extensive consultative process extending to many national and international parties. This consultative process also extends to many different scientific,

³⁹ <http://www.dfo-mpo.gc.ca/Library/282187.pdf>

⁴⁰ <http://www.dfo-mpo.gc.ca/Library/282189.pdf>

and management, and stakeholders levels. First, the ALBWG is responsible for the stock assessments reports. The ISC is a formal scientific group consisting of fishery scientists and managers from different countries throughout the North Pacific who have the responsibility to review tuna assessments and research in the Pacific. The IATTC has a specialized fisheries group involved in tuna research and assessment. They participate on the ALBWG providing guidance and input on many aspects of the fishery. This group also reviews assessment reports and provide management advice for their Commission.

“The Albacore Working Group (ALBWG) was established in 2005, but was preceded by the North Pacific Albacore Workshop which was established in 1974. The Working Group is made up of members from coastal states and fishing entities of the region and members from relevant intergovernmental fishery organizations.

The Albacore Working Group regularly assesses and analyses fishery and other relevant information to determine the status of the north Pacific stock of albacore tuna, and to develop scientific advice concerning conservation needs. The most recent stock assessment was completed in 2011.”⁴¹

The consultation process for the management of albacore tuna in Canada is fully described in Sections 1.7, 5.3 and 9.2 of the IFMP (DFO 2014a). Within these sections, functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction.

As part of the consultation process, the Tuna Advisory Board (TAB) have regular meetings two or three times per year to provide recommendations to DFO on management decisions related to albacore fishery. Minutes of TAB meetings are included on a DFO website. Information about catch, effort and stock status is presented at TAB for general discussion as part of the consultation process. Information from the consultation process is included in the stock assessment conducted by the ISC ALBWG.

Section 1.7 of the IFMP shows evidence that all interested and affected parties have the opportunity to be involved in the fishery management process. Stakeholders are encouraged to participate in the advisory process by expressing their interest and views through advisors or attending meeting as observers.

4.5.3 Long Term Objectives

DFO’s **vision statement** is to *advance sustainable aquatic ecosystems and support safe and secure Canadian waters while fostering economic prosperity across maritime sectors and fisheries.*

DFO’s **mission statement** is described as: *Through sound science, forward-looking policy, and operational and service excellence, DFO employees work collaboratively toward the following strategic outcomes:*

- *Economically Prosperous Maritime Sectors and Fisheries*
- *Sustainable Aquatic Ecosystems*
- *Safe and Secure Waters*

DFO’s SFF⁴² provides the basis for ensuring Canadian fisheries are conducted in a manner which support conservation and sustainable use. It incorporates existing fisheries management policies

⁴¹ www.isc.org

with new and evolving policies. The framework also includes tools to monitor and assess those initiatives geared towards ensuring an environmentally sustainable fishery, and identifies areas that may need improvement. Overall, the Framework provides the foundation of an ecosystem-based and precautionary approach to fisheries management in Canada.

The Framework comprises two main elements: (1) conservation and sustainable use policies, and (2) planning and monitoring tools.

(1) Conservation and Sustainable Use policies incorporate precautionary and ecosystem approaches into fisheries management decisions to ensure continued health and productivity of Canada's fisheries and healthy fish stocks, while protecting biodiversity and fisheries habitat. Combined, these policies demonstrate Canada's commitment to the principles of ecosystem-based fisheries management. These policies are detailed in Section 4.4.5.

(2) The application of the sustainable use policies will be implemented into the fisheries management process through various **Planning and Monitoring Tools**. Integrated Fisheries Management Plans identify goals related to conservation, management, enforcement, and science for individual fisheries; and they describe access and allocations among various fish harvesters and fleet areas. The plans also incorporate biological and socio-economic considerations that are factored into harvest decisions. Integrated Fisheries Management Plans are an important reporting tool, and a valuable source of information on a given fishery for fisheries managers, industry, and other resource users. They also include a requirement to conduct a regular review of the fishery against the plan's objectives. In addition, self-diagnostic tools like the Fishery Checklist (a tool for internal use) can help the Department monitor improvements that support sustainable fisheries, and identify areas of weakness that require further work.

DFO has developed additional strategic policy frameworks such as for Integrated Fisheries Resource Management, Sustainable Aquaculture, Species at Risk, Integrated Ocean Management, and Aquatic Invasive Species. These also contain long term objectives with implications for the fishery and are presented elsewhere in this report.

Lastly, the aforementioned departmental mission statement is supported by long term strategic objectives as part of DFO's Fisheries Renewal Initiative⁴³. These objectives include:

- **Long Term Stability** – enabling DFO and resource users to achieve strong conservation outcomes through risk management frameworks incorporating the ecosystem and precautionary approach;
- **Economic Prosperity** – aligning fisheries policies and decision-making processes to support economically prosperous fisheries for Canadians; and
- **Improved Governance** – increasing stability, transparency and accountability in fisheries management and by promoting shared stewardship.

Important policies and tools of the evolving SFF include:

⁴² <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

⁴³ <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/index-eng.htm>

A Fishery Decision-Making Framework Incorporating the Precautionary Approach - This policy applies to key harvested fish stocks managed by Fisheries and Oceans Canada; that is, the fish stocks that are the specific and intended targets of a commercial, recreational, or subsistence fishery. It may be applied more broadly to other stocks, if necessary or as circumstances warrant. The Framework requires that a harvest strategy be incorporated into respective fisheries management plans to keep the removal rate moderate when the stock status is healthy, to promote rebuilding when stock status is low, and to ensure a low risk of serious or irreversible harm to the stock. It also requires a rebuilding plan when a stock reaches critical levels.

Integrated Fisheries Management Plans (IFMPs) – IFMPs are the primary tool for balancing the ecosystem, social and economic dimensions of fishery decisions. These plans include arrangements for food, social and ceremonial and treaty fisheries by First Nations, selective harvesting, other regulatory harvest measures and decision-rules and documentation of information requirements and monitoring programs. All of the new SFF policies and tools will be implemented through existing IFMP processes. Fishery managers in collaboration with harvesters and other interest, will address ecosystem and fisheries management risks and monitor progress in meeting associated goals.

4.5.4 Incentives for Sustainable Fishing

Consistent with Principles 1 and 2, no capital or operating subsidies or incentives are offered by governments to North Pacific Albacore Tuna. There are several incentives within the management regime of the fishery that contribute to the sustainable fishing of the resource. Security of access provides strong economic incentives to harvest for the long term, to maximize value not volume, and minimize impacts on the target stock and ecosystem.

The Tuna fishery is managed by input controls, meaning specific limits are placed on fishing effort. These input controls constitute specific enforceable conservation measures resulting in disincentives to those causing harm to the stock.

Input controls constitute an effective management system that provides adequate incentive to consistently achieve management objectives for the fishery. There are also suitable disincentives to dissuade participants within the fishery from causing harm to the stock or ecosystem such as:

- Conservation and protection measures from both federal and provincial regulators reduce the likelihood of landing illegal albacore tuna , thereby creating financial disincentives to violating license conditions, both through fines and confiscations, licence suspensions, court costs and media attention;
- Management policy and procedures for the North Pacific Albacore Tuna fishery are reviewed regularly, normally at the end of each fishing season. This review is done internally at DFO and externally through the management advisory processes. Management policy and measures for the fishery are further reviewed within the Department when updating its fisheries sustainability checklist;
- In combination, these systems, measures and practices engender a strong sense of stewardship toward the resource, habitat and the ecosystem, and support sustainability objectives.

4.5.5 Fishery Specific Objectives

DFO's proposed objectives for the North Pacific Albacore Tuna fishery are in the IFMP (DFO 2014a). The fishery's objectives are linked to the requirements associated with MSC Principles 1 and 2. They include short-term, mid-term and long-term objectives to achieve conservation of the stock, habitat and the ecosystem. DFO is committed to managing the fishery in a manner that helps industry stakeholders to be economically successful while using the ocean's resources in an environmentally sustainable manner. A summary of these objectives is provided:

Stock Conservation and Ecosystem Processes (short and long term objective)

The biological objectives are (i) to harvest the North Pacific Albacore Tuna in a sustainable manner and to support the use of the precautionary approach to fisheries management within Regional Fisheries Management Organizations and (ii) To ensure conservation and protection of North Pacific Albacore stocks, their habitat, and manage for ecosystem impacts of fish harvest activities, scientific management principles will be applied in a risk adverse and precautionary manner based on the best scientific advice available, and through comprehensive monitoring of fish harvest activities.

Performance Measure

- Coordinate with fishery scientists through the International Science Committee to determine stock levels and provide advice to RFMO's.
- Maintain fishing effort of Albacore Tuna at current levels as per the Conservation and Management Measure (CMM) 2005-02.
- Continue to monitor the fishery by gathering catch and effort information for the Pacific Albacore Tuna fishery through the hail and logbook programs.
- Review harvest activities so they occur in a manner that will minimize impacts to sensitive fish habitats and populations
- Provide catch, effort and biological data to RFMO's in charge of the conservation and management of Pacific Albacore Tuna.

Consultation Process (Short and Long term objective)

An open and transparent consultation process will be developed and maintained for discussions of harvest management issues for the Pacific Albacore Tuna fishery, including the annual development of an IFMP, long-term direction of the fishery, and to increase information posted on the DFO consultation website to allow for a wide review of all relevant material.

Performance Measure

- Hold pre-season planning meetings and seek stakeholder advice on development of the IFMP allowing 30 days for review and feedback on IFMP draft content.
- Facilitate consensus building among stakeholders on issues related to the management of the fishery.
- Hold post-season meetings to review issues encountered during the season and to develop options for addressing and resolving them.
- Participate in bi-lateral meetings with the USA in order to facilitate Treaty discussions and negotiations.

Social, Cultural and Economic Considerations (Short and Long term objective)

First Nations: the Department will continue to provide opportunities for First Nations to harvest for food, social and ceremonial purposes, in a manner consistent with the Sparrow Decision (SCC 1990), and other court decisions.

Recreational: the Department will continue to provide opportunities for a recreational fishery for tuna.

Commercial and Communal Commercial: The Department will continue to work collaboratively with harvesters to maximize the long term profitability and stability of the Pacific Albacore Tuna fishery in a manner that ensures long-term sustainability of the resource.

Performance Measure

- First Nations: DFO will consult with First Nations in order to determine their FSC requirements. In accordance with the Sparrow Decision (SCC 1990), and other court decisions, First Nations will be authorized to fish for FSC purposes through the use of a communal licence.
- Commercial: Through post-season reviews and data analysis, assess catch monitoring and reporting, and other management measures.

Compliance

Fisheries and Oceans Canada aims to continue to monitor fishing activity using hails, logbooks and aerial surveillance in cooperation with the US Coast Guard and other enforcement authorities. This program will be annually assessed for compliance and effectiveness.

Performance Measure

- Develop and implement measures for the effective monitoring and control of the fishery that are consistent with local policies and international requirements in cooperation with international enforcement counterparts.
- Monitor compliance of Conditions of Licence in coordination with U.S. and international enforcement counterparts.

Activities in support of stock assessment and monitoring are carried out on a regular basis and data are collected and used to maintain knowledge about the status of the fishery. A peer-reviewed precautionary approach framework for the fishery has been adopted by DFO.

4.5.6 Decision-Making Process

The decision-making process associated with Pacific Ocean commercial fisheries revolves around fish harvest considerations (TACs, fleet access and allocation, harvest control rules, socio-economic implications). Decisions are either made by the Minister or the Regional Directors General. Ministerial authority is typically required for the multi-regional fisheries, and international fisheries.

Decision memoranda along with relevant attachments are required when seeking decisions from the Minister or the Regional Directors General. The purpose of these memoranda is to provide information about a fishery or an issue along with options and recommendations for decision-making. The decision memoranda ensure that all internal and industry stakeholders' perspectives are reflected and that positive and negative outcomes for each option are described. Resource Management is responsible and accountable for the development of these memoranda. The development of the decision memoranda is generally initiated by the post-seasonal review of a fishery to present recommendations for next cycle's fishery management. However, it can also be triggered during the season when an important issue arises (i.e. new information found by Science).

As noted previously, an advisory committee is established for each major commercial fishery. As part of the post-seasonal review, all participants of the advisory committee meet through a consultation meeting. Prior to the consultation meeting however, Resource Management would request

information from all applicable sectors, namely, Science and Policy. After the consultation meeting, information from all stakeholders is consolidated by Resource Management.

The following figure illustrates the various steps associated with a typical Resource Management decision-making process.

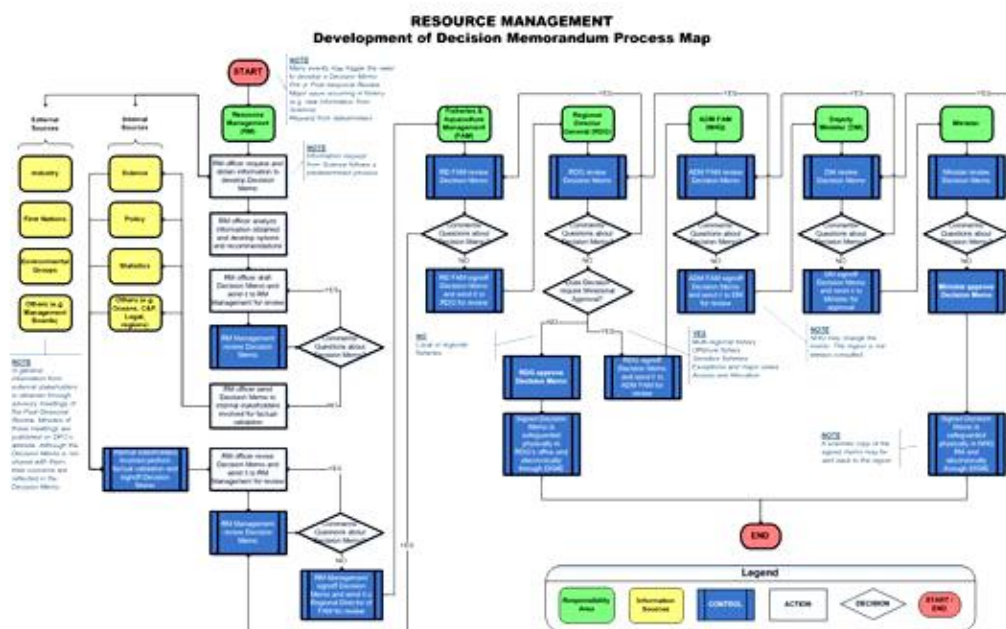


Figure 20. Resource Management Decision-Making Mapping Process⁴⁴.

The fisheries management decision-making process for this fishery is characterized by transparency and informed judgments in which the views and opinions of departmental, industry and provincial government representatives are encouraged and given serious consideration. This is also true as of DFO's science stock assessment process prior to the publication of CSAS documents. Decisions regarding the management measures are developed following the conclusion of the advisory and RAP processes. These are communicated to the industry and general public via DFO website.

The international management of the North Pacific albacore stock is shared by two international organizations: the Inter-American Tropical Tuna Commission (IATTC) for waters east of 150° W longitude, and the Western and Central Pacific Fisheries Commission (WCPFC) for waters west of 150° W longitude. The IATTC and WCPFC have legal authority within their administrative boundaries. Locally, for the Canadian troll & jig albacore fisheries management is through the IFMP of DFO.

The IATTC and the WCPFC have a firm foundation of guidelines, procedures, and regulations, as well as a strong scientific program under the leadership of their Scientific Committees. The WCPFC format for conducting scientific studies is different than that of the IATTC, which has an independent staff. The WCPFC conducts its science through a Scientific Committee (SC) and a Technical and Compliance Committee (TCC). Scientists of the SPC are responsible for leading much of the scientific

⁴⁴ Source: DFO Audit of Supporting Statistical Information on Fisheries, Appendix A, March 2010; Available at: <http://www.dfo-mpo.gc.ca/ae-ve/audits-verifications/09-10/6B205-eng.htm#ch7>

research utilized by the Committees. The SC is required to work closely with the ISC, which has certain responsibilities for scientific investigation of highly migratory species in the north Pacific area.

Because of differences over how tunas should be managed in the northern portions of the Convention's region, a Northern Committee was established to deal with management and conservation issues to the north of 20°N. The Northern Committee (NC) refers conservation recommendations on northern species to the WCPFC where they will be considered.

The work of the IATTC independent scientific staff focuses on: (1) studying the biology of the tunas and related species of the eastern Pacific Ocean with a view to determining the effects that fishing and natural factors have on their abundance. (2) recommending appropriate conservation measures so that the stocks of fish can be maintained at levels which afford maximum sustainable catches. (3) collecting information on compliance with Commission resolutions. The ISC for Tuna and Tuna-like Species in the North Pacific Ocean conduct stock assessment as well as enhance scientific research and cooperation for the conservation and rational utilization of tuna and tuna-like species of the North Pacific Ocean.

The Committee is made up of Members (Table 7) from coastal states and fishing entities of the region and coastal states and fishing entities with vessels fishing for highly migratory species (HMS) in the North Pacific Ocean, and permanent observers (Table 8) from relevant intergovernmental fishery and marine science organizations, recognized by all members. Its functions are to regularly assess and analyze fishery and other relevant information concerning the species covered; prepare reports of its findings or conclusions on the status of the species covered, including trends in population abundance, developments in fisheries, and conservation needs. It promotes research cooperation and collaboration among members by developing proposals for conduct of and, to the extent possible, coordinates international and national programs of research addressing the species covered. Furthermore, it takes into account the work and findings of other relevant technical and scientific organizations in execution of its functions.

Table 7. Members of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC).

Canada	The United States of America
Chinese Taipei	Japan
Republic of Korea	Mexico
People's Republic of China	

Table 8. Permanent Observers of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC).

The Inter-American tropical Tuna Commission (IATTC)	Food and Agriculture Organization of the United Nations (FAO)
North Pacific Marine Sciences Organization (PICES)	Secretariat of the Pacific Community (SPC)

Research and assessment of the North Pacific albacore resource is carried out by the ISC's ALBWG. The ALBWG consists of scientists from various nations that exploit North Pacific albacore who collectively work through their consultative efforts to optimize and identify relevant research needs. The ALBWG organizes and prioritizes the scientific research needed to monitor and assess the stock

and periodically they conduct assessments. Previously, this work was done through the North Pacific Albacore Workshop (Stocker 2005).

The ALBWG now meets once or twice per year regarding investigations related to the North Pacific albacore population stock status and related biological and ecological research.

There is a signed Memorandum of Understanding between the WCPFC and the ISC whereby the Northern Committee of the WCPFC may adopt requests to ISC for scientific information and advice regarding HMS fish stocks occurring mostly north of 20°N, including North Pacific albacore.

The WCPFC Northern Committee is made up of WCPFC members from coastal states and fishing entities of the region and coastal states and fishing entities with vessels fishing for HMS in the region, and permanent observers from relevant intergovernmental fishery and marine science organizations recognized by all members.

Scientists from the IATTC and the SPC who represent the WCPFC participate on the ALBWG. Furthermore, the IATTC and WCPFC review ALBWG stock assessments for its approval and adoption of management measures directed to the conservation of the North Pacific albacore tuna stock.

North Pacific management measures adopted by the IATTC and the WCPFC are passed to the respective member countries that conduct fishing operations on Pacific albacore for implementation.

4.5.7 Monitoring, Control and Surveillance

The monitoring, control and surveillance (MCS) function is assigned to DFO's Conservation and Protection (C&P) program which seeks to facilitate public compliance with the *Fisheries Act* and supporting regulations relating to the conservation and sustainable use of Canada's fisheries resources, the protection of species at risk, fish habitat and oceans. The Director General of C&P, as the senior DFO enforcement officer, promulgates technical policies and procedures to facilitate the delivery of a professional departmental compliance and enforcement program. Program delivery is highly decentralized under the Regional Directors General.

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.

Performance Measure

- Require all vessels to report catch (and by-catch), effort, landings and transshipments;
- Collect all catch, effort, landings and transshipment information for albacore tuna by geographic location through logbooks and fish slips accurately and in time to fulfill international and regional reporting requirements.
- Collect biological samples by geographic location through logbooks in time to fulfill international and regional reporting requirements.
- Enact and enforce regulations that control Canadian fishing vessels through licences and Conditions of Licence.

- Conduct the seven year of an electronic logbook pilot to improve data management by providing more timely and accurate catch data to the Department.
- 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

Logbook compliance is 95% (DFO 2014a). 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 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 quilt 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”. 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 95% of 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.

4.5.8 Research Plan

Numerous research initiatives are conducted which contribute to the information needs of management and to the requirements associated with MSC Principle 1 and 2. These initiatives provide timely and reliable information that is used to ascertain the overall health of the resource, understand ecosystem interactions, and contribute to the development of integrated fishery management plans to ensure that conservation and sustainability objectives are achieved. Industry representatives contribute to the research priority-setting process through both the management and science advisory processes, and by their participation in multi-group networking meetings.

Research and assessment of the North Pacific albacore resource is carried out by the ISC’s ALBWG.

The ALBWG now meets once or twice per year regarding investigations related to the North Pacific albacore population stock status and related biological and ecological research. The ALBWG is a continuation of the former North Pacific Albacore Workshop that was active for about three decades.

Canadian highly migratory species research, conducted at the Pacific Biological Station, 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. 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.

A tagging program using pop-up satellite archival tags (PSATs) was designed for implementation in 2013. The goal of this program is to investigate daily and seasonal movement patterns of juvenile albacore in the eastern Pacific Ocean. Protocols for handling and tagging fish and minimizing premature tag release have been developed and PSATs and tagging gear purchased. PSATs produced by Desert Star Systems and Wildlife Computers will be compared for performance and tags will be deployed in 2014.

Canada has continued with modelling research evaluating the impacts of biological and oceanographic variables on the population dynamics of albacore tuna using a logistic surplus production model. The effects of oceanographic indices such as the Pacific Decadal Oscillation (PDO), North Pacific Oscillation Index (NOI), Multivariate ENSO Index (MEI), and the North Pacific Gyre Oscillation (NPGO) on K and r were modelled. The model fits primarily to abundance index derived from the Japanese longline fleet, but did not fit the other abundance indices as well. Preliminary results were reviewed at the March 2013 workshop of the ALBWG and show that the NPGO has a significant positive effect on stock productivity and the MEI has a significant negative impact on productivity at a time lag of 4 years. The other indices had no detectable effects on productivity. The mechanism by which these indices appear to affect albacore productivity is through recruitment. A manuscript describing the model and results has been accepted for publication.

Canada is also collaborating with US colleagues (Y. Xu and S. Teo) on research investigating environmental influences on albacore distribution in the coastal and open ocean waters of the eastern Pacific Ocean. The project uses logbook data from the US and Canadian troll and pole and line fisheries to develop a predictive model of albacore distribution and abundance based on remotely sensed satellite data predictors including sea surface temperature, sea surface height (SSH) anomaly, meridional and zonal geostrophic currents and chlorophyll-a (chl-a) concentration. Preliminary results were reviewed at the March 2013 workshop of the ALBWG and showed that albacore dynamics in open ocean and coastal waters respond to different sets of environmental covariates. Two manuscripts based on project results were submitted for publication.

4.5.9 Monitoring and Evaluation of the Albacore Management System

Section 10 of the IFMP for the North Pacific Tuna fishery describes the program review process for monitoring the North Pacific Tuna fishery management system and evaluating its performance in relation to the IFMP's strategic objectives. Specific performance metrics, both qualitative and quantitative, are used for this purpose. Stakeholder input is accommodated via the Tuna Advisory board.

A number of internal and external mechanisms are in place and in use to monitor and evaluate the performance of the management system for the North Pacific Albacore Tuna fishery. Key components of the management system and associated mechanisms are listed here.

Internal Mechanisms (Government and Industry Stakeholders)

- Precautionary Approach: DFO Sustainability Checklist for the fishery
- Stock Assessment: CSAS formal peer-review process;
- Ecosystem Interactions: Ongoing scientific and technical research; workshops; DFO's Sustainability Checklist for the fishery;
- Compliance and Enforcement: Post-season review involving various DFO regional program sectors; TAB advisory committee; Enforcement Roundtables;
- Economic and Social: DFO Costs-Earnings Studies;
- Fishery's Performance: Performance indicators as per the provisional IFMP;
- Management Measures: Post-season review involving various DFO regional program sectors; local advisory committee; occasional study by Parliamentary Committee (SCOFO); and
- Departmental Fisheries Programs and Services: Program Evaluations and Audits.

External Mechanisms (Parliamentary Overnight, Ministerial Panels/Roundtables, Academia, Private Sector)

A number of formal external reviews or studies of the performance of various aspects of the North Pacific Tuna fishery (or associated fisheries) have been undertaken over the course of the past two decades. They include:

- Fisheries Resources Conservation Council
- Tuna advisory board Panel Report
- Independent Review of the North Pacific Tuna
- Independent Panel on Access and Allocation

Reports commissioned by various agencies and departments of the Government of Canada are available to the public in electronic format where they can be easily accessed by industry stakeholder organizations and their membership. Frequently, the work by government bodies is informed by expert witnesses and knowledgeable stakeholders who appear and provide their perspectives and advice. Recommendations contained in these reports are addressed by the appropriate agency, typically within a prescribed timeframe; responses are also published.

5. Evaluation Procedure

5.1 Harmonised Fishery Assessment

Certification Bodies assessing fisheries that have areas of overlap are required to ensure consistency of outcomes so as not to undermine the integrity of MSC fishery assessments. The CR requirements section Annex CI provides guidance for harmonization where a fishery in assessment overlaps with an already certified fishery.

The MSC wishes to discourage overlapping assessments to avoid potential financial, consistency and credibility costs, including:

- fisheries managers, scientists and stakeholders receiving duplicate requests for information
- duplication of costs for a fishery's certification, including that expense incurred by fishery management agencies pre- and post-certification; and

- the possibility of different assessments placing different conditions upon the same fisheries managers and upon different fishery clients.

In February 2014, Intertek Fisheries Certification (IFC) announced, that the Western Fish Boat Owners Association (WFOA) have joined the American Albacore Fishing Associations (AAFA) certifications of the North and South Pacific Albacore Tuna Pole and Line and Troll and Jig Fisheries. The existing WFOA fishery certificate previously covered by SAI Global has been withdrawn and new IFC certificates have been issued indicating that the clients of each certificate are the AAFA and WFOA. AAFA was awarded MSC certification for North Pacific Albacore Tuna, August 24th 2007 with Certification Body, Moody Marine Ltd. AAFA has been re-certified in December 2012 and the annual surveillance (1st) audit was recently provided to SAI Global and (6th May 2014) released on the MSC website.

MSC expects that the outcome of the assessment report, particularly the overall result that is achieved (whether a pass or a fail) and the setting of conditions, will be consistent between overlapping fisheries in assessment and certified fisheries.

To this effect, the surveillance assessment team has considered the outcome of the recent 1st Surveillance Audit for AAFA and WFOA North Pacific Albacore Tuna Fisheries undertaken by IFC with the objective of confirming that the outcome of this surveillance audit for CHMSF is consistent where applicable with that of AAFA/WFOA certificate. This procedure was also followed during the initial assessment and certification of CHMSF and WFOA to ensure consistency in outcome of performance indicators and conditions set on the fishery.

The following items were addressed with respect to harmonized outcomes of this:

History of Harmonization from previous surveillance Audits:

Area of Assessment Considered	Outcome of Harmonization with IFC 1 st Surveillance Audit for AAFA and WFOA North Pacific Albacore Tuna Fisheries
Assessment trees	The initial assessment for WFOA and CHMSF followed MSC procedure and utilized the Default Assessment Tree as described in MSC FAM and according to TAB D0-15. In their initial assessment of AAFA, pre-dates the release of the MSC Default Assessment Tree, using MSC Certification Methodology Version 6. However, there is consistency in the general outcome of both initial assessments with respect to the award of certification and the areas where the fishery is performing below the required 80% pass requirement. MSC Policy Advisory 12v1 also provides further guidance for Principle 1 (PI 1.1.2) for both fisheries scored pre- and post FAM implementation which also further supports the harmonization of outcomes, in this case specifically covering the PI that achieved a conditional score.
Conditional scores	In the initial assessment of WFOA and CHMSF client fisheries, Global Trust considered the outcome of performance indicators specific to the Condition (score 75) raised for PI 1.1.2 Limit and Target reference points are appropriate for the stock based on rationale presented in Section 9. As required by MSC Policy, this included a review of the conditions set by Intertek Moody on the AAFA Certificate

	<p>for this fishery.</p> <p>In continuance of this requirement, SAI Global has reviewed the conditions described in the more recent AAFA surveillance audit (Dec 2012) (Extract from AAFA Report)</p> <p><i>Condition of Certification</i></p> <p>PI 1.1.4.1 The Stock is at an appropriate level to maintain long term productivity.</p> <p><i>100 scoring guidepost</i> The stock is highly likely to be consistently above precautionary reference levels.</p> <p><i>80 scoring guidepost</i> The stock is likely to be above precautionary reference levels.</p> <p><i>60 scoring guidepost</i> The stock is likely to be above the limit reference levels and trends in the stock are positive.</p> <p><i>In that circumstance a score 75 was achieved with the following Condition</i></p> <p>'The present stock assessment suggests that the stock may be "either fully exploited or sustaining fishing mortality above levels that are sustainable in the long term".'</p> <p>Although the inference on the Condition of the separate assessments are expressed differently (former focused upon the stock status and latter focused on the appropriateness of reference points) both are linked to the same issue in that ISC conservation advice suggested that the stock maybe "either fully exploited or sustaining fishing mortality above levels that are sustainable in the long term". The ISC advised that fishing rates were in excess of common benchmarks and recommend the need for developing an effort reduction strategy. Subsequently, in 2005, the ISC requested to the management authorities for guidance on the definition of biological reference points to determine the degree to which, when and how reduction should occur.</p>
Conditions set	
	<p>SAI Global considered the Conditions set by Intertek Moody in their Certification Report of AAFA and in subsequent surveillance audits.</p> <p>The AAFA North Pacific albacore fishery was originally certified in 2007 with one condition. This stated: "<i>It is recognised that maintaining the stock at or above a precautionary reference limit is not under the control of AAFA and therefore actions required of AAFA in this regard are:</i></p> <ol style="list-style-type: none"> <i>1. AAFA to promote and support the management actions put forward, notably limitations on effort. Communications supporting such management measures should be made to appropriate organisations. Records should be provided by AAFA of communications and responses.</i> <i>2. AAFA to provide a summary to Moody Marine on US's responses to IATTC/WCPFC management resolutions, as provided by NMFS and/or Pacific Fishery Management Council.</i> <i>3. Should the existing resolution be withdrawn following the ISC report, then this condition would be considered closed.</i> <i>4. If additional resolutions are proposed, then these should be supported as</i>

	<p><i>in 1 above."</i></p> <p>Timescale: <i>Point 1. If still appropriate, should be pursued immediately upon certification.</i> <i>Point 2. AAFA should provide this information within 6 months of certification.</i> <i>Point 4. Should further resolutions be passed by IATTC/WCPFC in this regard, supportive actions should be initiated at the earliest possible opportunity thereafter.</i></p>
Action Plans	<p>In the initial assessment, Global Trust undertook harmonization of the Action Plans set out for WFOA and CHMSF with that set out by Moody Marine for the AAFA Certificate.</p> <p><u>Action Plan set out by AAFA:</u></p> <p>1. AAFA seeks to promote and support the responsible management actions being put forward, including international resolutions calling for fishing effort not to be increased. Attendance and participation in the discussions and meetings of the appropriate scientific and regulatory bodies afford AAFA opportunities to present its position and views in support of such actions.</p> <p><u>Action:</u></p> <p>1. AAFA continues its practice of keeping up to date, attending, and participating in the key discussions and meetings of the appropriate scientific, regulatory, and government bodies tasked with policy and management responsibilities for North Pacific albacore and the stock's pole & line and troll/jig fisheries. These bodies include:</p> <ul style="list-style-type: none"> • Pacific Fishery Management Council (PFMC); • PFMC's Highly Migratory Species – Management Team (HMS-MT); • PFMC's Highly Migratory Species – Advisory Subpanel (HMS-AS); • General Advisory Committee (GAC) to the U.S. Section to the Inter-American Tropical Tuna Commission (IATTC); • National Marine Fisheries Service (NMFS); • National Oceanic and Atmospheric Administration (NOAA); • Department of Commerce; • Department of State; <p>AAFA's actions in accordance with this plan, include:</p> <ol style="list-style-type: none"> a. Submission of a letter to PFMC expressing AAFA's continued support for ongoing efforts, based on best available science, toward the long term sustainability of the stock, and compliance with international resolutions calling for fishing effort not to be increased. b. Submission of a letter (via e-mail) to NMFS & NOAA expressing (among others) AAFA's support for provisions of the reauthorized Magnuson-Stevens Act of 2006 (MSA) for ensuring the long-term sustainability of the stock. c. Attendance and participation at PFMC sessions (including ancillary HMS-MT and HMS-AS meetings) to convey AAFA's support for development and

	<p>adoption of appropriate management measures and progress to ensure compliance with international resolutions regarding the North Pacific albacore stock.</p> <p>d. Attendance and participation at HMS-MT and HMS-AS meetings to express AAFA's support and assistance in the development of appropriate characterization of "<i>current effort</i>" in response to international resolutions regarding the North Pacific albacore stock.</p> <p>e. Attendance and participation at GAC meetings to convey AAFA's support for development and adoption of appropriate management measures for the North Pacific albacore stock</p> <p>f. Continued attendance, participation, and submission of communications to appropriate management bodies in accordance with current practice.</p> <p>2. AAFA will provide to Moody Marine a summary on U.S. responses to IATTC/WCPFC management resolutions, as provided by NMFS and/or PFMC, when such materials become available. The North Pacific albacore stock assessment is presently being conducted by the ISC and its Albacore Working Group and the initially scheduled March, 2007 release has been pushed back to late July, 2007.</p> <p>3. AAFA anticipates receiving the updated ISC stock assessment in late July, 2007, and will provide Moody Marine with copies in a timely manner. Responsive documents and updates of North Pacific albacore stock assessments will be forwarded to Moody Marine in a timely manner following receipt.</p> <p>4. If additional resolutions are proposed, then these should be supported as in <u>Action Plan 1., above.</u></p> <p>5. AAFA plans to continue its practice of keeping up to date, attending, and participating in the key discussions and meetings of the appropriate scientific, regulatory, and government bodies tasked with policy and management responsibilities for North Pacific albacore and the stock's pole & line and troll/jig fisheries as set forth in <u>Action Plan 1., above..</u> Significant developments and/or additional resolutions will be forwarded to Moody Marine in a timely manner following receipt, and AAFA would continue with its efforts in support of responsible management.</p> <p>To the extent possible (given that for CHMSF, the fishery is under the jurisdiction and governance of a Canadian based management system under DFO), Global Trust has reviewed and explicitly agreed to the respective Action Plans for WFOA and CHMSF that are closely harmonized with regard to the activities and intended outcome of those activities with those set out in the Action Plan of AAFA. Please refer to pages 153-155; http://www.msc.org/track-a-fishery/certified/pacific/CHMSF-British-Columbia-North-Pacific-Albacore-Tuna/assessment-downloads-1/26.02.2010-chmsf-albacore-final-report.pdf and refer to pages 156-157; http://www.msc.org/track-a-fishery/certified/pacific/WFOA-North-Pacific-Albacore-Tuna/assessment-downloads-1/22.03.2010-chmsf-wfao-pcr.pdf</p>
--	--

Conclusion	In evaluating the Conditions, Action Plans and outcome of the surveillance audit
-------------------	--

	<p>for AFFA undertaken by Moody Marine (publ. Nov 2010) and those of Global Trust in the surveillance audits for CHMSF and WFOA, Global Trust concludes that there are no significant differences in the Conditions, Action Plans and outcomes that has or will result in a material difference in the scores of PI 1.1.2 (Global Trust) and 1.1.4.1 (Moody Marine) with respect to the close out of these respective conditions. In their surveillance report (Nov 2010), Moody noted that ‘the Global Trust assessment of the WFOA and CHMSF fisheries were generally consistent with the earlier AAFA certification. The conditions of certification are near identical, and the action plans are largely similar in intended outcomes, although the AAFA action plan appears to be more focused on taking a precautionary approach to management issues and uncertainty, demonstrating a concentrated focus limits on fishing effort.</p> <p>On review, Global Trust notes that the focus on precautionary approach PI prescribed in the Moody Marine initial assessment (PI 1.1.4. The Stock is at an appropriate level to maintain long term productivity) and the guidepost to achieve an 80% unconditional pass score ‘The stock is likely to be above precautionary reference levels’ when compared to the guidepost scoring elements of PI 1.1.2 FAM,</p> <p><i>Reference points are appropriate for the stock and can be estimated.</i></p> <p><i>The limit reference point is set above the level at which there is an appreciable risk of impairing Reproductive capacity.</i></p> <p><i>The target reference point is such that the stock is maintained at a level consistent with</i></p> <p><i>BMSY or some measure or surrogate with similar intent or outcome.</i></p> <p>Global Trust considers that both set of languages are appropriate and consistent for achieving their intended outcomes.</p> <p>Overall Global Trust considers that there is sufficient consistency in outcomes of this Surveillance Audit undertaken on CHMSF and WFOA in comparison with that undertaken by Intertek Moody.</p> <p>Conditions set by Global Trust were harmonized during the initial assessment process (pages 149-152; http://www.msc.org/track-a-fishery/certified/pacific/CHMSF-British-Columbia-North-Pacific-Albacore-Tuna/assessment-downloads-1/26.02.2010-chmsf-albacore-final-report.pdf) .</p> <p>On review of the most recent surveillance report published by Interkek Moody (Dec 8th 2012). The AAFA condition had been closed out at the 2nd surveillance audit but in the 4th surveillance audit report, Intertek Moody assessment team notes that (from their report):</p> <p>The results of the recent North Pacific albacore assessment suggest that, in combination with stable albacore recruitment, the resolutions adopted by the IATTC and WCPFC to cap effort have supported the maintenance of catches of albacore at sustainable levels. The high cost of fuel may also have been a factor in limiting recent fishing activity.</p> <p>It is noted that Canadian representatives at a September 2011 meeting of the</p>
--	--

	<p>WCPFC Northern Committee proposed that the current strength of the North Pacific albacore stock presented an opportunity to discuss the introduction of a long term strategy for the stock, including introducing biological reference points and pre-agreed decision rules that triggered management action (WCPFC 2011a). The introduction of a limit reference point and control rule was supported as a priority for the US delegation (WCPFC 2011a). Addressing these issues was laid out in a work program for completion in 2013. While the WCPFC Northern Committee’s examination of current F against a number of F-based reference points, as described above in Item 1, is an important step in formalizing effective management measures, it continues to be the case that both the WCPFC and the IATTC have yet to agree and adopt limit and target reference points or control rules. The interim objective of maintaining the spawning stock biomass above the average of the ten historically lowest estimated points with a probability greater than 50% has yet to be formally adopted as a reference point. Intertek Moody assessment team also noted that for the ‘MSC reassessment process, and the MSC’s default assessment tree now requires that reference points and control rules for stock management are in place. Thus, assuming the fishery is recertified following reassessment, the formal adoption by the WCPFC and IATTC of reference points and control rules will be of fundamental importance to AAFA.</p> <p>Global Trust consider that the open condition of P.I 1.1.2 for WFOA and CHMSF certificates corresponds to these statements raised and there is sufficient harmonization of the WFOA/CHMSF certificates with that of AAFA’s certification of the North Pacific Albacore tuna fishery.</p>									
Note of AAFA Re-certification 24th Dec 2012	<p>On the 24th December 2012, AFAA North Pacific Albacore tuna fishery was awarded re-certification to the MSC Standard; certified by Intertek Moody. In this certification; two conditions have been set on the AFAA certificate as described below.</p> <table><tr><th>Condition number</th><th>Condition</th><th>Performance Indicator</th></tr><tr><td>1</td><td>By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if the limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity, and if 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.</td><td>1.1.2</td></tr><tr><td>2</td><td>By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if 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, the selection of the harvest control rules takes into account the main uncertainties, and available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</td><td>1.2.2</td></tr></table> <p>One condition (PI 1.1.2) is consistent with the existing condition placed on the certificates of CHMSF and WFOA certificates, except that the AAFA. PI achieved a score of 70 whereas in CHMSF and WFOA certificates the score achieved at original certification was 75. Whilst the subject matter of the condition (the setting of explicit limit and target reference points) remains open; the difference in scores between assessments can be attributable to:</p> <p>A reduction in performance of the fishery Changes to the MSC requirements for scoring this PI</p>	Condition number	Condition	Performance Indicator	1	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if the limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity, and if 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.	1.1.2	2	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if 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, the selection of the harvest control rules takes into account the main uncertainties, and available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	1.2.2
Condition number	Condition	Performance Indicator								
1	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if the limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity, and if 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.	1.1.2								
2	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if 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, the selection of the harvest control rules takes into account the main uncertainties, and available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	1.2.2								

	<p>Differences in scoring by the respective assessors used in each case</p> <p>As both CAB's have documented significant progress to the resolution of this condition since original certifications, a reduction in the performance of the management organizations for North Pacific Albacore tuna is unlikely. More likely causes for the difference relate to the publication of up-dates to the MSC Certification Requirements since FAM version 6, adopted in January 2012 and used in the recertification of AFAA fishery (Certification Requirements v1.2). It is noted that these are now surpassed by Certification Requirements v1.3, March 2013 which will (unless superseded) be used during the final surveillance and subsequent re-certification audit of the CHMSF and WFOA in Dec 2013 announcements.</p> <p>Additionally, a second condition, currently not placed on the CHMSF and WFOA certificates has been placed on the AAFA certificate for PI 1.2.2 Harvest Control Rule (score 60). Rationale for an 80 score for this PI for the initial certification of CHMSF and WFOA is provided on page 77 of the Public Certification Report. Here, justification for the 80 score 'evidence given by stock effort monitoring programs, and stock assessment outputs, indicates that tools in use to limit fishing effort are effective in achieving exploitation levels required ($F = 0.75$) by Management' is documented. Again, differences in scores may be attributable to the three bulleted points raised above, namely:</p> <ul style="list-style-type: none"> - A reduction in performance of the fishery - Changes to the MSC requirements for scoring this PI - Differences in scoring by the respective assessors used in each case <p>Again, it is felt unlikely that the reduction is attributable to a reduction in fishery performance as the situation with respect to effort control has not changed in either regime. It is more evident that changes to the Certification Requirements (current v.1.2) may have caused a subsequent reduction in the score of this PI.</p> <p>The assessment team has considered the consequences of placing an additional condition on the CHMSF and WFOA certificates at this 3rd surveillance audit where there is only one remaining surveillance audit prior to re-assessment of the certificates.</p> <p>An additional condition placed on PI 1.2.2 is deemed not warranted at this time and PI 1.2.2 will be the subject of re-assessment along with all PI's of the MSC Program assessed under the Requirements for Certification available at that time (currently in accordance with v.1.3 unless superseded).</p> <p>However, as part of the on-going surveillance of CHMSF and WFOA, continued review of the developments within the fishery management system specific to the new condition placed on the AAFA certificate will also be considered at the next surveillance audit and these developments reported within the surveillance audit report at that time.</p>
CURRENT HARMONISATION ACTIVITY ASSOCIATED WITH THE 4TH SURVEILLANCE AUDIT	
Note of AFAA 1st Surveillance Audit 6th May 2014	<p>The surveillance report 1 for the AAFA and WFOA North Pacific Albacore Tuna Fisheries (IFC 2014) was released on the 6th May 2014 on the MSC website.</p> <p>As specified above 2 conditions were set during the re-assessment, Condition 1 for PI 1.1.2 Reference Points and Condition 2 for PI 1.2.2 Harvest Control Rules and</p>

Tools.

Regarding condition 1 for PI 1.1.2 Reference Points, the Client Action Plan stated:

- In the first year following grant of recertification, and thereafter as necessary, AAFA and WFOA will work actively through the PFMC and the US delegations to the IATTC and WCPFC to promote the development and 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 be aligned with AAFA and WFOA's support for appropriate measures to increase compliance with conservation and management measures of the appropriate RFMOs. AAFA and WFOA will also author a paper that states AAFA and WFOA's recommendations for reference points and harvest control rules that they will work with the US Government to get adopted at the IATTC and WCPFC.

The observations and conclusion of IFC assessment team were:

Observations	<p>The audit team looked closely at the 1st annual milestone requirements for this condition on the AAFA and WFOA North Pacific albacore fishery. There are two elements to the milestone:</p> <p>1) In conjunction with Condition 2, evidence should be provided that AAFA and WFOA are working actively through the PFMC and US RFMO Delegations to promote the adoption by the relevant RFMOs of appropriate target and limit reference points (or measures/surrogates with similar intent) for North Pacific albacore tuna, and</p> <p>2) AAFA and WFOA will author a paper that states AAFA and WFOA's recommendations for reference points and harvest control rules that they will work with the US Government to get adopted at the IATTC and WCPFC.</p> <p>The audit team is satisfied that AAFA and WFOA have clearly met the requirements</p>
	<p>for the 1st element. The organisations submitted complementary position statements to the IATTC, detailing their support for the introduction of reference points (and harvest control rules - Condition 2), and have attended directly or been represented at a wide range of PFMC and RFMO meetings where the audit team is satisfied that this position has been advocated.</p> <p>The 2nd element of the milestone was introduced immediately prior to the publication of the Public Certification version of the recertification report, following input from stakeholders; the intent was to promote and accelerate the process of identifying appropriate reference points (and harvest control rules- Condition 2) that could be advanced as a US position. While AAFA and WFOA have not produced such a report, during the last year AAFA and WFOA have worked actively towards the development of a US Government position and recommendations paper on reference points and harvest control rules. The audit team considers that this effort has short-circuited the intent of this element, and a US Government position paper on North Pacific albacore was presented to the Northern Committee of the WCPFC in September 2013. The audit team discussed this development with Mark Helvey (Program Director, NOAA/NMFS West Coast Region, Highly Migratory Species Program), and is satisfied that there is now no benefit to AAFA and WFOA producing a separate reference point and harvest control rule recommendations paper for North Pacific albacore.</p>
Conclusion	<p>The audit team is confident that the efforts made by AAFA and WFOA towards supporting the introduction of reference points (and harvest control rules - Condition 2) provide an important boost to the management process. The recent development of a US published position on appropriate reference points and harvest control rules for the North Pacific albacore is then a dramatic and welcome step forward for the AAFA and WFOA fishery and its certification.</p> <p>The audit team is conscious that the international context of North Pacific albacore management presents particular challenges to closing out this condition within the required timescale. However, we are content that AAFA and WFOA have met the first annual milestone, and our finding is therefore that the fishery is currently on target to meet this condition. The score of this PI remains at 70.</p>

The conclusion of the IFC assessment team was that AAFA and WFOA have met the

	<p>first annual milestone and that the fishery is currently on target to meet this condition. Therefore the condition remains opened.</p> <p>The first annual milestone was related to the activities carried out by AAFA and WFAO to support and promote the development and determination of reference points for the North Pacific Albacore Tuna stock, which was corresponding to the milestones of the CHMSF Action Plan.</p> <p>As specified in the Condition section, SAI Global assessment team considered that CHMFS has made adequate progress and met all the requirements of the Client Action Plan set out from the original certification report according to FAM. However progress against measurable outcomes is judged to be “behind target”. No reference points have been implemented at this time, and hence, the PI score does not achieve an 80 score. Therefore this condition cannot be closed out at this 4th surveillance audit. New revised milestones have been set in this surveillance report (refer to next section) and the assessment team will evaluate if the progress against these revised milestones are back “on target” at the first surveillance audit.</p> <p>Therefore, the activities referring to the new milestones for the CHMSF fishery have been harmonized with AAFA/WFOA certificate for the condition raised against PI 1.1.2. As the CHSMF fishery is in re-assessment, additional harmonization activity will take place to ensure that harmonization is consistent with MSC CR1.3 procedures.</p> <p>Additionally, a second condition, currently not placed on the CHMSF certificate has been placed on the AAFA and WFOA certificates for PI 1.2.2 Harvest Control Rule (score 60). Rationale for an 80 score for this PI for the initial certification of CHMSF is provided on page 77 of the Public Certification Report. Here, justification for the 80 score is documented through ‘evidence given by stock effort monitoring programs, and stock assessment outputs, indicates that tools in use to limit fishing effort are effective in achieving exploitation levels required ($F = 0.75$) by Management. Again, differences in scores may be attributable to the three bulleted points raised above. Again, it is felt unlikely that the reduction is attributable to a reduction in fishery performance as the situation with respect to effort control has not changed between assessments. It is more evident that changes to the Certification Requirements (current v.1.3) may have caused a subsequent reduction in the score of this PI.</p> <p>The SAI Global assessment team has considered that placing an additional condition on the CHMSF certificates at this 4th surveillance audit is not supported as there are no remaining surveillance audits. However, the assessment team will re-assess PI 1.2.2 Harvest Control Rules and Tools along with all the PIs during the on-going re-assessment under MSC Certification Requirements v.1.3, to ensure there is sufficient harmonization between CHMFS certificate and AAFA and WFOA certificates.</p> <p>According to CR27.24, specifically 27.24.2.4biiA. “If the SG80 level has not been achieved, such conditions shall be rewritten against the reassessment tree following the requirements specified in 27.11, with a timeline for completion of less than one certification period”. Given that the AAFA/WFOA PI 1.2.2 condition was written prior to the requirement for outcome-based conditions, this new requirement allows the existing condition to be rewritten in re-assessment in an outcome-focused manner, with timelines harmonised with the WFOA/AAFA</p>
--	--

	fisheries and setting the deadline for closing the condition for 2017. As specified above, the process of recertification is on-going. Revised milestones were set in the current surveillance and will be included in the reassessment report and the assessment team will evaluate if the progress against these revised milestones are back “on target” for the next surveillance audits.
--	--

Proposed milestones for Performance Indicators 1.1.2 and 1.2.2. in the 2014 4th Surveillance report.

<i>Performance Indicator & Guidepost Issue</i>	1.1.2: Limit and target reference points are appropriate for the stock.
Milestones	<ul style="list-style-type: none"> • 1st Annual Audit: In the first year following grant of recertification, and thereafter as necessary, CHMFS will work 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. • 2nd Annual Audit: In the second year following grant of recertification, and thereafter as necessary, CHMFS will work 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. • 3rd Annual Audit By the third year following grant of recertification, 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.
<i>Performance Indicator & Guidepost Issue</i>	1.2.2: There are well defined and effective harvest control rules in place
Milestones	<ul style="list-style-type: none"> • 1st Annual Audit: In the first year following grant of recertification, and thereafter as necessary, CHMFS will work 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.. • 2nd Annual Audit: In the second year following grant of recertification, and thereafter as necessary, CHMFS will work 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. • 3rd Annual Audit By the third year following grant of recertification, appropriate harvest rules for North Pacific albacore tuna stock should have been adopted by the IATTC (or their designated bodies) and this condition would be closed.

5.2 Previous assessments

The CHMSF North Pacific albacore tuna troll and jog fishery was previously certified against MSC Principles and Criteria as sustainable in March 2010. The fishery was assessed using the default assessment tree of the MSC Fishery Assessment Methodology v.1 (FAM v1).

Principle 1, Principle 2, and Principle 3 were scored 85.6, 96.7 and 91.75, respectively.

PI 1.1.2 was scored 75, and so a Condition was set as detailed below.

It is recognised that the implementation of explicit reference points is not under control of CHMSF and therefore the following specific condition applies:

Condition PI 1.1.2 Limit and Target Reference Points are Appropriate for the Stock:

1. CHMSF to promote and support:

a. The management actions put forward, notably limitation on effort. Communications supporting such management measures should be made to appropriate organisations.

Appropriate Organisations shall include: Fisheries and Oceans Canada (DFO); IATTC; and WCPFC (Northern Committee).

Records should be provided to Global Trust by CHMSF of communications and responses;

b. ISC request to management authorities for guidance on the definition and application of biological reference points (BRPs) in order to facilitate response to requests for conservation advice. Communications supporting ISC request should be made by CHMSF to appropriate organisations.

Appropriate Organisations shall include: Fisheries and Oceans Canada (DFO); IATTC; and WCPFC (Northern Committee).

Records should be provided to Global Trust by CHMSF of communications and responses.

2. CHMSF to provide a summary to Global Trust on Canada's responses to IATTC/WCPFC management resolutions, as provided by Fisheries and Oceans Canada and Federal Government of Canada, when such materials become available.

3. Should the existing resolution be withdrawn following the ISC conservation advice, then point 1.a would be considered closed.

4. Should ISC existing request (1.b) be withdrawn then 1.b would be considered closed.

5. If additional resolutions are proposed, then these should be supported as in 1 above and records retained and provided to Global Trust.

6. If additional guidance, related to the definition of biological reference points, is requested from the ISC, then these should be supported as in 1.b above and records retained and provided to Global Trust.

Timeline for Condition PI 1.1.2:

Point 1. If still appropriate, should be pursued immediately upon certification.

Point 2. CHMSF should provide this information within 6 months of certification.

Point 5. Should further resolutions be passed by IATTC/WCPFC in this regard, supportive actions should be initiated at the earliest possible opportunity thereafter.

Point 6. Should further guidance be requested by the ISC in this regard, supportive actions should be initiated at the earliest possible opportunity thereafter.

This condition has not been closed at the 4th Surveillance audit (completed in August 2014). As specified in the Condition section, SAI Global assessment team considered that CHMFS has made adequate progress and met all the requirements of the Client Action Plan set out from the original certification report according to FAM. However progress against measurable outcomes is judged to be “behind target”. No reference points have been implemented at this time, and hence, the PI score does not achieve an 80 score. Therefore this condition cannot be closed out at this 4th surveillance audit. This new requirement allows the existing condition to be rewritten in re-assessment in an outcome-focused manner. Therefore new revised milestones have been set and the assessment team will evaluate if the progress against these revised milestones are back “on target” at the first surveillance audit.

The activities referring to the new milestones for the CHMSF fishery have been harmonized with AAFA/WFOA certificate for the condition raised against PI 1.1.2. As the CHSMF fishery is in re-assessment, additional harmonization activity will take place to ensure that harmonization is consistent with MSC CR1.3 procedures.

No further conditions were set against the CHMSF North Pacific albacore tuna troll and jig during the period of first assessment from 2010-2015.

5.3 Assessment Methodologies

The MSC Principle and Criteria for Sustainable Fishing Standard sets out the requirements for a certified fishery. The Certification Methodology adopted by the MSC involves the interpretation of these Principles and Criteria into specific Performance Indicators against which the performances of the fishery can be measured according to pre-specified guideposts. A fishery is assessed against three Principles. The default assessment tree developed by the MSC includes 31 Performance Indicators. Principle 1 addresses the need to maintain the target stock at a sustainable level; Principle 2 addresses the need to maintain the ecosystem in which the target stock belongs to; and Principle 3 addresses the need for an effective fishery management system to fulfil Principles 1 and 2 and ensure compliance with national and international regulations.

PRINCIPLE 1: Sustainable fish stock

A fishery must be conducted in a manner that does not lead to overfishing or depletion of the exploited populations, and for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.

The intent of this principle is to ensure that the productive capacities of resources are maintained at high levels of abundance designed to retain their productivity, provide margins of safety for error and uncertainty, and restore and retain their capacities for yields over the long term.

Criteria

- 5.1. The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.
- 5.2. Where the exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level consistent with the precautionary approach and the ability of the populations to produce long-term potential yields within the specified time frame.
- 5.3. Fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity.

PRINCIPLE 2: Minimizing environment impact

Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

The intent of this principle is to encourage the management of fisheries from an ecosystem perspective under a system designed to assess and restrain the impacts of the fishery on the ecosystem.

Criteria

1. The fishery is conducted in a way that maintains natural functional relationships among species and should not lead to trophic cascades or ecosystem state changes.
2. The fishery is conducted in a manner that does not threaten biological diversity at genetic, species or population levels and avoids or minimizes mortality of, or injuries to endangered, threatened or protected species.
3. Where the exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level consistent with the precautionary approach and the ability of the populations to produce long-term potential yields within the specified time frame.

PRINCIPLE 3: Effective management

The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

The intent of this principle is to ensure that there is an institutional and operational framework for implementing Principle 1 and 2, appropriate to the size and scale of the fishery.

Management system Criteria

1. The fishery shall not be conducted under controversial unilateral exemption to an international agreement.

The management system shall:

2. demonstrate clear long-term objectives consistent with MSC Principles and Criteria and contain a consultative process that is transparent and involves all interested and affected

parties so as to consider all relevant information, including local knowledge. The impact of fishery management decisions on all those who depend on the fishery for their livelihoods, including, but not confined to subsistence, artisanal, and fishery-dependent communities shall be addressed as part of this process.

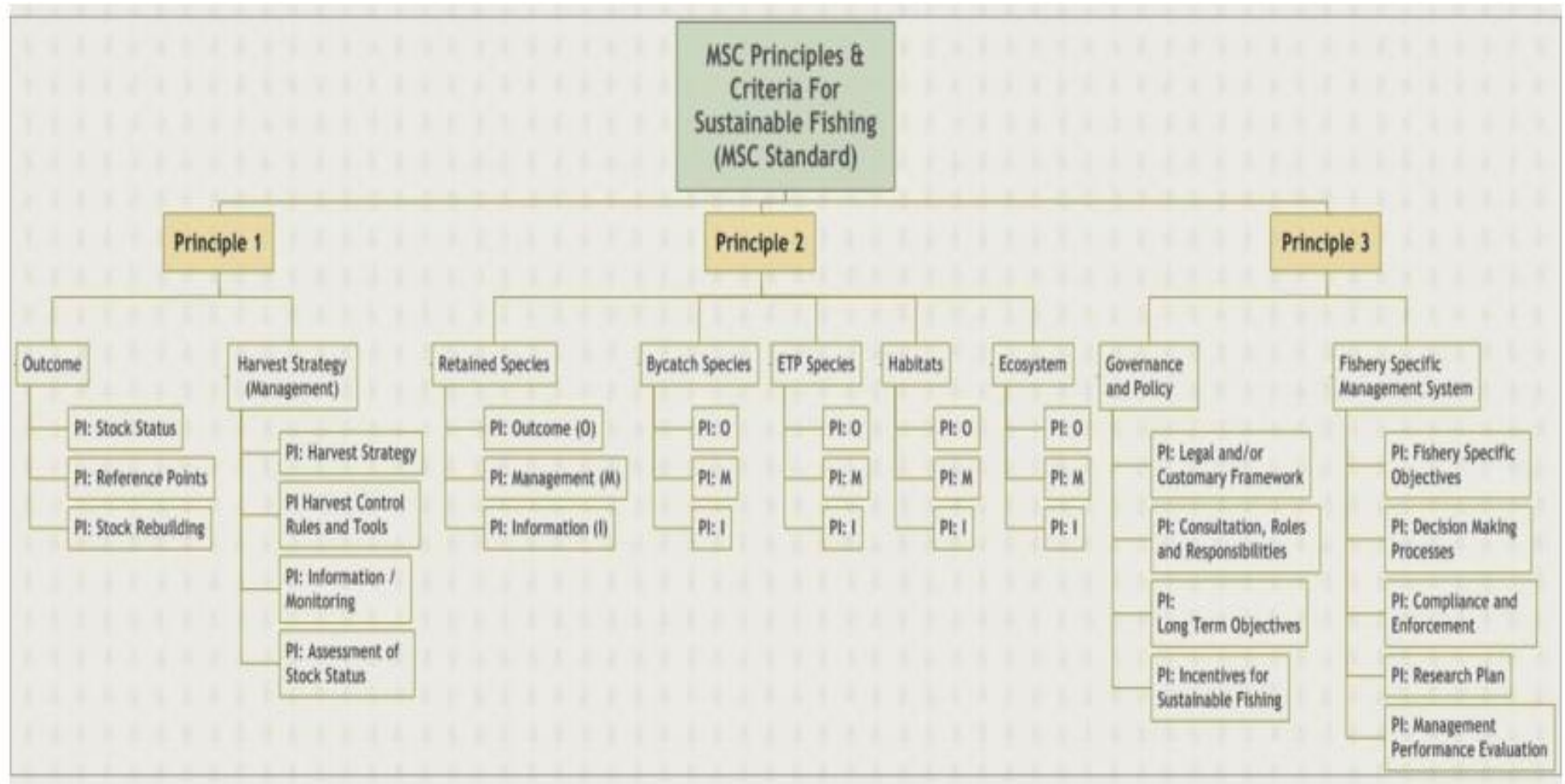
3. appropriate to cultural context, scale and intensity of the fishery – reflecting specific objectives, incorporating operational criteria, containing procedure for implementation and a process for monitoring and evaluating performance and acting on findings;
4. observe the legal and customary and long term interests of people dependent on fishing for food and livelihoods, in a manner consistent with ecological sustainability;
5. incorporate an appropriate mechanism for the resolution of disputes arising within the system;
6. provide economic and social incentives that contributes to sustainable fishing and shall not operate with subsidies that contribute to unsustainable fishing;
7. act in a timely and adaptive fashion on the basis of the best available information using a precautionary approach particularly when dealing with scientific uncertainty;
8. incorporate a research plan - appropriate to the scale and intensity of the fishery – that addresses the information needs of management and provides for the dissemination of research results to all interest parties in a timely fashion;
9. require that assessments of the biological status of the resource and impacts of the fishery have been and are periodically conducted;
10. specify measures and strategies that demonstrably control the degree of exploitation of the resource;
11. contains appropriate procedures to effective compliance, monitoring, control, surveillance and enforcement which ensure that established limits to exploitation are not exceeded and specifies corrective actions to be taken in the event that they are.

Operational Criteria

Fishing operations shall:

12. make use of fishing gear and practices designed to avoid the capture of non-target species (and non-target size, age, and/or sex of the target species); minimize mortality of this catch where it cannot be avoided, and reduce discards of what cannot be released alive;
13. implement appropriate fishing methods designed to minimize adverse impacts on habitat, especially in critical and sensitive zones such as spawning and nursery areas;
14. not use destructive fishing practices such as fishing with poisons or explosives;
15. minimize operational waste such as lost fishing gear, oil spills, on-board spoilage of catch, etc.;
16. be conducted in compliance with the fishery management system and all legal and administrative requirements; and
17. assist and co-operate with management authorities in the collection of catch, discard, and other information of importance to effective management of the resources and the fishery.

MSC Current Scheme Documents	Version
MSC Fishery Standard - Principles and Criteria for Sustainable Fishing	1.1
MSC Certification Requirements	1.3
Guidance to MSC Certification Requirements	1.3
MSC Guidance to Certification Bodies on Stakeholder Consultation in Fishery Assessment	2
MSC Full Assessment Reporting Template	1.3



5.4 Evaluation Processes and Techniques

5.4.1 Site Visit

Initial consultation meetings for the re-assessment of North Pacific albacore tuna were held in Vancouver BC, and La Jolla California in April 2014. The objectives of the consultation meetings were to provide information and understanding of the activities of the CAB and to discuss the fishery management organizational roles in the management of the albacore tuna resources. The consultation meetings were designed to be inclusive of all organizations and representatives of the albacore tuna fisheries. However, the consultation plan was designed to strategically capture sufficient information to ensure understanding and confidence with respect to full assessment scoring.

The on-site consultation also served other important functions. These included:

- Responding to questions and comments raised by participants in the fishery at this initial stage in the assessment.
- The client group provided information, documents, and a list of stakeholders as required by SAI Global. This served to allow the assessment team to collect general information on the fisheries, identify information gaps and identify key stakeholders for the information gathering exercise.
- Following the collation of general information on the fishery, a number of additional meetings with key stakeholders who expressed an interest to meet were scheduled by the assessment team to fill in information gaps and to explore and discuss areas of concern.

Meetings were held in Vancouver, BC and La Jolla California and are recorded in Table 10.

5.4.2 Consultations

Public announcements of the progression of the full assessment were made as follow:

Table 9. Stakeholder consultation process.

Date	Purpose	Media
27/02/2014	Fishery Enters Full Assessment	Notification on MSC website Direct email/letter
27/02/2014	Assessment Team Nomination	Notification on MSC website
10/03/2014	Assessment Team Confirmation	Notification on MSC website
27/02/2014	Default Assessment Tree	Notification on MSC website
27/02/2014	Site Visit Scheduled	Notification on MSC website Direct email/letter
26/08/2014	Revised timeline	Notification on MSC website Direct email/letter
20/11/2014	Proposed Peer Reviewers	Notification on MSC website Direct email/letter
06/01/2015	Revised timeline	Notification on MSC website Direct email/letter

24/02/2015	Public Comment Draft Report issued	Notification on MSC website Direct email/letter
19/03/2015	Variation request and variation response for certificate extension issued	Notification on MSC website Direct email/letter

Table 10. Summary of consultation meetings during the April 2014 site visit.

Name Organization	Present at Meetings	Location	Meeting Type	Date
CHMSF 4829 Maplegrove Street Victoria, BC CANADA V8Y 3B9	SAI Global Assessment team Lorne Clayton, Executive Director	DFO Offices Burrard Street Vancouver, BC	Meeting	08/04/14
BC Ministry of Agriculture Victoria, BC	SAI Global Assessment team Barron Carswell Larry Neilsen	Victoria, BC Hyatt Hotel, Vancouver	Teleconference	08/04/14
Fisheries and Oceans, Canada Suite 200-401 Burrard St. Vancouver BC	SAI Global Assessment team Jordan Mah John Holmes	DFO Offices Burrard Street Vancouver, BC	Meeting	08/04/14
IATTC 8604 La Jolla Shores Drive La Jolla CA 92037-1508	SAI Global Assessment team Rick Deriso Mark Maunder Carolina Minte- Vera	IATTC 8604 La Jolla Shores Drive La Jolla, CA	Meeting	10/04/14
NOAA Southwest Fisheries Science Center 3333 North Torrey Pines Court La Jolla, CA	SAI Global Assessment team Suzanne Kohin Kevin Piner John Childers	South West Fisheries Science Center La Jolla, CA	Meeting	10/04/14

5.4.3 Evaluation Techniques

Each PI under each Principle is weighted so that each of the three Principles is equal to one other.

At the Level of the Performance Indicator, the performance of the fishery is assessed as a 'score'. In order for the fishery to achieve certification, an overall weighted average score of 80 is necessary for

each of the three Principles and no Indicator should score less than 60. Accordingly, 100 represents a theoretically ideal level of performance and 60 a measureable shortfall.

The Scoring Guideposts (SGs) identify the level of performance necessary to achieve 100, 80 (a pass score), and 60 scores for each Performance Indicator.

The scoring methodology is fully explained in the MSC Fisheries Assessment Methodology. It can be summarized as follow:

- Scoring is a qualitative process, involving discussion between team members and arrival at a joint agreed score. Scores should be normally assigned in divisions of 5 points
- The only narrative guidance that is available is at 60, 80 and 100 SGs. Intermediate scores must therefore reflect;
 - A failure to meet all the scoring issues⁴⁵ specified in a SG.
- The following system should then be used to determine the overall score for the PI from the scores of the different scoring issues. This system combines a primary approach based on the combination of scores achieved by the individual scoring issues (the a) to i) list below):
 - a) Score = 60: all issues meet SG60, and only SG60. Any scoring issues within a PI which fails to reach SG60, represents a failure against the MSC standard and no score shall be assigned.
 - b) 65: all issues meet SG60; a few achieve higher performance, at or exceeding SG80, but most do not meet SG80.
 - c) 70: all issues meet SG60; some achieve higher performance, at or exceeding SG80, but some do not meet SG80 and require intervention action to ensure they get there.
 - d) 75: all issues meet SG60; most achieve higher performance, at or exceeding SG80; only a few fail to achieve SG80 and require intervention action.
 - e) 80: all issues meet SG80.
 - f) 85: all issues meet SG80; a few achieve higher performance, but most do not meet SG100.
 - g) 90: all issues meet SG80; some achieve higher performance at SG100 but some do not.
 - h) 95: all issues meet SG80; most achieve higher performance, at SG100; only a few fail to achieve SG100.
 - i) 100: all issues meet SG100

⁴⁵ Scoring issues: The different parts of a single scoring guidepost, where more than one part exist covering related but different topics.

Table 11. Weights assigned to each component and PI within the Assessment tree structure

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

6. Traceability

6.1 Eligibility Date

In accordance with CR Requirements CR 27.6 MSC product eligibility date may be up to a maximum 6 months prior to the publication of the Public Comment Draft Report (PCDR). The client representative has indicated the client member groups desire to have the opportunity, if they so wish, to take full advantage of this 6 month period. The date was revised from a previous date to accommodate the identification of any existing albacore tuna product from the under assessment fishery and held in frozen storage by supply chain entities that are already certified to the MSC Chain of Custody Programme. This product may become eligible for identification with an MSC claim on eventual certification of the fishery.

The PCDR was initially scheduled to be published on October 2014. Therefore, the initial proposed target eligibility date was April 2014. A revised timeline was posted on the 6th January 2015, and the new proposed date for the PCDR publication is February 2015. The publication date of the PCDR is the 24th February 2015, therefore the proposed target eligibility date is the 24th August 2014.

6.2 Traceability within the Fishery

6.2.1 Introduction

Traceability within the CHMSF North Pacific albacore fishery is considered to be excellent. All albacore are landed as blast or brine frozen whole fish, no processing takes place at sea. The limit of identification of landings is the landing of albacore by CHMSF member vessels, or other troll vessels identified by CHMSF as being part of the certified fishery.

In addition to MSC certification, CHMSF is a marketing body focused on product quality, and all landings are coded and can be traced back to a specific vessel and date of landing, so allowing any quality concerns to be identified and resolved quickly. This tracing system supports the view that there is almost no potential for non-certified fish to be introduced to the supply chain or for transshipment to occur.

6.2.2 Traceability within the fishery

The extent of certification of The CHMSF British Columbia North Pacific Albacore Tuna Fishery is defined by the Unit of Certification:

- Species: *Thunnus alalunga*
- Geographic area: North Pacific
- Method of Capture: Troll & Jig
- Eligible Fishers: CHMSF member vessels and Canadian vessels recognised by CHMSF. Any vessels joining the unit of certification will recognise any requirements of MSC certification that applies to CHMSF vessels.

CHMSF Eligibility Criteria of recognition of vessels:

Any “Canadian flagged” vessels can apply to join the CHMSF Certificate if they have privileges to fish tuna under Canadian Fisheries Regulation. Vessels must sign an agreement that they abide by the CHMSF Platinum Quality Assurance Criteria, which addresses issues such as by catch, troll gear, barbless hooks, logbook, and criteria (The use of this gear and documentation such as logbooks, and sales slip, hail, etc. are also part of the condition of license for these vessels).

Landing slips from vessel and throughout COC will indicate Vessel MSC Certifier numbers. The list of eligible vessels will be maintained, up-dated, and made available for certificate purposes on the CHMSF website <http://www.canadianalbacoretuna.com/sustainability.html>.

In addition each time a vessel is added or deleted to the Certificate all vessels and buyers/processors are notified electronically of a change.

Mechanism to recognize vessels is as follows:

On certification:

- All vessels that have joined the CHMSF Certificate will be issued a copy of the CHMSF–MSC Certificate. Each vessel will be designed a numeric identifier which is unique to that vessel.
- Vessels are required by agreement to have a copy of their Certificate and/or their unique identifier number on board during fishing activities.
- The unique vessel identifier number must be on each transaction of tuna sold including the Logbook-Fish slips-Label

The Canadian Pacific Albacore Logbook

As a condition for license, all vessels fishing for albacore must record the catch in the Canadian Pacific Albacore Tuna Logbook (Table 12). Relevant information recorded for traceability purposes includes; vessel name and registration number, method of capture, location fished in a daily basis and number of pieces of fish caught. All vessels land their catch directly. Under Canadian Regulation, it is illegal to tranship at sea while fishing in Canadian waters.

The risk for the eligible vessel to fish outside of unit of certification was found to be low. Historically any Canadian catches of the South Pacific albacore have generally occurred around French Polynesia and are landed in Papeete, and therefore, do not enter the Canadian Processor stream. Also, there is a clear separation of seasonal activity between the fisheries of South Pacific and North Pacific albacore. Canadian vessels catch North Pacific albacore primarily between June and October. This is controlled by the bilateral treaty for those Canadian vessels fishing in US waters and by the presence of fish, which do not occur in Canadian waters outside of the June-October timeframe. Albacore Tuna from Southern Pacific stocks are caught between January-March.

The procedures defined to label each batch landed with the CHMSF vessel identifier has been proposed to ensure that fish are landed under the certificate in operation.

Table 12. Canadian Pacific Albacore Tuna Logbook.

2009 CANADIAN PACIFIC ALBACORE TUNA LOG BOOK										
VESSEL NAME:						CAPTAIN:			Submission Deadline	
Date (mm-dd)	Time (hh:mm)	Latitude (xx yy)	Longitude (xxx yy)		Water Temp (F)	Species (see cover)	Number of Fish	Avg Wt per Fish (lbs)	By-Catch Released (Y or blank=N)	November 12, 2009
	START					ALB				FIN:
		N S	E W							VRN:
	STOP									HAIL #
Length (cm)										
	START					ALB				TRIP:
		N S	E W							GEAR:
	STOP									JIGS:
Length (cm)										DAYS FISHED:
	START					ALB				
		N S	E W							OFF LOAD
	STOP									PORT:
Length (cm)										BUYER:
	START					ALB				DATE:
		N S	E W							FISH (PCS):
	STOP									WEIGHT (LBS):
Length (cm)										SALES SLIP:
	START					ALB				DOCK SALES - PERSONAL USE
		N S	E W							(PCS):
	STOP									
Length (cm)										PAGE OF FOR TRIP
DATE:										
DATE:		COMMENT -INTERACTIONS:								
DATE:		COMMENT -INTERACTIONS:								

At-Sea Processing

Under Canadian regulations, at-sea processing is illegal.

At-sea transshipment

Under Canadian regulations, at-sea transshipment is illegal while fishing in Canadian waters.

Canadian fishing vessels that are licensed to fish albacore tuna in waters of the USA are authorized pursuant to Article III of the Tuna Treaty to tranship their catch, transshipment events are required to be documented and reported. When fishing activities occur outside Canada and USA EEZ, IATTC and WCPFC allow transshipment, but Pacific albacore tuna vessels are required to document and report transshipment events to enable monitoring.

However, transshipment activities are very uncommon and occur rarely.

Point of landings

All fish must be landed at a "Landing Stations" licensed under the Fisheries Act (Province of British Columbia), except:

- Fish sold directly to the public under authority of a fish harvester's vending licence issued under the Fisheries Act (Province of British Columbia).
- Fish landed in the USA.

Canadian fishing vessels that are licensed to fish albacore tuna in waters of the USA are authorized pursuant to Article III of the Tuna Treaty to enter, land their catches, sell or tranship their catch, obtain fuel, supplies, repairs and equipment at the following ports.

- Bellingham, Washington
- Westport, Washington
- Newport, Oregon

- Coos Bay, Oregon
- Eureka, California

In Canada fish are landed at “Landing Stations” rather than specific ports, as not all ports have facilities for landing fish.

Landings stations are licensed by the Province under the s.13 of the Fisheries Act (BC). Anyone operating a fish buying station is licensed by the Province, and a complimentary requirement in the Fish Inspection Regulations (BC) that a person must not buy or attempt to buy fish from a harvester unless they are licensed as a buyer or broker.

A current list of licensed facilities and license holders is available through the BC Ministry of Agriculture and Lands. Below is their fisheries licensing page <http://www.agf.gov.bc.ca/fisheries/licences/main.htm#seafood>. When a Fish landing station is designated by the Ministry, it becomes a Federal Condition of the Tuna Licence that observers are appointed to review the landings. The CHMSF is preparing a list of preferred “Landing stations” by its MSC Certificate buyers/processors and will post that list on the CHMSF website once completed. However, this does not exempt landings to other designated landings stations. There is an exception in legislation that harvesters are permitted to sell their own catch directly to a member of the public for that person's personal use if the harvester holds a fisherman's vending license issued under the Fisheries Act (BC). The physical requirements that facilities must meet (i.e. sanitary conditions) are set out in the Fish Inspection Regulations (BC).

Fish Slips

At first point of landing a Fish Slip is generated by the vessel master (Figure 21). Information recorded on the Fish slip includes; vessel name, vessel registration number vessel master name and tally man, landed weight (lbs) of each species, method of dressing the catch, days fished by area, date landed, name of buying station/processor and price per pound on a fish slip for each landing

① BOOK/CASH FISH (SMALL FORM) *Public Sale*
 COMPANY NAME & ADDRESS *or Buying Company*
or Frozen for later sale
 FISHERMAN'S NAME *Operator or License Holder* ② *39999*
 ADDRESS *Operator or License holder*
 NAME OF PLANT, PACKER OR COLLECTOR *99990*
 TRIP LENGTH IN DAYS ☐
 HAIL IN NO. ☐
 SHIPPER'S NAME _____ ST. # _____
 CREW NAME _____ ST. # _____
 CREW NAME _____ ST. # _____
 CREW NAME _____ ST. # _____

③ *97* ← Do not change number
 113601
 29-3 1
 29-7 1
 TOTAL 2
 GEAR: ☐ GUNNET ☐
☐ SEINE ☐
☐ TRawl ☐
☐ FREEZE ☐
☐ OTHER

④
 FISH QUALITY
 SLUSH ☐
 ICE ☐
 FISH QUALITY

⑤ *98-07-24*
 DATE

⑥

SPC	WEIGHT	CODE	SPECIES	PRICE	VALUE
184	895		SOCKEYE RD.	3.00	2,685.00
7	55		COHO RD.	0.70	38.50
			PINKS RD.		
			CHUMS RD.		
			RED SPRING RD.		
			WHITE SPRING RD.		
			STEELHEADS RD.		
			JACKS		
2	30		RED SPRING DR.	2.50	75.00
			RED SPRING DR.		
			WHITE SPRING DR.		
			WHITE SPRING DR.		
			SOCKEYE DR.		
			COHO DR.		

Figure 21. Fish Slip generated at first point of landing.

6.3 Eligibility to Enter Further Chains of Custody

Chain of Custody commences at the point of first sale for any party not included in the fishery certificate and for parties within the fishery certificate.

The scope of the fishery certificate includes all eligible vessels. The certificate is owned by the client, the CHMSF, who represent all eligible vessels. Vessels that operate under the CHMSF and land North Pacific albacore tuna from the certified fishery do not require chain of custody.

An active list of eligible vessels within the CHMSF (Table 13) has been provided to the assessment team and will be maintained available to buyers (Table 14).

The system for recording the transfer of product to buyers is sufficient to identify that all product is eligible for MSC CoC.

Table 13. List of eligible vessels (date 15/09/2014).

Canadian Albacore Tuna USA68 Eligibility list for 2014 - June 15 to September 15, 2014						
Licence	VRN	Vessel Name	OAL (m)	Home Port	Captain	Radio Call Sign
USA68 1 2014	30767	REDEEMER	19.81	Victoria	Bob McIntosh	VY 8423
USA68 2 2014	23462	NOOTKA LADY	13.72	Cowichan Bay	Lawrence Teague	CZ 8827
USA68 3 2014	311124	ESTEVAN	15.09	Victoria	Bruce Devereux	None
USA68 4 2014	25356	SUMMER BREEZE II	16.46	Victoria	Errol Schuler	CZ8315
USA68 5 2014	30632	RED SKY I	28.21	Vancouver	Giuseppe Graceffo	VG 2302
USA68 6 2014	30025	STRIDER KING	19.54	Nanaimo	Arne Sundstrum	CFL 5249
USA68 7 2014	22413	LASQUETI ENDEAVOR	13.41	Vancouver	Graham Millicheap	CFG 7495
USA68 8 2014	20497	WESTERLY WIND	18.29	Victoria	Stephen Jensen	CFL 6739
USA68 9 2014	22600	DARANDY	12.90	Port Alberni	Darryl Aikman	CY5403
USA68 10 2014	20070	HARVEST MOON III	14.91	Nanaimo	Gregg Holm	NONE
USA68 11 2014	24402	MALAHAT II	14.33	Vancouver	William Woodbury	VG 8979
USA68 12 2014	24576	GOTHA FOSS	14.94	Nanaimo	Gustave Johnson	CY 8344
USA68 13 2014	29735	ENTERPRISE V	17.68	Steveston	Anare Rokotuiwakaya	CFG 7368
USA68 14 2014	23890	BASTION	15.24	Port Alberni	Mica Verbrugghe	VD 5501
USA68 15 2014	20874	BOLD VENTURE	14.28	Victoria	Peter Carr	CZ 6805
USA68 16 2014	24054	OCEAN BARON	14.10	Nanaimo	James Klaassen	CZ 7093
USA68 17 2014	22950	JEANETTE DAWN	15.19	Victoria	Bruce Watson	VG7900
USA68 18 2014	30926	SABLE MIST	13.41	Vancouver	Jeff Corey	CZ 4713
USA68 19 2014	23749	NATIVE DAWN	17.22	Nanaimo	Tad Larden	VG 4557
USA68 20 2014	22538	NERKA I	12.55	Vancouver	Ian Bryce	VG 3169
USA68 21 2014	23703	OCEAN PROVIDER	16.69	Port Alberni	Brian Jensen	CZ 8852
USA68 22 2014	28120	BEAUFORT SEA	18.90	Vancouver	Iver Erickson	CFN 4444
USA68 23 2014	23309	ZENA D	14.83	Vancouver	Peter Mackenzie	CZ 5398
USA68 24 2014	24294	KAL-ANNE	16.46	Victoria	William Palleeson	CZ 9290
USA68 25 2014	23111	SEA TREK II	12.50	Victoria	Paul McClary	CZ 8808
USA68 26 2014	29569	LASQUETI STORM	20.68	Nanaimo	Duane Taylor	CFC 3353
USA68 27 2014	30552	OCEAN ZEPHYR	15.36	Nanaimo	Cody Johnston	NONE
USA68 28 2014	29477	TANTRUM NO. 1	15.23	Victoria	Bruce Martinelli	CFN 4205
USA68 29 2014	23691	PACIFIC CONCEPT	17.22	Victoria	Ernest Armstrong	VG 4412
USA68 30 2014	29171	PACIFIC LION	16.64	Nanaimo	Robert Davidson	NONE
USA68 31 2014	20412	OCEAN AGGRESSOR	21.74	Nanaimo	William Johnston	CFL 4935
USA68 32 2014	23894	LEFT HOOK	14.58	Victoria	Glen Johnston	CY 3381
USA68 33 2014	23229	NORDIC SPIRIT	16.15	Vancouver	Mike Campbell	CFG 7630
USA68 34 2014	23529	TEQUILA	15.24	Nanaimo	Justin Dickens	CZ 8456
USA68 35 2014	23188	PAKALOT	19.96	Port Alberni	Korey Sundstrum	NONE
USA68 36 2014	22558	OCEAN PHOENIX	13.93	Vancouver	Wayne Booker	NONE
USA68 37 2014	24153	RAINBOW ISLE	14.32	Vancouver	Stephen Watson	VG 8836
USA68 38 2014	23658	HATTA III	15.54	Vancouver	Bruce Wight	CY 2079
USA68 39 2014	20352	PACHENA NO.1	22.81	Vancouver	Wayne Rouillard	VD 2970
USA68 40 2014	23285	WESTERLY	18.85	Victoria	Gordon Cranton	VG 3832
USA68 41 2014	29294	FREEDOM CHARGER	13.13	Victoria	Donald Gordon	VB 3668
USA68 42 2014	29743	PACIFIC ADVENTURE	19.10	Nanaimo	Todd Wilkin	CFN4730
USA68 43 2014	27426	OCEAN DANCER	14.07	Nanaimo	James Wallace	NONE
USA68 44 2014	24013	OPTIMIST #1	18.24	Nanaimo	Peter De Greef	VJ 228
USA68 45 2014	25553	TUNA KING	16.35	Victoria	Stewart Kennedy	NONE

Table 14. List of Buyers & Processors (February 2015). Source: <http://www.canadianalbacoretuna.com/contact.html#processors>.

Company	MSC Certificate Program	Platinum QA Licence	Website
Albion Fisheries Ltd.	CHMSF-MSC-P06	QA Licence CHMSF-1077	http://www.albion.bc.ca
Estevan Tuna	CHMSF-MSC-P2	QA Licence CHMSF-311124	http://www.bctuna.com
French Creek Seafood Ltd.	CHMSF-MSC-P05	QA Licence CHMSF-1097	http://www.frenchcreekseafoods.com
North Delta Seafoods Ltd.	CHMSF-MSC-P1	QA Licence CHMSF-9398	http://www.ndseafoods.com
Natural Gifts Seafoods	CHMSF-MSC-P12	QA Licence CHMSF-1985	www.naturalgiftseafoods.com/
SEVEN SEAS FISH COMPANY	CHMSF-MSC-P07	QA Licence CHMSF-12411	http://sevensseas.ca
Bornstein Seafoods Inc. (USA)	CHMSF-MSC-P14	QA Licence CHMSF-1001	http://borstein.com
Gold River Seafood Ltd.	CHMSF-MSC-P15	QA Licence CHMSF-10252	http://goldriverseafood.com
Aero Trading Co. Ltd.	CHMSF-MSC-P11	QA Licence CHMSF-8592	http://aerotrading.ca
Keystone Merchandising	CHMSF-MSC-P12	QA Licence CHMSF-4751	
St. Jean Cannery and Smokehouse	CHMSF-MSC-P13	QA Licence CHMSF-242	http://stjeans.com
Jessie's Ilwaco Fish Col. Inc.	CHMSF-MSC-P2	QA Licence CHMSF-800	http://ilwacofishco.com
Ten Point Enterprises Ltd.	CHMSF-MSC-P16	QA Licence CHMSF-1308	
Pacific Storm Seafoods Ltd.	CHMSF-MSC-P17	QA Licence CHMSF-3175	www.pacificstorm.ca

The CHMSF will update the client group members at any time there is a change in the composition of such. Updated client group members can be found at: <http://www.canadianalbacoretuna.com/sustainability.html>. A written “agreement to designate party on MSC certification” has been developed by the CHMSF which will be used to recognize new eligible vessels. All albacore will have to be unloaded at a “licensed buying station” and through buyers/processors who have joined the CHMSF MSC Certificate and this will be cross referenced through the buyers/processors CoC Certifier. For those MSC Vessels who sell publically (whole unprocessed fish) – details of fishing and sales transaction must be identified both in mandatory logbook, and sales slip which are submitted to governments and cross references.

7. Evaluation Results

The North Pacific albacore tuna fishery achieved a score of 80 or higher on each of the three MSC Principles independently and did not score less than 60 against any indicator. The score achieved in each Principle and for each Performance Indicator are shown in Table 14 and Table 15, respectively.

Although the SAI Global assessment team found the UoC in overall compliance, it also found the performance of the North Pacific Albacore Tuna fishery on two PIs (PI 1.1.2 Reference Points, and PI 1.2.2 Harvest Control Rules) to be below the established compliance mark (Table 15). Therefore, two conditions were attached to the fishery, which must be addressed within a specific timeframe. Full explanation of these conditions is provided in Appendix 1.3. Also, a full explanation of how the Client intends to meet these conditions is provided in the Client Action Plan in Appendix 1.3.

7.1 Principle level score

Table 15. Final Principle Scores

Final Principle Scores	
Principle	Score
Principle 1 – Target Species	85
Principle 2 – Ecosystem	95.7
Principle 3 – Management System	91.5

7.2 Summary of Scores

Score assigned to PIs are shown in Table 16.

Table 16. Performance Indicators scoring assigned to the CHMSF 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	70
				1.1.3	Stock rebuilding	0.333	0.1667	NS
		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	85
				3.2.4	Research plan	0.2	0.1	90
				3.2.5	Management performance evaluation	0.2	0.1	80

7.3 Summary of Conditions

Table 17. Summary of Conditions

Condition number	Condition	Performance Indicator	Related to previously raised condition? (Y/N/N/A)
1	The client must provide evidence of implementation of limit reference point set above the level at which there is an appreciate 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.	1.1.2	Y
2	The client must provide evidence of implementation of well-defined harvest control rules that reduce exploitation rates as the limit reference point is approached.	1.2.2	NA

7.4 Determination and Formal Conclusion

The Certification Committee of SAI Global has determined that:

- The **CHMSF North Pacific albacore tuna fishery** is to be awarded certification to the Marine Stewardship Council Sustainable Fishing Standard.

SAI Global hereby publicly announces its intention to certify the Fishery Unit and upon issue of a certificate, the client shall have the right to claim the fishery as a “well managed and sustainable fishery” in accordance with the MSC Principles and Criteria for Sustainable Fishing. Fisheries material thereof is deemed eligible for entry the MSC Chain of Custody according to requirements.

References

- Brodziak, J., H.-h. Lee, and M. Mangel. 2011. Probable values of stock-recruitment steepness for North Pacific albacore tuna. Working paper presented at the ISC Albacore Working Group Stock Assessment Workshop, 30 May-11 June 2011, Nat. Res. Inst. Far Seas Fish., Shimizu, Shizuoka, Japan. ISC/11/ALBWG/11: 9 p.
- Chen, K.-S., P.R. Crone, and C.-C. Hsu. 2010. Reproductive biology of albacore *Thunnus alalunga*. J. Fish Biol. 77: 119-136.
- Chen, K.-S., T. Shimose, T. Tanabe, C.-Y. Chen, C.-C. Hsu. 2012. Age and growth of albacore *Thunnus alalunga* in the North Pacific Ocean J. Fish. Biol. 80: 2328-2344.
- Childers, J., S. Snyder, and S. Kohin. 2011. Migration and behavior of juvenile albacore (*Thunnus alalunga*). Fish. Oceanogr. 20: 157-173.
- Clarke, C.L., and Jamieson, G.S. 2006. Identification of ecologically and biologically significant areas in the Pacific North Coast Integrated Management Area: Phase II – Final Report. Can. Tech. Rep. Fish. Aquat. Sci. 2686: v + 25 p.
- Clemens, H.B. 1961. The migration, age, and growth of Pacific albacore (*Thunnus germon*), 1951-1958. Calif. Dept. Fish Game Fish. Bull. 115: 1-128.
- DFO 2010. Potential impacts of fishing gears (excluding mobile bottom-contacting gears) on marine habitats and communities. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/003.
- DFO 2011. Recovery Strategy for the Basking Shark (*Cetorhinus maximus*) in Canadian Pacific Waters [Final]. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. v + 25 pp.
- DFO 2013. Report on the Progress of Recovery Strategy Implementation for Blue, Fin and Sei Whales (*Balaenoptera musculus*, *B. physalus* and *B. borealis*) in Pacific Canadian Waters for the Period 2006-2011. Species at Risk Act Recovery Strategy Report Series. Fisheries and Oceans Canada, Ottawa. v + 10 pp.
- DFO 2014a. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.
- DFO 2014b. Condition of 2014/2015 Category CT Tuna Licence. Licence Period: April 1, 2014 to March 31, 2015. DFO Pacific Region.
- Environment Canada. 2008. Recovery Strategy for the Short-tailed Albatross (*Phoebastria albatrus*) and the Pink-footed Shearwater (*Puffinus creatopus*) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. vii + 46 pp.
- Foreman, T.J. 1980. Synopsis of biological data on the albacore tuna *Thunnus alalunga* (Bonnaterre, 1788), in the Pacific Ocean. Pp 17-70 In W.H. Bayliff (ed.). Synopses of biological data on eight species of Scombrids. Inter-American Tropical Tuna Commission. Special Report No. 2. 520 p.
- Fuller S., C. Picco, J. Ford, C.-F. Tsao, L. E. Morgan, D. Hangaard, R. Chuenpagdee 2008. How We Fish Matters: Addressing the Ecological Impacts of Canadian Fishing Gear. Ecology Action Centre, Living Oceans Society, and Marine Conservation Biology Institute. ISBN 978-0-9734181-7-0.
- Graham, J.B. and R.M. Laurs. 1982. Metabolic rate of the albacore tuna *Thunnus alalunga*. Marine Biology 72: 1-6.
- Gregg, E.J., J. Calambokidis, L. Convey, J.K.B. Ford, R.I. Perry, L. Spaven, and M. Zacharias. 2006. Recovery Strategy for Blue, Fin, and Sei Whales (*Balaenoptera musculus*, *B. physalus*, and *B. borealis*) in Pacific Canadian Waters. Species at Risk Recovery Strategy Series. Fisheries and Oceans Canada, Vancouver. vii + 53 pp.

Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan.

Holmes, J. 2014. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean in 2013). Document prepared for the Fourteenth Meeting of the International Scientific Committee on Tuna and Tuna-like Species in the North Pacific Ocean (ISC), 16-21 July 2014, Taipei, Chinese-Taipei. ISC/14/Plenary/04: 16 p.

Ijima, H., and K. Satoh. 2014. Abundance indices of albacore tuna for Stock Synthesis III by Japanese longline fishery in the north west Pacific Ocean. Working paper submitted to the ISC Albacore Working Group Meeting, 14-28 April 2014, Southwest Fisheries Science Center, La Jolla, USA. ISC/14/ALBWG/01: 10 p.

Iwata, S., H. Sugimoto, and Y. Takeuchi. 2011. Calculation of the steepness for North Pacific Albacore. Working paper presented at the ISC Albacore Working Group Stock Assessment Workshop, 30 May-11 June 2011, Nat. Res. Inst. Far Seas Fish., Shimizu, Shizuoka, Japan. ISC/11/ALBWG/18: 6 p.

Kiyofuji, H. 2014. Update standardized CPUE for albacore caught by the Japanese pole and line fishery in the northwestern North Pacific Ocean. Working paper submitted to the ISC Albacore Working Group Meeting, 14-28 April 2014, Southwest Fisheries Science Center, La Jolla, USA. ISC/14/ALBWG/06: 10 p.

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. 131p.

ISC. 2011. Annex 9. Report of the Albacore Working Group Stock Assessment Workshop, 4-11 June 2011, Shizuoka, Japan. *In*: Report of the Eleventh Meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean. Plenary Session, 20-25 July 2011, San Francisco, CA, USA. 143 p.

Kiyofuji, H. 2014. Update standardized CPUE for albacore caught by the Japanese pole and line fishery in the northwestern North Pacific Ocean. Working paper submitted to the ISC Albacore Working Group Meeting, 14-28 April 2014, Southwest Fisheries Science Center, La Jolla, USA. ISC/14/ALBWG/06: 10 p.

Mangel, M., J. Brodziak, and G. DiNardo. 2010. Reproductive ecology and scientific inference of steepness: a fundamental metric of population dynamics and strategic fisheries management. *Fish and Fisheries* 11: 89-104.

Methot, R.D. 2000. Technical description of the Stock Synthesis assessment program. NOAA Tech. Memo. NMFS=NWFSC-43. 46 p.

Methot Jr., R.D., and C.R. Wetzel. 2013. Stock Synthesis: a biological and statistical framework for fish stock assessment and fishery management. *Fish. Res.* 142: 86-99.

Polovina, J.J., E. Howell, D.R. Kobayashi and M.P. Seki. 2001. The transition zone chlorophyll front, a dynamic global feature defining migration and forage habitat for marine resources. *Progr. Oceanogr.* 49: 469-483.

Republic of Korea. ISC/13/PLENARY/04. 12 p.

Stocker, M. (Ed.). 2005. *Report of the 19th North Pacific Albacore Workshop*. Nineteenth North Pacific Albacore Workshop, Nanaimo, B.C., Canada, November 25-December 2, 2004. Fisheries and Oceans Canada, Pacific Biological Station, B.C. 127 p.

Stocker, M., H. Stiff, W. Shaw, and A.W. Argue. 2007. The Canadian albacore tuna catch and effort

relational database. Can. Tech. Rep. Fish. Aquat. Sci. 2701: vi+76 p

Takagi, M., T. Okamura, S. Chow, and N. Taniguchi. 2001. Preliminary study of albacore (*Thunnus alalunga*) stock differentiation inferred from microsatellite DNA analysis. Fish. Bull. 99: 697-701.

Ueyanagy, S. 1969. Observations on the distribution of tuna larvae in the Indo-Pacific Ocean with emphasis on the delineation of the spawning areas of albacore, *Thunnus alalunga*. Bull. Far Seas Fish. Res. Lab. 2: 177-256.

Ueyanagy, S. 1957. Spawning of the albacore in the Western Pacific. Rep. Nankai Reg. Fish. Res. Lab. 6: 113-124.

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.

WCPFC. 2014. Evaluation of candidate target and limit reference points and decision framework for North Pacific albacore. Document presented at Northern Committee Tenth Regular Session, 1-4 September, 2014, Fukuoka, Japan. WCPFC-NC10-2014/WP-01: 5

Wells, R.J.D., S. Kohin, S.L.H. Theo, O.E. Snodgrass, and K. Uosaki. 2013. Age and growth of North Pacific albacore (*Thunnus alalunga*): Implications for stock assessment. Fish. Res. 147: 55-62.

White, A.L., R.I. Perry, M.A. Koops, R.G. Randall, A. Bundy, P. Lawton, M. Koen-Alonso, D. Masson, P.S. Galbraith, M. Lebeuf, M. Lanteigne, and C. Hoover 2013. A National Synthesis of the Fisheries and Oceans Ecosystem Research Initiative. DFO Can. Sci. Advis. Sec. Res. Doc. 2013/027. v + 31 p.

Xu, Y., T. Sippel, S.L.H. Teo, K. Piner,, K.-S. Chen, and R.J. Wells. 2014. A comparison study of North Pacific albacore (*Thunnus alalunga*) age and growth among various sources. Working Paper submitted to the ISC Albacore Working Group Meeting, 14-28 April, 2014, La Jolla, USA. ISC/14/ALBWG/04: 13 p.

Yoshida, H.O. 1968. Early life history and spawning of the albacore, *Thunnus alalunga*, in Hawaiian waters. Fish. Bull. 67: 205-211.

Zainuddin, M., H. Kiyofuji, K. Satho, and S.-I. Saitoh. 2006. Using multi-sensor satellite remote sensing and catch data to detect ocean hot spots for albacore (*Thunnus alalunga*) in the northwestern North Pacific. Deep-Sea Res. II 53: 419-431.

Zainuddin, M., K. Satho, and S.-I. Saitoh. 2008. Albacore (*Thunnus alalunga*) fishing ground in relation to oceanographic conditions in western North Pacific Ocean using remote sensed satellite data. Fish. Oceanogr. 17: 61-73.

List of websites

Fisheries and Oceans Canada (DFO)

<http://www.dfo-mpo.gc.ca>

FAO species fact sheet

<http://www.fao.org/fishery/species/2496/en>

Appendices

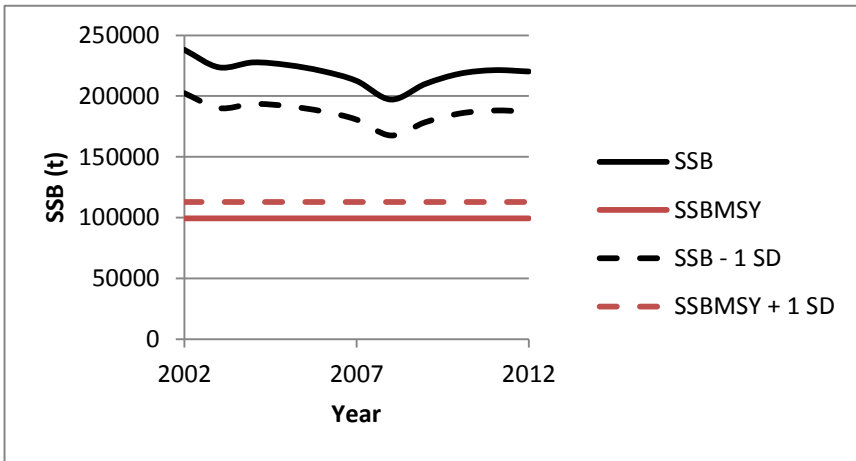
Appendix 1 Scoring and Rationales

Appendix 1.1 Performance Indicator Scores and Rationale

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	Y	Y

PI 1.1.1		The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing		
	Justification	<p>There is a high degree of certainty that the stock is above the point where recruitment would be impaired.</p> <p>The 2012 spawning stock biomass, SSB_{2012}, was estimated to be 220,202 t with a 95% confidence interval of 187,180-251,042 t. SSB_{2012} is more than twice as large as SSB_{MSY} of 99,360 t (CI 85,882-112,838 t). The lower bound estimate (34.4% of SSB_0) is well above the default limit reference point of 20% of B_0.</p> <p>The 2014 stock assessment provides stock-recruit estimates (ISC 2014), showing both the extremely large variability about the year-class strengths and the lack of relationship between spawning stock and subsequent recruitment. The scatter plot also shows that the female spawning biomass has been observed to be 100,000 t without any impairment in recruitment. This is consistent with the assumptions about the steepness ($h=0.9$) of the Beverton-Holt stock recruitment function used in the assessment.</p> <p>The Beverton-Holt function is reparameterised in terms of the steepness parameter. Steepness is defined as the proportion of virgin recruitment (R_0) obtained when the spawner abundance is 20% of the virgin level (SSB_0). The value for steepness ($h=0.9$) is based on two independent estimates for north Pacific albacore, based on the life history approach of Mangel <i>et al.</i> 2010. It is well known that the higher h is, the more resilient the population is, and the more robust the stock is to harvesting.</p> <div data-bbox="395 853 1385 1608"> <p>The graph titled 'B & H function h=0.9' plots 'Age 0 Recruits (millions)' on the y-axis (0 to 50) against 'Spawning Stock Biomass (t)' on the x-axis (0 to 600,000). A red curve represents the B & H function, which rises steeply from the origin and then levels off. A dashed vertical line at approximately 123,132 t represents the steepness parameter. A solid vertical line at 220,202 t represents the 2012SSB. The 2012SSB is significantly higher than the steepness reference point.</p> </div> <p>It is considered that there is a high degree of certainty that the current spawning stock biomass (SSB_{2012}) is above the point where recruitment would be impaired as the lower bound of the estimate of SSB_{2012} (187,180 t) is estimated to be considerably higher than 20% SSB_0 (123,132 t). Thus the SG 100 is met.</p>		
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	Y

PI 1.1.1		The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing	
	Justification	<p>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 2002-2012. The RFMOs (IATTC and WCPFC) have not established a target reference point for management purposes for north Pacific albacore (this issue is further considered in PI 1.1.2, 1.2.1 and 1.2.2). However, the 2014 stock assessment evaluates the stock status against MSY-based reference points (SSB_{MSY}, F_{MSY}). SSB_{MSY} has been estimated to be 99,360 t (95%CI 85,882-112,838 t). There is a high degree of certainty that the spawning biomass has been above SSB_{MSY} from 2002-2012. Thus the requirement for SG 100 is met.</p> 	
References	<p>Brodziak, J., H.-h.Lee, and M. Mangel. 2011. Probable values of stock-recruitment steepness for North Pacific albacore tuna. Working paper presented at the ISC Albacore Working Group Stock Assessment Workshop, 30 May-11 June 2011, Nat. Res. Inst. Far Seas Fish., Shimizu, Shizuoka, Japan. ISC/11/ALBWG/11: 9 p.</p> <p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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.</p> <p>Iwata, S., H. Sugimoto, and Y. Takeuchi. 2011. Calculation of the steepness for North Pacific Albacore. Working paper presented at the ISC Albacore Working Group Stock Assessment Workshop, 30 May-11 June 2011, Nat. Res. Inst. Far Seas Fish., Shimizu, Shizuoka, Japan. ISC/11/ALBWG/18: 6 p.</p> <p>Mangel, M., J. Brodziak, and G. DiNardo. 2010. Reproductive ecology and scientific inference of steepness: a fundamental metric of population dynamics and strategic fisheries management. <i>Fish and Fisheries</i> 11: 89-104</p>		
Stock Status relative to Reference Points			
	Type of reference point	Value of reference point	Current stock status relative to reference point
Target reference point	B_{MSY}	99,360 t Spawning Stock Biomass	The 2012 Spawning Stock Biomass was estimated to be 220,202 (95% CI 187,180-251,042 t). The current stock status relative to B_{MSY} is 2.2

PI 1.1.1	The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing		
			(e.g., $220,202/B_{MSY}=2.2$).
	F_{MSY}	0.219	$0.1154 \text{ yr}^{-1} / F_{MSY} = 0.52$
Limit reference point	Default $SSB_{20\%}$	123,132 t	$220,202/SBB_{20\%}=1.8$
	$F_{SSB-ATHL}$	0.16	$0.16 / F_{SSB-ATHL} = 0.72$
OVERALL PERFORMANCE INDICATOR SCORE:			100
CONDITION NUMBER (if relevant):			NA

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	Y
	Justification	<p>Reference points are appropriate for the stock and can be estimated.</p> <p>Biomass and fishing mortality target reference points are appropriate and have been estimated based on an analytical stock assessment.</p> <p>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).</p> <p>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).</p> <p>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 $F_{50\%}$).</p> <p>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."</p> <p>Therefore, the SG80 is met.</p>	

PI 1.1.2		Limit and target reference points are appropriate for the stock		
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 <i>inter alia</i> , 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. <i>In</i> : Report of the Fourteenth Meeting of the International Scientific Committee on Tuna and Tuna-like Species in the North Pacific		

PI 1.1.2	Limit and target reference points are appropriate for the stock	
	<p>Ocean. Plenary Session, 16-21 July, 2014, Taipei, Taiwan. 131 p.</p> <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.</p>	
OVERALL PERFORMANCE INDICATOR SCORE:		70
CONDITION NUMBER (if relevant):		1

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	The North Pacific Albacore tuna stock is not considered to be depleted.		
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	The North Pacific Albacore tuna stock is not considered to be depleted.		
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)	
	Justification	The North Pacific Albacore tuna stock is not considered to be depleted.		

PI 1.1.3	Where the stock is depleted, there is evidence of stock rebuilding within a specified timeframe	
References	ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i> : 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.	
OVERALL PERFORMANCE INDICATOR SCORE:		NS
CONDITION NUMBER (if relevant):		NA

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	Y	N
	Justification	<p>The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.</p> <p>The IATTC Antigua convention Article VII clearly states: “adopt measures that are based on the best scientific evidence available to ensure the long-term conservation and sustainable use of the fish stocks covered by this Convention and to maintain or restore the populations of harvested species at levels of abundance which can produce the maximum sustainable yield, <i>inter alia</i>, 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”. WCPFC has similar text in their Convention. (Article 5). Both the IATTC and the WCPFC have adopted resolutions in response to the albacore status report in 2005.</p> <p>In response to the scientific advice resulting from North Pacific albacore stock assessments conducted by the ISC Albacore Working Group both the IATTC and the WCPFC have adopted management measures for this stock. In 2005, the IATTC adopted Resolution C-05-02 which resolved that: “The total level of fishing effort for North Pacific albacore tuna in the Eastern Pacific Ocean not be increased beyond current levels.” The resolution further also requires all fishing entities within the IATTC convention Area to take necessary measures to ensure that their vessels’ fishing effort is not increased, and that they report all albacore catches every six months.</p> <p>The WCPFC adopted CMM-05-03, in the same year (2005), that: “The total level of fishing effort for North Pacific albacore in the Convention Area north of the equator shall not be increased beyond current levels.”</p> <p>Since target and limit reference points have not been formally adopted by the IATTC and the WCPFC (except for F_{SSB-ATHL}), the fishery does not meet the SG100.</p>		
b	Guidepost	The harvest strategy is likely to work based on prior experience or plausible argument.	The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.	The performance of the harvest strategy has been fully evaluated and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels.
	Met?	Y	Y	N

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
	Justification	<p>The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.</p> <p>The IATTC has, through adopting effort control resolutions, successfully controlled fishing mortality in Eastern Pacific yellowfin and bigeye tuna fisheries. Direct evidence that effort control measures will work for albacore is shown by the exploitation history in terms of both B_{MSY} and F_{MSY}, portrayed graphically in the 2014 stock assessment document via a phase-plot. The stock assessment results show that the stock has not been overfished and overfishing is not occurring.</p> <p>The performance of the harvest strategy has not been fully evaluated using Management Strategy Evaluation (MSE). Recently a proposal has been introduced in the IATTC to conduct an MSE to evaluate several candidate limit and target reference points and harvest control rules. Therefore, the fishery does not meet 100b.</p>		
c	Guidepost	Monitoring is in place that is expected to determine whether the harvest strategy is working.		
	Met?	Y		
	Justification	<p>Monitoring is in place that is expected to determine whether the harvest strategy is working</p> <p>Internationally systems are in place for recording catch and effort for all fishing entities fishing on north Pacific albacore. ISC Members are required to annually report the following data for fishery monitoring: Category I: total annual catch (round weight by species) total annual effort (active vessels by fishery); Category II: catch-effort (summary of logbook data); Category III: biological data, (size composition, length or weight frequencies, sex information).</p> <p>The ISC exchanges data with the IATTC and the WPCF (through the SPC) on an annual basis. DFO developed the Canadian Albacore Tuna Catch and Effort Relational Database Management System to monitor albacore catch and effort data from fishing logbooks and sales slips landings from the Canadian troll fleet operating in the Pacific Ocean.</p>		
d	Guidepost			The harvest strategy is periodically reviewed and improved as necessary.
	Met?			Y
	Justification	<p>The harvest strategy is periodically reviewed and improved as necessary.</p> <p>Internationally both the IATTC and the WCPFC review management resolutions during their respective annual meetings. DFO annually reviews and updates the Integrated Fisheries management plan for albacore.</p>		
e	Guidepost	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.
	Met?	Not relevant	Not relevant	Not relevant

PI 1.2.1		There is a robust and precautionary harvest strategy in place
	Justification	
References		<p>DFO. 2014a. Pacific Region Integrated Fisheries Management Plan Albacore Tuna April 1, 2014 to March 31, 2015. Fisheries and Oceans Canada, Pacific Region, Vancouver, B.C. 89 p.</p> <p>Holmes, J. 2014. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean in 2013). Document prepared for the Fourteenth Meeting of the International Scientific Committee on Tuna and Tuna-like Species in the North Pacific Ocean (ISC), 16-21 July 2014, Taipei, Chinese-Taipei. ISC/14/Plenary/04: 16</p> <p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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.</p> <p>Stocker, M., H. Stiff, W. Shaw, and A.W. Argue. 2007. The Canadian albacore tuna catch and effort relational database. Can. Tech. Rep. Fish. Aquat. Sci. 2701: vi+76 p.</p> <p>http://www.iattc.org/PDFFiles2/Resolutions/C-05-02-Northern-albacore-tuna.pdf</p> <p>http://www.iattc.org/PDFFiles2/Resolutions/C-13-01-Tuna-conservation-in-the-EPO-2014-2016.pdf</p> <p>http://isc.ac.affrc.go.jp/working_groups/statistics.html</p>
OVERALL PERFORMANCE INDICATOR SCORE:		90
CONDITION NUMBER (if relevant):		NA

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	

PI 1.2.2		There are well defined and effective harvest control rules in place	
	Justification	<p>The assessment team rescore SG 60 using the FRC v2.0 which allows the presence of “available” HCRs. Generally understood harvest rules are in place or available that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.</p> <p><u>SA2.5.2</u> The stock has been maintained above B_{msy} for a recent period of time, and is not predicted to be reduced below this level within the next 5 years. There is a high degree of certainty that the stock is above the point where recruitment would be impaired. The 2012 spawning stock biomass, SSB_{2012}, was estimated to be 220,202 t with a 95% confidence interval of 187,180-251,042 t. SSB_{2012} is more than twice as large as SSB_{msy} of 99,360 t (CI 85,882-112,838 t). The lower bound estimate (34.4% of SSB_0) is well above the default limit reference point of 20% of B_0. There is a high degree of certainty that the spawning biomass has been above SSB_{msy} from 2002-2012.</p> <p><u>SA2.5.3</u> Generally HCRs are available through the IATTC and WCPFC Convention text to reduce effort when the stock falls below the level producing MSY. For the IATTC harvest strategy, the harvest control rule is set out in Resolution C-05-02: 1. The total level of fishing effort for North Pacific albacore tuna in the Eastern Pacific Ocean not be increased beyond current levels. 2. The CPCs shall take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore tuna is not increased; 3. All CPCs shall report all catches of North Pacific albacore tuna by gear type to the IATTC every six months. 4. The Director shall, in coordination with other scientific bodies conducting scientific reviews of this stock, monitor the status of North Pacific albacore tuna and report on the status of the stock at each annual meeting; 5. The CPCs shall consider future actions with respect to North Pacific albacore tuna as may be warranted based on the results of such future analysis. 6. The CPCs call upon the members of the WCPFC to consider, at the earliest opportunity, taking such action as may be necessary to ensure the effective conservation and management of North Pacific albacore tuna throughout its range including, in particular, measures to ensure that fishing effort on the stock in the WCPFC area does not increase and, as necessary, measures to reduce fishing effort to levels commensurate with the long-term sustainability of the resource. For the WCPFC harvest strategy, the harvest control rule is set out in CMM-05-03: 1. The total level of fishing effort for North Pacific albacore in the Convention Area north of the equator shall not be increased beyond current levels. 2. The Members, Cooperating Non-Members and participating Territories (hereinafter referred to as CCMs) shall take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore in the WCPFC Convention Area is not increased beyond current levels; 3. All CCMs shall report all catches of North Pacific albacore to the WCPFC every six months, except for small coastal fisheries which shall be reported on an annual basis. Such data shall be reported to the Commission as soon as possible and no later than one year after the end of the period covered. 4. All CCMs shall report annually to the WCPFC Commission all catches of albacore north of the equator and all fishing effort north of the equator in fisheries directed at albacore. The IATTC harvest control rules are based on B/B_{msy} and F/F_{msy} benchmarks. We can reasonably argue by analogy with bigeye tuna that the IATTC will take action when these benchmark levels are approached or exceeded.</p> <p>A proposal that has been submitted to the Northern Committee that for the entire North Pacific albacore stock assessing a range of fishing mortality (F) based target reference points and spawning biomass (SB) based limit reference points within the framework of the Management Strategy Evaluation (MSE) process. In addition, two potential HCRs based on TAC and total allowable effort (TAE) controls have been proposed. Under TAC management: i) if $SB_{curr} \geq SB\text{-limit}$, TAC for the subsequent three years set to correspond to $F\text{-target}$ at B_{curr}; if $SB_{curr} < SB\text{-limit}$, TAC for the subsequent three years set to correspond to $(F\text{-target} * SB_{curr}) / SB\text{-limit}$ at B_{curr}. Under TAE management: if $SB_{curr} \geq SB\text{-limit}$, TAE for the subsequent three years set to correspond to $F\text{-target}$; if $SB_{curr} < SB\text{-limit}$, TAE for the subsequent three years set to correspond to $(F\text{-target} * SB_{curr}) / SB\text{-limit}$.</p> <p>The IATTC has, through adopting effort control resolutions, successfully controlled fishing mortality in Eastern Pacific yellowfin and bigeye tuna fisheries. Direct evidence that effort control measures will work for albacore is shown by the exploitation history in terms of both B_{msy} and F_{msy}, portrayed graphically in the 2014 stock assessment document via a phase-plot.</p> <p>No well defined harvest control rule has been established and adopted, either by the IATTC or the WCPFC, preventing the fishery from meeting 80a.</p>	
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.

PI 1.2.2		There are well defined and effective harvest control rules in place		
	Met?		N	N
	Justification	At present no well-defined harvest control rules exist to adjust those management measures when reference points are approached. Therefore neither SG80 nor SG100 is 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	N
	Justification	<p>The assessment team rescore SG 60 using the FRC v2.0 which allows the presence of “available” HCRs.</p> <p>There is some evidence that tools used or available to implement harvest control rules are appropriate and effective in controlling exploitation.</p> <p><u>GSA2.5.-2.5.7</u></p> <p>There is a high degree of certainty that the stock is above the point where recruitment would be impaired. The 2012 spawning stock biomass, SSB_{2012}, was estimated to be 220,202 t with a 95% confidence interval of 187,180-251,042 t. SSB_{2012} is more than twice as large as SSB_{MSY} of 99,360 t (CI 85,882-112,838 t). The lower bound estimate (34.4% of SSB_0) is well above the default limit reference point of 20% of B_0. There is a high degree of certainty that the spawning biomass has been above SSB_{MSY} from 2002-2012.</p> <p>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).</p> <p>Since current F ($F_{2010-2012}$) is well below F_{MSY} it is concluded that North Pacific albacore is not experiencing overfishing.</p> <p>The IATTC has, through adopting effort control resolutions, successfully controlled fishing mortality in Eastern Pacific yellowfin and bigeye tuna fisheries. Direct evidence that effort control measures will work for albacore is shown by the exploitation history in terms of both B_{MSY} and F_{MSY}, portrayed graphically in the 2014 stock assessment document via a phase-plot.</p> <p>However since neither the IATTC nor the WCPFC has established formal harvest control rules for North Pacific albacore, the fishery does not meet the SG80.</p>		
References		<p>WCPFC. 2014. Evaluation of candidate target and limit reference points and decision framework for North Pacific albacore. Document entitled . Precautionary management framework for North Pacific Albacore. Agenda Item G.2.a. Supplemental Attachment 4 3pp presented at Northern Committee Tenth Regular Session, 1-4 September, 2014, Fukuoka, Japan. WCPFC- NC10-2014/WP-01: 5.</p> <p>http://www.iattc.org/PDFFiles2/Resolutions/C-05-02-Northern-albacore-tuna.pdf</p> <p>http://www.iattc.org/PDFFiles2/Resolutions/C-13-03-North-Pacific-albacore.pdf</p> <p>http://www.wcpfc.int/system/files/WCPFC2_Records_F.pdf</p>		

PI 1.2.2	There are well defined and effective harvest control rules in place	
OVERALL PERFORMANCE INDICATOR SCORE:		60
CONDITION NUMBER (if relevant):		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	Y	Y

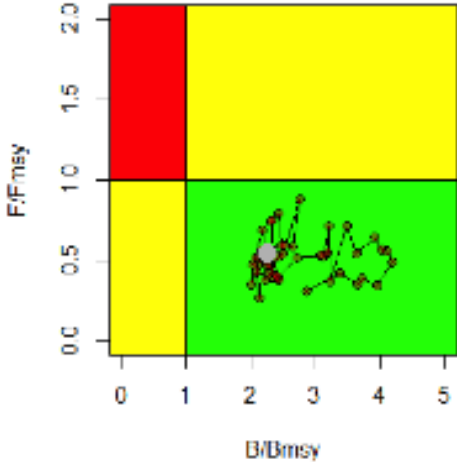
PI 1.2.3	Relevant information is collected to support the harvest strategy
Justification	<p>A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.</p> <p>The North Pacific albacore stock has been monitored through the assessment work of the North Pacific Albacore Workshop from 1975-2004. Since 2004 this function has been assumed by the ISC Albacore Working Group. Monitoring of the stock consists of collecting appropriate through CPUE analysis, conventional tagging and archival/pop-up tagging. Additionally the ALBWG coordinates biological research needs and disseminates research results and statistics to cooperating scientists and the management bodies.</p> <p>Stock structure: Knowledge of the spatial distribution and seasonal migration for the migratory coastal north Pacific albacore is fairly well understood. The species is highly migratory, making annual trans-oceanic migrations. Albacore tuna in the Pacific Ocean consists of two distinct stocks, the north Pacific stock (the subject of this evaluation) and the south Pacific stock. The equator is considered the north-south boundary between albacore stocks. Based on analysis of genetic data there is differentiation between north and south Pacific albacore. Other information that supports the discreteness of the two stocks includes fishery data, tagging data and ecological data.</p> <p>Stock productivity: Overall, there is adequate knowledge of the life-history parameters for north Pacific albacore to conduct robust assessments and develop appropriate biological reference points. Biological samples are routinely collected on an annual basis from both domestic (DFO) and international (ISC, IATTC) albacore fisheries. Reliable data are available to estimate sex-specific growth rates, maturity ogive and fecundity. Length-weight relationships are established by the ALBWG to convert population numbers to biomass. In recent stock assessments, natural mortality has been fixed at $0.3/\text{yr}^{-1}$. The stock-recruitment function is a Beverton-Holt parameterization with a prior for steepness (h) of 0.9.</p> <p>Fleet composition: Detailed fleet information on the north Pacific albacore tuna fisheries is kept domestically by DFO and internationally by IATTC and WCPFC. IATTC Resolution C-04-06 and amendment C-14-02 established a vessel monitoring system in the Eastern Pacific Ocean: "Members and Cooperating non-Members of the Commission (CPCs) shall ensure that all their commercial fishing vessels 24 meters or more in length operating in the Eastern Pacific Ocean (EPO) and harvesting tuna or tuna-like species shall be equipped, by 1 January 2016, with a satellite-based vessel monitoring system (VMS)." This requirement has also been established in the Western Pacific by WCPFC.</p> <p>Stock abundance: The ALBWG aggregated catch and effort data into monthly $1^0 \times 1^0$ for the surface fishery, and $5^0 \times 5^0$ for the longline strata for standardization using generalized linear models (ISC 2014a). Kiyofuji (2014) described an updated abundance index for north Pacific albacore caught by the distant Japanese pole and line fleet. Ijima and Satoh (2014) calculated areal and seasonal dependent abundance indices of albacore caught by the Japanese longline fleet.</p> <p>Fishery removals: Total catch from the Canadian albacore tuna fishery is reported annually to the ISC, IATTC and WCPFC. DFO developed the Canadian Albacore Tuna Catch and Effort Relational Database Management System to monitor albacore catch and effort data from fishing logbooks and sales slips landings from the Canadian troll fleet operating in the Pacific Ocean. Internationally systems are in place for recording catch and effort for all fishing entities fishing on north Pacific albacore. ISC Members are required to annually report the following data for fishery monitoring: total annual catch, total annual effort and catch-effort (summary of logbook data).</p> <p>Other data: NMFS and PBS have completed studies on environmental influences on albacore distribution using archival tagging.</p>

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	Y	N
	Justification	<p>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.</p> <p>Standardized abundance indices are regularly monitored by the ALBWG. The ALBWG aggregated catch and effort data into monthly 1°x1° strata for the surface fishery, and 5°x5° strata for the longline for standardization using generalized linear models.</p> <p>Internationally systems are in place for recording catch and effort for all fishing entities fishing on north Pacific albacore. ISC Members are required to annually report the following data for fishery monitoring: Category I: total annual catch (round weight by species) total annual effort (active vessels by fishery); Category II: catch-effort (summary of logbook data); Category III: biological data, (size composition, length or weight frequencies, sex information).</p> <p>Removals are monitored annually through comprehensive logbook records for the Canadian fishery.</p> <p>Because there are some sources of uncertainty such as the absence of updated estimates of life history parameters (sex-ratio at size, natural mortality, maturity), and the simplified treatment of the spatial structure of north Pacific albacore population dynamics, the fishery does not meet the SG100.</p>		
c	Guidepost		There is good information on all other fishery removals from the stock.	
	Met?		Y	
	Justification	<p>There is adequate information on all other fishery removals from the stock.</p> <p>Other fishery removals such as recreational fishery by the US are reported in the catch tables in the annual ISC Plenary report.</p>		
References		<p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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. 131p.</p> <p>Ijima, H., and K. Satoh. 2014. Abundance indices of albacore tuna for Stock Synthesis III by Japanese longline fishery in the north west Pacific Ocean. Working paper submitted to the ISC Albacore Working Group Meeting, 14-28 April 2014, Southwest Fisheries Science Center, La Jolla, USA. ISC/14/ALBWG/01: 10 p.</p> <p>Kiyofuji, H. 2014. Update standardized CPUE for albacore caught by the Japanese pole and</p>		

PI 1.2.3	Relevant information is collected to support the harvest strategy	
	line fishery in the northwestern North Pacific Ocean. Working paper submitted to the ISC Albacore Working Group Meeting, 14-28 April 2014, Southwest Fisheries Science Center, La Jolla, USA. ISC/14/ALBWG/06: 10 p. http://www.iattc.org/PDFFiles2/Resolutions/C-14-02-Vessel-Monitoring-Systems-VMS.pdf	
OVERALL PERFORMANCE INDICATOR SCORE:		90
CONDITION NUMBER (if relevant):		NA

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	Y
	Justification	<p>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.</p> <p>The assessment for albacore tuna is carried out with the Stock synthesis (SS version 3.24f) model developed by Richard Methot of the National Marine Fisheries Service. SS is a statistical age-structured population modeling framework that has been applied in a wide variety of fish assessments globally. The method has generally been accepted as rigorous. SS is a state-of-the-art software that is implemented in the Automatic Differentiation Model Builder (ADMB) software developed by David Fournier. The 2014 stock assessment model is a sex-specific, length-base, age-structured, forward-simulating, fully integrated, statistical model. The base-case model representing the collective work of the Albacore Working Group.</p> <p>The specification of the base case model for north Pacific albacore followed several steps. First, the spatial and temporal extent of fisheries in the assessment was defined based on analyses of the biology and historical fishing operations of albacore fisheries. Second, the data sources and inputs for these fisheries in the model, including total catch, indices of relative abundance, and size compositions were identified, collated and reviewed for completeness, trends, and outliers or unusual behavior. Third, important biological parameters (e.g., growth, stock-recruitment relationship) were obtained from previous studies after review by the ALBWG and included in the model as fixed parameters, or estimated within the assessment model. Sensitivity analyses were conducted to evaluate impact on model results from changes in data series, life history parameter assumptions (growth, natural mortality), selectivity parameters, and alternative weightings of composition data.</p>		

PI 1.2.4		There is an adequate assessment of the stock status		
b	Guidepost	The assessment estimates stock status relative to reference points.		
	Met?	Y		
	Justification	<p>The assessment provide estimates of stock status relative to commonly applied reference points.</p> <p>The 2014 assessment provides estimates north Pacific albacore stock status relative to the F_{MSY} and B_{MSY}:</p> 		
c	Guidepost	The assessment identifies major sources of uncertainty.	The assessment takes uncertainty into account.	The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way.
	Met?	Y	Y	Y
	Justification	<p>The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way.</p> <p>The ALBWG used model diagnostics to assess issues with model convergence, model structure, parameter mis-specification and data conflicts. Diagnostic tools included model convergence tests, profiles of estimated recruitment at unfished equilibrium (R_0), residual analysis, and retrospective analysis.</p> <p>To explore uncertainty, the ALBWG conducted sensitivity analysis to evaluate changes in data series, growth curve parameters, natural mortality, stock recruitment steepness, selectivity parameters and weighting of size composition data.</p> <p>The trajectories of SSB and -1 SD of SSB in relation to B_{MSY} and $B_{MSY} + 1$ SD show that the stock status is expressed in a probabilistic way in relation to reference points. In addition, stochastic future projections of the north Pacific albacore stock were made with probabilities expressed as boxplots.</p>		
d	Guidepost			The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.
	Met?			Y

PI 1.2.4		There is an adequate assessment of the stock status		
	Justification	<p>The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.</p> <p>The ALBWG conducted extensive sensitivity analyses to evaluate alternative assumptions on the assessment results. These included sensitivity to biological assumptions (growth, CV of L_{inf}, M, h) and sensitivity to data inputs (alternative CPUE indices, size composition weighting).</p> <p>Retrospective analyses were conducted to identify systemic inconsistencies in population estimates given increasing or decreasing data periods. Retrospective analyses did not reveal any important pattern in the estimates of spawning biomass and fishing intensity (1-SPR) with the successive elimination of terminal year data. Thus the assessment has been tested using a systematic exploration of the interactions among different sets of assumptions. This confirms that alternative hypothesis and assessment approaches have been rigorously explored.</p>		
e	Guidepost		The assessment of stock status is subject to peer review.	The assessment has been internally and externally peer reviewed.
	Met?		Y	Y
	Justification	<p>The assessment has been internally and externally peer reviewed.</p> <p>The albacore assessments are internally reviewed by the ALBWG. The results are reviewed by the ISC Plenary, the WCPFC Scientific Committee, and the staff of the IATTC.</p> <p>The ISC had three independent reviewers from the Center of Independent Experts (University of Miami) conduct reviews of the ALBWG 2011 albacore stock assessment.</p>		
References		<p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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.</p> <p>Methot, R.D. 2000. Technical description of the Stock Synthesis assessment program. NOAA Tech. Memo. NMFS=NWFSC-43. 46 p.</p> <p>Methot Jr., R.D., and C.R. Wetzel. 2013. Stock Synthesis: a biological and statistical framework for fish stock assessment and fishery management. Fish. Res. 142: 86-99.</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.1.1

PI 2.1.1		The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Main retained species are likely to be within biologically based limits (if not, go to scoring issue c below).	Main retained species are highly likely to be within biologically based limits (if not, go to scoring issue c below).	There is a high degree of certainty that retained species are within biologically based limits and fluctuating around their target reference points.
	Met?	Y	Y	Y
	Justification	<p>Canadian trolling vessels are only permitted to land Albacore tuna under their Section 68 licence in US waters and while operating in Canadian waters, Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches.</p> <p>Under licence conditions 2014/2015, fishermen fishing in Canadian waters are allowed to retain Northern Bluefin tuna (<i>Thunnus thynnus</i>), Pacific bonito (<i>Sarda chiliensis</i>), Skipjack tuna (<i>Katsuwonus pelamis</i>) and Yellowfin tuna (<i>Thunnus albacares</i>). Furthermore, there is a tolerance for non-target species that can be kept by the harvesters such as Mahi-Mahi, bigeye or Rainbow trout as the incidental catch level is so low in the fishery.</p> <p>Trolling operations are carried out at or close to the surface of the ocean and catches of non-target species are generally negligible in troll fisheries world-wide. Species which have no commercial value may be returned to the sea alive immediately after hooking, as fish are caught individually and barbless hooks are commonly used, so stress and injuries can be kept to a minimum.</p> <p>Retained species included 4 mahi-mahi, 5 bluefin tuna, 12 skipjack tuna, 1 Pacific bonito, 1 bigeye tuna, 1 rainbow trout and 64 yellowfin tuna for combined 2012 and 2013 (Table 5 in section 4.4.1).</p> <p>The total weight of non-target species, including both retained and bycatch species, was estimated to be approximately 148 kg for 2012, which represents approximately 2% of the total catch. Yellowtail amberjack catches were estimated at 101 kg, which represented less than 2% of the total catch of Albacore tuna.</p> <p>Fishing with Troll & Jig uses generally no bait but rather 10 to 15 feather or plastic jigs with double non-barbed hooks which are trolled behind the boat at 5-6 knots on the surface. Occasionally, fishermen try to “chum” albacore with frozen chunks of dead anchovies. However this practice is not needed as part of the troll & jig fishing method, 95% of troll/jig fishermen carry no bait.</p> <p>In conclusion, catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p>		
b	Guidepost			Target reference points are defined for retained species.
	Met?			Y
	Justification	Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.		

PI 2.1.1		The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species		
c	Guidepost	If main retained species are outside the limits there are measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding of the depleted species.	If main retained species are outside the limits there is a partial strategy of demonstrably effective management measures in place such that the fishery does not hinder recovery and rebuilding.	
	Met?	NA	NA	
	Justification	Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.		
d	Guidepost	If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the retained species to be outside biologically based limits or hindering recovery.		
	Met?	NA		
	Justification	Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.		
References		Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p. Information provided by DFO.		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.1.2

PI 2.1.2		There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There are measures in place, if necessary, that are expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.	There is a partial strategy in place, if necessary, that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.	There is a strategy in place for managing retained species.
	Met?	Y	Y	Y
	Justification	<p>Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. The nature of the fishery together with the DFO Sustainable Fisheries Framework, including the Policy on Managing Bycatch and the Guidance on implementation of the Policy on Managing Bycatch, is considered to be a strategy for managing retained species.</p>		
b	Guidepost	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).	There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or species involved.	Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or species involved.
	Met?	Y	Y	Y
	Justification	<p>Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or species involved.</p> <p>Data show that catch of retained species is exceptionally rare and negligible in the North Pacific Albacore tuna fishery, showing that the strategy works to keep retained species at negligible levels.</p>		
c	Guidepost		There is some evidence that the partial strategy is being implemented successfully.	There is clear evidence that the strategy is being implemented successfully.
	Met?		Y	Y

PI 2.1.2		There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species		
	Justification	There is clear evidence that the strategy is being implemented successfully. Catch of retained species is maintained at very low levels, showing that the strategy is being implemented successfully.		
d	Guidepost			There is some evidence that the strategy is achieving its overall objective.
	Met?			Y
	Justification	There is some evidence that the strategy is achieving its overall objective. Catch of retained species is exceptionally rare and negligible in the North Pacific Albacore tuna fishery.		
e	Guidepost	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.
	Met?	Not relevant	Not relevant	Not relevant
	Justification			
References		Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p. Information provided by DFO.		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.1.3

PI 2.1.3		Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Qualitative information is available on the amount of main retained species taken by the fishery.	Qualitative information and some quantitative information are available on the amount of main retained species taken by the fishery.	Accurate and verifiable information is available on the catch of all retained species and the consequences for the status of affected populations.
	Met?	Y	Y	N
	Justification	<p>Qualitative information and some quantitative information are available on the amount of main retained species taken by the fishery.</p> <p>Canadian trolling vessels are only permitted to land Albacore tuna under their Section 68 licence in US waters and while operating in Canadian waters, Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches. Logbooks also kept while operating at high seas.</p> <p>Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, logbook data are not really verifiable as there are no observers on board. In addition, there is no dockside monitoring. Therefore, the fishery does not meet 100a.</p>		
b	Guidepost	Information is adequate to qualitatively assess outcome status with respect to biologically based limits.	Information is sufficient to estimate outcome status with respect to biologically based limits.	Information is sufficient to quantitatively estimate outcome status with a high degree of certainty.
	Met?	Y	Y	N
	Justification	<p>Information is sufficient to quantitatively estimate outcome status with a high degree of certainty.</p> <p>Canadian trolling vessels are only permitted to land Albacore tuna under their Section 68 licence in US waters and while operating in Canadian waters, Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches. See above</p> <p>Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, information is not sufficient to quantitatively estimate outcome status with a high degree of certainty as there are no observers on board and there is no dockside monitoring.</p>		
c	Guidepost	Information is adequate to support measures to manage main retained species.	Information is adequate to support a partial strategy to manage main retained species.	Information is adequate to support a strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.
	Met?	Y	Y	N

PI 2.1.3		Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species		
	Justification	<p>Information is adequate to support a partial strategy to manage main retained species. Canadian trolling vessels are only permitted to land Albacore tuna under their Section 68 licence in US waters and while operating in Canadian waters, Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches.</p> <p>Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, information is not adequate to support a strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective as there are no observers on board and there is not dockside monitoring.</p>		
d	Guidepost		Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator score or the operation of the fishery or the effectiveness of the strategy)	Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species.
	Met?		Y	Y
	Justification	<p>Canadian trolling vessels are only permitted to land Albacore tuna under their Section 68 licence in US waters and while operating in Canadian waters, Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches.</p> <p>The total weight of non-target species, including both retained and bycatch species, was estimated to be approximately 148 kg for 2012, which represents approximately 2% of the total catch.</p> <p>Catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>The assessment team considers monitoring of retained species to be conducted in sufficient detail to assess ongoing mortalities to all retained species. Although there are no observers on board and there is no dockside monitoring, retained catches are monitored using logbooks and fish slips. Logbooks are compared to fish slips offload weights to verify catch and effort.</p>		
References		<p>Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p.</p> <p>Information provided by DFO.</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				85
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.2.1

PI 2.2.1		The fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Main bycatch species are likely to be within biologically based limits (if not, go to scoring issue b below).	Main bycatch species are highly likely to be within biologically based limits (if not, go to scoring issue b below).	There is a high degree of certainty that bycatch species are within biologically based limits.
	Met?	Y	Y	Y
	Justification	<p>Trolling operations are carried out at or close to the surface of the ocean and catches of non-target species are generally negligible in troll fisheries world-wide. Species which have no commercial value may be returned to the sea alive immediately after hooking, as fish are caught individually and barbless hooks are commonly used, so stress and injuries can be kept to a minimum.</p> <p>Reported bycatches were 2 fishes (yellowfin tuna) in 2012 and 9 fishes (3 blue shark, 1 shark sp., 3 bluefin tuna, 2 yellowfin tuna) in 2013 (Table 5 in section 4.4.1). Bycatches level is well below 5 % of the total catch of albacore tuna.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p>		
b	Guidepost	If main bycatch species are outside biologically based limits there are mitigation measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding.	If main bycatch species are outside biologically based limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding.	
	Met?	NA	NA	
	Justification	Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.		
c	Guidepost	If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the bycatch species to be outside biologically based limits or hindering recovery.		
	Met?	YNA		
	Justification	Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.		

PI 2.2.1	The fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups	
References	Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p. Information provided by DFO.	
OVERALL PERFORMANCE INDICATOR SCORE:		100
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 2.2.2

PI 2.2.2		There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There are measures in place, if necessary, that are expected to maintain the main bycatch species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.	There is a partial strategy in place, if necessary, that is expected to maintain the main bycatch species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.	There is a strategy in place for managing and minimizing bycatch.
	Met?	Y	Y	Y
	Justification	<p>There is a strategy in place for managing and minimizing bycatch.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Species which have no commercial value may be returned to the sea alive immediately after hooking, as fish are caught individually and barbless hooks are commonly used, so stress and injuries can be kept to a minimum. The nature of the fishery together with the DFO Sustainable Fisheries Framework, including the Policy on Managing Bycatch and the Guidance on implementation of the Policy on Managing Bycatch, is considered to be a strategy for managing bycatch species.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p>		
b	Guidepost	The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/species).	There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or species involved.	Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or species involved.
	Met?	Y	Y	Y
	Justification	<p>Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or species involved.</p> <p>Data show that catch of bycatch species is exceptionally rare and negligible in the North Pacific Albacore tuna fishery, showing that the strategy works to keep bycatch species at negligible levels.</p>		
c	Guidepost		There is some evidence that the partial strategy is being implemented successfully.	There is clear evidence that the strategy is being implemented successfully.
	Met?		Y	Y

PI 2.2.2		There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations		
	Justification	<p>There is clear evidence that the strategy is being implemented successfully.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p>		
d	Guidepost			There is some evidence that the strategy is achieving its overall objective.
	Met?			Y
	Justification	<p>There is some evidence that the strategy is achieving its overall objective.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p>		
References		<p>Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p.</p> <p>Information provided by DFO.</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.2.3

PI 2.2.3		Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Qualitative information is available on the amount of main bycatch species taken by the fishery.	Qualitative information and some quantitative information are available on the amount of main bycatch species taken by the fishery.	Accurate and verifiable information is available on the catch of all bycatch species and the consequences for the status of affected populations.
	Met?	Y	Y	N
	Justification	<p>Qualitative information and some quantitative information are available on the amount of main bycatch species taken by the fishery.</p> <p>Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches and data are available from the US observers program which collected data from US vessels employing the same fishing method in the same area as Canadian fishermen.</p> <p>Reported bycatches were 2 fishes (yellowtail tuna) in 2012 and 9 fishes (3 blue sharks, 3 bluefin tuna, 1 unidentified shark, and 2 yellowtail amberjack) in 2013. Bycatches level is well below 5 % of the total catch of albacore tuna.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, the assessment team assigned a N to SG100, as no ongoing observer program is carried out in this fishery, so accurate and verifiable information is not considered to be available on the amount of bycatch and the consequences for the status of affected populations.</p>		
b	Guidepost	Information is adequate to broadly understand outcome status with respect to biologically based limits	Information is sufficient to estimate outcome status with respect to biologically based limits.	Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty.
	Met?	Y	Y	N
	Justification	<p>Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits.</p> <p>Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches and data are available from the US observers program which collected data from US vessels employing the same fishing method in the same area as Canadian fishermen.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, the assessment team assigned a N to SG100, as no ongoing observer program is carried out in this fishery, so information is not sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty.</p>		

PI 2.2.3		Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch		
c	Guidepost	Information is adequate to support measures to manage bycatch.	Information is adequate to support a partial strategy to manage main bycatch species.	Information is adequate to support a strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.
	Met?	Y	Y	N
	Justification	<p>Information is adequate to support a strategy to manage bycatch species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.</p> <p>Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches and data are available from the US observers program which collected data from US vessels employing the same fishing method in the same area as Canadian fishermen.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, the assessment team assigned a N to SG100, as no ongoing observer program is carried out in this fishery, so information is not adequate to support a strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.</p>		
d	Guidepost		Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g., due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).	Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.
	Met?		Y	N
	Justification	<p>Sufficient data continue to be collected to detect any increase in risk to main bycatch species.</p> <p>Information is adequate to support a strategy to manage bycatch species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.</p> <p>Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches and data are available from the US observers program which collected data from US vessels employing the same fishing method in the same area as Canadian fishermen.</p> <p>Catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>However, the assessment team considered that monitoring of bycatch data is not conducted in sufficient detail to assess ongoing mortalities to all bycatch species as no ongoing observer program is carried out in this fishery</p>		
References		Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p.		

PI 2.2.3	Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch	
	Information provided by DFO.	
OVERALL PERFORMANCE INDICATOR SCORE:		80
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 2.3.1

PI 2.3.1		The fishery meets national and international requirements for the protection of ETP species The fishery does not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Known effects of the fishery are likely to be within limits of national and international requirements for protection of ETP species.	The effects of the fishery are known and are highly likely to be within limits of national and international requirements for protection of ETP species.	There is a high degree of certainty that the effects of the fishery are within limits of national and international requirements for protection of ETP species.
	Met?	Y	Y	Y
	Justification	There is a high degree of certainty that the effects of the fishery are within limits of national and international requirements for protection of ETP species. No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.		
b	Guidepost	Known direct effects are unlikely to create unacceptable impacts to ETP species.	Direct effects are highly unlikely to create unacceptable impacts to ETP species.	There is a high degree of confidence that there are no significant detrimental direct effects of the fishery on ETP species.
	Met?	Y	Y	Y
	Justification	There is a high degree of confidence that there are no significant detrimental direct effects of the fishery on ETP species. No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.		
c	Guidepost		Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts.	There is a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETP species.
	Met?		Y	Y

PI 2.3.1	<p>The fishery meets national and international requirements for the protection of ETP species</p> <p>The fishery does not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species</p>	
	Justification	<p>There is a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETP species.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.</p>
References	Information provided by DFO	
OVERALL PERFORMANCE INDICATOR SCORE:		100
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 2.3.2

PI 2.3.2		The fishery has in place precautionary management strategies designed to: <ul style="list-style-type: none"> • Meet national and international requirements; • Ensure the fishery does not pose a risk of serious harm to ETP species; • Ensure the fishery does not hinder recovery of ETP species; and • Minimise mortality of ETP species. 		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There are measures in place that minimise mortality of ETP species, and are expected to be highly likely to achieve national and international requirements for the protection of ETP species.	There is a strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, which is designed to be highly likely to achieve national and international requirements for the protection of ETP species.	There is a comprehensive strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, which is designed to achieve above national and international requirements for the protection of ETP species.
	Met?	Y	Y	Y
	Justification	<p>There is a comprehensive strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, which is designed to achieve above national and international requirements for the protection of ETP species.</p> <p>In Canada the primary management strategies for the protection of ETP species are provided by SARA. Once protected under SARA, ETP species are subject to recovery strategies and management plan.</p> <p>Canadian fishermen are obliged to complete a mandatory logbook and provision of data on ETP species is included.</p> <p>Under SARA, a recovery strategy has been implemented for the leatherback turtle, the fin, blue and sei whales, and the short-tailed albatross blue whale and the Northern right whale.</p> <p>In addition, commercial fishing licences have been amended to include a Condition of Licence for Basking shark that specifies mitigation measures in accordance with SARA permit requirements.</p> <p>Also, two Code of Conduct for Shark Encounters have been developed to reduce the mortality of Basking Shark. These guidelines include boat handling procedures during visual encounters with Basking Sharks, as well as best practices for handling Canadian Pacific shark species during entanglement encounters.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.</p>		

PI 2.3.2		The fishery has in place precautionary management strategies designed to: <ul style="list-style-type: none"> • Meet national and international requirements; • Ensure the fishery does not pose a risk of serious harm to ETP species; • Ensure the fishery does not hinder recovery of ETP species; and • Minimise mortality of ETP species. 		
b	Guidepost	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).	There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved.	The strategy is mainly based on information directly about the fishery and/or species involved, and a quantitative analysis supports high confidence that the strategy will work.
	Met?	Y	Y	N
	Justification	<p>There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing. Mandatory logbooks also report ETP species catch in Canadian and high seas waters.</p> <p>However, the Assessment Team is not aware of any quantitative analysis that has been conducted to determine the likely success of the approach used to minimize impact of the Albacore tuna fishery on the ETP species encountered, preventing the fishery from meeting 100b.</p>		
c	Guidepost		There is evidence that the strategy is being implemented successfully.	There is clear evidence that the strategy is being implemented successfully.
	Met?		Y	N

PI 2.3.2		The fishery has in place precautionary management strategies designed to: <ul style="list-style-type: none">• Meet national and international requirements;• Ensure the fishery does not pose a risk of serious harm to ETP species;• Ensure the fishery does not hinder recovery of ETP species; and• Minimise mortality of ETP species.		
	Justification	<p>There is evidence that the strategy is being implemented successfully.</p> <p>Once protected under SARA, ETP species are subject to recovery strategies and management plan. A mandatory logbook must be completed and submitted to DFO as a condition of license.</p> <p>Under SARA, a recovery strategy has been implemented for the leatherback turtle, the fin, blue and sei whales, and the short-tailed albatross blue whale and the Northern right whale.</p> <p>In addition, commercial fishing licences have been amended to include a Condition of Licence for Basking shark that specifies mitigation measures in accordance with SARA permit requirements.</p> <p>Also, two Code of Conduct for Shark Encounters have been developed to reduce the mortality of Basking Shark. These guidelines include boat handling procedures during visual encounters with Basking Sharks, as well as best practices for handling Canadian Pacific shark species during entanglement encounters.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.</p> <p>However, the assessment team assigned a N to SG100 as no ongoing observer program is carried out in this fishery.</p>		
d	Guidepost			There is evidence that the strategy is achieving its objective.
	Met?			N
	Justification	In absence of an observer program, the fishery cannot meet the SG100.		
References		<p>DFO 2014a. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p> <p>Environment Canada. 2008. Recovery Strategy for the Short-tailed Albatross (<i>Phoebastria albatrus</i>) and the Pink-footed Shearwater (<i>Puffinus creatopus</i>) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. vii + 46 pp.</p> <p>Gregr, E.J., J. Calambokidis, L. Convey, J.K.B. Ford, R.I. Perry, L. Spaven, and M. Zacharias. 2006. Recovery Strategy for Blue, Fin, and Sei Whales (<i>Balaenoptera musculus</i>, <i>B. physalus</i>, and <i>B. borealis</i>) in Pacific Canadian Waters. Species at Risk Recovery Strategy Series. Fisheries and Oceans Canada, Vancouver. vii + 53 pp.</p>		

PI 2.3.2	<p>The fishery has in place precautionary management strategies designed to:</p> <ul style="list-style-type: none">• Meet national and international requirements;• Ensure the fishery does not pose a risk of serious harm to ETP species;• Ensure the fishery does not hinder recovery of ETP species; and• Minimise mortality of ETP species.	
	Pacific Leatherback Turtle Recovery Team. 2006. Recovery Strategy for Leatherback Turtles (<i>Dermochelys coriacea</i>) in Pacific Canadian Waters. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Vancouver, v + 41 pp.	
OVERALL PERFORMANCE INDICATOR SCORE:		85
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 2.3.3

PI 2.3.3		Relevant information is collected to support the management of fishery impacts on ETP species, including: <ul style="list-style-type: none"> • Information for the development of the management strategy; • Information to assess the effectiveness of the management strategy; and • Information to determine the outcome status of ETP species. 		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Information is sufficient to qualitatively estimate the fishery related mortality of ETP species.	Sufficient information is available to allow fishery related mortality and the impact of fishing to be quantitatively estimated for ETP species.	Information is sufficient to quantitatively estimate outcome status of ETP species with a high degree of certainty.
	Met?	Y	Y	N
	Justification	<p>Sufficient data is available to allow fishery related mortality and the impact of fishing to be quantitatively estimated for ETP species.</p> <p>Canadian fishermen are obliged to complete a mandatory logbook and provision of data on ETP species is included.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtained at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.</p> <p>However, information is not sufficient to quantitatively estimate outcome status of ETP species with a high degree of certainty as there is no observer coverage to verify the information provided by the fishermen in the logbooks, preventing the fishery from meeting 100a.</p>		
b	Guidepost	Information is adequate to broadly understand the impact of the fishery on ETP species.	Information is sufficient to determine whether the fishery may be a threat to protection and recovery of the ETP species.	Accurate and verifiable information is available on the magnitude of all impacts, mortalities and injuries and the consequences for the status of ETP species.
	Met?	Y	Y	N

PI 2.3.3		Relevant information is collected to support the management of fishery impacts on ETP species, including: <ul style="list-style-type: none"> • Information for the development of the management strategy; • Information to assess the effectiveness of the management strategy; and • Information to determine the outcome status of ETP species. 		
	Justification	<p>Information is sufficient to determine whether the fishery may be a threat to protection and recovery of the ETP species.</p> <p>Canadian fishermen are obliged to complete a mandatory logbook and provision of data on ETP species is included.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtain at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.</p> <p>However, the absence of observer coverage in the fishery may produce inadequate data coverage to fully satisfy 100b. It is likely that unreported encounters with ETP species could occur and that the potential exists for this fishery to have some negative impact on the larger ETP species found in the fishery areas.</p>		
c	Guidepost	Information is adequate to support measures to manage the impacts on ETP species.	Information is sufficient to measure trends and support a full strategy to manage impacts on ETP species.	Information is adequate to support a comprehensive strategy to manage impacts, minimize mortality and injury of ETP species, and evaluate with a high degree of certainty whether a strategy is achieving its objectives.
	Met?	Y	Y	N
	Justification	<p>Information is sufficient to measure trends and support a full strategy to manage impacts on ETP species.</p> <p>Once protected under SARA, ETP species are subject to recovery strategies and management plan.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters (information obtain at site visit), but the possibility of incidental occurrences of ETP species catch in the fishery is not discounted. If incidental catches of ETP species occur, the animal may be returned to the water alive, and it is assumed that the survival is high due to the characteristics of the fishing.</p> <p>However, the absence of observer coverage in the fishery may produce inadequate data coverage to fully satisfy 100c. It is likely that unreported encounters with ETP species could occur and that the potential exists for this fishery to have some negative impact on the larger ETP species found in the fishery areas.</p>		
References		Information provided by DFO		
OVERALL PERFORMANCE INDICATOR SCORE:				80
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.4.1

PI 2.4.1		The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis, and function		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	The fishery is unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.	The fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.	There is evidence that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.
	Met?	Y	Y	Y
	Justification	<p>There is evidence that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		
References		DFO 2014a. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.4.2

PI 2.4.2		There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There are measures in place, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance.	There is a partial strategy in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above.	There is a strategy in place for managing the impact of the fishery on habitat types.
	Met?	Y	Y	Y
	Justification	<p>There is a strategy in place for managing the impact of the fishery on habitats, the fishery meeting 100a.</p> <p>On June 29, 2013 amendments to the <i>Fisheries Act</i> have been approved. The Fisheries Protection Program and its Policy Statements (November 2013) support changes made to the <i>Fisheries Act</i>. The mandate of the Fisheries Protection Program is to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries. The Fisheries Protection Policy Statement (FPPS) focuses on the management of impacts to fish resulting from habitats degradation or loss and alterations to fish passage and flow.</p> <p>Through the FPPS, DFO objectives are to provide consistent guidance through regulations, standards and directives, and to make regulatory decisions in a timely manner. In this way, proponents will have the necessary information and direction to avoid, mitigate and offset harmful impacts to fish and fish habitat so that they will meet the goal of this policy, and thereby comply with the fisheries protection provisions of the <i>Fisheries Act</i>.</p> <p>The prohibition against <i>serious harm to fish</i> applies to fish and fish habitat that are part of or support commercial, recreational or Aboriginal fisheries. Section 35 of the <i>Fisheries Act</i> prohibits <i>serious harm to fish</i> which is defined in the Act as “the death of fish or any permanent alteration to, or destruction of, fish habitat”.</p> <p>There are a number of MPAs designated under the <i>Ocean Act</i> (1996), including several areas of interest that are at various stages of progress towards designation.</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		
b	Guidepost	The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/habitats).	There is some objective basis for confidence that the partial strategy will work, based on information directly about the fishery and/or habitats involved.	Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or habitats involved.
	Met?	Y	Y	Y

PI 2.4.2		There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types		
	Justification	<p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p> <p>Although, there has been no specific testing to determine the impact of the fishery on habitats, the nature of the fishing method makes any testing unnecessary, the fishery meeting SG100.</p>		
c	Guidepost		There is some evidence that the partial strategy is being implemented successfully.	There is clear evidence that the strategy is being implemented successfully.
	Met?		Y	Y
	Justification	<p>There is clear evidence that the strategy is being implemented successfully.</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		
d	Guidepost			There is some evidence that the strategy is achieving its objective.
	Met?			Y
	Justification	<p>There is some evidence that the strategy is achieving its objective.</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		
References		<p>DFO 2014a. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p> <p>http://www.dfo-mpo.gc.ca/pnw-ppe/fpp-ppp/index-eng.html</p> <p>http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/benthi-eng.htm, http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/risk-ecolo-risque-back-fiche-eng.html</p> <p>http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/risk-ecolo-risque-eng.pdf</p> <p>http://www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/mpa-zpm/index-eng.htm</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 2.4.3

PI 2.4.3		Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There is basic understanding of the types and distribution of main habitats in the area of the fishery.	The nature, distribution and vulnerability of all main habitat types in the fishery are known at a level of detail relevant to the scale and intensity of the fishery.	The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types.
	Met?	Y	Y	Y
	Justification	The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types. One habitat type, the epipelagic zone, occurs throughout this range in relation to this fishery. The habitat is not considered to be vulnerable as evidence exists that it is highly unlikely that the habitat is altered when encounters between trolling gear and the habitat occur.		
b	Guidepost	Information is adequate to broadly understand the nature of the main impacts of gear use on the main habitats, including spatial overlap of habitat with fishing gear.	Sufficient data are available to allow the nature of the impacts of the fishery on habitat types to be identified and there is reliable information on the spatial extent of interaction, and the timing and location of use of the fishing gear.	The physical impacts of the gear on the habitat types have been quantified fully.
	Met?	Y	Y	y
	Justification	The physical impacts of the gear on the habitat types have been quantified fully. One habitat type, the epipelagic zone, occurs throughout this range in relation to this fishery. The habitat is not considered to be vulnerable as evidence exists that it is highly unlikely that the habitat is altered when encounters between trolling gear and the habitat occur. Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.		
c	Guidepost		Sufficient data continue to be collected to detect any increase in risk to habitat (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	Changes in habitat distributions over time are measured.
	Met?		Y	Y

PI 2.4.3		Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types
	Justification	<p>Sufficient data continue to be collected to detect any increase in risk to habitat.</p> <p>The fishery operates at the surface and there is a high degree of confidence that the operation of the fishery will not change and that the risk to pelagic or benthic habitats will not increase.</p> <p>Changes in habitat distributions over time are measured.</p> <p>One habitat type, the epipelagic zone, occurs throughout this range in relation to this fishery. The Pacific epipelagic zone is known to vary over the time but these changes are climate and physical forcing driven rather than as a result of fishing activity.</p>
References		DFO 2014a. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.
OVERALL PERFORMANCE INDICATOR SCORE:		100
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 2.5.1

PI 2.5.1		The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	The fishery is unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.	The fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.	There is evidence that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.
	Met?	Y	Y	Y

PI 2.5.1		The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function
	Justification	<p>There is evidence that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.</p> <p>North Pacific Albacore are found in the epipelagic zone of sub-tropical and temperate waters of the open ocean and are strongly associated with frontal structures as these are areas of sharp temperature changes (fronts) and often high primary production, which attracts prey species. Albacore maintain a fast, continuous swimming lifestyle and are opportunistic top predators, feeding primarily on fish. Small schooling pelagic species including sardine (<i>Sardina pilchardus</i>, <i>Sardinops sagax</i>), anchovy (<i>Engraulis spp.</i>), and mackerel (<i>Scomber spp.</i>, <i>Trachurus spp.</i>) are the most common fish encountered in the diet of Albacore in all oceans. Along the west coast of North America, Pacific Hake (<i>Merluccius productus</i>), Pacific Saury (<i>Cololabis saira</i>), Pacific Herring (<i>Clupea pallasii</i>), Northern Anchovy (<i>Engraulis mordax</i>), and squids are important prey in the diet of juvenile Albacore while sardine (<i>S. sagax</i>) are not important, despite a resurgence in sardine abundance. Adult Albacore have few predators, although they occasionally may be preyed on by large marine mammals, sharks, and billfishes.</p> <p>The assessment team could not find any concern indicating that the North Pacific Albacore Tuna fishery causes any disruption of the key elements underlying ecosystem structure and function. The main impact of the fishery on target, bycatch and ETP species, and habitat are identified and there is no indication that the fishery causes disruption to the ecosystem main structure and function. There is a comprehensive assessment of the target species, and information is available to show the negligible impact on retained, bycatch and ETP species. There is no indication that the fishery causes serious or irreversible harm to habitats.</p>
	References	<p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p> <p>Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p.</p> <p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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.</p>
OVERALL PERFORMANCE INDICATOR SCORE:		100
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 2.5.2

PI 2.5.2		There are measures in place to ensure the fishery does not pose a risk of serious or irreversible harm to ecosystem structure and function		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There are measures in place, if necessary.	There is a partial strategy in place, if necessary.	There is a strategy that consists of a plan, in place.
	Met?	Y	Y	Y
	Justification	<p>There is a strategy that consists of a plan, in place.</p> <p>The DFO Ecosystem Science Framework was developing to provide an effective and comprehensive approach for identifying, monitoring, and interpreting trends important to ecosystem sustainability and integrating knowledge about the effects of human activities on ecosystem components. A Five-Years Research Plan (2008-2013) has been developed to support the ecosystem science through its 20 components and their connections.</p> <p>This Research Plan showed how four of the priority areas will be addressed primarily through ERIs that address regional research including: Fish Population and Community Productivity, Habitat and Population Linkages, Climate Change / Variability, Ecosystem Assessment and Management Strategies. The ERIs focused on seven geographically-distinct areas including the Strait of Georgia.</p> <p>An integrated management plan for the Pacific North Coast Integrated Management Area (PNCIMA) has been developed to help coordinate various ocean management processes and to complement and link existing processes and tools, including the IFMP. High level and strategic, the plan provides direction and commitment to integrated, ecosystem-based and adaptive management of marine activities and resources. The plan outlines a framework for ecosystem-based management for PNCIMA that includes goals, objectives and strategies. Goals include 1) integrity of marine ecosystems in PNCIMA, primarily with respect to their structure, function and resilience, 2) human well-being supported through societal, economic, spiritual and cultural connections to marine ecosystems in PNCIMA, 3) collaborative, effective, transparent and integrated governance, management and public engagement, and 4) improved understanding of complex marine ecosystems and changing marine environments.</p> <p>The IFMP for Pacific albacore tuna contains a list of objectives which together form a plan to minimize and manage the impacts of the fishery on the ecosystem. Objectives include 1) harvest Pacific albacore tuna in a sustainable manner and to support the use of precautionary approach to fisheries management within Regional Fisheries Management Organizations, and 2) ensure conservation and protection of Pacific albacore stocks, their habitat, and manage for ecosystem impacts of fish harvest activities, scientific management principles will be applied in a risk adverse and precautionary manner based on the best scientific advice available, and through comprehensive monitoring of fish harvest activities.</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Trolling and jigging for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		

b	Guidepost	The measures take into account potential impacts of the fishery on key elements of the ecosystem.	The partial strategy takes into account available information and is expected to restrain impacts of the fishery on the ecosystem so as to achieve the Ecosystem Outcome 80 level of performance.	<p>The strategy, which consists of a plan, contains measures to address all main impacts of the fishery on the ecosystem, and at least some of these measures are in place. The plan and measures are based on well-understood functional relationships between the fishery and the Components and elements of the ecosystem.</p> <p>This plan provides for development of a full strategy that restrains impacts on the ecosystem to ensure the fishery does not cause serious or irreversible harm.</p>
	Met?	Y	Y	Y
	Justification	<p>The strategy, which consists of a plan, contains measures to address all main impacts of the fishery on the ecosystem, and at least some of these measures are in place. The plan and measures are based on well-understood functional relationships between the fishery and the Components and elements of the ecosystem.</p> <p>This plan provides for development of a full strategy that restrains impacts on the ecosystem to ensure the fishery does not cause serious or irreversible harm.</p> <p>The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear. Fish are caught individually and barbless hooks are commonly used, so species discarded may be returned to the sea alive immediately after hooking, and stress and injuries are kept to a minimum.</p> <p>There is a comprehensive strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, which is designed to achieve above national and international requirements for the protection of ETP species.</p> <p>There are a number of MPAs designated under the <i>Ocean Act</i> (1996), including several areas of interest that are at various stages of progress towards designation. Two MPAs, the Bowie Seamount and the Endeavour Hydrothermal Vents, and two AOIs, the Race Rocks and the Hecate Strait/Queen Charlotte Sound Glass Sponge Reef, have been implemented.</p>		
c	Guidepost	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/ecosystems).	The partial strategy is considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/ecosystems).	The measures are considered likely to work based on prior experience, plausible argument or information directly from the fishery/ecosystems involved.
	Met?	Y	Y	Y

	Justification	<p>The measures are considered likely to work based on prior experience, plausible argument or information directly from the fishery/ecosystems involved.</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p> <p>Fish are caught individually and barbless hooks are commonly used, so species discarded may be returned to the sea alive immediately after hooking, and stress and injuries are kept to a minimum.</p> <p>The assessment team could not find any concern indicating that the North Pacific Albacore Tuna fishery causes any disruption of the key elements underlying ecosystem structure and function. The main impact of the fishery on target, bycatch and ETP species, and habitat are identified and there is no indication that the fishery causes disruption to the ecosystem main structure and function. There is a comprehensive assessment of the target species, and information is available to show exceptionally rare and negligible impact on retained, bycatch and ETP species. There is no indication that the fishery causes serious or irreversible harm to habitats.</p>		
d	Guidepost		There is some evidence that the measures comprising the partial strategy are being implemented successfully.	There is evidence that the measures are being implemented successfully.
	Met?		Y	Y
	Justification	<p>There is evidence that the measures are being implemented successfully.</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p> <p>Fish are caught individually and barbless hooks are commonly used, so species discarded may be returned to the sea alive immediately after hooking, and stress and injuries are kept to a minimum.</p> <p>The assessment team could not find any concern indicating that the North Pacific Albacore Tuna fishery causes any disruption of the key elements underlying ecosystem structure and function. The main impact of the fishery on target, bycatch and ETP species, and habitat are identified and there is no indication that the fishery causes disruption to the ecosystem main structure and function. There is a comprehensive assessment of the target species, and information is available to show exceptionally rare and negligible impact on retained, bycatch and ETP species. There is no indication that the fishery causes serious or irreversible harm to habitats.</p>		
References		<p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p> <p>White, A.L., R.I. Perry, M.A. Koops, R.G. Randall, A. Bundy, P. Lawton, M. Koen-Alonso, D. Masson, P.S. Galbraith, M. Lebeuf, M. Lanteigne, and C. Hoover 2013. A National Synthesis of the Fisheries and Oceans Ecosystem Research Initiative. DFO Can. Sci. Advis. Sec. Res. Doc. 2013/027. v + 31 p.</p> <p>http://pncima.org/</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				100

CONDITION NUMBER (if relevant):	NA
--	-----------

Evaluation Table for PI 2.5.3

PI 2.5.3		There is adequate knowledge of the impacts of the fishery on the ecosystem		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Information is adequate to identify the key elements of the ecosystem (e.g., trophic structure and function, community composition, productivity pattern and biodiversity).	Information is adequate to broadly understand the key elements of the ecosystem.	
	Met?	Y	Y	
	Justification	<p>Information is adequate to broadly understand the key elements of the ecosystem.</p> <p>The physical, chemical and biological environment in the North Pacific is studied and well known.</p> <p>Extensive research has been carried out on the trophic status of albacore tuna as a top predator in Pacific tuna ecosystem using the Ecopath with Ecosim model (Cox et al, 2002, Cox et al, 2002, Hinkel et al 2004, Sibert et al, 2006), and 5 studies have been carried out on the diet of Pacific albacore tuna which provide information on the diet of albacore tuna and the impact of albacore tuna on key prey species (Glaser, 2009). Information on the top predator status of albacore tuna in the Pacific (Cox et al, 2002, Cox et al, 2002, Hinkel et al 2004, Sibert et al, 2006) implies that albacore tuna is not a major forage species.</p> <p>Extensive genetic studies on albacore tuna population and sub population structures have been carried out in the Pacific (Chow, and Takeyama, 1995; Takagi, M. et al, 2001; Wu et al 2008) but long term time series of genetic data are not available. Information on stock status which shows the stock is not overfished (P1), and highly migratory behaviour of albacore tuna (Kohin et al, 2005) which should prevent sub populations from being overfished, does, however, infer that biological diversity of albacore tuna is not adversely affected by the fishery.</p> <p>The low impact of albacore tuna on other species in terms of trophic cascade as previously described, infers that the genetic diversity of tropic related species is also highly unlikely to be disrupted.</p>		
b	Guidepost	Main impacts of the fishery on these key ecosystem elements can be inferred from existing information, and have not been investigated in detail.	Main impacts of the fishery on these key ecosystem elements can be inferred from existing information and some have been investigated in detail.	Main interactions between the fishery and these ecosystem elements can be inferred from existing information, and have been investigated.
	Met?	Y	Y	Y

PI 2.5.3		There is adequate knowledge of the impacts of the fishery on the ecosystem		
	Justification	<p>Main interactions between the fishery and these ecosystem elements can be inferred from existing information, and have been investigated.</p> <p>Main impacts of the fishery on target, retained, bycatch and ETP species, and habitat are identified. There is a comprehensive assessment of the target species.</p> <p>Albacore tuna fishermen are obliged to maintain a logbook recording the non-target species catches and data are available from the US observers program which collected data from US vessels employing the same fishing method in the same area as Canadian fishermen.</p> <p>Information on stock status which shows the stock is probably not overfished or undergoing overfishing, and highly migratory behaviour of albacore tuna which should prevent sub populations from being overfished, does, however, infer that biological diversity of albacore tuna is not adversely affected by the fishery.</p> <p>Catch of retained and bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		
c	Guidepost		The main functions of the Components (i.e., target, Bycatch, Retained and ETP species and Habitats) in the ecosystem are known.	The impacts of the fishery on target, Bycatch, Retained and ETP species are identified and the main functions of these Components in the ecosystem are understood.
	Met?		Y	Y
	Justification	<p>The impacts of the fishery on target, Bycatch, Retained and ETP species are identified and the main functions of these Components in the ecosystem are understood.</p> <p>Main impacts of the fishery on target, retained, bycatch and ETP species, and habitat are identified.</p> <p>There is a high degree of certainty that the North Albacore tuna stock is above the point where recruitment would be impaired.</p> <p>Catch of retained and bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		

PI 2.5.3		There is adequate knowledge of the impacts of the fishery on the ecosystem		
d	Guidepost		Sufficient information is available on the impacts of the fishery on these Components to allow some of the main consequences for the ecosystem to be inferred.	Sufficient information is available on the impacts of the fishery on the Components and elements to allow the main consequences for the ecosystem to be inferred.
	Met?		Y	Y
	Justification	<p>Sufficient information is available on the impacts of the fishery on the Components and elements to allow the main consequences for the ecosystem to be inferred.</p> <p>There is a high degree of certainty that the North Albacore tuna stock is above the point where recruitment would be impaired.</p> <p>Catch of retained and bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters.</p> <p>Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		
e	Guidepost		Sufficient data continue to be collected to detect any increase in risk level (e.g., due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	Information is sufficient to support the development of strategies to manage ecosystem impacts.
	Met?		Y	Y
	Justification	<p>Information is sufficient to support the development of strategies to manage ecosystem impacts.</p> <p>There is a strategy in place to address all main impacts of the fishery on the ecosystem.</p> <p>The assessment is appropriate for the Pacific albacore tuna 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. There is a high degree of certainty that the North Albacore tuna stock is above the point where recruitment would be impaired.</p> <p>Catch of retained and bycatch species must be reported in the logbook and are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.</p> <p>Interactions with ETP species must be reported. No ETP species catch has been reported in mandatory logbooks or independent observer reports while fishing activities occurs in US waters</p> <p>The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear.</p>		

PI 2.5.3	There is adequate knowledge of the impacts of the fishery on the ecosystem	
References	<p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p> <p>Holmes, J.A. 2013. National Report of Canada (Canadian Tuna and Tuna-like Fisheries in the North Pacific Ocean). Document prepared for the Thirteenth Meeting of the ISC, 17-22 July 2013, Busan, Republic of Korea. ISC/13/PLENARY/04.12 p.</p> <p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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.</p>	
OVERALL PERFORMANCE INDICATOR SCORE:		100
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 3.1.1

PI 3.1.1		The management system exists within an appropriate legal and/or customary framework which ensures that it: <ul style="list-style-type: none"> Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and Incorporates an appropriate dispute resolution framework. 		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There is an effective national legal system and a framework for cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2	There is an effective national legal system and <u>organised and effective cooperation</u> with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.	There is an effective national legal system and binding procedures governing cooperation with other parties which delivers management outcomes consistent with MSC Principles 1 and 2.
	Met?	Y	Y	Y
	Justification	<p>There is an effective national legal system and binding procedures governing cooperation with other parties which delivers management outcomes consistent with MSC Principles 1 and 2.</p> <p>The Canadian fisheries legal system consists of a comprehensive and contemporary suite of national statutes and supporting regulations and policy frameworks that are capable of delivering sustainable fisheries and management outcomes in accordance with MSC Principle 1 and 2. The legislation empowers the federal minister to manage both fisheries and oceans, implement a precautionary approach, and protect both ETP species and ecosystems within a comprehensive integrated policy framework.</p> <p>The national legal system and supporting instruments are effective and highly structured to foster and achieve effective cooperation with other levels of government, industry stakeholders and NGOs, and the general public. For example, the planning and delivery of fisheries and oceans scientific research activities are particularly well served to deliver management outcomes consistent with MSC Principles 1 and 2 by means of various formal networks, partnerships, and other cooperative arrangements.</p> <p>Management of Canada's fisheries resources and the conservation fish and fish habitat is exercised through the Fisheries Act. DFO is responsible for the enforcement of the Fisheries Act as well as other regulations, and to maintain sound management practices for different fisheries and ensure conservation of natural resources.</p> <p>Management of Pacific albacore is exercised through annual Integrated fisheries management plans (IFMP) by Fisheries and Oceans Canada (DFO) along with representatives of the fishing industry within the Tuna Advisory Board. The TAB consists of representatives of the commercial fishery sectors such as the coastal and high seas fleet as well as processors, and other stakeholders such as representatives of the First Nations, recreational fishery and NGOs.</p> <p>International management of the North Pacific albacore resource and fisheries operating on the resource is shared by the IATTC and the WCPTC RFMOs. The IATTC and WCPFC Conventions establish principles of international law related to the conservation and management of living marine resources in accordance with MSC Principles 1 and 2.</p>		

PI 3.1.1		<p>The management system exists within an appropriate legal and/or customary framework which ensures that it:</p> <ul style="list-style-type: none"> • Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and • Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and • Incorporates an appropriate dispute resolution framework. 		
b	Guidepost	The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system.	The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the fishery.	The management system incorporates or subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective.
	Met?	Y	Y	N

PI 3.1.1	<p>The management system exists within an appropriate legal and/or customary framework which ensures that it:</p> <ul style="list-style-type: none"> • Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and • Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and • Incorporates an appropriate dispute resolution framework.
Justification	<p>The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the fishery.</p> <p>At the international level, Conventions of different RFMOs have specific mechanisms for resolution of legal disputes. For example WCPFC Convention Annex II states that this group can establish authority to set up review panels to examine decisions made by the Commission to settle disputes between the Commission, and the IATTC. Antigua Convention Part VII Article 25 talks about settlement of disputes.</p> <p>The albacore tuna fishery management system follows procedures that are consistent with international laws and standards. For example, Canada is a participant to the UN Convention on the Law of the Sea (1982), Rio Declaration (1992), FAO Code of Conduct for Responsible Fisheries (1995), UN Straddling Stocks Agreement UNFA (1995).</p> <p>At the local level the management system incorporates or subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective.</p> <p>The management system includes proactive measures that serve to avoid or minimize fisheries disputes such as through the Tuna advisory board process and other venues held during the year.</p> <p>The management system also provides for the resolution of legal disputes based on the Canadian judicial system at the provincial, territorial and federal levels. The judicial system is acknowledged to be impartial and transparent, and where, at a minimum, the rules of administrative fairness can be applied. Parties may also seek a judicial review of a departmental decision at the federal level in accordance with the provisions of the Canadian Criminal Code.</p> <p>While recourse to the judicial system is available and has been used, this is not the same as the fishery management system itself incorporating an internal legal dispute settlement mechanism that can be used to challenge fishery-specific decisions that are of a legal nature.</p> <p>As a general rule, the policy on which a disputed decision has been made cannot be appealed. However, in some instances, such as when a commercial fisher is dissatisfied with a departmental licensing policy decision, the fisher can seek to have the decision re-assessed by an independent Appeal Board which may recommend a different course of action to the Minister.</p> <p>The management system is not continually facing court challenges but rather has been influenced by occasional landmark court decisions that have significantly impacted fisheries policies and programs (eg. native treaty rights) and to which it has responded in accordance with the court's determinations.</p> <p>The consultative process of the Tuna fishery management framework is explained in the IFMP. There is a Tuna Advisory Board which function as consensus decision-making group. Thus, all stakeholders in this organization have the opportunity to make an opinion on a particular issue. This approach provides a considerable dispute resolving solution within the TAB. In cases that there still unresolved disputes within the advisory bodies the Fisheries Minister has the ultimate authority over resolution of disputes. There are also legal venues for participants through Canada's court system if there are existing issue with DFO's decisions.</p> <p>Although the mechanism at the domestic level has been tested and proven to be effective, the mechanism at international level has not, preventing the fishery from fully meet 100b.</p>

PI 3.1.1		The management system exists within an appropriate legal and/or customary framework which ensures that it: <ul style="list-style-type: none"> Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and Incorporates an appropriate dispute resolution framework. 		
d	Guidepost	The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	The management system has a mechanism to formally commit to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
	Met?	Y	Y	N
	Justification	<p>The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.</p> <p>At the international level, the RFMO look after the rights created of people that depends on fishing for food or livelihood. WCPFC Convention Article X states the needs of small developing countries whose economies, food supplies, and livelihoods relying depends on of the exploitation of marine resources must be taken in to account at the time when there is development of criteria for allocation of TACs or other management strategies Article XXX identify the requirements of developing states. IATTC Antigua Convention Part VI Article XXIII states that Commission will adopt measures to assist developing countries in carry out their obligations under the Convention. It will also improve their capacity for fisheries development on their national jurisdictions.</p> <p>At local level in Canada, there exists a mechanism within the IFMP which provides a formal commitment to the legal rights created explicitly or established by custom of people dependent on fishing for food: 'First Nations access to fish for food, social or ceremonial purposes is managed though communal licenses, which can permit the harvest of tuna species'.</p> <p>Furthermore, In Canada, the nature and scope of the legal rights created explicitly or established by custom of (aboriginal) people dependent on fishing for food, social and ceremonial (FSC) purposes were formally interpreted and defined by the Supreme Court in 1990 (eg. Sparrow Decision). DFO's Aboriginal Fisheries Strategy (1992) provides: (i) the framework for the management of FSC fishing, (ii) Aboriginal groups with an opportunity to participate in the management of fisheries, (iii) contributes to the economic self-sufficiency of Aboriginal communities, (iv) provides a foundation for the development of self-government agreements and treaties, and (v) improves the fisheries management skills and capacity of Aboriginal groups.</p> <p>While the management system generally respects and observes the legal rights, it does not formally commit to such rights until they have been legally proven or established. The exception to this practice is when fishing rights have been worked out or formalized in the context of treaties and land claims agreements.</p> <p>Therefore there is an effective national legal system and organized and effective cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.</p>		
References		DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to		

PI 3.1.1	<p>The management system exists within an appropriate legal and/or customary framework which ensures that it:</p> <ul style="list-style-type: none">• Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and• Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and• Incorporates an appropriate dispute resolution framework.	
	<p>March 31, 2015. DFO Pacific Region.</p> <p>http://www.sustainablefisheries.ca/download_files/LSP_Grafto_CH30.pdf</p> <p>http://laws.justice.gc.ca/eng/regulations/SOR-93-53/</p> <p>http://laws-lois.justice.gc.ca/eng/regulations/sor-93-54/index.html</p>	
OVERALL PERFORMANCE INDICATOR SCORE:		85
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 3.1.2

PI 3.1.2		<p>The management system has effective consultation processes that are open to interested and affected parties.</p> <p>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties</p>		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood.	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction.	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction.
	Met?	Y	Y	Y
	Justification	<p>Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction.</p> <p>Organizations involved in fisheries management are identified and their respective functions, are clearly defined at the international level. Evidence of this are included in the IATTC Antigua Convention Articles VI, VII, and XXIII; and the WCPFC Convention IX-XVI, and XXIII and XIV articles ; and at the local level by the IFMP and several amendments].</p>		
b	Guidepost	The management system includes consultation processes that obtain relevant information from the main affected parties, including local knowledge, to inform the management system.	The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained.	The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used.
	Met?	Y	Y	N

PI 3.1.2		<p>The management system has effective consultation processes that are open to interested and affected parties.</p> <p>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties</p>		
	Justification	<p>The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained.</p> <p>Fisheries management at international and local levels provides consultation processes that give for all interested and affected parties an opportunity to be involved at the local level.</p> <p>At the international level the IATTC states that stakeholders such as fishing industry representatives, NGOs, as well as other interested individuals are included in the IATTC processes. Evidence of this are included in the Antigua Convention Article XVI. The Antigua Convention Annex 2 provides guidelines for observer participation at meetings of the IATTC. WCPFC Convention Article XXII provides that the Commission will collaborate with other relevant organizations, particularly those similar objectives and which can contribute to the fulfillment of the Convention objectives. At the local level DFO is follow a process for selection of local regulations and related actions that matters to all interested stakeholders.</p> <p>The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained.</p> <p>The aforementioned principal consultation fora all regularly seek, accept and consider relevant information from the main affected parties, including local and aboriginal knowledge, to inform the management system. This is largely acquired by the direct participation of the parties in the consultation processes but extends to written briefs, reports and emails that are provided during or following consultations. Locally, DFO staff interacts throughout the year with industry stakeholders which further provide the parties opportunities to inform the management system.</p> <p>DFO also consults the parties on other management system issues such as species-at-risk listings, regulatory and policy development and amendments, and changes to service delivery levels. DFO seeks, accepts and considers relevant information that it receives.</p> <p>DFO regularly provides explanations to the main affected parties regarding how the information it receives is used. Meeting minutes, published reports, and daily interactions support this conclusion. However, the team could not ascertain whether DFO regularly provided explanations to the parties about information it received that was not used, preventing the fishery from meeting 100b.</p>		
c	Guidepost		The consultation process provides opportunity for all interested and affected parties to be involved.	The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.
	Met?		Y	Y

PI 3.1.2		<p>The management system has effective consultation processes that are open to interested and affected parties.</p> <p>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties</p>
	Justification	<p>The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.</p> <p>The consultation process of the management systems at both the international and local levels provides opportunities for all interested and affected parties to be involved.</p> <p>At the international level the IATTC Antigua Convention Article XVI states that stakeholders such as fishing industry representatives, NGOs, as well as other interested individuals are included in the IATTC processes. The Antigua Convention Annex 2 provides guidelines for observer participation at meetings of the IATTC. WCPFC Convention Article XXII provides that the Commission will collaborate with other relevant organizations, particularly those similar objectives and which can contribute to the fulfillment of the Convention objectives. At the local level DFO is follow a process for selection of local regulations and related actions that matters to all interested stakeholders.</p> <p>The consultative process of the fishery management framework is explained in the IFMP. There is a Tuna Advisory Board which function as consensus decision-making group. Thus, everyone in this organization has the opportunity to make an opinion on a particular issue. This approach provides a considerable dispute resolving solution within TAB. In cases that there still unresolved disputes within the advisory bodies the the Fisheries Minister has the ultimate authority over resolution of disputes. There are also legal venues for participants through Canada’s court system if there are existing issue with DFO’s decisions.</p> <p>Information provided by DFO, confirmed that all interested and affected parties are provided the opportunity and encouragement to contribute to the discussions regarding the management system for the fishery, and that the administrative rules relating to engagement do not pose a barrier to either.</p> <p>Organizations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction. The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used. The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.</p>
References		<p>Refer to the background section</p> <p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p>
OVERALL PERFORMANCE INDICATOR SCORE:		95
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 3.1.3

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	Guidepost	Long-term objectives to guide decision-making, consistent with the MSC Principles and Criteria and the precautionary approach, are implicit within management policy	The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.	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	<p>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 at the international and local management levels.</p> <p>IATTC Antigua Convention Article IV states that application of the Precautionary Approach shall be done as it is described in the Code of Conduct and/or the 1995 UN Fish Stocks Agreement, for the conservation, management, and sustainable use of fish stocks covered by the Convention.</p> <p>WCPFC Convention Article VI states that the Precautionary Approach shall be followed and includes guidelines to use it.</p> <p>The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.</p> <p>Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach are explicit within management policy.</p> <p>DFO nationally has developed a suite of statements (vision, mission) and policy frameworks with operational guidelines that define clear long-term objectives and how they can be implemented in a manner that is consistent with MSC Principles and Criteria and the precautionary approach. Policy frameworks have been developed for DFO's Fisheries Management, Science, Ecosystem and Oceans sectors and all are posted on the department's national website. Science-based frameworks have been peer-reviewed where required. In several instances, guidance and planning and monitoring tools have been developed to ensure associated decision-making within management policy meets the long-term objectives.</p> <p>DFO's Sustainability Fisheries Framework and supporting policy guidance best reflects the requirements of MSC principles and criteria. It lays the foundation for an ecosystem-based and precautionary approach to fisheries management in Canada. In 2010, DFO Science initiated work on identifying those indicators that would best serve as reference points for the eventual design and implementation of the precautionary approach for stocks of Pacific Canada.</p> <p>Therefore, the precautionary approach is explicit in the fishery management policy, the assessment team thus considers that 100a is met and assigned a score of 100.</p>		
References		<p>A Framework for the Application of Precaution in Science-based Decision-Making about Risk http://www.pco.bcp.gc.ca/index.asp?lang=eng&page=information&sub=publications&doc=precaution/precaution_e.htm</p> <p>DFO's Oceans Management Approach http://www.dfo-mpo.gc.ca/oceans/management-gestion/index-eng.htm</p> <p>A New Ecosystem Science Framework in Support of Integrated Management http://www.dfo-mpo.gc.ca/science/Publications/Ecosystem/index-eng.htm</p>		

PI 3.1.3	<p>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</p>	
	<p>Guidelines on Evaluating Ecosystem Overviews and Assessments http://www.dfo-mpo.gc.ca/csas/Csas/status/2005/SAR-AS2005_026_e.pdf</p> <p>Canada’s Ocean Strategy – Policy and Operational Framework http://www.dfo-mpo.gc.ca/oceans/publications/cosframework-cadresoc/pdf/im-gi-eng.pdf</p> <p>Sustainable Fisheries Framework http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm</p> <p>A Fishery Decision-Making Framework Incorporating the Precautionary Approach http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/precaution-eng.htm</p> <p>Policy on Managing Bycatch http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/bycatch-policy-prise-access-eng.htm</p> <p>Application of the Sustainable Fisheries Framework through the Integrated Fisheries Management Planning Process http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/ifmp-pgip-back-fiche-eng.htm</p>	
OVERALL PERFORMANCE INDICATOR SCORE:		100
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 3.1.4

PI 3.1.4		The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2.	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and seeks to ensure that perverse incentives do not arise.	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and explicitly considers incentives in a regular review of management policy or procedures to ensure they do not contribute to unsustainable fishing practices.
	Met?	Y	Y	Y
	Justification	<p>The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and explicitly considers incentives in a regular review of management policy or procedures to ensure they do not contribute to unsustainable fishing practices.</p> <p>Fisheries Management at the international and local levels provide for incentives that are consistent with achieving outcomes articulated by MSC Principles 1 and 2. The Fundamental roles of RFMOs to promote conservation, sustainability and optimal utilization of HMS fish stocks are supported by science-based information. IATTC and WCPFC organizations have the duties to develop and adopt strategies and management measures to fulfill these objectives. Evidence of this is stated in the Antigua Convention Articles and WCPFC Convention Articles IV and VI, respectively.</p> <p>Management policy and procedures at both international and local levels are reviewed regularly to ensure that they do not contribute to unsustainable fishing practices.</p> <p>No capital or operating subsidies are known to be offered by governments to the harvesting sector that would give rise to outcomes that are inconsistent with these principles. Licence transferability promotes more sustainable fishing practices as it offers the opportunity to improve the economic viability of participants.</p> <p>The assessment team noted that a considerable number of incentives have been adopted and are in use to ensure both the sustainability of the fishery and prevent perverse incentives from arising.</p>		
References		Refer to the background for a complete description of the incentives in place for the fishery.		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 3.2.1

PI 3.2.1	The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2
----------	---

PI 3.2.1		The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Objectives, which are broadly consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are implicit within the fishery's management system	Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.	Well defined and measurable short and long-term objectives, which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.
	Met?	Y	Y	Y
	Justification	<p>Well defined and measurable short and long-term objectives, which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.</p> <p>Fishery management has clear, specific objectives designed to achieve the outcomes expressed by MSC Principles 1 and 2 for the international and local levels. At the international level the IATTC and WCPFC have very well -defined objectives, specified in their respective conventions, which help to support outcomes expressed by Principles 1 and 2. The IATTC's Antigua Convention, which was started on August 27, 2010, is a major step in improving the regulatory framework that governs IATTC. It also updates the legal framework of UNCLOS, Agenda 21 and Rio Declaration, the FAO Compliance Agreement, the Code of Conduct and the UNFSA. The Precautionary Approach is also included in Article IV of the Antigua Convention, as well as the Ecosystem Approach to Fisheries Management envisaged in Articles II and VII of the Antigua Convention, and compatibility of management measures between high seas and Exclusive Economic Zones in Article V of the Antigua Convention. IATTC management actions includes ecosystem effects of fishing; protecting biodiversity and advocates for ecosystem based approaches to management; and reducing pollution and impacts on both target and non-target or associated or dependent species.</p> <p>The specific management objectives and performance measures for the albacore fishery are listed in the IFMP. Management objectives and performance measures, as described in the IFMP, are:</p> <ol style="list-style-type: none"> 1. Stock Conservation and Ecosystem Processes (short and longterm objective) 2. Consultation Process (Short and Long term objective) 3. Social, Cultural and Economic Considerations (Short and Longterm objective) 4. Compliance <p>The fishery specific objectives are further informed by supporting activities (or outcome statements) that are set out over the short, medium and long term. The IFMP Performance Review section identifies indicators that serve to assess progress in achieving the short, medium and long-term objectives, and they are explicitly stated in the IFMP. Therefore the assessment team considers that SG100 is met.</p>		
References		<p>Refer to the description of the contents of the approved IFMP as outlined in the assessment report.</p> <p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				100
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 3.2.2

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery under assessment.		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There are some decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives.	There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.	
	Met?	Y	Y	
	Justification	<p>There are established decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives.</p> <p>At the international level the Conventions of both RFMOs require consensus for decisionmaking . Evidence of this is documented in the IATTC Antigua Convention Article IX and WCPFC Convention Article XX, respectively.</p> <p>At the local level, DFO management decision-making processes are clearly outlined in the IFMP and amendments. The management system for the North Pacific Tuna fishery is supported by federal statutes and regulations that are designed to achieve positive conservation outcomes for the target stock and associated habitat and marine ecosystems. The legislation is supported by management policies and implementation guidelines/tools which support the objectives identified for the Tuna fishery.</p> <p>Ministerial agreement is required when important adjustments are required for key commercial fisheries, including Tuna. The associated decision-making process is described in detail in the main report.</p> <p>There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. There are explicit fishery-specific objectives adopted in the fishery management system to formally evaluate the fishery performance against.</p>		
b	Guidepost	Decision-making processes respond to serious issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take some account of the wider implications of decisions.	Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.	Decision-making processes respond to all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.
	Met?	Y	Y	N

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery under assessment.		
	Justification	<p>Decision-making processes at both the international and local levels respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.</p> <p>At the international level, the RFMOs follow the precautionary approach and coordinate with each other regulating the fishing capacity of Members, Cooperating Non-members, and Participating Territories whose fishing vessels harvest North Pacific albacore in their respective Convention Areas. Evidence of this is documented at IATTC C-05-02 and WCPFC CMM 2005-3. The RFMOs also takes into consideration the findings made by the ISC ALBWG (2014) using best available scientific information.</p> <p>At the local level, DFO takes necessary steps based on the adopted measures taken by the RFMOs, for Canadian vessels operating in North Pacific albacore fishery to comply with the RFMO regulations.</p> <p>Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.</p> <p>It is important to note that there has been an absence of serious issues that would compromise the objectives established for the NP albacore tuna fishery. The resource is healthy and fairly robust and there have not been any reported serious issues such as those related to food safety or public health.</p> <p>That said, the decision-making processes are conditioned to operate effectively, transparently and in a timely manner should serious issues arise that would affect the management system and fishery-specific objectives. The processes operate on a continuous cycle of internal post-season review, stakeholder input, in-season scientific research, and compliance monitoring. As reported in the main report, there are a number of scientific partnerships and networks in place by which organizations conduct a wide-range of studies of interest to marine species, their habitat and ecosystem. Occasionally, the processes are informed by observations raised through external review activities.</p> <p>The fisheries management and science processes are supported by well-established and functioning industry consultation and engagement activities, both formal and informal, which contribute to promoting decision-making that is effective and responsive to any potential serious and other important issues.</p> <p>Where, on occasion, the fisheries management decision-making process has been judged by harvesters to be ineffective and slow to react is when they seek important changes to licensing policy that are intended to improve their economic outcomes from the fishery or promote increased sustainability. "Consensus" is not defined and decisions have been stayed even when a majority of harvesters have voted in support of the policy change.</p>		
c	Guidepost		Decision-making processes use the precautionary approach and are based on best available information.	
	Met?		Y	

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery under assessment.		
	Justification	<p>Decision-making processes use the precautionary approach and are based on best available information</p> <p>Management decisions are based on the precautionary approach and use of best scientific evidence used at the international level. Evidence of this is documented in the Antigua Convention Article IV and Article VII for IATTC, and in the Convention Articles V(c) and VI and V(b), for WCPFC. The precautionary approach and use of best scientific information available are used in decision-making processes at the local level by DFO as evidenced by IFMP and sustainable fisheries framework, etc.</p> <p>The precautionary approach for fisheries management is defined in DFO's provisional IFMP for Tuna Fisheries as being cautious when scientific knowledge is uncertain, and not using the absence of adequate scientific information as a reason to postpone action or failure to take action to avoid serious harm to fish stocks or their ecosystem.</p> <p>A precautionary approach model has been developed for Tuna fisheries and has been peer-reviewed. Appropriate biological reference points are being developed in consultation with several organizations RFMO (WCPFC Northern Committee, IATTC, ISC's ALBWG) followed by harvest control rules (no specific timeframe identified). The IFMP indicates that, in the interim period, the fishery will continue to be managed with caution.</p>		
d	Guidepost	Some information on fishery performance and management action is generally available on request to stakeholders.	Information on fishery performance and management action is available on request, and explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.	Formal reporting to all interested stakeholders provides comprehensive information on fishery performance and management actions and describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
	Met?	Y	Y	Y

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery under assessment.		
	Justification	<p>Formal reporting to all interested stakeholders provides comprehensive information on fishery performance and management actions and describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.</p> <p>Documents and reports describing management responses to scientific research findings and communications, monitoring, evaluation, and review activity systems are available to all stake at the international and local levels. Both RFMOs and DFO have publicly ass websites where meeting minutes, documents scientific reports can be downloaded for free.</p> <p>Stakeholders are able to access a range of information on the performance of the fishery and management actions through a variety of means, such as by attending formal advisory committee meetings and other local gatherings, workshops, published reports, news services, and from various government-industry-corporate websites.</p> <p>Information provided by DFO includes stock status and research priorities and outcomes, economic analyses of conditions and trends affecting the industry, enforcement and compliance priorities and outcomes, fisheries management policy changes, regulatory amendments, species at risk assessments and recovery plans, environmental findings etc.</p> <p>DFO personnel routinely provide explanations at meetings for any actions or lack of action associated with various findings and relevant recommendations. This extends to industry associations who make the information available to their membership.</p> <p>Federal Access to Information requests offer another means of obtaining information on analyses and relevant recommendations provided by the bureaucracy.</p>		
e	Guidepost	Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery.	The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges.	The management system or fishery acts proactively to avoid legal disputes or rapidly implements judicial decisions arising from legal challenges.
	Met?	Y	Y	N

PI 3.2.2	The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery under assessment.	
	Justification	<p>The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges.</p> <p>The management authority or fishery is not subjected to continuing court challenges, and respects court decisions that are handed down.</p> <p>On occasion, DFO will consider appealing a provincial or federal lower court decision if it has been determined that a serious error has arisen or if the decision has the potential to seriously limit the Minister's discretionary powers pursuant to the federal <i>Fisheries Act</i>.</p> <p>The management system or fishery does comply in a timely fashion with judicial decisions arising from any legal challenges (this usually includes while awaiting the disposition of a decision under appeal).</p> <p>DFO's formal and informal consultation and engagement processes have been effective in minimizing potential legal disputes involving other levels of government, industry stakeholders and the general public. Of note, Fishery Officers have the authority to intervene to resolve conflicts between fishers outside of the legal system.</p> <p>There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. There are explicit fishery-specific objectives adopted in the fishery management system to formally evaluate the fishery performance against.</p> <p>However, it cannot be said that the management system or fishery acts proactively to avoid legal disputes or rapidly implements judicial decisions arising from legal challenges, preventing the fishery from meeting 100e.</p>
References	<p>Refer to the background for a complete description of the decision-making processes in place for the fishery.</p> <p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p>	
OVERALL PERFORMANCE INDICATOR SCORE:		85
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 3.2.3

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

PI 3.2.3	Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with
	<p>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.</p> <p>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 transshipment of catch and transshipment of catch taken through non-compliance, and Article XXIX outlines procedures for in-port and at-sea transshipment. Members of the WCPFC shall not grant a vessel authorization to fish if it is on the respective Convention's IUU vessel list.</p> <p>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):</p> <p>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.</p> <p>The fishing activity and catch reporting of the IFMP requires:</p> <ul style="list-style-type: none"> • 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. <p>DFO has an offshore over flight enforcement program.</p> <p>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.</p> <p>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.</p>

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with		
b	Guidepost	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.	Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence.	Sanctions to deal with non-compliance exist, are consistently applied and demonstrably provide effective deterrence.
	Met?	Y	Y	N
	Justification	<p>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.</p> <p>Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence.</p> <p>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 quilt 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 exceedingone 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"</p> <p>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.</p> <p>The MCS program lacks performance indicators to measure the effectiveness of its activities, including whether sanctions demonstrably provide effective deterrence, preventing the fishery from meeting 100b.</p>		
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

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with		
	Justification	<p>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.</p> <p>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.</p> <p>Logbook compliance is 95%. 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.</p> <p>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 95% of compliance. Finally there is no evidence of systematic non-compliance.</p> <p>Compliance is also recorded with regard to albacore catch reporting on the IATTC and WCPFC websites. Albacore catch must be reported every 6 months.</p>		
d	Guidepost		There is no evidence of systematic non-compliance.	
	Met?		Y	
	Justification	<p>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.</p> <p>Logbook compliance is 95%. 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.</p> <p>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.</p> <p>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 95% of compliance. Finally there is no evidence of systematic non-compliance.</p> <p>Compliance is also recorded with regard to albacore catch reporting on the IATTC and WCPFC websites. Albacore catch must be reported every 6 months.</p>		
References		<p>Refer to statistical information, analyses and outcomes provided in the main report</p> <p>DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				85
CONDITION NUMBER (if relevant):				NA

Evaluation Table for PI 3.2.4

PI 3.2.4		The fishery has a research plan that addresses the information needs of management		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	Research is undertaken, as required, to achieve the objectives consistent with MSC's Principles 1 and 2.	A research plan provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.	A comprehensive research plan provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.
	Met?	Y	Y	N

PI 3.2.4		The fishery has a research plan that addresses the information needs of management		
	Justification	<p>A research plan provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.</p> <p>At the international level, the IATTC scientific activities are planned and prioritised by the Director and conducted mostly by the permanent scientific staff, with review provided by the Scientific Advisory Committee as established by Antigua Convention Annex IV. WCPFC strategic planning for albacore research is the responsibility of the ISC ALBWG which reports to the Northern Committee of the WCPTC. To support robust science within the ISC there is additional review by the Scientific Committee and external peer review (WCPFC-NC6/WP-05). The IATTC collaborates with the ISC on research, stock assessment, and other related activities related to North Pacific albacore and other species in the northern area.</p> <p>Strategic planning for local albacore research is guided by the program planning by the ISC's ALBWG. Canadian scientists are members of the ALBWG and play key leadership roles. In the US, the HMS/Advisory Committee and HMS/ Management Team are involved in identifying and developing research projects in support of local management of the North Pacific resource by the PFMC; the PFMC/Science and Statistical Committee play a review role which also contributes to the international effort.</p> <p>In 2004 research recommendations were developed on the Nineteenth NP Albacore Workshop. The plan was later updated in 2006. The research plan focuses on three broad areas of research:</p> <ol style="list-style-type: none"> 1. Fishery Statistics 2. Biological studies (age and growth studies, migration studies) 3. Stock assessment studies (evaluation of assessment models, evaluation of reference points, and studies on the development of standardized abundance index). <p>More recently the ALBWG research needs were identified. In 2009, ALBWG found that ageing and maturity are significant uncertainties in the current stock assessment. A cooperative effort among fisheries agencies from Canada, Chinese Taipei, Japan, and the USA for the analysis of age, growth, and reproduction (ISC, 2009).</p> <p>DFO's national science and oceans research programs are typically defined by multi-year strategic plans and/or frameworks with appropriate planning imperatives and guidance. There are numerous documented past and current/ongoing project-specific research initiatives which support the needs of the albacore tuna resource, habitat and ecosystem and contribute to the objectives consistent with MSC's Principles 1 and 2. Descriptions of the initiatives are provided in the main report. These initiatives vary in their scope, complexity, duration, objectives and outcomes. Collectively, they provide the management system with ongoing, reliable advice that informs the development of measures and policies consistent with the requirements of the MSC's principles.</p> <p>Although the assessment team acknowledges the impact on P2 components are negligible due to the nature of the fishery, the research plan does not include a section on P2, preventing the fishery from fully meeting 100a.</p>		
b	Guidepost	Research results are available to interested parties.	Research results are disseminated to all interested parties in a timely fashion.	Research plan and results are disseminated to all interested parties in a timely fashion and are widely and publicly available.
	Met?	Y	Y	Y

PI 3.2.4		The fishery has a research plan that addresses the information needs of management
	Justification	<p>Research plan and results are disseminated to all interested parties in a timely fashion and are widely and publicly available. Research results are disseminated to all interested parties in a timely fashion at the international and local levels of the management system. All research results and related topics are posted on the respective RFMO and the DFO websites, and are widely and publicly available for download. Many of the research results are also published in peer reviewed scientific journals and as government reports.</p> <p>DFO-based research results are widely and publicly available on the CSAS website and occasionally in scientific journals. The results are also explained to, and discussed with, industry stakeholders and others at formal and informal venues. Related research generated by other government departments, academia, and NGOs is also disseminated on various websites and scientific journals.</p>
	References	<p>ISC. 2014. Annex 11. Report of the Albacore Working Group. Stock assessment of the albacore tuna in the North Pacific Ocean in 2014. <i>In</i>: 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. XXX p.</p> <p>Stocker, M. (Ed.). 2005. <i>Report of the 19th North Pacific Albacore Workshop</i>. Nineteenth North Pacific Albacore Workshop, Nanaimo, B.C., Canada, November 25-December 2, 2004. Fisheries and Oceans Canada, Pacific Biological Station, B.C. 127 p.</p> <p>Stocker, M., H. Stiff, W. Shaw, and A.W. Argue. 2007. The Canadian albacore tuna catch and effort relational database. Can. Tech. Rep. Fish. Aquat. Sci. 2701: vi+76 p.</p>
OVERALL PERFORMANCE INDICATOR SCORE:		90
CONDITION NUMBER (if relevant):		NA

Evaluation Table for PI 3.2.5

PI 3.2.5		There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives There is effective and timely review of the fishery-specific management system		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	The fishery has in place mechanisms to evaluate some parts of the management system.	The fishery has in place mechanisms to evaluate key parts of the management system	The fishery has in place mechanisms to evaluate all parts of the management system.
	Met?	Y	Y	N

PI 3.2.5	<p>There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives</p> <p>There is effective and timely review of the fishery-specific management system</p>
	<p>The fishery has in place mechanisms to evaluate key parts of the management system, except those related to control rules and reference points, which although they have been investigated and specific recommendation made by the ISC ALBWG , have yet to be adopted by the RFMOs. DFO has also formally requested pertinent RFMOs to push for the adoption of appropriate reference points for all managed stocks in the IATTC and WCPFC by 2014. it is considered that the fishery does not meet the SG 100 level of performance for this scoring issue.</p> <p>The fishery has in place mechanisms to evaluate key parts of the management system at the international and local levels.</p> <p>At the international level this occur at numerous points in both RFMOs. For the WCPFC the mechanisms are</p> <ol style="list-style-type: none"> 1) Scientific Committee with representatives of the Oceanic Fisheries Program of the Pacific Community, the IATTC, and frequently other scientific experts; 2) the Technical and Compliance Committee; 3) ISC Albacore Working Group and Northern Committee; and 4) testimony received from stakeholders at WCPFC meetings. <p>For the IATTC the mechanisms are</p> <ol style="list-style-type: none"> 1) Scientific Advisory Committee; 2) Committee for the Review of Implementation of Measures; 3) external scientific experts as needed; 4) testimony received from stakeholders at IATTC meetings. <p>At the local level this includes several DFO items: 1) IFMP; 2) TAB /Management Team; 3) TAB /Advisory Subpanel; 4) DFO albacore fisheries scientists on ISC Albacore Working Group; 5) testimony received from stakeholders at TAB meetings.</p> <p>The fishery has in place mechanisms to evaluate key parts of the management system. The IFMP for Tuna fisheries outlines the indicators that will be used to evaluate the performance of the management system. Mechanisms are in place that results in an interactive and consistent exchange of information and opinions between DFO and industry stakeholders. These include regional and Tuna Board meetings where management and policy measures and science initiatives for the fishery are discussed and evaluated; the process provides a retrospective analysis of the fishery's performance and proposals for future changes. Key parts of the management system are evaluated as summarized below:</p> <ol style="list-style-type: none"> 1. Precautionary Approach: DFO sustainability checklist (annually) 2. Stock Status: DFO and Industry post-season review (annually); research monitoring (annually) and formal assessment (every 3 years) 3. Ecosystem: DFO and Industry post-season review (annually); research monitoring (annually) 4. Enforcement and Compliance: DFO and Industry post-season review and local roundtables (annually) 5. Economics: DFO Cost-Earnings analyses (as required) 6. Management Measures: DFO and Industry post-season review (annually) and local advisory committee meetings (ongoing) 7. Licensing Policy: DFO regional committee and industry engagement (annually) <p>Evaluation of the management objectives is included in Appendix I of the IFMP.</p> <ul style="list-style-type: none"> • Conservation and Protection; Consultation Process; Providing Opportunity to Harvest Tuna; Working Cooperatively with the US. <p>There is an internal evaluation conducted by DFO: Fisheries provide accurate and timely catch and effort data; the information is collected and monitored through hail out system, logbooks (95% compliance) and sales slips</p> <p>The fishery has in place mechanisms to evaluate key parts of the management system, but not all parts as reference points and harvest rules are not explicitly set.</p>

PI 3.2.5		There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives There is effective and timely review of the fishery-specific management system		
b	Guidepost	The fishery-specific management system is subject to occasional internal review.	The fishery-specific management system is subject to regular internal and occasional external review.	The fishery-specific management system is subject to regular internal and external review.
	Met?	Y	Y	N
	Justification	<p>The fishery-specific management system has regular internal review at international and local levels. It has also regular external review at the local level, but only occasional external review at the international level. Therefore, the fishery does not meet this level of performance for this scoring issue.</p> <p>The fishery-specific management system has regular internal and occasional external review at the international and local levels. At the international level, the scientific system that provides support to management has various internal and external reviews including, but not limited to: those by the Scientific Committee established by WPCFC Convention Article XII with representatives of the Oceanic Fisheries Program of the Pacific Community, the IATTC, and frequently other scientific experts to review stock assessments, status of target, non-target and associated stocks, and scientific information and advice that may be provided by the Commission; the Technical and Compliance Committee established by Convention Article XIV provides the Commission with information, technical advice, and recommendations related to the implementation and compliance with Conservation and Management Measures (CMMs); Convention Article XIII provides for the Commission to engage external scientific experts to carry out periodic peer reviews of scientific information and advice provided by the Commission; Members transmit to the Commission an annual statement of compliance measures, including imposition of sanctions it has taken for any violations; the business and meetings of the WCPFC are transparent and conducted annually and as a consequence, the status of conservation and management objectives are the subject of review of public opinion and subsequent political ramifications; and scientific advice and review specific to North Pacific albacore are provided by the ISC to the Northern Committee.</p> <p>The IATTC also has numerous internal and occasional external reviews.</p> <p>For example: comprehensive review functions and responsibilities of the Scientific Advisory Committee (established under Antigua Convention Article XI) are set forth in Annex 4 of the Antigua Convention; review functions and responsibilities of the Committee for the Review of Implementation of Measures (established under Antigua Convention Article XVIII) are set forth in Annex 3 of the Antigua Convention; the Commission has external scientific experts to carry out periodic peer reviews of scientific information and advice provided by the Commission may; IATTC meetings are transparent and conducted annually and as a consequence, the status of conservation and management objectives are the subject of review of public opinion and subsequent political ramifications.</p> <p>At the local level, DFO's the scientific system supporting management has numerous internal and external reviews. For example: those conducted for IFMP in 2013 and 2014 by the SSC; the SAR report provided for initial and final decision making on the need for new harvest specifications and management measures; peer review by outside experts of specific management actions and particularly controversial issues; IFMP, including the HMS/FMP, are subject to DFO oversight.</p> <p>The Assessment team a N to 100b because there is not enough evidence to say that the fishery-specific management system is subject to regular international and external review.</p>		

PI 3.2.5	There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives There is effective and timely review of the fishery-specific management system	
References	DFO 2014. Integrated Fisheries Management Plan for Albacore Tuna. April 1, 2014 to March 31, 2015. DFO Pacific Region.	
OVERALL PERFORMANCE INDICATOR SCORE:		80
CONDITION NUMBER (if relevant):		NA

Appendix 1.2 Risk Based Framework (RBF) Outputs

RBF has not been used to score any PIs.

Appendix 1.3 Conditions and Client Action Plan

Following are the stated conditions as provided in the Draft Client Report dated 28th October 2014.

In addition to the general requirements, the Client Group (client) must also agree in a written contract with an accredited MSC certification body to meet the specific conditions as described below within the timelines that will be agreed in the 'Action Plan for Meeting the Condition for Continued Certification' that is to be approved by SAI Global.

The Client provided SAI Global with a revised Client Action Plan on the 10th December 2014.

There are 2 conditions relating to performance indicators 1.1.2 and 1.2.2.

Table A1.3: Condition 1

Performance Indicator	PI 1.1.2 Reference Points
Score	70
Rationale	<p>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 80b is not met.</p> <p>While there is no explicit biomass target reference point, there is an implicit biomass target reference point based on the 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 <i>inter alia</i>, 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”</p> <p>Article 6 of the WCPFC Convention on the application of the precautionary approach contains similar text.</p> <p>Thus, since maintaining biomass levels at levels that produce MSY is only an implicit target, so the 80c is not met.</p>
Condition	The client must provide evidence of implementation of limit reference point set above the level at which there is an appreciate 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	<p><u>By Year 1:</u> 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)</p> <p><u>By Year 2:</u> 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)</p> <p><u>By Year 3:</u> 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)</p>
Client action plan	Action Plan

	<ol style="list-style-type: none"> 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. <p><u>Responsible parties</u></p> <ol style="list-style-type: none"> 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. <p><u>Timeframe for Milestones</u></p> <ol style="list-style-type: none"> 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 Points have been implemented.
Consultation on condition	DFO

Table B1.3: Condition 2

Performance Indicator	PI 1.2.2 Harvest Control Rules
Score	60
Rationale	<p>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.</p> <p>The harvest control rule is generally understood through the IATTC and WCPFC Convention text to reduce effort when the stock falls below the level producing MSY. While an interim reference point ($F_{SSB-ATHL}$) has been established by the Northern Committee, no well-defined harvest control rule has been established, either by the IATTC or the WCPFC, to ensure that exploitation rates will be reduced.</p>
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	<p><u>By Year 1:</u> 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)</p> <p><u>By Year 2:</u> 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)</p> <p><u>By Year 3:</u> T The Assessment team shall be provided with documentary evidence that appropriate harvest rules for North Pacific albacore tuna stock should have been adopted by the IATTC (or their designated bodies).(score reaches 80)</p>
Client action plan	<p><u>Action Plan</u></p> <ol style="list-style-type: none"> 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. 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. 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. In addition, CHMSF agrees to fulfil Condition 2 before proceeding beyond the site visit stage for the next recertification process. <p><u>Responsible parties</u></p> <ol style="list-style-type: none"> The client will support all activities of DFO in development and

	<p>implementation of the Harvest Control Rules (HCRs).</p> <ol style="list-style-type: none"> 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. 4. DFO will conduct consultations with relevant stakeholders groups. DFO will publish and make publicly available the final HCR's. <p><u>Timeframe for Milestones</u></p> <ol style="list-style-type: none"> 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.
Consultation on condition	DFO

DFO letter of support to the CHMSF



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Your File Votre référence

Our File Notre référence

Lorne Clayton
President
Canadian Highly Migratory Species Foundation

Subject: Update on International Management of North Pacific Albacore Tuna

Dear Mr. Clayton:

This is to provide views from Fisheries and Oceans Canada (DFO) on the international management of North Pacific (NP) Albacore Tuna, and provide information on some of the activities undertaken by officials from our department in this regard. As you know, NP Albacore Tuna was the subject of multiple discussions at various international science and management bodies in 2014.

To begin, the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) conducted the 2014 stock assessment, using data through 2012. Based on improvements to the growth model, stock-recruitment relationship, and an approach to account for distribution, the population dynamics estimated in this assessment are believed to be more representative of the biomass than previous assessments. The general view resulting from this latest assessment is that the stock is doing well. Specifically, the stock is not currently experiencing overfishing nor is it in an overfished state. This advice has been subsequently provided to scientific and management bodies within the two organizations that have a mandate for the conservation and management of NP Albacore Tuna: the Western and Central Pacific Fisheries Commission (WCPFC), and the Inter-American Tropical Tuna Commission (IATTC).

In recent years, and encouraged by the positive results of the 2014 stock assessment, the Government of Canada has engaged in efforts within these two organizations towards developing measures that will ensure the long term viability and sustainability of the NP Albacore Tuna stock. Consistent with our consultations with the Canadian Highly Migratory Species Foundation (CHMSF) and other industry stakeholders, Canada proposed a precautionary approach (PA) based management framework at the September 2014 meeting of the Northern Committee (NC) of the WCPFC that included a management objective, limit and target reference points, as well as harvest control rules. Discussion of the Canadian proposal, the results of the 2014 assessment and additional advice provided to NC by the ISC (on reference points, expected yields and probabilities of exceeding reference points), led the NC to recommend the adoption of a PA framework for the stock, a step which was subsequently taken at the December 2014 annual meeting of the Commission. In addition to a management objective and harvest control rules, this framework includes a limit reference point of 20%SSB (20% of unfished spawning biomass) which replaces the WCPFC's interim reference

Canada

Ottawa, Canada
K1A 0E6

point. The framework suggests that a management strategy evaluation (MSE) be used to evaluate possible target reference points and alternative harvest control rules.

At the IATTC annual meeting in July 2014, Canada, with others, requested that the Commission's scientific staff discuss MSE for NP Albacore at the May 2015 meeting of the IATTC's Science Advisory Committee, including potential harvest control rules and reference points.

It is our view that momentum has been created towards the development and implementation of robust management frameworks at the international level, which is called for in the Conventions upon which both the WCPFC and IATTC are based, as well as the United Nations Fish Stocks Agreement, to which Canada and many other fishing nations are signatories. Moving forward, Canada will focus its efforts on the MSE process, working towards the adoption of a precautionary target reference point, as well as decision rules to lower Fishing Mortality in the event that either the target or the limit reference points are breached. This ongoing work supports the CHMSF in its fulfillment of the requirements of the Client Action Plan. As always, we will continue to consult industry on specific details as needed.

On behalf of the Department, I would like to once again thank the CHMSF for its continued support of Canada's efforts to develop and implement and precautionary approach based framework for NP Albacore Tuna at the WCPFC and IATTC.

We look forward to another year of fruitful collaboration.

Best regards.



Robert Day
Director, International Fisheries Management Bureau
Fisheries and Oceans Canada

cc: Robert Jones,
Assistant Director, International Fisheries Management Bureau
Fisheries and Oceans Canada

Appendix 2. Peer Review Reports

Peer Reviewer A

Overall Opinion

<i>Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?</i>	Yes/No	Conformity Assessment Body Response
<i>Justification:</i> No, the conclusions reached for Pls 1.2.1 and 1.2.2 are not supported by the evidence provided (see explanation below)		The assessment team believes it has arrived at an appropriate conclusion based on the evidence presented. See response below.

<i>Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe?</i>	Yes/No	Conformity Assessment Body Response
<i>Justification:</i> Yes, but it will be difficult for the CHMSF to achieve these conditions for the entire fishery, given that involves several other countries that may not be interested in MSC certification		There is considerable interest in the IATTC and WCPFC to establish reference points. The assessment team believes that it is quite likely the Commissions will have established the required reference points by the 4 th annual surveillance audit.

If included:

<i>Do you think the client action plan is sufficient to close the conditions raised?</i>	Yes/No	Conformity Assessment Body Response
<i>Justification:</i> Yes, the action plans appear appropriate		No response required.

For reports using the Risk-Based Framework please follow [the link](#).

For reports assessing enhanced fisheries please follow [the link](#).

General Comments on the Assessment Report (optional)

It was difficult to follow the arguments regarding reference points, harvest strategy, and harvest control rule. In reality, none of these elements of a PA-based management system exist for Albacore. It is argued that 1) there is enough information to estimate them, 2) the management body is receptive of developing them. The conditions revolve around making it happen. If this were presented in a more direct and transparent manner, it would have been much easier to follow the report.

The list of ETP species with possible interactions with the North Pacific Albacore Tuna fishery should be expanded to include the following fish species

<u>Common Name</u>	<u>Scientific Name</u>	<u>COSEWIC status</u>	<u>Schedule</u>	<u>SARA Status</u>
Canary Rockfish	Sebastes pinniger	Threatened Special	No schedule	No Status
Darkblotched Rockfish	Sebastes crameri	Concern	No schedule	No Status
Quillback Rockfish	Sebastes maliger	Threatened Special	No schedule	No Status Special
Rougheye Rockfish type I	Sebastes sp. type I	Concern Special	Schedule 1	Concern Special
Rougheye Rockfish type II	Sebastes sp. type II	Concern Special	Schedule 1	Concern Special
Yelloweye Rockfish	Sebastes ruberrimus	Concern Special	Schedule 1	Concern Special
Yelloweye Rockfish	Sebastes ruberrimus	Concern	No Schedule 1	Concern
Yellowmouth Rockfish	Sebastes reedi	Threatened	No schedule	No Status
Bocaccio	Sebastes paucispinis	Endangered	No schedule	No Status
Longspine Thornyhead	Sebastes altivelis	Special Concern	Schedule 1	Special Concern
Bluntnose Sixgill Shark	Hexanchus griseus	Special Concern	Schedule 1	Special Concern
North Pacific Spiny Dogfish	Squalus suckleyi	Special Concern	No schedule	No Status

http://www.sararegistry.gc.ca/sar/index/default_e.cfm

Assessment team's response: The assessment team disagrees due to the characteristics of the method of fishing. Trolling operations are carried out at or close to the surface, and the trolling gear does not make contact with the seabed. The above proposed list of includes only benthic species which have never been caught by the trollers and which possibility to be caught by trollers is null.

The units for spawning stock biomass used in the MSC report are not the same as in the assessment (ISC 2014) where female SSB is used. I could not find the quoted confidence intervals for SSB and the width of the confidence interval is not given (is it +- 1 standard deviation, 95%?).

Assessment team response: The values given in the report are the total spawning biomass (female plus male). These were calculated by doubling the female spawning stock biomass. Confidence intervals were provided by John Holmes (DFO) and Steve Teo (NMFS) of the ALBWG.

Figure 5.1 from ISC 2014 should be used instead of the first figure in PI 1.1.1. All figures should have stand-alone captions with a citation to source.

Assessment team response: The Figure in PI 1.1.1 is used to specifically illustrate that the current spawning stock biomass is well above the point where recruitment would be impaired.

Much is made of the IATTC strategy of preventing fishing effort from increasing. However, this measure is very vague and it would be useful if more details were given regarding what units of fishing effort are used, what is the base from which an increase is not allowed, what would happen if fishing effort were to increase, and, most importantly, what is meant to be controlled by putting a limit on effort?

Assessment team response:

IATTC Resolution C-05-02 supplemented by Resolution C-13-03 on the Conservation of northern albacore tuna in the eastern Pacific Ocean requires that:

1. The total level of fishing effort for North Pacific albacore tuna in the Eastern Pacific Ocean not be increased beyond current levels.
2. The CPCs shall take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore tuna is not increased;
3. All CPCs shall report all catches of North Pacific albacore tuna by gear type to the IATTC every six months.

For Canada the IATTC summary of the troll fishery indicates that fishing effort as measured by vessel numbers and fishing days has not increased from the 2002-2004 average:

	No. of vessels	Fishing days
2002-2004 Average	215	8,632
2007	207	6,901
2008	137	5,774
2009	138	6,540
2010	161	7,294
2011	177	8,602
2012	175	6,008

Performance Indicator Review

Please complete the table below for each Performance Indicator which are listed in the Conformity Assessment Body's Public Certification Draft Report.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
<i>Example:1.1.2</i>	<i>No</i>	<i>No</i>	<i>NA</i>	<i>The certifier gave a score of 80 for this PI. The 80 scoring guidepost asks for a target reference point that is consistent with maintaining the stock at Bmsy or above, however the target reference point given for this fishery is Bpa, with no indication of how this is consistent with a Bmsy level.</i>	

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.1	No	Yes		The information presented was based primarily on stock status vs. MSY-based reference points. These reference points are rarely used because they are not robust to stock assessment uncertainties (Restrepo et al. 1998). The assessment report included SPR-based reference points which are considered more robust and are more appropriate for this purpose. Two candidates that may well be appropriate for a species with Albacore life history are F30% and F40%. The report could be improved by comparing stock status to these reference points as well as the MSY-based reference points. Nevertheless, the population spawning biomass has been stable for approximately 3 decades and well above all candidate reference points for MSY (i.e. Bmsy, biomass at F30% and F40%).	Noted and appreciated. The assessment team examined "Technical Guidance On the Use of Precautionary Approaches to Implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act" (Restrepo et al. 1998) and noted that a default MSY control rule is recommended in Section 2 of the report.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.2	No	Yes	Yes, but	<p>The biological data available for this species and the stock assessment data on catch, size composition, and abundance trends are appropriate for estimating target and limit points. The stock assessment (ISC 2014) includes estimates of MSY-based and SPR-based reference points and there is sufficient guidance in the literature about how these may be used. This section should refer to these reference points in order to justify the score assigned. In practice, there are no real functional target and limit reference points in place for this fishery, and thus the score assigned is appropriate. Regarding Condition 1, it is somewhat out of the control of the CHMSF to implement appropriate target and limit reference points for the entire fishery given that it is an international fishery. However, the CHMSF, in collaboration with DFO, could adopt reference points to manage the Canadian portion of this fishery. Is this a sufficient condition?</p>	<p>Noted and appreciated. The text in the Evaluation Table for PI 1.1.2 has been amended to include reference to Table 3 (Section 4.3.4) listing potential reference points estimated by the ALBWG in the 2014 stock assessment.</p> <p>Regarding Condition 1, a letter of support has been requested from DFO International, Ottawa. Such a letter of support for the CHMSF actions will help in the development of limit and target reference point, now underway, by the RFMOs.</p>

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.3	Yes	Yes		The evidence is clear that the North Pacific Albacore stock is not considered to be depleted thus the score of NA is justified.	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.1	No	No		The harvest strategy is quite vague. It is based on a IATTC and WCPFC resolutions that total fishing effort not increase from current levels and that participating countries ensure their vessels do not increase fishing effort. The intent of this strategy is not clear, is to prevent the exploitation rate from increasing? How fishing effort is to be measured is not clear, is it in units of active vessels, days fished? The monitoring and reporting mechanism is not clear, and temporal trends in fishing effort by country are not presented. How the strategy responds to stock status is not clear. This is an input based strategy. Experience has been that input-based management strategies tend to be ineffective because technological innovations lead to increased fishing power. Furthermore, if the measure of effort is the number of vessels, fishing effort may increase by vessels fishing more days. This harvest strategy has not led to the stock being relatively healthy because this status has persisted for 30 years, well before the IATTC and WCPFC resolutions were made.	While the reviewer's comments are noted and have been considered, the assessment team believes that the evidence provided is sufficient to justify the given score of this PI. The evidence given in the Evaluation Table for PI1.2.1 and the following supports the conclusion that there is a robust and precautionary harvest strategy in place. The IATTC Antigua convention Article VII clearly states: "adopt measures that are based on the best scientific evidence available to ensure the long-term conservation and sustainable use of the fish stocks covered by this Convention and to maintain or restore the populations of harvested species at levels of abundance which can produce the maximum sustainable yield, <i>inter alia</i> , 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". WCPFC has similar text in their Convention. (Article 5). Both the IATTC and the WCPFC have adopted resolutions in response to the albacore status report in 2005.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.2	No	No	Yes, but	<p>There is insufficient evidence that the harvest strategy will act to reduce the exploitation rate as limit reference points are approached. There are no limit reference points. There is no mention of reducing exploitation rate when stock size declines. If this argument is to be made by analogy to Bigeye Tuna, then the analogy needs to be explained.</p> <p>Regarding Condition 2, it is somewhat out of the control of the CHMSF to implement appropriate harvest control rules for the entire fishery given that it is an international fishery. However, the CHMSF, in collaboration with DFO, could adopt harvest control rules to manage the Canadian portion of this fishery. Is this a sufficient condition?</p>	<p>While the reviewer's comments are noted and have been considered the assessment team believes that the evidence provided is sufficient to justify the given score of this PI. The harvest control rule is generally understood, through the RFMOs convention texts, as reducing the harvest if the stock falls below the MSY level. IATTC Resolution C-05-02 and WCPFC CMM05-03 are evidence that tools are in place to control exploitation of the albacore stock.</p> <p>Recognizing that the potential production from the resource can be reduced if fishing effort is excessive, the IATTC implemented management and conservation measures for yellowfin and bigeye tuna in the Eastern Pacific Ocean in 2011 (Resolution C-11-01).</p> <p>Regarding Condition 2, a letter of support has been requested from DFO International, Ottawa. Such a letter of support for the CHMSF actions will help in the development of limit and target reference point, now underway, by the RFMOs.</p>

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.3	Yes	Yes		Including the following information would make the supporting evidence stronger. A table showing sampling levels by country and year would strengthen the statement "Biological samples are routinely collected". Reference to a proposed installation of satellite-based vessel monitoring by January 2016 suggests something is lacking in the current monitoring program. What is the reason for this change to vessel monitoring? Regarding landings in Canada and other countries, is there independent dockside monitoring as has become standard practice in most other Canadian and US fisheries, or are landings tallied from buyer slips? Are fishery removals from recreational fisheries in Canada, and other countries beside the US, recorded?	Noted and appreciated. Total catch from the Canadian albacore tuna fishery is reported annually to the ISC, IATTC and WCPFC. DFO developed the Canadian Albacore Tuna Catch and Effort Relational Database Management System to monitor albacore catch and effort data from fishing logbooks and sales slips landings from the Canadian troll fleet operating in the Pacific Ocean. No dockside monitoring is undertaken. Internationally systems are in place for recording catch and effort for all fishing entities fishing on north Pacific albacore. ISC Members are required to annually report total annual catch, total annual effort and catch-effort (summary of logbook data). Vessel Monitoring System (VMS) is in pace for larger vessels in both the IATTC and WCPFC area.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.4	Yes	Yes		The assessment is quite sophisticated, it makes good use of available data, it receives a good level of peer review, and it produces outputs that could be used in a variety of reference points and harvest control rules.	No response is necessary.
2.1.1	Yes	Yes		The fishery catches almost exclusively Albacore Tuna. The level of reported retained catch does not pose a risk to these species.	No response is necessary.
2.1.2	Yes	Yes			No response is necessary.
2.1.3	Yes	Yes		A table of retained catch by year reported in the Canadian fishery would be a useful addition to this section.	Table 5 provides data on non-target species catches (retained and released) broken down by year (2012 and 2013). These data are mentioned in the rationale for 2.1.3.
2.2.1	Yes	Yes		The fishery catches almost exclusively Albacore Tuna. By-catch is rare.	No response is necessary.
2.2.2	Yes	Yes			No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.2.3	Yes	Yes		The lack of independent verification of catch through observers or video monitoring is acknowledged and justifies the assigned score.	No response is necessary.
2.3.1	Yes	Yes		The fishery catches almost exclusively Albacore Tuna. The list of ETP species should be expanded to include marine fishes as indicated in general comments. The only ETP species that may potentially be affected are albatros. No catch has been reported. A specific statement about the lack of ETP albatros catch is warranted.	See assessment team's response in the general comments section above.
2.3.2					No response is necessary.
2.3.3				The lack of independent verification of catch through observers or video monitoring is acknowledged and justifies the assigned score.	No response is necessary.
2.4.1	Yes	Yes		Given the fishing methods used in this fishery, habitat impacts are not an issue	No response is necessary.
2.4.2	Yes	Yes			No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.4.3	Yes	Yes			No response is necessary.
2.5.1	Yes	Yes		Given the species composition of catch in this fishery, and the relatively healthy status of the target species, ecosystem impacts are not an issue	No response is necessary.
2.5.2	Yes	Yes			No response is necessary.
2.5.3	Yes	Yes			No response is necessary.
3.1.1	Yes	Yes			No response is necessary.
3.1.2	Yes	Yes			No response is necessary.
3.1.3	Yes	Yes			No response is necessary.
3.1.4	Yes	Yes			No response is necessary.
3.2.1	Yes	Yes			No response is necessary.
3.2.2	Yes	Yes			No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
3.2.3	Yes	Yes			No response is necessary.
3.2.4	Yes	Yes			No response is necessary.
3.2.5	Yes	Yes			No response is necessary.

Any Other Comments

Comments	Conformity Assessment Body Response
Regarding Principle 3, I have not responded specifically to each element. Based on my cursory knowledge of fisheries management in Canada and the abilities of IACCT and WCPFC, and the description provided in the report, I believe all the assigned scores in Principle 3 are justified.	No response is necessary.

Restrepo, V. R., Thompson, G. G., Mace, P.M., Gabriel, W. L., Low, L. L., MacCall, A. D., Methot, R. D., Powers, J. E., Taylor, B. L., Wade, P. R., and Witzig, J. F. 1998. Technical guidance on the use of precautionary approaches to implementing National Standard 1 of the Magnuson–Stevens Fishery Conservation and Management Act. National Oceanic and Atmospheric Administration (US) Technical Memorandum NMFS-F/SPO-31. 54 pp.

Peer Reviewer B

Overall Opinion

<i>Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?</i>	Yes	Conformity Assessment Body Response
<p><u>Justification:</u> The assessment team provides clear information sources and references supporting their considerations. The material, documentation, justification and rationale presented by the team for the performance scoring results well supports the final score results.</p> <p>Where information deficiencies and/or gaps exist for the albacore tuna or the fishery these were identified by the team and the impact on the evaluation of the fishery and stock noted.</p>		No response is necessary.

<i>Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe?</i>	Yes	Conformity Assessment Body Response
<p><u>Justification:</u></p> <p>PI 1.1.2 Appropriate Reference Points The report provides sufficient background information supporting the condition set for PI 1.1.2. Appropriate reference points have not been adopted for the North Pacific albacore tuna fishery</p> <p><u>Milestone timeframe:</u> Given the recent work undertaken by the RRMOs on this PI there is good evidence to support that the milestones for this PI are achievable within the specified timeframe</p> <p>PI 1.2.2 Harvest Control Rules There is adequate evidence to support that “well defined and effective harvest control rules to adjust management measures when needed” are attainable for this fishery. An extensive and comprehensive management system (international and national) exists for the fishery and consultation opportunities are well defined. The management system supports an effective monitoring system and provides for long term and short term planning as relates the management process. In addition, there exist well defined performance measures already in place to aid in optimizing and improving the management of harvest. Through this framework there is adequate support that the establishment and adoption of harvest control rules for this fishery are attainable within the timeframe.</p>		No response is necessary.

<i>Do you think the client action plan is sufficient to close the conditions raised?</i>	Yes	Conformity Assessment Body Response
<p><u>Justification:</u></p> <p>In general yes, given the extensive suite of consultative opportunities and already well defined management process in place. Regarding PI 1.1.2- Reference points much progress has been made recently by the RFMOs to address this PI and close this condition.</p> <p>Regarding 1.2.2- harvest control rules, the Client proposes to continue building on their collaborative opportunities and also that they plan to fulfill this condition prior to the site visit for the next recertification process . If the client is successful in these activities the condition should be closed within the timeframe.</p>		No response is necessary.

General Comments on the Assessment Report (optional)

Scope of Work

I was provided with a Draft peer review report for CHMSF Albacore Tuna fishery along with a peer reviewer pack containing MSC guidance documents and the Peer Reviewer Template. The Peer Review Report was comprehensive, followed a clear format and provided a description of the assessment team, the assessment process and schedule. The report provides a clear description of the MSC Standard and Certification Requirements, evaluation scores, weighting and assessment team certification results, the conditions set and the Client Action Plan. The report provided a clear description of the evaluation procedure including a harmonized fishery assessment. Clear and sufficient detailed background on the previous assessment, conditions raised, action plans and in efforts to ensure harmonization with this re-assessment included considerations for recent surveillance audits.

I was asked to “comment on the adequacy of the evidence provided in the report against the MSC certification requirements” using the ‘MSC peer review template’ included in the ‘Peer Reviewer Pack’. The time allocated for the review was limited however all components of the Assessment Report for the re-assessment of CHMSF North Pacific albacore tuna fishery were reviewed against the three MSC Principles. This review incorporated additional special focus on review of the Harmonized Fishery Assessment (Section 5) and also on review of conditions previously placed on the fishery (for Performance Indicator 1.1.1- Reference Points and PI 1.2.2-harvest control rules and tools, Section 7).

Some general comments follow.

The report accurately describes the context, biology, stock condition, and management of the North Pacific albacore tuna fishery, the Unit of Certification (UoC) within this assessment. The assessment team presented clear and accurate information on the albacore tuna biology, stock structure, migration patterns, reproduction, and life history patterns incorporating well supported documentation from the literature. The assessment team did an excellent job at identifying current gaps and deficiencies in these subjects and how the uncertainty in these areas could affect the assessment. The report provided in general a good description of the historical and current fishery including location, seasonality, description of method, and historical and current exploitation levels.

Throughout the assessment process the team participated in multiple consultation activities documenting these well. The team provided relevant and sufficient information sources and comprehensive listing of all references supporting the deliberations and considerations of the assessment process.

Additional comments based on the review of the Harmonized assessment.

1. The team provided adequate background describing the previous assessment and issues and also the existing fishery certifications in the work conducted for the re-assessment.
 - Sufficient information on the joining (February 2014) of the Western Fish Boat Owner’s Association (WFOA) with the American Albacore Fishing Association (AAFA) in 2014, subsequent re-issue of certificates (by IFC).
 - Previously AAFA had been awarded certification by Moody Marine, Ltd. August 2007.
 - December 2012- AAFA was re-certified; 1st annual surveillance audit performed May 2014. The assessment team considered the recent May 2014surveillance audit in preparation for this re-assessment.
2. The assessment team further considered the previous assessment and the current one in particular as relating to two PI’s (PI 1.1.2-Reference Points and PI 1.2.2- Harvest Control rules)

which received 'conditional scores' in the assessment in its effort to harmonize the outcome of the assessments. Sufficient background describing issues related to conditional scoring from the earlier assessment and the language from the earlier assessment relating to PI 1.1.2. and 1.2.2 to evaluate the differences and intent with reasonable confidence:

- In conducting the re-assessment, SAI Global also considered the conditions described in the 2012 AAFA surveillance audit.

"Briefly, the assessment relayed that although the 'condition' for this PI (1.1.2) was expressed differently both of the assessment teams had the same intention- of focusing on exploitation level of the stock and the need for developing effort reduction tools."

Further, SAI considered the conditions set earlier (by Moody) in their initial 2007 certification and in the subsequent AAFA surveillance audits

- SAI further reviewed the Action Plan set out by AAFA and the resulting actions noting: "To the extent possible (given that for CHMSF, the fishery is under the jurisdiction and governance of a Canadian based management system under DFO), Global Trust has reviewed and explicitly agreed to the respective Action Plans for WFOA and CHMSF that are closely harmonized with regard to the activities and intended outcome of those activities with those set out in the Action Plan of AAFA. "

"In evaluating the Conditions, Action Plans and outcome of the surveillance audit for AAFA undertaken by Moody Marine (publ. Nov 2010) and those of Global Trust in the surveillance audits for CHMSF and WFOA, Global Trust concludes that there are no significant differences in the Conditions, Action Plans and outcomes that has or will result in a material difference in the scores of PI 1.1.2 (Global Trust) and 1.1.4.1 (Moody Marine) with respect to the close out of these respective conditions. In their surveillance report (Nov 2010), Moody noted that 'the Global Trust assessment of the WFOA and CHMSF fisheries were generally consistent with the earlier AAFA certification. The conditions of certification are near identical, and the action plans are similar in intended outcomes, although the AAFA action plan appears to be more focused on taking a precautionary approach to management issues and uncertainty."

4. The assessment team provided good background to evaluate conditions addressed / raised at the 2012 AAFA surveillance audit (of Moody December 2012) with that of Global Trust on CHMSF and WFOA (May 2014) . Adequate details re' the two conditions placed on AAFA by Moody at the re-certification (December 2012) were provided. They noted that PI 1.1.2 is consistent with existing certificates of CHMSF and WFOA except for the actual score values (AAFA PI 1.1.2=70 and CHMSF and WFOA PI 1.1.2 score=75). The team considered the primary difference in scoring due to a change in publication of Certification Requirements that were adopted in January 2012 and used in the recertification of the AFAA fishery. In addition, the second condition not placed on CHMSF and WFOA earlier was set on AAFA relating to PI 1.2.2- Harvest control rule (that received a score of 60). They relayed that at the time of the surveillance audit consideration of placing another condition on the C?HMSF and WFOA certificate was not warranted at the time of the audit and further noted that continued review of the developments within the fishery management as relates this PI would continue and considered at the next audit.

4. At the time of the 4th audit of the AAFA (May 2014 by IFC) review of the two conditions set on AFFA and WFOA were reviewed (PI 1.1.2 and PI 1.2.2). The team concluded that as relates PI 1.1.2, the first milestone had been met; the fishery was on target however the condition remained open.

This milestone as noted by this assessment team relates to activities carried out by AFFA and WFOA to support and promote development and determination of appropriate reference points for the North Pacific albacore tuna and corresponds directly to milestones of the CHMSF action plan. They

further noted that although progress is underway, that the expected progress is 'behind target'. Since no reference points have yet be adopted the PI does not achieve an SG 80 score. The team noted that as the condition could not be closed out at the 4th audit that new revised milestones have been set. These details aided in supporting that the new CHMSF milestones have been harmonized with the AAFA and WFOA certificate for the PI 1.1.2 condition.

6. Finally, the team detailed that a second condition not currently on the CHMSF certificate has been placed on the AAFA and WFOA certificate for PI 1.2.2- harvest control rule (score 60). Again, the team summarized that at the time of the 4th surveillance audit since there were no subsequent audits to be held that this issue would be readdressed at the time of the CHMSF re-assessment. Further details regarding requirements to close out this condition under the revised CRs was also provided which aided in understanding the harmonization of the re-assessment regarding this condition. The team noted that

“According to CR27.24, specifically 27.24.2.4biiA. “If the SG80 level has not been achieved, such conditions shall be rewritten against the reassessment tree following the requirements specified in 27.11, with a timeline for completion of less than one certification period”. Given that the AAFA/WFOA PI 1.2.2 condition was written prior to the requirement for outcome-based conditions, this new requirement allows the existing condition to be rewritten in re-assessment in an outcome-focused manner, with timelines harmonised with the WFOA/AAFA fisheries and setting the deadline for closing the condition for 2017. As specified above, the process of recertification is on-going. Revised milestones were set in the current surveillance and will be included in the reassessment report and the assessment team will evaluate if the progress against these revised milestones is back “on target” for the next surveillance audits.”

Concluding editorial comment.

The overall report is well written and the information sufficiently comprehensive and adequate to allow an evaluation against the MSC certification requirements. However throughout the document there are many editorial inconsistencies. These editorial issues are believed to be very minor in nature as they do not affect the overall accuracy of the material content or the scoring outcome of the certification. However with that said, the final version of the report could be significantly improved with additional attention to a final comprehensive editorial review by the assessment team.

Concluding Summary:

1. The stock assessment report provides sufficient information and support to provisionally certify the CHMSF Albacore Tuna fishery North Pacific, subject to the conditions specified in the assessment.
2. The conditions attached to the provisional certification are considered appropriate.
3. In conducting the re-assessment of this fishery, the assessment team comprehensively addressed the required MSC CR's and in doing so also addressed the requirement of harmonization between fisheries also taking into account consideration of conditions previously set.

Performance Indicator Review

Please complete the table below for each Performance Indicator which are listed in the Conformity Assessment Body's Public Certification Draft Report.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
Example:1.1.2	No	No	NA	The certifier gave a score of 80 for this PI. The 80 scoring guidepost asks for a target reference point that is consistent with maintaining the stock at Bmsy or above, however the target reference point given for this fishery is Bpa, with no indication of how this is consistent with a Bmsy level.	

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.1	Yes	Yes	NA	<p>Agree with score for all issues. The assessment team consulted updated stock assessments that provide strong support that the stock is not 'currently' undergoing recruitment overfishing and has not been during recent years. Evidence included: spawning stock biomass (SSB) trajectories, current SSB relative to interim accepted reference points, and reference to recruitment vs SSB plot and estimates from the most recent 2014 stock assessment (of ISC 2014). Define 'recent years'.</p> <p>Usually four excluding the terminal year. Assessment is '2014 assessment' although terminal year of data in the SS model was '2012'- you accurately refer to 2014 assessment later in the document. Suggest including the 'specified confidence interval reference' in these evaluation tables as needed (i.e., 95%CI)- this suggestion applies to all references of confidence intervals throughout the document. Alternately you could identify the use of the 95% CI in footnote at the first time referenced and indicate all CI's are 95%CIs. Include reference to lower bound of interval vs lower estimate. This suggestion applies to all references of confidence intervals throughout the document. Scatter plot referred to is missing- It can be found at ISC 2014, Figure 4.10, page 110</p> <p>SB₀ should be SSB₀. third paragraph. Last paragraph- in justification section-refer to 'current SSB'. Inconsistency in how reference points are written – e.g., SSB_{MSY} or SSBMSY in plot, page 102 of this PR</p>	<p>Reviewer's comments noted and appreciated.</p> <ol style="list-style-type: none"> 1. No response necessary. Recent years follow from the diagram for PI1.1.1 as 2001-2012. No response necessary. The 95% CI are included in the Evaluation Table (Appendix 1).

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.2	Yes	Yes	Yes	<p>Agree with score for all issues.</p> <p>Editorial comments:</p> <ol style="list-style-type: none"> 1. Inconsistent reference to 'current F'. Recommend "Current F (F₂₀₁₀₋₂₀₁₂)" 2. Assessment team provided sufficient details and sufficient update on status of development and adoption of reference points for north pacific albacore and reviews recent work on this topic by regional fishery management organizations (RFMOs)- WCPFC, IATTC and Albacore Working Group (ALBWG) of the ISC. 3. Given the interim limit reference point (F_{SSB-ATHL}) I agree with the team's scoring. 4. 1949 Antigua Convention 5. For 1.1.2 c- refer to page 65 of the previous stock assessment for a very clear and detailed description providing evidence that appropriate reference points exist 	<ol style="list-style-type: none"> 1. Editorial comment addressed. 2. No response necessary 3. No response necessary. 4. It is the 2010 IATTC Antigua Convention. 5. Readers are directed to Section 4.5 for relevant sources of information. No further information has been added as the team felt it unnecessary for scoring the fishery.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.3	Yes	Yes	NA	Agree with score for all issues. Under each scoring issue (a-c) change 'no' to 'Not'	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.1	Yes	Yes	NA	<p>I agree with the SG 90 score and there is sufficient evidence to support that under current 'fishery and environmental' conditions that the present harvest strategy is working to achieve management objectives. However, unforeseen changes in the fishery such as more optimal fuel costs could result in effort increases if unrealized and left unchecked.</p> <p>The statement under PI 1.2.1 issue b- "The IATTC has, through adopting effort control resolutions, successfully controlled fishing mortality in Eastern Pacific yellowfin and bigeye tuna fisheries. Direct evidence that effort control measures will work for albacore for albacore is shown by the exploitation history in terms of both B_{MSY} and F_{MSY}, portrayed graphically in the 2012 stock assessment document via a phase-plot."</p>	<p>The phase plot is in the the 2014 stock assessment document. The assessment team noted that following the adoption of IATTC Resolution C-05-02 and WCPFC CMM-05-03 the Northern Committee included an item of monitoring effort of nations fishing north Pacific albacore in its workplan. From tables in the Northern Committee reports the evidence shows that the harvest startegy is achieving its objectives. Similarly the IATTC monitors effort for albacore in he eastern Pacific.</p>

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				While the two phase plots provide strong support that the stock is not overfished however alone this does not show a direct linkage that a 'direct linkage' between fishing mortality and the harvest strategy. It has been noted that other factors could also be at play (notably fuel costs could have been a factor). This is discussed in Section 5- Harmonized fisheries, under consideration of PI 1.1.2)	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.2	Yes	Yes	Yes	Agree with scoring for all issues and with rationale provided by assessment team.	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.3	NO	NO	NA	<p>Do not agree with Score for issue a. Evaluation Table for PI 1.2.3-</p> <p>Issue a: Although sufficient information exists to conduct the stock assessment and support harvest strategy uncertainty in many components of the basic information sources exists. This adds additional uncertainty to stock status, projections and ability to support harvest strategy tools. Uncertainty in verifying fishery removals from non-US data (issue a). I would score a N for SG 100. Also under issue a: All of this information would read better with a little formatting</p> <p>Issue b: agree with score but need to expand on. Additional deficiencies /uncertainties (issue b) relating to absence of sex-specific size composition and lack of composition data from early years of fishery (issue b). In issue c- use of 'good' subjective and needs qualifying.</p>	<p>Scoring issue a: The assessment team disagrees. The assessment team reviewed the information provided and concluded that the SG100 is met. Detailed justification is provided in the rationale according to CB2.7.1.1.</p> <p>Scoring issue b: The following was added to the rationale "Because there are some sources of uncertainty such as the absence of updated estimates of life history parameters (sex-ratio at size, natural mortality, maturity)".</p> <p>Scoring issue c: "good" is part of the narrative of the scoring issue. However, the assessment team modified the rationale to "adequate".</p>

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.2.4	Yes	Yes	NA	<p>Agree with score for all issues.</p> <p>Additional details are needed to clarify scoring.</p> <p>Issue a. Need additional information on the stock assessment method such as use of sensitivity analyses, diagnostic statistics, and model performance .. below.</p> <p>Refer to ISC 2014 document for further details how they applied the model.</p> <p>"Sensitivity analyses were conducted to evaluate impact on model results from changes in data series, life history parameter assumptions (growth, natural mortality), selectivity parameters, and alternative weightings of composition data.</p> <p>Issue b. Add-</p> <p>Stock status was presented relative to common bench marks and in addition relative to a suite of alternative reference points.</p> <p>See ISC Table 5.6 and Figure 5.15 for further reference. Adding the table (5.6) here is informative. It is not necessary though to add the figure but a reference to provides additional direct support for this issue.</p>	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.1.1	Yes	Yes	NA	Agree with scores for all issues. However rationale under issue b would be improved by expanding on 'reported catches of retained species'- additional information other species would be informatiive (catch area, location, period, season)	The assessment team acknowledges the reviewer for the comment and believes that the information provided in the rational is strong enough to support the score assigned.
2.1.2	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
2.1.3	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
2.2.1	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
2.2.2	Yes	Yes	NA	Agree with score for all issues	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.2.3	Yes	No	(no conditions raised (NA)	<p>Although all of the information was probably considered in the scoring I feel the score of Yes for issues b and c is not supported.</p> <p>As noted by the assessment team: As there is "no ongoing observer program is carried out in this fishery, so accurate and verifiable information is not considered to be available on the amount of bycatch and the consequences for the status of affected populations." This does not provide sufficient evidence to support the SGs for either issue. That is that (b): "Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty." Or for (c): that Information is adequate to support a strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.</p>	The assessment team acknowledges the reviewer for the comment and agrees. The rational for 100b and 100c was amended, a "N" was assigned, and the score for this PI was downgraded to 80. As a results the score for the P2 was amended.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				Thus the overall score is recommended to be adjusted for these two issues b and c. I think the scoring was somewhat inconsistent for this PI 2.2.3	
2.3.1	Yes	Yes	NA	Agree with score on all issues	No response is necessary.
2.3.2	Yes	Yes	NA	Agree with score on all issues	No response is necessary.
2.3.3	Yes	Yes	NA	Agree with score on all issues	No response is necessary.
2.4.1	Yes	Yes	NA	Agree with score on all issues	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.4.2	Yes	Yes	NA	Agree with score on all issues; Need additional information under issue b relating to 'testing supports high confidence that the strategy will work...' to fully support the SG 100	The assessment team believes that the information provided in the rational is strong enough to support the "Y" for 100b, due to the characteristics of the method of capture. Trolling for albacore tuna is carried out by towing up to 14 artificial jigs on individual lines of monofilament in the epipelagic zone of the open ocean. No contact is made with the seabed and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear. Although, there has been no specific testing to determine the impact of the fishery on habitats, the nature of the fishing method makes any testing unnecessary, the fishery meeting SG100.
2.4.3	Yes	Yes	NA	Agree with score on all issues	No response is necessary.
2.5.1	Yes	Yes	NA	Agree with score on all issues	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.5.2	Yes	Yes	NA	Agree with score on all issues	No response is necessary.
2.5.3	Yes	Yes	NA	Agree with score on all issues. Under issue a- some rephrasing is needed to align more accurately with the stock assessment results. Suggest "Information on stock status which shows the stock is probably not overfished (P1) or undergoing overfishing (P1), and highly migratory behaviour of albacore tuna (Kohin et al, 2005) which should prevent sub populations from being overfished, does, however, infer that biological diversity of albacore tuna is not adversely affected by the fishery."	The assessment team agrees and the rational was modified accordingly.
3.1.1	Yes	Yes	NA	Agree with score for all issues 3.1.1- you are missing issue c- you skip from 3.1.1ba to 3.1.1d	There is no scoring issue c in the PI 3.1.1 scoring table.
3.1.2	Yes	Yes	NA	Agree with score for all issues	No response is necessary.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
3.1.3	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
3.1.4	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
3.2.1	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
3.2.2	Yes	Yes	NA	Agree with score for all issues	No response is necessary.
3.2.3	Yes	Yes	NA	Unclear on scoring issue a. For PI 3.2.3 issue a it is not clear why a Yes was not achieved. More detail needed to support this score. Perhaps there is additional uncertainty in catch reporting or QC but it is not definitely clear from the rationale provided. Also, the PI Caption sentence is incomplete Under issue a, need reformatting the table to show all the text	The assessment team assigned a N to 100a as it cannot be said that the MCS system is comprehensive. There is a VMS on board only when fishing activities occur in high seas and international waters. However it is not required when fishing activities take place in domestic waters. Changes suggested by reviewer on points 2 and 3 have been done on the section in question.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
3.2.4	Yes	Yes	NA	Agree with score for all issues except a. As already mentioned throughout this review, a number of areas exist where gaps exist or where updates are needed exists (life history and fishery components) that add a level of uncertainty to the overall research database. While the existing research plan is coherent and logical for SG a- a score of Yes is not supported in total.	The assessment team disagrees with the reviewer in that there is a very comprehensive and integrated research plan where it provides to managers a coherent and strategic approach to research across P1 and P3 and it has reliable and timely information sufficient to achieve objectives consistent with MSC principle1. Despite that it does not have a research plan for P2 due to the characteristics of the fishery and fishery practices, the impact on P2 components are very low. Thus there is no need to implement research project related to interactions between the fishery and P2 component.
3.2.5	Yes	Yes	NA	Agree with score for all issues	No response is necessary.

Any Other Comments

Comments	Conformity Assessment Body Response

Appendix 3. Stakeholder submissions

No stakeholder's comments have been received

MSC's comments

www.msc.org



Marine House
1 Snow Hill
London EC1A 2DH
United Kingdom
Tel: +44 (0)20 7246 8900
Fax: +44 (0)20 7246 8901

Date 24/03/2015

SUBJECT: MSC Review and Report on Compliance with the scheme requirements

Dear Geraldine Criquet

Please find below the results of our partial review of compliance with scheme requirements.

CAB	SAI Global (SAI)
Lead Auditor	Geraldine Criquet
Fishery Name	Canada Highly Migratory Species Foundation (CHMSF) British Columbia Albacore Tuna North Pacific
Document Reviewed	Public Comment Draft Report

Ref	Type	Page	Requirement	Reference	Details	PI
12263	Major	157	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 3.1.1. scoring issue b. The final sentence of the rationale provided for PI 3.1.1. scoring issue d states "Although, the management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes, it cannot be said that it has been tested and proven to be effective." This statement appears to relate to scoring issue b and not scoring issue d. As a tested and proven effectiveness is required at the SG100 level for scoring issue b, the score given for scoring issue b is not appropriate.	3.1.1

Assessment team's response

The statement "Although the management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes, it cannot be said that it has been tested and proven to be effective" was removed from scoring issue d.

The following statement was added to scoring issue b: Although the mechanism at the domestic level has been tested and proven to be effective, the mechanism at international level has not, preventing the fishery from fully meet 100b. The score was revised from 95 to 85.

12264	Minor	172	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 3.2.2. scoring issue e: MSC suggests removing the first sentence of the rationale, as this sentence implies that the rationale is justified to meet the SG 100 level.	3.2.2
-------	-------	-----	--------------------	---	--	-------

Assessment team's response

The first sentence of the rational was removed and replaced with "The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges."

The score was also revised from 90 to 85 to comply with CR 27.10.5.3.a.iii.

12265	Guidance	175	*N/A v.1.3	(blank)	PI 3.2.3. scoring issue b: The word "incarnation" should be replaced with "incarceration".	3.2.3
-------	----------	-----	------------	---------	--	-------

Assessment team's response

The word "incarnation" was replaced with "incarceration".

12266	Major	174	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	<p>PI 3.2.3: Scoring issue a: Within the rationale for scoring issue a, there is a large section of text that deals with non-compliance and sanctions. However, this topic is specifically required to be addressed in scoring issue b. Additional information is required to provide an understanding as to how the MCS has demonstrated its ability to enforce relevant management measures, strategies and/or rules. At the moment, the MCS is described but explicit examples of the demonstration of the MCS are lacking.</p> <p>Lastly, in the second last paragraph of the rationale it is stated that "A comprehensive monitoring, control and surveillance system has been implemented....". However, the final paragraph says that "... it cannot be said that the MCS system is comprehensive." This language is contradictory.</p>	3.2.3
-------	-------	-----	--------------------	---	--	-------

Assessment team's response

The large section of text that deals with non-compliance and sanctions was removed from rationale for scoring issue a.

The rationale does not only describe the MSC but also provide an understanding of how the MSC demonstrates its ability to enforce relevant management measures, strategies and/or rules.

"A comprehensive monitoring, control and surveillance system has been implemented..." was deleted from the second last paragraph of the rationale.

12267	Major	175-177	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	<p>PI 3.2.3. scoring issue c and d: The same rationale is presented to score both these scoring issues. This piece of text first appears in scoring issue a.</p>	3.2.3
-------	-------	---------	--------------------	---	--	-------

Assessment team's response

The piece of text initially presented in scoring issue a was removed from scoring issue a. Rationale for scoring issues b, c, and d was amended to better reflect the requirement of each scoring issue.

12268	Major	179	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 3.2.4. scoring issue b: The team claims that there is "no need to implement research project related to interactions between the fishery and P2 component." However, at the SG100 level it is a requirement that a comprehensive research plan is in place across P1, P2 and P3. It is noted that the impacts to P2 are relatively minor for this fishery. Can an example be provided where the management agency has incorporated a research action or generated a research plan if there was a change in P2 interactions (perhaps with interactions with high numbers of ETP or previously uncaptured bycatch)?	3.2.4
-------	-------	-----	--------------------	---	--	-------

Assessment team's response

The rationale for the scoring issue a was amended with "Although the assessment team acknowledges the impact on P2 components are negligible due to the nature of the fishery, the research plan does not include a section on P2, preventing the fishery from fully meeting 100a." As a result the score was revised from 100 to 90.

12269	Major	183	CR-27.10.5.3 v.1.3	27.10.5 The team shall score individual PIs. 27.10.5.3 If all of the SG80 scoring issues are met, the PI must achieve at least an 80 score and the team shall assess each of the scoring issues at the SG100 level. a. If not all of the SG100 scoring issues are met the PI shall be given an intermediate score (85, 90 or 95) reflecting overall performance against the different SG100 scoring issues. i. Award 90 where performance against the scoring issues is mid-way between SG80 and SG100 (some scoring issues are fully met and some are not fully met); and ii. Award 95 when performance against the scoring issues is almost at SG100 most scoring issues are fully met but a few are not fully met); and iii. Award 85 when performance against the scoring issues is slightly above SG80 (a few scoring issues are fully met but most are not fully met). iv. If all of the SG100 scoring issues are met, the PI shall be given a 100 score.	PI 3.2.5: Rationale and scoring for this PI place the overall score as 80, not 90 as given in the overall a performance indicator score. Additionally, for scoring issue b, it is not clear how often these "regular" internal reviews occur. An example is required to justify the SG80 scoring level.	3.2.5
-------	-------	-----	--------------------	--	---	-------

Assessment team's response

The typo was corrected, the score is 80, not 90. Examples to justify the regular internal reviews were given in the rationale: "Members transmit to the Commission an annual statement of compliance measures, including imposition of sanctions it has taken for any violations; the business and meetings of the WCPFC are transparent and conducted annually and as a consequence, the status of conservation and management objectives are the subject of review of public opinion and subsequent political ramifications", "IATTC meetings are transparent and conducted annually", "For example: those conducted for IFMP in 2013 and 2014 by the SSC; the SAR report provided for initial and final decision making on the need for new harvest specifications and management measures; peer review by outside experts of specific management actions and particularly controversial issues; IFMP, including the HMS/FMP, are subject to DFO oversight."

12270	Major	114	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.1.1. scoring issue a: The rationale speaks to the amount of catch but not to the overall stock health of the retained species. At SG100, rationale needs to speak to all retained not just main retained species.	2.1.1
12271	Major	114	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.1.1. scoring issue b: Rationale does not support the score. The rationale does not address the scoring issue (i.e., whether TRPs are in place).	2.1.1
12272	Guidance	115	*N/A v.1.3	(blank)	PI 2.1.1. scoring issue c: Score would be "NA" if retained species are not outside limits.	2.1.1
12273	Guidance	115	*N/A v.1.3	(blank)	PI 2.1.1. scoring issue d: Score would be "NA" if retained species status is poorly known.	2.1.1

Assessment team's response

According to MSC CR CB3.5.3 if there are no P2 retained species in the fishery, or retention is exceptionally rare and negligible in its impact, then the fishery would meet SG100.

Trolling operations are carried out at or close to the surface of the ocean and catches of non-target species are generally negligible in troll fisheries world-wide. The total weight of non-target species, including both retained and bycatch species was estimated to be approximately 148 kg for 2012, which represents approximately 2% of the total catch. Yellowtail amberjack catches were estimated at 101 kg, which represented less than 2% of the total catch of Albacore tuna. Based on the incidental catch data, the assessment team concluded catch of retained species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.

12274	Major	114-115	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.1.2. scoring issue a-d: For the SG100 level there is no 'if necessary' clause at this level. Therefore, even if the number of retained species is negligible the fishery still needs to have a 'strategy in place' to meet the SG100.	2.1.2
-------	-------	---------	--------------------	---	--	-------

Assessment team's response

The rationale was amended with the following:

The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. The nature of the fishery together with the DFO Sustainable Fisheries Framework is considered to be a strategy for managing retained species. Data show that catch of retained species is exceptionally rare and negligible in the North Pacific Albacore tuna fishery, showing that the strategy works to keep retained species at negligible levels.

12275	Guidance	118	*N/A v.1.3	(blank)	PI 2.1.3. The rationales/scores given in 2.2.3 seem more appropriate since it seems the information levels are the same. The information availability appear similar between retained and bycatch components, though the scores are different. The team should confirm their justification for scores being different.	2.1.3
12276	Major	119	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.1.3. scoring issue b: Rationale does not support the score. The rationale does not speak to the SI language. It doesn't speak to the outcome status with regard to biologically based limits. (relates to comments on 2.1.1.)	2.1.3
12277	Major	119	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.1.3 scoring issue d: Rationale does not support the score. The rationale does not speak to the SI language at either SG and is insufficient to justify that the SG 100 level is met.	2.1.3

Assessment team's response

The score for 2.1.3 was revised from 95 to 85. Score for 2.2.3 is 80. The difference is due to the fact that the fishery meets 100d for PI 2.1.3 but not for PI 2.2.3. Rationale for scoring issue d was amended with "The assessment team considers monitoring of retained species to be conducted in sufficient detail to assess ongoing mortalities to all retained species. Although there are no observers on board and there is no dockside monitoring, retained catches are monitored using logbooks and fish slips. Logbooks are compared to fish slips offload weights to verify catch and effort."

Rationale was also amended to speak to the SI language.

12278	Major	121	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.2.1. scoring issue a: Rationale does not support the score. The rationale speaks to the amount of catch but not to the overall stock health of the bycatch species. At SG100, rationale needs to speak to all bycatch not just main bycatch species.	2.2.1
12279	Guidance	121	*N/A v.1.3	(blank)	PI 2.2.1.scoring issue b: Score would be "NA" if bycatch species are not outside limits.	2.2.1
12280	Guidance	122	*N/A v.1.3	(blank)	PI 2.2.1. scoring issue c: Score would be "NA" if bycatch species status is poorly known	2.2.1

Assessment team's response

According to MSC CR CB3.8.3 if there are no P2 bycatch species in the fishery, or retention is exceptionally rare and negligible in its impact, then the fishery would meet SG100.

Trolling operations are carried out at or close to the surface of the ocean and catches of non-target species are generally negligible in troll fisheries world-wide. The total weight of non-target species, including both retained and bycatch species was estimated to be approximately 148 kg for 2012, which represents approximately 2% of the total catch. Based on the incidental catch data, the assessment team concluded catch of bycatch species are considered to be exceptionally rare and negligible in the North Pacific Albacore tuna fishery.

12281	Major	123-125	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.2.2. scoring issue a-d: For the SG100 level there is no 'if necessary' clause at this level. Therefore, even if the number of retained species is negligible the fishery still needs to have a 'strategy in place' to meet the SG100.	2.2.2
12282	Guidance	124-125	*N/A v.1.3	(blank)	PI 2.2.2. scoring issue c and d: SG100 levels don't state "Y" as is the assumption from the overall score of 100.	2.2.2

Assessment team's response

The rationale was amended with the following:

The nature of the troll and jig fishery ensures that the capture of non-target species is exceptionally rare and negligible and poses no risk for those species. Species which have no commercial value may be returned to the sea alive immediately after hooking, as fish are caught individually and barbless hooks are commonly used, so stress and injuries can be kept to a minimum. The nature of the fishery together with the DFO Sustainable Fisheries Framework, including the Policy on Managing Bycatch and the Guidance on implementation of the Policy on Managing Bycatch, is considered to be a strategy for managing bycatch species.

Data show that catch of bycatch species is exceptionally rare and negligible in the North Pacific Albacore tuna fishery, showing that the strategy works to keep bycatch species at negligible levels.

12283	Major	140	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.4.2. scoring issue b: Rationale does not support the score. If information about the fishery and/or habitat has not been collected, then the fishery would not meet the SG100 level.	2.4.2
-------	-------	-----	--------------------	---	---	-------

Assessment team's response

The assessment team considered the fishery met 100b based on information about the fishery: gear is employed at the surface, has never any contact with the seabed, always remains attached to the vessel and contact with the epipelagic zone is negligible because of the minimal dimensions of the fishing gear. Therefore there is no risk for benthic habitats and any impacts on pelagic habitat would be imperceptible and highly transient.

12284	Major	143	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.4.3. scoring issue c: The rationale does not speak to the SG language for this SI.	2.4.3
-------	-------	-----	--------------------	---	---	-------

Assessment team's response

The rationale was amended to speak to the SG language.

12285	Major	145-147	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.5.2. scoring issued a-d: For the SG100 level there is no 'if necessary' clause at this level. Therefore, even if the number of retained species is negligible the fishery still needs to have a 'strategy in place' to meet the SG100.	2.5.2
-------	-------	---------	--------------------	---	---	-------

Assessment team's response

The rationale for scoring issues a-d was amended to support score of 100 for PI 2.5.2.

12286	Major	151	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 2.5.3. scoring issue e: Rationale does not support the score. The rationale does not speak to the SI language at either SG.	2.5.3
-------	-------	-----	--------------------	---	--	-------

Assessment team's response

The rationale does speak to the SG language at each SI. The rationale for scoring issue e was amended to support the score.

12287	Minor	81, 82	CR-27.12.1.5 v.1.3	27.12.1 The CAB shall determine if the systems of tracking and tracing in the fishery are sufficient to make sure all fish and fish products identified and sold as certified by the fishery originate from the certified fishery. The CAB shall consider the following points and their associated risk for the integrity of certified products: 27.12.1.5 Any transshipment activities taking place.	Report does not clearly address the issue of transshipment and makes contradicting statements including: Section 6.2.2. "Under Canadian Regulation, it is illegal to tranship at sea" (p81) and "... at-sea transshipment is illegal" (p82). Section 6.2.2. further down (p82): "Canadian fishing vessels that are licensed to fish albacore tuna in waters of the USA are authorized pursuant to Article III of the Tuna Treaty to enter, land their catches, sell or tranship their catch..." Section 4.2.6. (p21): " Some offshore vessels transship their catch to carrier vessels at sea in order to continue fishing operations on migrating schools of tuna."	
-------	-------	--------	--------------------	--	---	--

Assessment team's response

The assessment team acknowledges the contradicting statements. The statement in section 4.2.6 was removed and section 6.2.2 was amended with the following:

"Under Canadian regulations, at-sea transshipment is illegal while fishing in Canadian waters.

Canadian fishing vessels that are licensed to fish albacore tuna in waters of the USA are authorized pursuant to Article III of the Tuna Treaty to tranship their catch, transshipment events are required to be documented and reported. When fishing activities occur outside Canada and USA EEZ, IATTC and WCPFC allow transshipment, but Pacific albacore tuna vessels are required to document and report transshipment events to enable monitoring.

However, transshipment activities are very uncommon and occur rarely."

12288	Minor	82	CR-27.12.1.3 v.1.3	27.12.1 The CAB shall determine if the systems of tracking and tracing in the fishery are sufficient to make sure all fish and fish products identified and sold as certified by the fishery originate from the certified fishery. The CAB shall consider the following points and their associated risk for the integrity of certified products: 27.12.1.3 The opportunity of substitution of certified with non-certified fish prior to or at landing fraudulent claims from within and outside ther certified fishery.	The report does not address the risks of substitution at the point of landing prior to first sale (when chain of custody is required). Do the "Landing Stations" - in Canada and USA - also receive same or similar non-certified species? If they do, what is the risk of substitution? And are there systems in place to ensure segregation of certified and non-certified species?
-------	-------	----	--------------------	---	---

Assessment team's response

First, all the North Pacific albacore tuna is MSC certified under two certificates, one for US and one for Canada. US South Pacific albacore tuna is also MSC certified.

Secondly, all albacore tuna caught by the Canadian fleet and landed in US and/or in Canada is documented and reported is the Canada tuna logbook and is under the Canadian MSC certificate.

Thirdly, the level of non-target species is extremely rare and negligible in this fishery. The assessment team doubts that skipjack tuna, yellowfin tuna, Bluefin tuna or mahi-mahi could be mixed up with an albacore tuna.

12290	Guidance	182	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 3.2.5. MSC would consider that reference points and harvest control rules are a 'key' aspect of the management system. We understand that they might not be part of an evaluation at the moment as they are not currently in place or finalised. MSC suggests that further comment is made on the fact that the review does not cover harvest control and reference points but both are assumed to be in development and part of the evaluation cycle in the future.	3.2.5
-------	----------	-----	--------------------	---	---	-------

Assessment team's response

Guidance is noted. The assessment team considered the review does not cover HCRs and reference points as the conclusion of the rational for scoring issue a is "The fishery has in place mechanisms to evaluate key parts of the management system, but not all parts as reference points and harvest rules are not explicitly set."

12291	Major	173-177	CR-27.10.5.3 v.1.3	27.10.5 The team shall score individual PIs. 27.10.5.3 If all of the SG80 scoring issues are met, the PI must achieve at least an 80 score and the team shall assess each of the scoring issues at the SG100 level. a. If not all of the SG100 scoring issues are met the PI shall be given an intermediate score (85, 90 or 95) reflecting overall performance against the different SG100 scoring issues. i. Award 90 where performance against the scoring issues is mid-way between SG80 and SG100 (some scoring issues are fully met and some are not fully met); and ii. Award 95 when performance against the scoring issues is almost at SG100 most scoring issues are fully met but a few are not fully met); and iii. Award 85 when performance against the scoring issues is slightly above SG80 (a few scoring issues are fully met but most are not fully met). iv. If all of the SG100 scoring issues are met, the PI shall be given a 100 score.	PI 3.2.3: Based off the current scoring and rationale, only one SG 100 is met. As such, the score for this PI should be 85 not 90.	3.2.3
-------	-------	---------	--------------------	--	--	-------

Assessment team's response

The score for PI 3.2.3 was revised from 90 to 85.

12292	Major	103-106	CR-27.10.6.1 v.1.3	Rationale shall be presented to support the team's conclusion	PI 1.2.2. scoring issue a and c: The team presents rationale in regard to harvest control rules being generally understood and there is evidence that tools used are effective. However, from the rationale it is unclear that this is the case. For example, in scoring issue c, the team presents their argument based off proposals for harvest control rules that are not in place, thereby rendering presumptions about tools used and effectiveness being invalid. MSC notes that it may be appropriate for the team to consider rescoring PI 1.2.2 SG60 based on the presence of 'available' harvest control rules as allowed in FCR v2.0, and as outlined in notification email sent to CABs on 25/11/2014, titled " Scoring of 'available' Harvest Control Rules (HCRs) in CRv1.3 fisheries".	1.2.2
-------	-------	---------	--------------------	---	--	-------

Assessment team's response

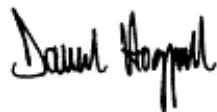
The assessment team acknowledges the comment and the rational for PI 1.2.2 was revised based on the FCR v2.0 as outlined in MSC's notification email received on the 24/11/2014:

"MSC advises that to avoid promulgation of the incorrect interpretation of PI1.2.2 under v1.3 (or earlier versions) and also to avoid conflicting harmonization conclusions between fisheries using v1.3 and v2.0, any CABs that identify certified or in-assessment fisheries scored using v1.3 or earlier that they consider have used the early misinterpretation of PI1.2.2 may rescore them using the clarified requirements set out in PI1.2.2 version 2.0. Scoring justification should be made explicitly addressing paragraphs SA2.5.2-2.5.3 and SA2.5.5-2.5.7.1 and associated guidance from v2.0, as related to the scoring of the SG60 level in scoring issues (a) and (c)."

www.msc.org						
12293	Major	72	27.24.2.4 v.1.3	27.24.2 The CAB, when conducting a re-assessment of a certified fishery, shall: 27.24.2.4 Take into account all surveillance reports, outcomes, and evaluate progress against certification conditions. A. The fishery should have met all conditions and milestones. i. In the event that there are unmet conditions, the CAB shall apply 27.22.8 and 27.22.9 (excepting 27.22.9.2) in determining the adequacy of progress against those conditions and milestones. If the CAB concludes that the client has made inadequate progress, it shall not grant a new fishery certificate.	Condition 1 in relation to PI 1.1.2. reference points relates to a condition that was in place from the initial certification. As this condition has not been closed out prior to re-assessment, the team is required to provide additional information relevant to this condition in terms of those set out in 27.24.2.4. The report has a section heading "5.2 Previous assessments" however, the information provided is insufficient. As per the MSC Full Assessment Reporting Template under heading 4.2, the team is required to provide additional information relating to the condition for reference points.	1.1.2

This report is provided for action by the CAB and ASI in order to improve consistency with the MSC scheme requirements; MSC does not review all work products submitted by Conformity Assessment Bodies and this review should not be considered a checking service. If any clarification is required, please contact Adrian Gutteridge on +61 405 390 660 for more information.

Best regards,
Fisheries Oversight Director
Dan Hoggarth
Marine Stewardship Council



cc: Accreditation Services International

Assessment team's response

Additional information in terms of those set out in CR 27.24.2.4 has been provide both in the 4th Surveillance Report, that can be access through the link below, and in the current re-assessment report in the section 5.1 at p. 69 and 70. It was explained why the condition was not closed at the 4th Surveillance audit and why revised milestones were set for this condition. Please note that these revised milestones have been approved by MSC.

http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/pacific/CHMSF-British-Columbia-North-Pacific-Albacore-Tuna/assessment-downloads-1/20140807_SR_V5_TUN29.pdf

The section 5.2 of the report was amended.

Appendix 4. Surveillance Frequency

The determination of the surveillance level is based on Table C3 and C4. The score was calculated by adding scores from sections 1-4 in table C3.

Table C3: Criteria to determine surveillance score

1. Default Assessment tree used?	
Yes	0
No	2
2. Number of conditions	
Zero conditions	0
Between 1-5 conditions	1
More than 5	2
3. Principle Level Scores	
≥85	0
<85	2
4. Conditions on outcome PIs?	
Yes	2
No	0

The surveillance score of **3** was used to identify the surveillance level appropriate to the CHMSF North Pacific albacore tuna troll and jig fishery.

Table C4: Surveillance Level Years after certification or recertification					
Surveillance score (from Table C3)	Surveillance level	Year 1	Year 2	Year 3	Year 4
2 or more	Normal Surveillance	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit & recertification site visit

Appendix 5. Client Agreement



4829 MAPLEGROVE STREET, VICTORIA, BRITISH COLUMBIA, V8Y 3B9
PH 250-658-0179 CHMSF@ieccorporate.com

June 3, 2015

SAI Global Assurance Service
3rd Floor Block 3
Quayside Business Park
Mill Street
Dndalk, Co. Louth
Ireland

To: Geraldine Criquet

This letter is to confirm our acceptance of the Public Certification Report for the “Canadian Highly Migratory Species Foundation (CHMSF) – British Columbia Albacore Tuna (*Thunnus alalunga*) North Pacific Fishery, Report – MSC 01-02, dated October 28th, 2014.

We would like to thank you and the entire team at SAI Global who participated in our re-certification.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Clayton', is written below the word 'Sincerely,'.

W. E. Lorne Clayton RPBio., QEP, CC-IATTC
Executive Director
CHMSF

Appendix 5.1 Objections Process

No objection has been raised.