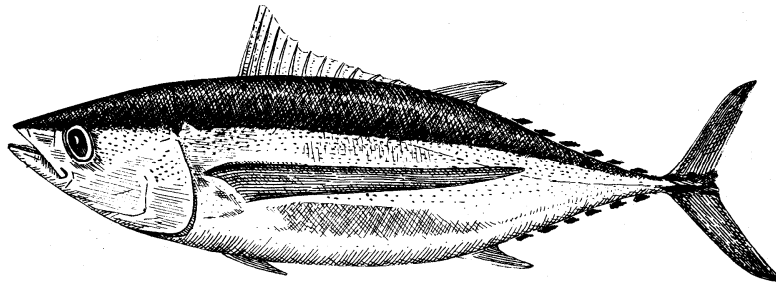


**PACIFIC REGION**  
**INTEGRATED FISHERIES**  
**MANAGEMENT PLAN**  
**ALBACORE TUNA**  
**APRIL 1, 2013 TO**  
**MARCH 31, 2014**



Albacore Tuna (*Thunnus alalunga*)

**AMENDED**

**JUNE 1, 2013**



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Canada

*This Integrated Fisheries Management Plan is intended for general purposes only. Where there is a discrepancy between the Plan and the regulations, the regulations are the final authority. A description of Areas and Subareas referenced in this Plan can be found in the Pacific Fishery Management Area Regulations.*

## **FOREWORD**

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for the tuna fishery in the Pacific Region as well as the management measures that will be used to achieve these objectives. This document also serves to communicate the basic information on the fishery and its management to DFO staff, legislated co-management boards and other stakeholders. This IFMP provides a common understanding of the basic “rules” for the sustainable management of the fisheries resource.

This IFMP is not a legally binding instrument which can form the basis of a legal challenge. The IFMP can be modified at any time and does not fetter the Minister's discretionary powers set out in the *Fisheries Act*. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted pursuant to the Fisheries Act.

Where DFO is responsible for implementing obligations under land claims agreements, the IFMP will be implemented in a manner consistent with these obligations. In the event that an IFMP is inconsistent with obligations under land claims agreements, the provisions of the land claims agreements will prevail to the extent of the inconsistency.

## RECORD OF AMENDMENTS

<b>Amendment Date:</b>	<b>Sections Amended:</b>
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## 1. OVERVIEW

### 1.1. Introduction

The 2013/2014 Pacific Region Albacore Tuna Integrated Fisheries Management Plan (IFMP) is valid for the period of April 1, 2013 to March 31, 2014 in Canadian and high seas waters. For details related to fishing in waters of the USA, please see Appendix 6. The Regional Director-General of the Pacific Region approves this plan.

**Negotiations toward a new Treaty fishing regime are ongoing. If agreement is reached in time for a 2013 fishing season in USA waters, the tuna IFMP (specifically Appendix 6) will be amended to include information related to requirements for fishing in USA waters.**

### 1.2. History

The Pacific Canadian fishery is focused on highly migratory Albacore tuna (*Thunnus alalunga*) using troll gear. Harvest of Pacific Albacore is currently made using hook and line (jig) gear, primarily by troll, which involves towing artificial lures behind vessels travelling at approximately 6 knots. Net gear is not permitted.

Total Pacific-wide Albacore catches since the 1950's have ranged from 70,000 to 150,000 tonnes per year, mostly taken by Asian longline as well as pole and line vessels. Canadian fish harvesters have been fishing 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 started in the coastal waters off British Columbia (B.C.) and has developed into a fishery with two fleet types, 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 in 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).

Catches by the Canadian north Pacific Albacore troll fishery since 1996 have ranged from a low of 2,166 tonnes in 1997 to a high of 7,857 tonnes in 2004, with an average catch of 4,977 tonnes over this period (1996-2012). In recent years the majority of the reported Canadian catch has occurred along the North American coast and adjacent waters outside the 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 tonnes of south Pacific Albacore, though there has been no reported catch since 2007. For more recent catch and effort information, please see the post-season review in Appendix 1.

### **1.3. Type of Fishery and Participants**

#### **1.3.1. Commercial**

The coastal fleet operates in the Canadian EEZ and the high seas under the authority of a vessel-based licence with Schedule II privileges. Vessels without any Schedule II privileges may fish for tuna species on the high seas under the authority of a Section 68 (high seas only) licence. Annually, there are approximately 150 vessels that access the Canadian EEZ and approximately 30 vessels that fish on the high seas.

In accordance with fishing and port access privileges under the Canada/USA Pacific Albacore Tuna Treaty, Canadian vessels are permitted to fish for Albacore tuna in the USA EEZ. More information regarding vessels fishing pursuant to the Treaty can be found in Appendix 6.

#### **1.3.2. First Nations**

First Nations are permitted to harvest fish for food, social and ceremonial (FSC) purposes coastwide where authorized by a communal licence. There is no known FSC fishing for tuna species in the Pacific Region. For more information about communal licences, please visit:

<http://www.pac.dfo-mpo.gc.ca/abor-autoc/licences-permis-eng.htm>

#### **1.3.3. Recreational**

A recreational fishery is permitted to occur coast wide. A British Columbia Tidal Waters Sport Fishing Licence is required for the recreational harvest of all species of fish in tidal waters. Tidal Waters Sport Fishing Licences can be purchased at many tackle stores and marinas or online through the DFO licensing site at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm>.

There is a limited opportunistic recreational fishery for tuna species off the west coast of Vancouver Island. For more information about recreational fishing for tuna, please visit:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/SFG-GPS-eng.htm>

### **1.4. Location of Fishery**

#### **1.4.1. Commercial**

With the exception of permanent and seasonal closures (outlined in Appendix 5), the Pacific Albacore tuna fishery will be open from April 1 to March 31 each year in the Canadian EEZ and the high seas (not including the USA EEZ).

Vessels in this fleet are mostly 10.7m (35ft) to 18.3m (60ft) in length and concentrate their fishing effort primarily from the southern Oregon coast to the northern tip of Vancouver Island. Fishing activity is dependent on price, ocean and weather conditions, availability of albacore tuna, strength of other fisheries (particularly the salmon fishery) and fuel costs. Effort in the coastal fishery normally peaks in August and September, after the salmon season for trollers has wound down. Catch from the coastal fleet is sold into both the canned and the blast bled frozen tuna markets.



The Canadian high seas fleet is comprised of larger troll vessels, mostly greater than 18.3m in length, with crews of typically two to four fish harvesters. These vessels tend to remain at sea for several months each trip. Many of these vessels are equipped with larger freezers and operate primarily from west of the International Dateline to the Canadian EEZ in the north Pacific. Some offshore vessels trans-ship their catch to carrier vessels at sea in order to continue fishing operations on migrating schools of tuna. Offshore fishing in the north Pacific on the Wake Island grounds usually starts in May, weather and tuna abundance permitting, lasts through late fall as the vessels follow Albacore towards the North American coast. Offshore vessel catches are sold primarily into the blast bled frozen sashimi market.

Information related to harvest for Pacific Albacore within the USA EEZ can be found in Appendix 6.

#### 1.4.2. First Nations and Recreational

Aboriginal and recreational harvest may occur coast wide, where appropriately licensed.

### 1.5. Fishery Characteristics

#### 1.5.1. Commercial

The gear type used to fish for tuna is hook and line gear, primarily troll, specifics for each of the three zones (Canadian EEZ, high seas, and USA EEZ) can be found in Appendices 5 and 6. These Appendices will also provide information on season opening and closing dates for the three zones. In general, the tuna fishery takes place from approximately June to November each year.

### 1.6. Governance

#### 1.6.1. National

- The *Fisheries Act* and the regulations made thereunder;
  - Areas and Subareas, as described in the *Pacific Fishery Management Area Regulations*, are referenced in describing Groundfish Management Areas.
  - *Fishery (General) Regulations* (i.e. Conditions of Licence) and the *Pacific Fishery Regulations, 1993* (i.e. open times).
  - The *British Columbia Sport Fishing Regulations* (1996).
  - The *Aboriginal Communal Fishing Licences Regulations* (1993).
- The *Oceans Act*;
- The *Species at Risk Act*.

These documents are available at:

<http://www.dfo-mpo.gc.ca/acts-loi-eng.htm>

DFO is consolidating its Fisheries Renewal efforts on current initiatives and emerging issues to support sustainable fisheries across Canada under its Fisheries Renewal initiative. The initiative will put in place new policies, tools and mechanisms to support a robust and diverse fisheries sector. Fisheries Renewal is being implemented through current, renewed and new projects that

support DFO's vision of a credible, science-based, affordable and effective fisheries program, which contributes to the sustainable wealth of Canadians.

Current Fisheries Renewal projects include:

- the expansion of efforts to manage fisheries using multi-year science advice and multi-year management plans incorporating harvest levels and other primary management measures;
- the requirement for all fishers to cover business costs related to tags and logbooks where they are deemed an ongoing requirement (in line with the policy that those who benefit from the use of the resource be required to assist in paying for the management of the resource);
- the implementation of a suite of services to the fishing industry including online purchasing and renewal of commercial fishing licensing services, issuance of licence conditions, approval of designations and quota transfers; and,
- legislative and policy changes with regard to use of fish or fishing gear to fund joint project agreements (described further below).

On June 29, 2012, the Jobs, Growth and Long-term Prosperity Act (Bill C-38) received Royal Assent and became law. This Act contained provisions that amended the Fisheries Act. These provisions grant the Minister of Fisheries and Oceans the authority to allocate fish or fishing gear for the purpose of financing scientific and fisheries management activities that are described in a joint project agreement entered into with any person or body, or any federal or provincial minister, department, or agency.

In addition to the legislation and regulations summarized above, the Department's Sustainable Fisheries Framework contains policies for adopting an ecosystem based approach to fisheries management, including:

- A Fishery Decision-Making Framework Incorporating the Precautionary Approach;
- A Policy for Managing the Impact of Fishing on Sensitive Benthic Areas;
- A Policy on New Fisheries for Forage Species.

Along with existing economic and shared stewardship policies, these will help the Department meet objectives for long-term sustainability, economic prosperity, and improved governance. Further information can be found at the DFO website:

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

#### 1.6.2. International

Widespread and growing concern over the state of the world's commercial fisheries, many of which suffer from resource over-exploitation and fleet over-capacity, has led to international

agreements that will have a substantial impact on the future conduct of Albacore tuna fisheries, and on the responsibilities of governments and fishing industries for their management.

These agreements include the United Nations Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement (otherwise known in Canada as the UN Fish Stocks Agreement or UNFSA), the FAO Code of Conduct for Responsible Fisheries, the FAO Compliance Agreement, the International Plan of Action (IPOA) for the Management of Fishing Capacity, the FAO IPOA to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, the IPOA on Reducing Incidental Catch of Seabirds, and the IPOA for the Conservation and Management of Sharks, the United Nations (UN) Compliance Agreement, and UN General Assembly resolutions. These all require a precautionary approach to fisheries management and flag state control over fishing vessels, wherever they fish.

The most important agreement from Canada's perspective is the UNFSA, which Canada ratified in August 2001. This agreement entered into force on December 11, 2001. Under UNFSA, Canada has an obligation to take measures to ensure that vessels flying its flag that harvest on the high seas comply with the conservation and management measures of relevant Regional Fisheries Management Organizations (RFMO's), and that they do not undermine the effectiveness of such measures. In addition, RFMO's are in place to ensure the long-term conservation and sustainable use of highly migratory fish stocks. To this end, Canada's obligations are:

1. To enact regulations that controls its vessels through licences and Conditions of Licence.
2. To require its vessels to report catch (and incidental catch), effort, landings and transshipments.
3. To implement appropriate monitoring and surveillance of Canadian vessels and their fishing and related activities.
4. To ensure Canadian vessels and their gear are marked for identification in accordance with international marking systems.
5. To provide scientific information for stock assessments on a timely basis.

The RFMO's relevant for Pacific Albacore tuna are the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC). The WCPFC has two subsidiary bodies: the Technical and Compliance Committee which develops monitoring, control and surveillance (MCS) measures; and, the Northern Committee (NC) which makes recommendations that will ensure North Pacific stocks are sustainably managed. The International Scientific Committee (ISC) provides advice regarding the status of tuna stocks and bycatch species to both the IATTC and WCPFC for consideration. Additional information on the IATTC, WCPFC and the ISC can be found at the following websites:

WCPFC: <http://www.wcpfc.int/>

IATTC: <http://www.iattc.org/HomeENG.htm>

ISC: <http://isc.ac.affrc.go.jp/>

## **1.7. Consultation**

Fisheries and Oceans Canada (DFO) has a broad mandate, with the authority to regulate and enforce activities, develop policy, provide services and manage programs. To help ensure that the Department's policies and programs are aligned with its vision and effectively address the interests and preferences of Canadians, DFO supports consultations that are transparent, accessible and accountable.

DFO Pacific Region undertakes consultations in order to improve departmental decision-making processes, promote understanding of fisheries, oceans and marine transport issues, and strengthen relationships. Policy guidance and strategic direction for public consultation activity is provided by the Consultation Secretariat in the Policy Branch.

The Tuna Advisory Board (TAB) is the Department's primary consultative body which provides recommendations on operational and policy decisions related to the Pacific Albacore Tuna fishery. Stakeholders are encouraged to participate in the advisory process by expressing their interests and views through elected advisors or attending meetings as observers. Please refer to the list of TAB membership in Appendix 9. Please also refer to the DFO consultation website for information on TAB meetings at: <http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/pelag/tuna-thon/index-eng.htm>

## **1.8. Approval Process**

The Regional Director-General of the Pacific Region approves this plan prior to the start of the fishing season. The plan appendices may be amended if required for proper management and control of the fisheries under this plan.

## **2. STOCK ASSESSMENT, SCIENCE AND TRADITIONAL KNOWLEDGE**

### **2.1. Biological Synopsis**

Albacore tuna (*Thunnus alalunga*) are one of six abundant, widely distributed, and economically important tuna species in the Pacific Ocean. There are separate stocks of Albacore in the north and south Pacific Oceans and no mixing of these stocks occurs across the equator. Mature Albacore from the north Pacific stock spawn in tropical and subtropical waters of the Pacific between the equator and 25° N latitude, west of Hawaii. Immature Albacore disperse from the spawning area northward and then eastward across the Pacific in surface waters where they are the target of jig and pole and line fisheries. Albacore in the jig catch range in size from 4 kg to 15 kg and two to four years of age. Some north Pacific Albacore mature at five years and all Albacore are mature by six years of age. Mature Albacore move to subtropical areas in the central and western Pacific Ocean and are not part of the stock component that annually migrates into the eastern Pacific Ocean.

Albacore are a valuable species with a long history of exploitation in the North Pacific Ocean (NPO). The total catch of Albacore in the NPO for all nations combined peaked at 126,538 metric tonnes (t) in 1976 and then declined to a low of 37,320 t in 1991. In the early 1990s, catches increased again, peaking

in 1999 at 125,542 t. During the most recent 5 year period (2007-2011), catches have averaged 73,597 t with fisheries based in Japan accounting for 66 % of the total harvest, followed by fisheries in the USA (18 %), Canada (8 %) and Chinese Taipei (4 %). Other countries harvested 4 % to the NPO albacore catch and included Korea, Mexico, China, Vanuatu, Tonga, Belize, Cook Islands and Ecuador. While various fishing gears have been employed over the years to harvest Albacore in the NPO, the main gears used over the 2007-2011 period were long line (37 %), pole and line (35 %), and troll (23 %). Pole and line and troll gears fish the surface waters and catch immature juvenile Albacore. Long line gear fishes deeper in the water column and targets sexually mature adult Albacore. Other gears used to harvest NPO albacore since the mid-1990's include purse seine, gill net, set nets, and recreational fishing gears, which combined accounted for roughly 5 % of the total catch between 2007 and 2011.

## **2.2. Ecosystem Interactions**

North Pacific Albacore are found in the epipelagic zone of sub-tropical and temperate waters of the open ocean and are strongly associated with transition zone chlorophyll fronts as this is an area of sharp temperature changes (fronts) and 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 of 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*), 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.

Trolling operations are carried out at or close to the surface of the ocean and catches of non-target fish species, and incidentally caught turtles, marine mammals and seabirds 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*), yellowtail (*Seriola lalandi*), 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.

## **2.3. Aboriginal Traditional Knowledge/Traditional Ecological Knowledge**

Aboriginal Traditional Knowledge and Traditional Ecological Knowledge in the form of observations and comments collected from commercial and aboriginal harvests over many years contributed to decisions on scientific survey locations and are considered in management decisions. At present, ATK/TEK is not available for Albacore.

## 2.4. Stock Assessment

The most recent stock assessment was completed in June 2011 by scientists of the ISC<sup>1</sup> Albacore Working Group (ALBWG), which is comprised of scientists from Canada, Japan, Taiwan, USA, Mexico, Korea, the Inter-American Tropical Tuna Commission (IATTC), and the Secretariat of the Pacific Community (SPC). The 2011 assessment was conducted with a statistical catch-at-age forward estimating population dynamics model (Stock Synthesis 3, SS3), that computes population dynamics and trends and fits this model to fisheries and biological data simultaneously. Model results are used to develop scientific advice on current stock status and 25 year projections into the future from the last model year (2009 in the assessment) are used to develop conservation advice for resource managers. The 2011 stock assessment used a new growth curve that the ALBWG believes better represents growth in this stock than the growth curve used in the 2006 assessment.

The base-case model estimates that total stock biomass has fluctuated between 700,000 and 1.1 million t between 1966 and 2009 and that recruitment has averaged approximately 48 million fish annually during this period. Albacore abundance increased from a low in the late 1980s to a peak in the mid-1990s and has subsequently declined through the 2000s. Recruitment has been about average in recent years and the population is near its long term median biomass, which means that 50 % of the time the stock has been above the current level and 50% of the time below the current level. Fishing mortality (F-at-age) is highest on 3-yr old juvenile Albacore (0.16 yr<sup>-1</sup>) and declines to a much lower and stable level in mature fish. Current F (geometric mean of 2006 to 2008, F<sub>2006-2008</sub>) is lower than F<sub>2002-2004</sub> (current F in the 2006 assessment), which is consistent with the intent of existing management measures agreed to by the IATTC and WCPFC.

Although there is uncertainty in absolute estimates of biomass and recruitment produced by the assessment model owing to unresolved structural issues, the trends in these quantities and the resulting stock status and conservation advice based on these quantities are relatively insensitive (or robust) to the use of plausible alternative model structural assumptions. The Northern Committee of the Western and Central Pacific Fisheries Commission directed the ALBWG to provide an estimate of stock abundance relative to an interim reference point level, the average of the 10 lowest estimated spawning biomasses (SSB-ATHL). The WG computed this value and values for commonly used biological reference points in fisheries management along with estimated SSB and associated equilibrium yield. F<sub>SSB-ATHL</sub> is a simulation-based reference point used for this stock, F<sub>MAX</sub>, F<sub>MED</sub>, and F<sub>0.1</sub> are based on yield per recruit analysis and F<sub>20-50%</sub> are spawning biomass based proxies for F<sub>MSY</sub> as used for many groundfish stocks.

Reference point	F <sub>SSB-ATHL</sub>	F <sub>MAX</sub>	F <sub>MED</sub>	F <sub>0.1</sub>	F <sub>20</sub>	F <sub>30</sub>	F <sub>40</sub>	F <sub>50</sub>
F <sub>curr</sub> /F <sub>ref</sub>	0.71	0.14	0.99	0.29	0.38	0.52	0.68	0.91
SSB (t)	107,130	11,186	107,130	452,897	171,427	257,140	342,854	428,567

<sup>1</sup> International Scientific Committee on Tuna and Tuna-like Species in the North Pacific Ocean

Equil. Yield (t)	170,334	185,913	170,334	94,080	156,922	138,248	119,094	99,643
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Current  $F_{2006-2008}$  is about 71% of  $F_{SSB-ATHL}$ , which means  $F$  is well below the fishing mortality that would lead SSB to fall below the SSB-ATHL threshold in at least one year of the 25-yr projection, estimates of  $F_{2006-2008}$  expressed as a ratio relative to several potential  $F$ -based reference points ( $F_{MAX}$ ,  $F_{0.1}$ ,  $F_{MED}$ ,  $F_{20-50\%}$ ) are less than 1.0, and the stock is expected to fluctuate around the long-term median SSB (~400,000 t) in the foreseeable future given average historical recruitment levels and constant fishing mortality at  $F_{2006-2008}$ . Based on these findings, the ALBWG concluded that the stock is healthy at average historical recruitment levels and fishing mortality ( $F_{2006-2008}$ ) and that sustainability of the stock is not threatened by overfishing as the  $F_{2006-2008}$  level (current  $F$ ) is about 71% of  $F_{SSB-ATHL}$ . The Albacore stock is expected to fluctuate around the median SSB (~400,000 t) and likely is not in an overfished condition, although biomass-based reference points have not been established. In the short-term, if current average recruitment levels and fishing mortality are maintained, then the stock will remain near its median level of abundance until the next assessment currently expected to be conducted in 2014-15. The 2011 assessment results confirm that  $F$  has declined relative to the 2006 assessment, which is consistent with the intent of the previous conservation advice for this stock.

Based on the findings of the 2011 assessment, the ALBWG did not recommend specific conservation actions for north Pacific Albacore beyond existing measures currently in place in the eastern and western Pacific Oceans. The assessment conclusions and recommendations of the ALBWG were accepted by the ISC at its 11th Plenary Meeting, held July 20-25, 2011 in San Francisco, USA, and were transmitted to both the Inter-American Tropical Tuna Commission and the Northern Committee of the Western and Central Pacific Fisheries Commission, which have the responsibility for formulating and implementing management measures for highly migratory species in east and west of 150° W longitude, respectively.

The ALBWG meets annually in July to review and update fisheries data for the previous year and update its recommendations on stock status and conservation advice if warranted. At the 2011 meeting, total catch, catch by major gear type, and nominal effort (number of vessels) data were reviewed. Preliminary total catch for 2011 was 72,887 t, which is approximately 7,800 t greater than total catch in 2010 (65,075 t), and less than 1,000 t higher than the 30-yr average (1981-2010) catch of 72,535 t. Catch by troll fisheries has been relatively constant since the mid-2000s while catch by longline and pole and line fleets has increased recently or been variable since the mid-2000s, respectively. Nominal effort by longline fleets has been decreasing since 1994 while effort in the troll and pole-and-line fleets seems relatively stable through the 2000s. Based on this review, the ALBWG recommended no changes to its stock status determination in 2011, i.e., the stock is considered healthy and overfishing is likely not occurring and the stock likely is not in an overfished condition, although biomass-based reference points have not been established. The ALBWG noted that it has not received any new information since the 2011 stock assessment that requires a change to previous (2011) conservation advice and recommended no changes to the conservation advice formulated as a result of the 2011 assessment.

## 2.5. Stock Scenarios

Future trends for the north Pacific Albacore stock in the short- and long-term are uncertain owing to the absence of information concerning future recruitment after 2009. Recruitment is a driver of the dynamics in this stock and exhibits considerable interannual variability, and is a key uncertainty in the assessment model. Spawning stock biomass is estimated to have varied 300,000 and 500,000 t between 1966 and 2009, during which recruitment at age 0 is estimated to have varied between 27 and 78 million fish annually. Stock projections assuming average annual recruitment (48 million fish) and constant  $F_{2006-2008}$  applied to the stock show spawning stock biomass fluctuating above the median historical biomass level (397,000 t) in both the short- (3 yr) and long-term (25 yr) planning horizons. However, a more pessimistic recruitment scenario within the range of historical variability increases the probability that the stock will not achieve the management objective of remaining above SSB-ATHL threshold. For example, if future average recruitment declines about 25% below the historical average and  $F$  remains constant at  $F_{2006-2008}$  for 25 years, then the risk of future SSB falling below the SSB-ATHL threshold by the end of the projection period increases to 54% (i.e., exceeds the 50% probability used by the Northern Committee). The impact of  $F_{2006-2008}$  on the stock is unlikely to be sustainable with this lower recruitment. Based on these trends, it is likely that SSB is above the level at which recruitment is impaired and there does not appear to be an imminent risk of recruitment failure in this stock in the period prior to the next assessment expected in 2014.

## **2.6. Precautionary Approach**

The Department has recently begun implementation of the Sustainable Fisheries Framework (SFF), which is a toolbox of existing and new policies DFO and other interests to sustainably manage Canadian fisheries in order to conserve fish stocks and support prosperous fisheries.

Fisheries worldwide are under increasing pressure, creating challenges for policy makers, resource managers and industry leaders to make informed decisions regarding the conservation, recovery and wise management of these precious resources. DFO held consultations throughout Canada in 2007 and 2008 to develop strategies to ease ecosystem pressures and enhance the capacity of the resource to sustain growing industry needs. New conservation policies have been developed to implement the ecosystem and precautionary approaches to fisheries management. These new policies, incorporated into development of new Integrated Fisheries Management Plan (IFMP) templates, will join existing policies in a new framework to promote sustainable fisheries.

The new fishery decision-making framework incorporating the precautionary approach policy applies to key harvested fish stocks managed by DFO, including commercial, recreational, or subsistence fisheries. The policy can be found at:

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

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 low levels.



In general, the precautionary approach in fisheries management is about being cautious when scientific knowledge is uncertain, and not using the absence of adequate scientific information as a reason to postpone or fail to take action to avoid serious harm to fish stocks or their ecosystem. This approach is widely accepted as an essential part of a sustainable fisheries management.

Applying the precautionary approach to fisheries management decisions entails establishing a harvest strategy that:

- identifies 3 stock status zones – healthy, cautious, and critical – according to upper stock reference points and limit reference points;
- sets the removal rate at which fish may be harvested within each stock status zone; and
- adjusts the removal rate according to fish stock status variations (i.e., spawning stock biomass or another index/metric relevant to population productivity), based on pre-agreed decision rules.

Since North Pacific Albacore tuna is managed at the international level through conservation and management measures adopted by the WCPFC and IATTC, the Department has not developed specific domestic management measures with regards to the precautionary approach at this time. Rather, a management framework for North Pacific Albacore is being developed at the international level (i.e. WCPFC Northern Committee), which will incorporate the principles of the precautionary approach. Bycatch for the albacore tuna fleet has not been identified as a concern at this time.

## **2.7. Research**

The ALBWG has noted repeatedly that significant uncertainties in the stock assessments and resulting scientific advice provided to the IATTC and the WCPFC stem from the outdated assumptions and parameterization of the model based on 40 yr-old data. For example, maturity and fecundity data are at least 40 years old and are recognized as significant uncertainties in current stock assessments. Expansive home ranges, lack of dense schooling behaviour, attainment of a large adult size, and the rarity of the small juveniles and largest adult sizes in fisheries have limited the ability of researchers to collect samples in numbers sufficient to investigate pertinent life history questions. These uncertainties are also affecting the ability of the ALBWG to assess the utility of biological reference points for north Pacific Albacore. A pan-North Pacific biological sampling and research program is urgently needed to reduce the uncertainties in the assessment.

Research needs to improve the assessment were identified, prioritized and an appraisal of achievability by the next assessment was made by the ALBWG. The priority areas for research are: (1) age and growth modelling to improve the assessment model fit to the data; (2) spatial pattern analysis to investigate regional differences in growth and movements; (3) CPUE analyses to investigate discrepancies among indices, particularly the potential impact of temporal changes in catchability and selectivity on the indices; (4) maturity research to develop a length-based maturity schedule; (5) investigation of several data issues, including size composition anomalies noted in model fit residual patterns; and (6) improvements to SS3 base-case model configuration and parameterization including weighting of different information sources, a stock-recruitment relationship, temporal changes in catchability in fisheries, explicit spatial structure, accounting for environmental covariates. Although new age and growth data were used in the 2011 assessment, there continues to be a need for age and growth data for

Albacore less than 2 years old (0, 1) and older than age 9 in all regions of the north Pacific Ocean as these ages are not well sampled by commercial fisheries in any country.

### **3. SOCIAL, CULTURAL AND ECONOMIC IMPORTANCE**

#### **3.1. First Nations**

In 1990, the Supreme Court of Canada released its decision in *R. v. Sparrow*. In this landmark decision, the Court held that, after conservation and other “valid legislative objectives”, Aboriginal rights to fish for food, social and ceremonial purposes have priority over all other uses of the fishery. DFO continues to provide opportunities for First Nations to harvest fish for food, social, and ceremonial purposes, in a manner consistent with the Sparrow Decision (SCC 1990), and other court decisions. The level of First Nations interest in harvest of albacore tuna in Canadian waters is unknown at this time.

#### **3.2. Recreational**

Over 228,000 anglers<sup>2</sup> enjoy recreational fishing in British Columbia’s tidal waters in many ways and in all seasons. Sport fishing gives anglers access to their land and its rich natural environment. It is also important for the \$202.7 million<sup>3</sup> economic activity it generates each year in our communities, whether through tourism, recreational industries or other activities. In this context, DFO ensures fishing opportunities are provided to all fish harvesters – commercial, Aboriginal and recreational. The Department’s resource management policies consider access for recreational purposes. The catch and effort of recreational fishing for tuna is unknown at this time. However, it appears that there is a growing recreational interest in fishing for tuna, as offshore technology improves and as migratory conditions permit. Improvements to catch monitoring programs for recreational fisheries are under development.

#### **3.3. Commercial**

The Pacific Region tuna fleet traditionally has access to three zones for fishing tuna: the Canadian EEZ, the USA EEZ, and international high seas waters. See Appendix 1 for recent statistics on the tuna fleet’s catch and effort in all three zones.

The most recent limitation regime (also known as fishing regime) under the Canada-USA Treaty expired on December 31, 2011. Agreement on a new fishing regime could not be reached in time for the 2012 season; as such, the Canadian fleet did not have access to the US EEZ for albacore tuna fishing in 2012. Formal Treaty negotiations are ongoing between the two countries. Please see Appendix 6 for more information on the Treaty.

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<sup>2</sup> <http://www.dfo-mpo.gc.ca/stats/rec/can/2010/index-eng.htm>

<sup>3</sup> <http://www.bcstats.gov.bc.ca/Publications/AnalyticalReports.aspx>

Generally, the purpose of this section in Integrated Fish Management Plans is to provide a profile of the fisheries as a baseline against which future trends can be measured and monitored. However, due to the recent changes noted above, an overview of the impacts from the expiration of the Treaty are highlighted to help to build a common understanding of the current socioeconomic context.

### 3.3.1. Profile

Between 2009-2011, the three year average landings of Tuna were about 5.7K tonnes with an average landed value and average wholesale value of about \$22m and \$42.4m (in 2011 dollars) respectively<sup>4</sup>.

Table 1: Albacore Tuna Production: 2009-2011

	Harvest ('000)			Landed Value (\$millions)			Wholesale Value (\$millions)		
	2009	2010P	2011E	2009	2010P	2011E	2009	2010P	2011E
Tuna	5.7	6.5	5.4	16.2	22.7	28.7	27.9	47.7	48.2
% of Total BC	2%	2.5%	2%	2.3%	2.6%	3.7%	2.2%	3.4%	3.5%

Source: 2011 BC Seafood Industry Year in Review (2013)

In that same period, an average of almost 75% of the tuna landings by Canadian vessels were harvested in USA waters; with about 6% harvested in the high seas. According to DFO logbook data, the average amount of tuna caught in Canadian waters in those years was 1,485 tonnes (see Appendix 1). In 2012, effort shifted to Canadian waters due to expiration of the most recent Treaty fishing regime. Table 2 shows that the overall total tuna landed by Canadian vessels was reduced by more than 50% in 2012, although the amount of tuna caught in Canadian waters and the high seas increased by 65%.

Table 2: Canadian Fleet Albacore Tuna Landings

	CAN Ports		USA Ports		Total	
	Weight (t)	\$ Value	Weight (t)	\$ Value	Weight (t)	\$ Value
Average 2009-2011	4,868	18,386,050	851	3,502,775	5,719	21,888,825
2012*	2,488	13,262,192	*	*	2,488	13,262,192

Source: DFO logbook and sales slip data

\* 2012 data is preliminary (as of February 2013)

In order to understand the impact of the reduction of the Tuna harvest on the Canadian tuna fleet, information on the diversification of the fleet before 2012 offers some insight. Diversification not only provides vessels with access to alternative sources of revenue to supplement net earnings, it can play the role of lowering risks associated with highly variable revenue streams. In this instance, the majority of the tuna fleet was not diversified. The table below shows the

<sup>4</sup> <http://www.env.gov.bc.ca/omfd/index.html>

breakdown of the fleet revenues under other licences. Based on total tuna landed value reported in the BC seafood year in review in 2009 (\$16.2m), Nelson 2011 shows that 76% (\$12.4m) of the total tuna landings was landed by the albacore tuna fleet and \$3.8m was landed by other commercial fleets that fish tuna more opportunistically. In 2009<sup>5</sup>, 96 vessels that were active in fishing tuna earned the majority of their revenues, over \$12m, from the tuna fishery. Of these, 43 vessels were also active in other fisheries in which these vessels earned an additional \$8.7m (Nelson 2011). This shows that prior to 2012, more than half of the active tuna fleet did not participate in other fisheries. Further, while 45% of the active tuna vessels supplemented their revenues by engaging in other fisheries (i.e. salmon, prawn, halibut and rockfish), in 2009 the majority of their revenues (about 60%) still came from tuna landings. It should be noted that this revenue information is based on 2009 data. While there is no reason to assume that 2009 was not a representative year to capture diversification of the tuna fleet in recent years, the proportion of revenues from tuna landings versus other fisheries may not be representative as 2009 was a particularly challenging year for salmon.

Table 3: Fleet revenues by fishery participation

2009 Fleet Revenue (\$)	Tuna	Salmon Troll	Prawn	Halibut	Rockfish	Non-Subject Fisheries Total
Active in Subject Fishery Only		-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	12,394,113	268,665	1,462,572	5,370,852	1,669,415	8,771,503
Inactive in Subject Fishery + Active in Other Fisheries	-	588,131	1,421,875	3,730,396	2,727,104	8,467,477
Inactive (No Fisheries)	-	-	-	-	-	-
<b>Total</b>	12,394,113	856,796	2,884,446	9,101,220	4,396,519	17,238,980

Source: Nelson 2011

### 3.3.2. Regional Impacts

The revenue figures presented above provide important information on the amount of money that changes hands in the fishery; however, they do not provide the whole picture. In order to understand the contribution made by fishing to the economy, or in this case the impact to the economy from the reduction in tuna revenue, three levels of economic impacts (direct, indirect and induced) are estimated below using input-output multipliers developed by BC Stats upon request.

Direct impacts are those associated with a change in output by the industry in question; for example, the reduction of output (i.e. revenue) from the fishing industry has a direct impact on value added created in the region (i.e. GDP). Also, there are reduced crew payments (i.e.

<sup>5</sup> Most recent information available on fleet diversification is for 2009.

reduced household income) and a number of crew may exit the industry (i.e. reduced employment). The indirect impact is cumulative, and includes transactions that go back to the beginning of the supply chain, as the supply needs change for the industries directly affected. For example, the fishing industry may require less fuel or food for the crew, while the processing industry may require fewer cartons. Finally, induced impacts may be calculated which include impacts from changes in household spending on goods and services and the suppliers associated with those purchase.

### ***Harvesting Sector***

In 2012, the reduction in tuna harvest resulted in a loss of approximately \$8.6 million in landed value, which represents about 38% of the tuna fleet revenues of the previous year.

Table 4: Economic Impacts from Harvest Reductions in Harvesting Sector

<b>From Harvesting Sector</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
GDP (\$)	-3,327,838	-1,387,392	-725,353	-5,440,583
Employment <sup>6</sup>	-288	-19	-10	-317
Household income (\$)	-2,433,484	-882,923	-430,085	-3,746,492

<sup>6</sup> Of note are the direct employment and income estimates for commercial fishing. For the commercial fishing industry, the System of National Accounts employment estimate appears to be low (L. Hallin, BCStats, pers. comm. Aug. 18, 2011). To illustrate alternative measures of impacts, direct calculations are made using crew numbers as presented in Nelson (2011). To estimate the number of potentially affected crew the average number of crew for the fleet<sup>1</sup> is multiplied by the number of unique vessels landing Tuna in 2011 (i.e. affected vessels). This is an estimate of the number of crew affected to some degree; the affect can range from a slight (i.e. small drop in income) to significant (i.e. job loss).

As crew remuneration in Pacific fisheries is typically is based on either gross or net revenues, the impact is largely proportional to the decrease in landed value. Based on the input/output model, crew earnings in the tuna fleet would have declined in 2012 by about \$2.4 million, spread over about 288 individuals (including deck hands and hired captains). In general, one assumes these are not permanent impacts as industries adapt to changes and employees find alternative sources of employment. However, in an industry such as fishing, the specialized nature of workers' skills may make the transition more difficult so the impacts last longer than in the seafood processing industry.

### ***Processing Sector***

The reduction of tuna for processing is estimated to reduce gross wholesale value for the industry by about \$23.4<sup>7</sup> million in 2012, which represents about 49% of the 2011 value of tuna to the BC

<sup>7</sup> Estimates of change in gross processed (i.e. wholesale) value are obtained by applying a conversion factor to changes in landed volume. Using data as reported in the BC Seafood Year in Review (BC Agriculture 2011), the three year average (2009-2011) gross wholesale value (GWV) for tuna (adjusted to 2011 dollars) is divided by the three year average harvest of tuna to provide an estimate of GWV per tonne. The rate was \$7,242 per tonne of tuna harvested. This assumes the ratios of unprocessed tuna imported and exported do not change.

processing industry and substantially less of the value (about 1%) of the total BC processing industry.

Table 5: Economic Impacts to the Processing Sector

<b>Processing only</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
GDP (\$)	-6,442,874	-2,814,030	-1,255,230	-10,512,134
Employment*	-134	-38	-18	-190
Household income (\$)	-4,267,929	-1,793,988	-744,266	-6,806,183

The direct output changes in the fish processing industry are almost three times that of the fishing industry, but the effect on GDP and household income is about double. The indirect and induced impacts follow a similar pattern. The combined direct and indirect impacts for the processing sector show a decline in GDP of about \$9.2 million, with about 172 individuals losing about \$5.9 million in income. In total, adding in the induced impacts results in a loss in GDP of about \$10.5 million with 190 affected individuals losing about \$6.8 million in income.

### ***Community Impacts***

A key to understanding the distribution of the impacts is to examine the residence of the tuna fleet crew members, the location of facilities that process tuna and the tuna off-load locations. However, information on residence of crew members is unavailable. Therefore, an examination of off-load locations and location of facilities that process tuna offer partial insight into some of the communities that may have been impacted by the expiration of the Treaty.

The 2011 processor employment survey data indicates that tuna is processed in Port Hardy, Greater Vancouver area (i.e. Richmond, Vancouver, Delta) and in Prince Rupert with tuna accounting for a total of 215 jobs (or 6% of all wild seafood processing jobs) in that year. Just over three quarters of these jobs were in the Greater Vancouver area. Therefore, majority of the employment impacts in processing (see Table 5) would likely be in the Greater Vancouver Region.

Further, fishing port cities typically have built up a variety of services and infrastructure (fuel, bait, trucking, ice etc) to support the commercial fishing industry which generates additional revenues and employment to the region. Prior to 2012, about 15% of tuna landed by Canadian vessels was landed in the US, generating some economic value for the USA. For 2012, there was a shift to Canadian vessels only landing at Canadian ports. Overall, while there was an increase in harvest in Canadian waters, the net volume landed in Canadian ports was notably lower in 2012. Less than half the volume of albacore tuna was landed at Canadian ports in 2012 compared to the average of preceding three years.

Table 6: Comparison of Landings by Port for 2011 and 2012

Port of Landings	2011 Volume (lbs)	*2011 Percent of total	2012 Volume (lbs)	*2012 Percent of total	Change in Volume (2011 - 2012)
Unknown	375,846	3.2%	585,105	10.7%	55.68%
Port Hardy	469,442	4.0%	447,255	8.2%	-4.73%
Steveston	646,112	5.5%	279,859	5.1%	-56.69%
Vancouver	1,042,714	8.9%	446,262	8.2%	-57.20%
Ucluelet	2,721,637	23.2%	2,017,158	36.8%	-25.88%
Victoria	3,482,470	29.7%	722,293	13.2%	-79.26%

Source: DFO logbook data

Note: \*Does not equal to 100% as all landings are not represented. Remainder of the catch is delivered to a host of ports with low-level landings. A small portion of tuna is also kept for personal use or sold at public docks.

Table 6 shows that 80% of the tuna landings in 2012 were landed at five main ports. Prior to 2012, the top two Canadian landings location for the USA68 albacore fleet were Victoria and Ucluelet where 55% of the catch was landed due to their proximity to the fishing grounds in the US.

In 2012, the majority of catch is still landed in these two cities. Table 6 shows that, while the proportion of landings is similar to the previous year for the top two cities, the total volume of landings was lower for not only the top two cities (25% lower for Ucluelet and about 79% lower for Victoria) but it was lower for all ports. While majority of the sharp drops in landings occur in larger centers such as Vancouver, Victoria and Steveston, there is a notable decline (-26%) in Ucluelet, a smaller and more remote community where alternative employment and income opportunities are likely more limited compared to larger centers.

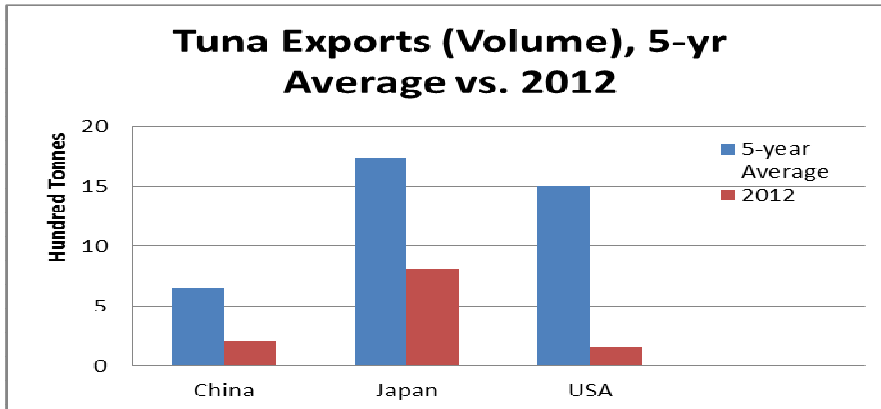
### 3.3.3. Exports

Between 2007 and 2011, an average of 3,960 tonnes of fresh, chilled, or frozen dressed albacore tuna was exported from British Columbia each year<sup>8</sup>. Ninety-eight percent of these exports went to three markets: Japan (47%), the United States (36%), and China (15%). While the volume of

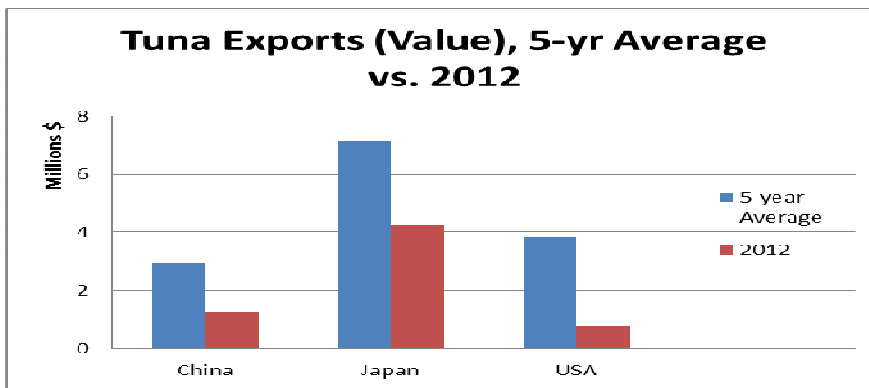
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<sup>8</sup> This accounted for over 95% of the volume of British Columbia's tuna exports over that period.

exports often varied year-to-year, with a low of 2,628t in 2009 and a high of 5,411t in 2010, 2012 tuna exports was 1,200t, only 46% of the 5 year low<sup>9</sup>.



Source: Statistics Canada EXIM data

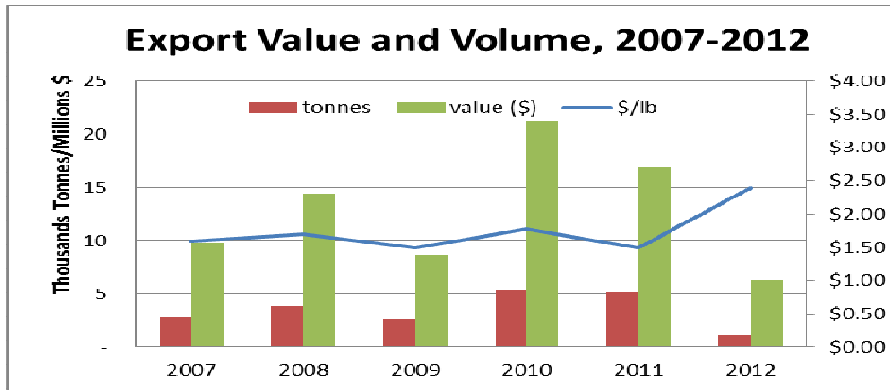


Source: Statistics Canada EXIM data (in nominal dollars)

Despite the sharp drop in quantities exported, the recent decline in the value of albacore exports is less severe. From 2007 to 2011, the value of exports averaged \$14.2M, with a low of \$8.7M and a high of \$21.3M in 2010. In 2012, the value of BC albacore exports was \$6.4M, or 73% of the five-year low.

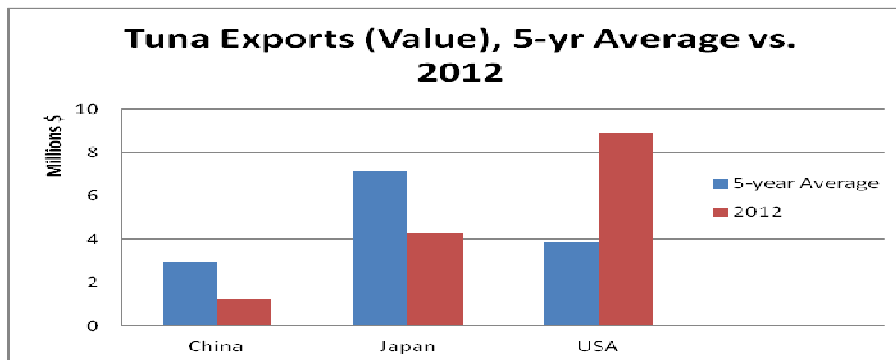
<sup>9</sup> The volume albacore tuna exported is calculated from HS codes 03023100 (fresh or chilled albacore) and 03034100 (frozen albacore), minimally dressed. In 2012, in addition to the 1,200 t of dressed albacore which was exported, a further 493 tonnes of tuna fillets were exported from BC. HS codes for processed fish products are usually less specific than for unprocessed. In keeping with this trend, the HS code for tuna fillets does not describe the tuna species. Since most tuna either landed or imported to BC is albacore, it is reasonable to assume that most of the tuna fillets exported from BC in 2012 were albacore. From 2007 to 2011 any filleted tuna exports would have been captured under headings that included multiple species of seafood: HS03042919 and HS03042999. Hence the trend in exports of that product is unknown. Tuna fillet exports are not included in this analysis. However, it may be worth noting that in 2012 the United States imported 492t of tuna fillets from BC, with a value of \$8.11 million (CAD).





Source: Statistics Canada EXIM data (in nominal dollars)

The value of exports fell by less than the volume did because of a 49% increase in the price per pound for dressed albacore. From 2007 to 2011, albacore tuna was exported at an average price of \$1.61 per pound, but in 2012, the average price was \$2.40 per pound.



Source: Statistics Canada EXIM data (in nominal dollars)

## 4. MANAGEMENT ISSUES

### 4.1. Fisheries Issues

#### 4.1.1. Improved Fishery Monitoring and Catch Reporting

There is a relatively low level of fishery monitoring in the tuna fishery as compared with other fisheries in the Pacific region. Although incidental catch reported by this fishery is low, improvements have been made (i.e. species identification sheets included as part of the logbook package) to ensure that encounters with non-target species are recorded in the tuna logbook and captured in the tuna database. Please see Appendix 1 for a summary of incidental catch.

Currently, there is no dockside validation or at-sea monitoring for the tuna fishery, the primary catch monitoring measures used are logbooks and fish slips. Logbooks are considered to be accurate because logbook estimates are collected and compared to fish slip offload weights to verify catch and effort, and tight integration with the US fishery means that there are two sources of data to compare information on an annual basis, such as locations with highest catch rates, size

distribution of catch, etc. Hail information is also used to verify time and location of fishing activities reported in the logbooks.

Although compliance with catch reporting requirements is high, consideration should be given to improving the capability of the tuna fleet to report catch and effort on a timely basis through in-season catch and effort reporting.

#### 4.1.2. Licensing of the Canadian Waters and High Seas Fleet

Vessels fishing for tuna in Canadian waters or on the high seas are currently authorized under the Schedule II privileges associated with most vessel-based licences. Beginning in 2013, fishing for tuna under Schedule II will be authorized under a separate Category CT tuna licence (see Appendix 5 for further details). Previously, fishing for tuna was included in the licence conditions issued through a vessel's primary licence.

The separate CT tuna licence was implemented in order to meet evolving domestic tuna fishery management needs, as well as international obligations to not increase harvesting effort for Albacore tuna (see Section 4.3.3 for details). The Department worked with stakeholders to discuss changes to licensing procedures for the Canadian and high seas waters fleets.

Vessels that do not hold licences with Schedule II privileges may continue to apply for, and fish on, the high seas only under the authority of a Section 68 (High Seas) licence.

In December, 2009, DFO initiated discussions with tuna harvesters, through the Tuna Advisory Board, on developing a Canadian tuna specific licence. As per the recommendation of TAB in 2009, DFO has adopted a control date of December 1, 2009 for the Canadian Albacore tuna fishery. This control date indicates to past, existing and new participants in the fishery that any catches after the control date may not be considered should a future limited entry program be implemented. A control date is an administrative measure, consistent with domestic and international policy used to manage the fishery. Adopting a control date may be used in development of a limited entry program for the fishery; however it is not a commitment by the Department to implement such a program.

For more information please contact your Tuna Advisory Board member (contact details in Appendix 9) or the Tuna Resource Manager at 604-666-2188, or visit the DFO consultation website at:

<http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/pelag/tuna-thon/index-eng.htm>

**Please note:** Changes to the licensing structure for the Canadian and high seas waters tuna fleets will not affect those vessels who harvest pursuant to the Canada/USA Albacore Tuna Treaty.

## 4.2. Depleted Species Concerns

The *Species at Risk Act* (SARA) came into force in 2003. The purposes of the *Act* are “to prevent wildlife species from being extirpated or becoming extinct, and to provide for the recovery of a wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened.” More information on SARA can be found at

<http://www.sararegistry.gc.ca>

In addition to the existing prohibitions under the *Fisheries Act*, under SARA it is illegal to kill, harm, harass, capture, take, possess, collect, buy, sell or trade any listed endangered or threatened animal or any part or derivative of an individual. These prohibitions apply unless a person is authorized, by a permit, licence or other similar document issued in accordance with SARA, to engage in an activity affecting the listed species or the residences of its individuals. Species listed as special concern are not included in these prohibitions.

Endangered, threatened, and special concern species in Pacific region currently listed under SARA can be found at:

<http://www.dfo-mpo.gc.ca/species-especes/listing-eng.htm>

Some marine species in Pacific region currently listed under SARA that you may encounter include:

1. Basking Shark - Endangered
2. Blue whale – Endangered
3. Killer whale southern resident population – Endangered
4. Killer whale northern resident population – Threatened
5. Killer whale transient population – Threatened
6. Leatherback turtle – Endangered
7. North Pacific right whale – Endangered
8. Sei whale – Endangered
9. Fin whale – Threatened
10. Humpback whale – Threatened
11. Grey whale – Special Concern
12. Harbour porpoise – Special Concern
13. Killer whale offshore population – Threatened
14. Steller sea lion – Special Concern
15. Longspine Thornyhead – Special Concern
16. Roughey Rockfishes Types I & II – Special Concern
17. Bluntnose Sixgill Shark – Special Concern
18. Tope (Soupfin) Shark – Special Concern

Some marine or anadromous species of fish designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that are currently under consideration for listing under SARA include:

- Bocaccio Rockfish – being reassessed by COSEWIC for November 2013

- Canary Rockfish – Threatened
- Darkblotched Rockfish – Special Concern
- Quillback Rockfish – Threatened
- Yellowmouth Rockfish – Threatened
- North Pacific Spiny Dogfish – Special Concern
- Eulachon, Fraser River Population – Endangered
- Eulachon, Central Pacific Coast Population – Endangered
- Eulachon, Nass/Skeena Population – Threatened, but currently being reassessed by COSEWIC
- Northern Fur Seal - Threatened

### **Whale, Leatherback Turtle and Basking Shark Sightings**

DFO welcomes assistance in the reporting of any whale, basking shark, leatherback turtle sightings or entanglements. Sightings for basking shark, leatherback turtles and many whale species are infrequent in Pacific Canadian waters, and the collection of sightings data is very useful to scientists in determining population size and distribution. Establishing this information can in turn help in the recovery planning under SARA.

To report a whale or turtle sightings, contact the BC Cetacean Sighting Network:

Toll free: 1-866-I-SAW-ONE (1-866-472-9663)

Fax: (604) 659-3599

Email: [sightings@vanaqua.org](mailto:sightings@vanaqua.org)

Whales: <http://wildwhales.org/sightings/>

Turtles: <http://www.bcreptiles.ca/reportsightings.htm#1>

To report sick, injured, distressed or dead marine mammals and sea turtles contact the Marine Mammal Incident Reporting Hotline:

Toll free: 1-800-465-4336

To report a basking shark, contact the Basking Shark Sightings Network:

Toll free: 1-877-50-SHARK

Email: [BaskingShark@dfo-mpo.gc.ca](mailto:BaskingShark@dfo-mpo.gc.ca)

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

Please reference your Conditions of Licence for specific requirements related to incidental catch.

### **4.3. International Considerations**

Canadian vessels fishing for tuna may be subject to the fishing and port access requirements outlined in the Canada/USA Pacific Albacore Tuna Treaty, the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC), it is the responsibility of the vessel master to ensure he/she understands these requirements and adheres to them.

#### **4.3.1. Canada/USA Pacific Albacore Tuna Treaty**

Information related to the Treaty may be found in Appendix 6.

#### 4.3.2. WCPFC and IATTC Convention Areas

Canada is a member of the two RFMO's which manage North Pacific Albacore tuna, the WCPFC and the IATTC. Each RFMO has a Convention Area which has a set of requirements that must be met and adhered to prior to and while fishing in each area. DFO has attempted, wherever possible, to set Conditions of Licence for the tuna fleet that will outline requirements which will satisfy the management measures for both RFMO's. There are, however, cases where management measures are not consistent between the two Pacific tuna RFMO's. Therefore, it is important that harvesters read their Conditions of Licence carefully in order to comply with all regulations.

The WCPFC is the central decision making body for management of tuna in the Western and Central Pacific Ocean (generally described as areas west of 150 degrees W longitude). Canada has been a member of the WCPFC since it entered into force in 2004 and as such, is required to implement WCPFC resolutions on conservation and management measures.

The WCPFC Convention Area comprises all waters of the Pacific Ocean bounded to the south and to the east by the following line:

“From the south coast of Australia due south along 141° E longitude to its intersection with 55° S latitude;  
thence due east along 55° S latitude to its intersection with 150° E longitude;  
thence due south along 150° E longitude to its intersection with 60° S latitude;  
thence due east along 60° S latitude to its intersection with 130° W longitude;  
thence due north along 130° W longitude to its intersection with 4° S latitude;  
thence due west along 4° S latitude to its intersection with 150° W longitude;  
thence due north along 150° W longitude.”

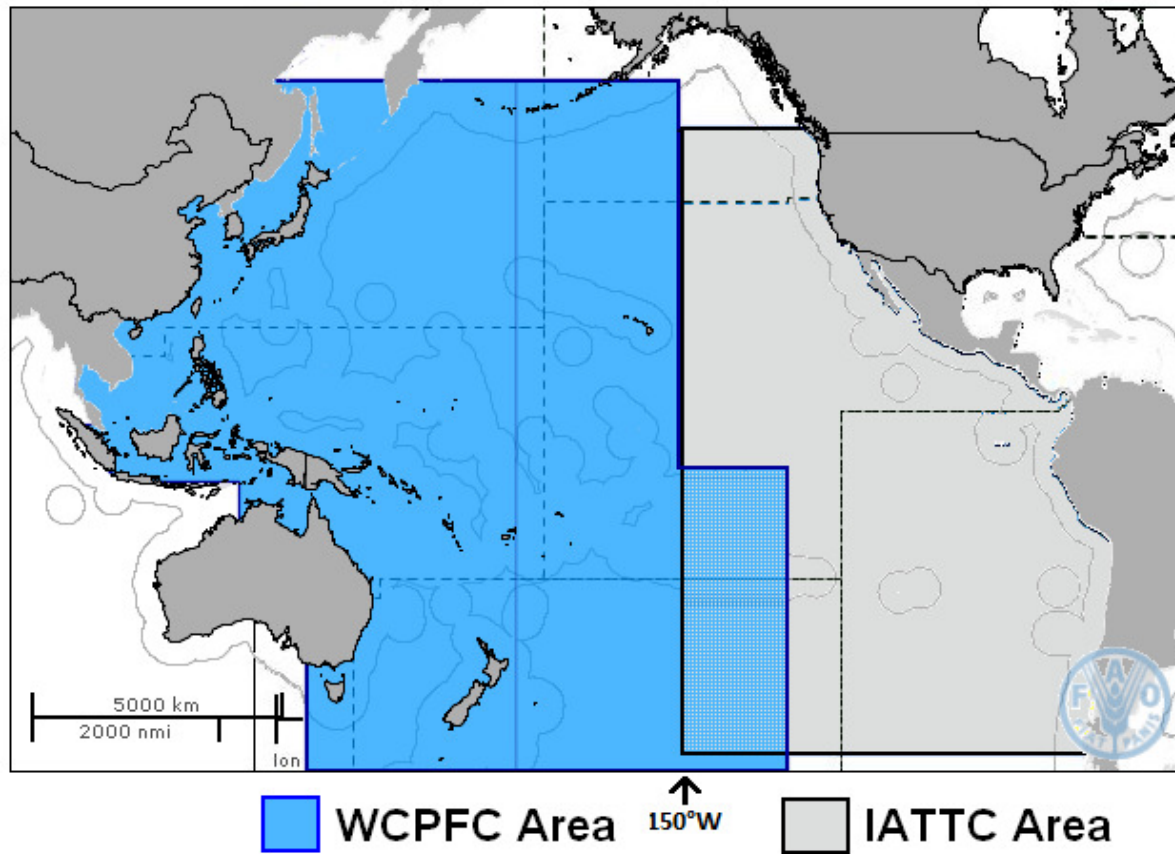
The IATTC is an RFMO responsible for the conservation of tuna fisheries and other fish stocks caught by tuna-fishing vessels in the Eastern Pacific Ocean (generally described as areas east of 150 degrees W longitude). Canada has a long history of cooperation with the IATTC and has been a full member since 2010 and as such, is required to implement IATTC resolutions on conservation and management measures. The IATTC Convention Area covers portions of the Canadian and USA EEZ's and therefore the IATTC measures will apply to all Canadian tuna vessels.

The IATTC Convention Area comprises the area of the Pacific Ocean bounded by the coastline of North, Central, and South America and by the following lines:

“(i) the 50°N parallel from the coast of North America to its intersection with the 150°W meridian;  
(ii) the 150°W meridian to its intersection with the 50°S parallel; and

(iii) the 50°S parallel to its intersection with the coast of South America.”

Figure 1: WCPFC and IATTC Convention Areas



Note: For visual reference only

#### 4.3.3. Conservation and Management Measure to Maintain Effort (2005)

In 2005, the IATTC adopted a resolution on northern Albacore that required the following:

1. No increase in fishing effort of North Pacific Albacore tuna in the Eastern Pacific Ocean;
2. Each country is to take necessary measures to ensure that the level of fishing effort by their vessels fishing North Pacific Albacore tuna does not increase; and
3. Each country shall report all catches of North Pacific Albacore tuna by gear type to the IATTC every six months.

The 83<sup>rd</sup> IATTC meeting was held in June, 2012, in California. While a Canadian proposal to revise the management measures for North Pacific Albacore was not ultimately adopted, Canada is committed to updating this measure at the next annual meeting in June 2013 given that a new stock assessment was completed in July, 2011. At a minimum, this will likely include arriving at an appropriate definition for “current effort.”

A similar measure was adopted by the WCPFC in 2005. At the 2010 meeting of the Northern Committee, Canada proposed work on a management framework for north Pacific Albacore and

it was agreed that members would be required to report not only catch and effort levels, but also steps they are taking domestically to meet the requirement to maintain effort at current levels. The WCPFC has defined “current effort” as the annual average of the 2002-2004 levels.

#### **4.4. Oceans and Habitat Considerations**

##### **4.4.1. Oceans Act**

In 1997, the Government of Canada enacted the *Oceans Act*. This legislation provides a foundation for an integrated and balanced national oceans policy framework supported by regional management and implementation strategies. In 2002, Canada’s Oceans Strategy was released to provide the policy framework and strategic approach for modern oceans management in estuarine, coastal, and marine ecosystems. As set out in the *Oceans Act*, the strategy is based on three principles: sustainable development, integrated management, and the precautionary approach. As goals, objectives and management plans are finalized for these initiatives, the Department’s management of fisheries will be adapted as appropriate, in consultation with interest parties through Integrated Fisheries Management Processes.

For more information on the Oceans Act, please visit:

<http://www.pac.dfo-mpo.gc.ca/oceans/index-eng.htm>

##### **4.4.2. Pacific North Coast Integrated Management Area**

As part of Canada's Oceans Strategy, DFO has initiated an integrated management planning process for the Pacific North Coast Integrated Management Area (PNCIMA). The PNCIMA is bounded by the BC-Alaska border, the base of the shelf slope and the mainland, stretching south as far as Campbell River and the Brooks Peninsula. The PNCIMA planning process marks a shift toward a broader ecosystem approach to ocean management. This is consistent with the Government of Canada’s overall direction and with Fisheries and Oceans Canada’s new Wild Salmon Policy. The PNCIMA planning process is bringing the area’s regulators, First Nations, and stakeholders together to develop an integrated management plan for the region that will identify goals and objectives for achieving conservation, sustainable resource use, and economic development for oceans and coastal areas. These goals and objectives will provide guidance to the management of oceans activities. The plan will also help coordinate various ocean management processes, complementing and linking existing processes and tools, including IFMPs. The PNCIMA integrated management plan will be completed in 2013.

More information on PNCIMA can be found at:

<http://pncima.org/>

##### **4.4.3. Marine Protected Area Networks**

The *Oceans Act* mandates DFO with leading and coordinating the development and implementation of a national network of marine protected areas. The *National Framework for Canada's Network of Marine Protected Areas (National Framework)* provides strategic direction for national network which encompasses each of Canada’s thirteen marine bioregions. Consistent

with this direction, a Canada – British Columbia Marine Protected Area Network Strategy has been developed jointly by federal and provincial agencies and is anticipated to be released in 2013. This strategy reflects the need for governments to work together to achieve common marine protection and conservation goals. Bioregional marine protected area network planning will identify new areas of interest for protection by DFO, Parks Canada, Environment Canada, the Province of BC, and any other agencies with a mandate for protecting marine spaces. Future network MPAs may overlap and/or include fishing areas, depending on the type and nature of the MPA.

More information on MPA Network Planning can be found at:

<http://www.dfo-mpo.gc.ca/oceans/management-gestion/marineprotection-protectionmarine/index-eng.htm#network>

#### 4.4.4. Marine Protected Areas

DFO is responsible for designating Marine Protected Areas (MPAs) under Canada's *Oceans Act*. Under this authority, DFO has designated two MPAs in the Pacific Region. The Endeavour Hydrothermal Vents, designated in 2003, lie in waters 2,250 m deep 250 km southeast of Vancouver Island. The SGaan Kinghlas-Bowie Seamount Marine Protected Area (SK-B MPA) is located 180 km offshore of Haida Gwaii on the Pacific coast. The SK-B seamount rises from a depth of over 3,000 m to within 25 m of the surface making it one of the shallowest seamounts in the north Pacific. MPA regulations and management plans articulate any restrictions on activities taking place within the MPA, where applicable. With respect to fishing activities in the SK-B MPA, the regulations state:

1. No person shall a) disturb, damage or destroy, or remove from the Area, any living marine organism or any part of its habitat; or b) carry out any activity – including depositing, discharging or dumping any substance – that is likely to result in the disturbance, damage, destruction or removal of a living marine organism or any part of its habitat.
2. Despite section 3, the following activities may be carried out in the Area:
  - a. commercial fishing that is carried out in accordance with the *Fisheries Act* and its regulations;
  - b. recreational fishing that is carried out in accordance with the *Fisheries Act* and its regulations;
  - c. fishing that is carried out in accordance with the *Aboriginal Communal Fishing Licences Regulations*

At this time, all fisheries are restricted within the Endeavour and SK-B MPAs, except for a Sablefish trap fishery within the SK-B MPA. Work is ongoing to obtain MPA designations for other areas along the Pacific Coast, including the Race Rocks area off Rocky Point south of Victoria (currently designated as a Provincial Ecological Reserve) and the Hecate Strait / Queen Charlotte Sound Glass Sponge Reefs. Changes to existing IFMPs with respect to fishing



activities may be required upon designation of these MPAs. In addition, alignment of IFMPs and MPA Management Plans will be necessary.

More information on MPAs can be found at:

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

#### 4.4.5. National Marine Conservation Areas

The Canada *National Marine Conservation Areas Act* provides for the establishment of National Marine Conservation Areas (NMCAs). The Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site (Gwaii Haanas Marine Area) was established in June 2010. Implementation of the Interim Management Plan for the Gwaii Haanas Marine Area, developed jointly by Parks Canada Agency, the Council of Haida Nation and DFO, was initiated in 2011. The Interim Management Plan includes an Interim Zoning Plan which identifies six protected areas where commercial and recreational fishing is not permitted.

The long term management plan for the Gwaii Haanas Marine Area will be developed in consultation with the commercial and recreational fishing sectors through DFO's established integrated fishery planning and advisory processes. Development of the management plan will be completed within five years of establishment of the National Marine Conservation Area Reserve, as required by the *National Marine Conservation Areas Act*.

More information on NMCAs can be found at:

<http://www.pc.gc.ca/eng/progs/amnc-nmca/index.aspx>

#### 4.4.6. Marine National Wildlife Areas

Under the *Canada Wildlife Act*, Environment Canada may establish marine National Wildlife Areas (NWAs). The Scott Islands marine National Wildlife Area, located on off the northern tip of Vancouver Island, has been proposed for designation through amendment to the *Wildlife Area Regulations*. Fisheries and Oceans Canada would continue to regulate and administer fisheries within the proposed area. Environment Canada and Fisheries and Oceans will develop a collaborative approach and agreement regarding management of fisheries in the area.

More information on NWAs can be found at:

<http://www.ec.gc.ca/ap-pa/default.asp?lang=En&n=2BD71B33-1>

### 4.5. Gear Impacts

Tuna vessels currently harvest tuna using hook and line gear, primarily troll. Under normal operating circumstances, there is minimal to no environmental impacts from this type of gear and to date, there is very little bycatch observed and little to no impact to marine mammals or sea birds based on logbook data.

### 4.6. Aquaculture

In 2009, the British Columbia Supreme Court (BCSC) ruled that the activity of aquaculture is a fishery which falls under exclusive federal jurisdiction pursuant to subsection 91(12) of the *Constitution Act, 1867 - Sea Coast and Inland Fisheries* and, in effect, struck down substantial portions of the provincial regulatory regime governing aquaculture. In response to the BCSC decision, the Minister of Fisheries and Oceans has confirmed the commitment of the Government of Canada to establish a federal regulatory regime governing aquaculture pursuant to the *Fisheries Act* in the geographic area of British Columbia.

On December 19, 2010 DFO assumed the role of lead federal department for sustainable management of fisheries and aquaculture. Under the *Fisheries Act* the Pacific Aquaculture Regulations and the *Fishery General Regulations* will govern finfish, shellfish and freshwater aquaculture operations in BC. Cultivation of fish within the province will require a federal aquaculture licence issued under the *Pacific Aquaculture Regulations*, and, where applicable, a federal *Navigable Waters Protection Act* permit and a provincial Crown Lands tenure. Other government agency approvals may also be necessary.

To view the *Pacific Aquaculture Regulations*, beginning on page 2326:  
<http://canadagazette.gc.ca/rp-pr/p2/2010/2010-12-08/pdf/g2-14425.pdf>

As part of the new aquaculture regulatory framework in British Columbia, DFO is developing Integrated Management of Aquaculture Plans (IMAPs). IMAPS will be modelled after Integrated Fisheries Management Plans, which are used to govern wild harvest fisheries. Consultations with First Nations, interested parties, and stakeholders will be important to the IMAP development process, allowing for the integration of advice, as well as environmental and social interests, into the management objectives for each aquaculture sector.

For further information refer to the following web link:  
<http://www.dfompo.gc.ca/aquaculture/aquaculture-eng.htm>

## **5. OBJECTIVES**

### **5.1. National**

Fisheries and Oceans Canada aims to:

- Meet conservation objectives and ensure healthy and productive fisheries and ecosystems;
- Base management decisions on the best available scientific information;
- Manage fisheries to provide opportunities for economic prosperity;
- Provide stability, transparency, and predictability in fisheries management and improved governance; and,
- Foster shared stewardship.

### **5.2. Pacific Region**

The overall goal of Fisheries Management in the Pacific Region is the conservation of Canada's fisheries resources to ensure sustainable resource utilization and generate economic prosperity, accomplished through close collaboration with resource users and stakeholders based on shared stewardship consistent with treaty and Aboriginal rights. Fisheries Management is responsible for management of Aboriginal, commercial, and recreational fishing in the Pacific Ocean and creating the conditions for a vibrant and innovative aquaculture industry.

Fisheries Management will continue to develop and implement the Sustainable Fisheries Framework by integrating the precautionary and ecosystem approach frameworks into IFMPs with the goal of protecting vulnerable marine and freshwater ecosystems and vulnerable stocks from significant adverse impacts, and to help ensure long term sustainability and support economic prosperity.

### **5.3. Pacific Albacore Tuna Resource Management**

#### 5.3.1. Stock Conservation

The biological objective is to harvest Pacific Albacore tuna in a sustainable manner and to support the use of the precautionary approach to fisheries management within Regional Fisheries Management Organizations.

#### 5.3.2. Ecosystem Processes

To 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.

#### 5.3.3. Consultation

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.

#### 5.3.4. Social, Cultural, and Economic Considerations

**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.

For more information, see Appendix 3 or visit:

<http://www.pac.dfo-mpo.gc.ca/abor-autoc/index-eng.htm>

**Recreational:** the Department will continue to provide opportunities for a recreational fishery for tuna. See Appendix 4 for more detail.

**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. Please see Appendix 5 for more detail.

#### 5.3.5. Compliance Objectives

Fisheries and Oceans Canada aims to continue to monitor fishing activity using hauls, 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.

Details on evaluation criteria to meet these objectives are described in Section 9.

## 6. ACCESS AND ALLOCATION

The Minister can, for reasons of conservation or for any other valid reasons, modify access, allocations, and sharing arrangements as outlined in this IFMP in accordance with the powers granted pursuant to the *Fisheries Act*.

### 6.1. Quotas and Allocations

#### 6.1.1. First Nations

Aboriginal harvest of Pacific Albacore for FSC purposes may occur coast wide where authorized by a communal licence. To date, no limits have been placed on aboriginal harvest for food, social and ceremonial purposes. There is no known FSC fishery for Pacific Albacore tuna.

#### 6.1.2. Recreational

Recreational harvest of Pacific Albacore may occur coast wide if authorized by a British Columbia Tidal Waters Sport Fishing Licence. The daily limit for Pacific Albacore tuna is 20 pieces and the possession limit is 40 pieces. There is a limited opportunistic recreational fishery off the west coast of Vancouver Island.

#### 6.1.3. Commercial

Commercial harvest for Albacore tuna is permitted in the high seas, Canadian waters and USA waters (harvest in USA waters is pursuant to the Canada/USA Albacore Tuna Treaty). Please see Appendix 6 for details relating to the Treaty. There is no annual total allowable catch in the Pacific Albacore tuna fishery; however Canada is required to maintain fishing effort at current levels based on the Conservation and Management Measure (CMM) 2005 - 02. Please see Section 4.3.3 for more details.

## 7. MANAGEMENT MEASURES FOR THE DURATION OF THE PLAN

Please see the Aboriginal, Recreational and Commercial Fishing Plans, Appendix 3 to 6 for details on the 2013/2014 fishery including:

- Fishing Season;
- Closed Areas;
- Control and Monitoring of Removals;
- Licensing;
- Fishery Monitoring Programs
- Habitat Protection Measures.

## **8. SHARED STEWARDSHIP ARRANGEMENTS**

Stewardship refers to the care, supervision or management of something, especially the careful and responsible management of something entrusted to one's care. In the context of fisheries management, stewardship is often referenced in regards to "shared stewardship", whereby participants will be effectively involved in fisheries management decision-making processes at appropriate levels, will contribute specialized knowledge and experience, and share in accountability for outcomes.

There are no formal shared stewardship arrangements (i.e. Joint Project Agreements) for tuna in the Pacific region. However, stakeholders work closely with Fisheries Management staff in pre-season, in-season, and post-season processes, providing expert knowledge and specialized experience to inform management decisions and cooperatively develop solutions to management issues.

## **9. COMPLIANCE PLAN**

The Conservation and Protection (C&P) program promotes and maintains compliance with legislation, regulations and management measures implemented to achieve the conservation and sustainable use of Canada's aquatic resources, and the protection of species at risk, fish habitat and oceans.

The program is delivered through a balanced regulatory management and enforcement approach including:

- Promotion of compliance through education and shared stewardship;
- Monitoring, control and surveillance activities; and,
- Management of major cases/special investigations in relation to complex compliance issues

These activities are further outlined in the C&P National Compliance Framework.

There are approximately 173 Fishery Officers stationed in the Pacific region, which encompasses British Columbia and Yukon Territory. They are designated as "Fishery Officers" under Section 5 of the *Fisheries Act*. The *Fisheries Act* and the *Criminal Code of Canada* are the primary pieces of legislation outlining the powers and responsibilities of Fishery Officers. Officers are designated under other Acts as well, such as the *Coastal Fisheries Protection Act* and *Species at Risk Act*.

Users of the resource have a responsibility to report violations. Any suspected or actual fisheries, wildlife or pollution violations can be quickly and discretely reported to the appropriate enforcement officer by using the toll free Observe, Record and Report hotline. This toll free number is available 24 hours a day.

OBSERVE, RECORD and REPORT: 1-800-465-4DFO (1-800-465-4336)

Enforcement enquiries can also be directed to the local field offices during regular office hours.

### **9.1. Regional Compliance Program Delivery**

Enforcement of the tuna fishery will be tempered by commitments to higher priority issues, such as species at risk, CSSP and fisheries that have conservation concerns. C&P staff will pursue opportunities to monitor and enforce problems related to the tuna fishery in conjunction with the monitoring and enforcement activities dedicated to the identified priority fisheries in the Pacific region.

Fishery Officers conduct a range of activities to promote compliance during the tuna fishery. These activities include attending industry and working group meetings, defining key enforcement concerns with Fisheries Management prior to the commercial fishery, in-season monitoring of compliance with Conditions of Licence, aerial surveillance, and detailed post-season reporting.

#### **9.1.1. Aerial Surveillance**

The Aerial Surveillance Program in the Pacific Region is a comprehensive program that provides long range and local surveillance capacity on the Pacific coast. The purpose of this program is to monitor vessels and track activities off the west coast as well as obtain vessel counts from recreational, commercial and in some cases, First Nations fisheries and to detect suspicious vessels (e.g., those suspected of fishing in closed areas). Aircraft are tasked on a daily basis for specific surveillance duties. On occasion Canadian Coast Guard fixed wing and helicopter craft are also employed depending on availability. Air surveillance is an excellent platform for monitoring the activities of vessels at sea.

### **9.2. Consultation**

C&P staff advise and work in conjunction with Fisheries Management staff to outline issues related to compliance of Conditions of Licence in the tuna fishery. C&P staff also attends Tuna Advisory Board meetings (and other working group meetings as required) in order to consult with stakeholders and inform industry of any current enforcement issues and activities and also to maintain a good working relationship.

### **9.3. Compliance Performance**

Information regarding the compliance performance objectives from the previous season is available in Section 10.3.3 and Appendix 1.

## **10. PERFORMANCE / EVALUATION CRITERIA**

### **10.1. National**

- Meet conservation objectives that ensure healthy and productive fisheries and ecosystems.
- Make reasonable effort to provide opportunities for economic prosperity while maintaining conservation objectives.
- Conduct stable, transparent and predictable consultation and management processes.

### **10.2. Pacific Region**

- Execution of the tuna fishery in accordance with the requirements outlined in the IFMP.

- Ensure monitoring program provides accurate information on catch and effort and is designed to provide the information necessary for management of the tuna resource.
- Proper controls in place for management and control of the fishery and the conservation and protection of fish.
- Stakeholder engagement for informed management decisions and cooperatively developed solutions to issues related to management of the tuna fishery.

### 10.3. Pacific Albacore Tuna Resource Management

#### 10.3.1. Stock Conservation and Ecosystem Processes

- 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.

#### 10.3.2. Consultation

- 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.

#### 10.3.3. Social, Cultural and Economic Considerations

##### **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.

#### 10.3.4. Compliance

- Develop and implement measures for the effective monitoring and control of the fishery that are consistent with domestic 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.

## 11. GLOSSARY

Aboriginal Traditional Knowledge (ATK)	Knowledge that is held by, and unique to Aboriginal peoples. It is a living body of knowledge that is cumulative and dynamic and adapted over time to reflect changes in the social, economic, environmental, spiritual, and political spheres of the Aboriginal knowledge holders. It often includes knowledge about the land and its resources, spiritual beliefs, language, mythology, culture, laws, customs and medicines.
Abundance	Number of individuals in a stock or a population.
Age Composition	Proportion of individuals of different ages in a stock or in the catches.
Area and Subarea	Defined in Section 2 of the Pacific Fishery Management Area Regulations. A map of Pacific Fishery Management Areas is available on the Department's Internet site at: <a href="http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/areas-secteurs/index-eng.htm">http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/areas-secteurs/index-eng.htm</a>
Biomass	Total weight of all individuals in a stock or a population.
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	Committee of experts that assess and designate which wild species are in some danger of disappearing from Canada.
Communal Licence	A licence issued to First Nations organizations under Section 4 of the Aboriginal Communal Fishing Licences Regulations, pursuant to the Fisheries Act, to carry on fishing and related activities.
EBSA (Ecologically and Biologically Significant Area)	An EBSA is an area that has particularly high Ecological or Biological Significance, and should receive a greater-than-usual degree of risk aversion in management of activities in order to protect overall ecosystem structure and function within the LOMA.
Ecosystem-Based Management	Taking into account of species interactions and the interdependencies between species and their habitats when making resource management decisions.
Enhancement	The culture and release of wild stocks for stock rehabilitation and/or to increase stock sizes above natural levels of abundance. An enhanced stock is a common property resource and is subject to the public right to fish.



Fishing Effort	Quantity of effort using a given fishing gear over a given period of time.
Fishing Mortality	Death caused by fishing, often symbolized by the mathematical symbol F.
Food, Social and Ceremonial (FSC)	A fishery conducted by Aboriginal groups for food, social and ceremonial purposes.
High Seas	All parts of the sea that is not included in the exclusive economic zone, in the territorial sea or in the internal waters of a state.
Incidental Catch	The unintentional catch of one species when the target is another.
Jig-fishery	Hook and line troll gear using jigs.
Landed Value	Value of the product when landed by the licensed vessel.
Landing	Quantity of a species caught and landed. Harvested animals transferred from a vessel to land.
LOMA (Large Ocean Management Area)	Integrated management planning in Canada is focused in five high priority LOMAs, these are: Placentia Bay and the Grand Banks, the Gulf of St. Lawrence, the Scotian Shelf, the Beaufort Sea and the Pacific North Coast.
Maximum Sustainable Yield (MSY)	Largest average catch that can continuously be taken from a stock.
Natural Mortality	Mortality due to natural causes, symbolized by the mathematical symbol M.
Observer Coverage	When a licence holder is required to carry an officially certified observer onboard their vessel for a specific period of time to verify the amount of fish caught, the area in which it was caught and the method by which it was caught.
Population	Group of individuals of the same species, forming a breeding unit, and sharing a habitat.
Precautionary Approach	Set of agreed cost-effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong.
CSAP	Centre for Scientific Advice – Pacific (CSAP), chaired by DFO and including other federal and provincial government agency representatives and external participants.
Recruitment	Amount of individuals becoming part of the exploitable stock e.g. that can be caught in a fishery. The process whereby young animals are added to a fishable stock or population.
Spawner	Sexually mature individual.

Spawning Stock	Sexually mature individuals in a stock.
Species at Risk Act (SARA)	The Act is a federal government commitment to prevent wildlife species from becoming extinct and secure the necessary actions for their recovery. It provides the legal protection of wildlife species and the conservation of their biological diversity.
Stakeholders	Individuals or groups with an interest in a particular fishery or activity.
Stock	Describes a population of individuals of one species found in a particular area, and is used as a unit for fisheries management.
Stock Assessments	Scientific evaluation of the status of a species belonging to a same stock within a particular area in a given time period. Results of analyses of fisheries and research data used to evaluate the effects of fishing on a stock or population and to predict the reactions of populations to alternative management choices.
Substrate	The ground (often the ocean bottom) and its composition, in or on which animals live.
Tonne	Metric tonne, which is 1000kg or 2204.6 lb.
Total Allowable Catch (TAC)	Total allowable catch: the amount of catch that may be taken from a stock, determined by analytical procedures, to achieve management objectives.
Traditional Ecological Knowledge (TEK)	A cumulative body of knowledge and beliefs handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.
Tuna Treaty	The treaty between the Government of Canada and the Government of the United States of America on Pacific Albacore tuna vessels and port privileges in force July 29, 1981.
Year-class	Individuals of a same stock born in a particular year. Also called "cohort".

## APPENDIX 1. POST-SEASON REVIEW

### 1. ASSESSMENT OF THE 2012/2013 FISHERY OBJECTIVES

This appendix will assess the 2012/2013 Albacore tuna fishery against the objectives outlined in the 2012/2013 Albacore Tuna IFMP. A copy of the 2012/2013 IFMP is available online at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/mplans/2012/tuna-thon-2012-eng.pdf>

#### 1.1. Stock Conservation

To ensure the harvest of Pacific Albacore tuna occurs in a sustainable manner in consideration of population dynamics and ecosystem impacts, the Department will:

<b>Performance Measure</b>	<b>DFO Activity</b>
Coordinate with fishery scientists through the International Science Committee to determine stock levels and provide advice to RFMO's.	DFO Chairs the ALBWG and led the WG in conducting and reporting of the most recent stock assessment in June 2011 to the ISC, NC of the WCPFC, and the IATTC. Canada also coordinated an independent peer-review of the assessment report.
Maintain fishing effort of Albacore tuna at current levels as per the Conservation and Management Measure (CMM) 2005-02.	Canadian vessels were required to hail into and out of the fishery and have a high compliance rate (> 95%) in reporting all catch, effort and landing data to DFO in a timely manner for compliance monitoring purposes
Continue to monitor the fishery by gathering catch and effort information for the Pacific Albacore tuna fishery through the hail and logbook program.	All vessels participating in the fishery were required to maintain a logbook of daily catch (and bycatch), effort, landings and transshipments and forward these data to DFO by November 11, 2012. Thirty-five vessels also collected daily fork length measurements and sampled 1.8% of fish caught in 2012, exceeding the 1% target sample. See Tables 1, 2, and 3.
Review harvest activities so they occur in a manner that will minimize impacts to sensitive fish habitats and populations.	DFO reviewed special requirements (e.g., reporting on basking sharks) and sensitive habitats (e.g. Bowie Seamount, rockfish conservation areas), with TAB in a pre-season planning meeting and included all information in the IFMP. DFO distributed an identification sheet of common tuna and non-target species as well as pelagic sharks of

concern to the RFMO's to improve bycatch data recording.

Provide catch, effort and biological data to RFMO's in charge of the conservation and management of Pacific Albacore tuna.

Canada had a high logbook compliance rate (>95%) and reported all aggregated catch and effort data, biological data, bycatch data, and spatial (1° x 1°) monthly catch and effort data to the IATTC and WCPFC prior to the April 30, 2012 reporting deadline.

Table 1: Albacore Tuna Reported Catch 2007-2012 (metric tonnes)

AREA	2007 <sup>E</sup>	2008 <sup>E</sup>	2009 <sup>E</sup>	2010 <sup>E</sup>	2011 <sup>E</sup>	2012* <sup>E</sup>
BC	1,297	248	406	2,319	670	2,058
Washington	1,410	1,844	2,429	803	1,230	0
Oregon	3,287	2,870	2,770	2,512	3,144	0
California	43	5	1	26	265	0
NEP/ ECP/ SWP	35	496	87	845	106	477
NWP-IC	0	0	0	0	0	0
<b>TOTAL</b>	<b>6,070</b>	<b>5,464</b>	<b>5,693</b>	<b>6,527</b>	<b>5,415</b>	<b>2,536</b>

\* - 2012 data is preliminary (as of January 2013)

E - Data based on expanded catch values

Table 2: Albacore Tuna Reported Effort 2007-2012 (vessel days)

AREA	2007 <sup>E</sup>	2008 <sup>E</sup>	2009 <sup>E</sup>	2010 <sup>E</sup>	2011 <sup>E</sup>	2012* <sup>E</sup>
BC	2,081	360	675	2,887	1,771	5,032
USA	4,805	4,993	5,722	3,848	6,549	0
NEP/ECP/SWP	71	420	143	559	285	1,030
NWP-IC	0	0	0	0	0	0

\*2012 data is preliminary (as of January 2013)

Table 3: Albacore Tuna Unique Vessels 2007-2012

AREA	2007	2008	2009	2010	2011	2012*
BC	191	78	116	153	146	170
USA	119	122	107	109	108	0
High Seas	4	31	16	47	21	62
<b>TOTAL</b>	<b>207</b>	<b>137</b>	<b>138</b>	<b>161</b>	<b>177</b>	<b>175</b>

\*2012 data is preliminary (as of January 2013)

Table 4: 2012 Incidental Catch Summary

SPECIES	PIECES	Mean Weight (lbs)	Total Weight (lbs)
Skipjack	3	8.50	25.50
Mahi Mahi	3		
Pacific Bluefin	2	15.00	30.00
Yellowtail Amberjack	34	14.78	254.44

## 1.2. Consultation

Performance Measure	DFO Activity
Hold a minimum of two advisory board meetings for the purpose of post-season review and pre-season planning discussions.	TAB meetings were held to discuss the post-season review and pre-season planning processes. Information related to the meetings was posted to DFO's consultation website for tuna.
Develop annual management plans in consideration of advice and recommendations developed through the Tuna Advisory Board (TAB) and through bi-lateral discussions with the USA.	TAB provided formal advice and recommendations to the Department on operational and policy issues taking into account the views of those they represent and departmental policies as well as international agreements.  Information concerning the performance review of management measures related to the Treaty can be found in Appendix 6.

### 1.3. Compliance

<b>Performance Measure</b>	<b>DFO Activity</b>
Develop and implement measures for the effective monitoring and control of the fishery that are consistent with domestic policies and international requirements in cooperation with international enforcement counterparts.	<p>In 2012, as a Condition of Licence, all vessel masters were required to:</p> <ul style="list-style-type: none"><li>- Notify Canadian authorities of their fishing activities by hailing out with their intention to start fishing, hailing to notify a change of fishing zone, and hailing in when fishing activity had ceased.</li><li>- Complete harvest logbooks at-sea to be reported in hard copy or electronically to the Department by Nov. 11, 2012.</li><li>- Keep accurate catch and offload records by way of fish slips submitted to the Department.</li><li>- Submit a questionnaire with vessel information to be submitted to the WCPFC and/or IATTC for inclusion on their respective list of registered vessels.</li></ul>
Monitor compliance with Conditions of Licence in coordination with USA and international enforcement counterparts.	<p>There remains some level of non-compliance with reporting requirements; however, the Department is working to address these issues with stakeholders through the advisory process and with vessel owners on an individual basis to address any violations.</p> <p>The Department will be reviewing compliance with Conditions of Licence for the 2012 season and contacting vessel masters for follow up as appropriate. As of February 2013, there are 2 vessel masters/owners that have not submitted either a logbook or no-fishing (nil) report.</p>

## APPENDIX 2. 2011 STOCK ASSESSMENT EXECUTIVE SUMMARY

The 2011 assessment of the status and future trends in the north Pacific Albacore tuna (*Thunnus alalunga*) stock was completed in June 2011 using fishery data through 2009. This assessment was conducted using a seasonal, length-based, age-structured, forward simulation population model developed within the Stock Synthesis modelling platform (Version 3.11b) and is based on the assumption that there is a single well-mixed stock of Albacore in the north Pacific Ocean. The model used quarterly catch-at-length data; sixteen age-aggregated fisheries defined by gear, location, season, and catch units (weight or number); eight abundance indices; a new growth curve estimated within the model; and conditional age-at-length (otoliths) data not previously available.

Analyses were carried out to assess the sensitivity of the results to assumptions including data weighting (both between data types and relative weightings within a data type), biology (stock-recruitment relationship, natural mortality, growth), and fishery selectivity patterns. Stochastic future projections of the stock were conducted to assess the impact of current F on future harvest and stock status and to estimate the probability that future spawning stock biomass (SSB) will fall below the average of the ten historically lowest estimated SSBs (SSB-ATHL) in at least one year of a 25-yr (2010-2035) projection period. The base-case scenario for projections assumed historical recruitment and constant F (at the current F level,  $F_{2006-2008}$ ), but sensitivity of the results to alternative harvest scenarios (constant catch and constant  $F_{2002-2004}$ ), two alternative recruitment scenarios (high and low historical levels), and alternative structural assumptions (down-weighting of the length composition data, stock recruitment relationship, growth) were investigated. Retrospective analyses were conducted to assess the level of bias and uncertainty in terminal year estimates of biomass, recruitment, and fishing mortality. A reference run of the VPA model configured as in the 2006 assessment, but with updated catch-at-age (to 2009) and six age-aggregated CPUE indices rather than age-specific indices, was conducted to compare important estimated quantities for model-related changes.

The SS3 base-case model estimates that SSB has likely fluctuated between 300,000 and 500,000 t between 1966 and 2009 and that recruitment has averaged approximately 48 million fish annually during this period. Fishing mortality (F-at-age) increases to its highest level on 3-yr old juvenile Albacore and then declines to a much lower and stable level in mature fish. Current F (geometric mean of 2006 to 2008,  $F_{2006-2008}$ ) is lower than  $F_{2002-2004}$  (current F in the 2006 assessment). The Northern Committee (NC) of the Western and Central Pacific Fisheries Commission (WCPFC - one of the RFMOs managing the stock) established an interim reference point to limit fishing mortality such that future SSB is maintained above the SSB-ATHL threshold with a probability greater than 50% ( $F_{SSB-ATHL\ 50\%}$ ).  $F_{2006-2008}$  is approximately 30% below  $F_{SSB-ATHL\ 50\%}$  and there is about a 1 % risk that future SSB will fall below the SSB-ATHL threshold in at least one year in the 25-yr projection period, assuming recruitment remains at average historical levels.

Sensitivity and retrospective analyses revealed uncertainty in absolute estimates of biomass (total and SSB) and, to a lesser extent, recruitment, but few differences in overall time series trends. Relative F-at-age patterns were not substantially affected by different assumptions, except when the growth curve

parameters from the 2006 assessment (the Suda growth curve) were used, and  $F_{2006-2008}$  was consistently lower than  $F_{2002-2004}$ . Although terminal year estimates of biomass and recruitment are not strongly biased, there is a high level of uncertainty in the most recent recruitment estimates. Given these findings, the current parameterization of the base-case model is considered reasonable.

Both the SS3 base-case model and the VPA reference run estimated similar historical trends in SSB and recruitment, but with different scaling for biomass. The scaling difference is largely attributable to the different growth curves used in SS3 base-case model and the VPA reference run. A sensitivity run of the base-case model in which growth parameters were fixed to those used in the VPA, reduced the scaling of biomass to the level of the VPA reference run. Sensitivity analyses of future projections were conducted with respect to the interim reference point ( $F_{SSB-ATHL\ 50\%}$ ) and the results show that stock status and conservation advice are relatively insensitive to the scaling differences. Based on these findings, the WG concludes that the growth curve used in the 2006 assessment is not representative of growth in north Pacific Albacore.

The north Pacific Albacore stock is considered to be healthy at the current level of fishing mortality,  $F_{2006-2008}$ , and average historical recruitment. Current  $F_{2006-2008}$  is about 71% of  $F_{SSB-ATHL}$ , which means  $F$  is well below the fishing mortality that would lead SSB to fall below the SSB-ATHL threshold, estimates of  $F_{2006-2008}$  expressed as a ratio relative to several potential F-based reference points ( $F_{MAX}$ ,  $F_{0.1}$ ,  $F_{MED}$ ,  $F_{20-50\%}$ ) are less than 1.0, and the stock is expected to fluctuate around the long-term median SSB (~400,000 t) in the foreseeable future given average historical recruitment levels and constant fishing mortality at  $F_{2006-2008}$ . Based on these findings, the WG concludes that overfishing is not occurring and that the stock likely is not in an overfished condition, although biomass-based reference points have not been established for this stock. However, recruitment is a key driver of the dynamics in this stock and a more pessimistic recruitment scenario increases the probability that the stock will not achieve the management objective of remaining above SSB-ATHL threshold with a probability of 50%. If future recruitment declines about 25% below the historical average and  $F$  remains constant at  $F_{2006-2008}$ , then the risk of future SSB falling below the SSB-ATHL threshold by the end of the projection period increases to 54%. Therefore, the Working Group recommends maintaining the present management measure (no increase in effort beyond “current” levels (2002-2004)).

Research needs to improve the assessment were identified, prioritized and an appraisal of achievability by the next assessment was made. The priority areas for research are: (1) age and growth modelling to improve the model fit; (2) spatial pattern analysis to investigate regional differences in growth and movements; (3) CPUE analyses to investigate discrepancies among indices; (4) maturity research to develop a length-based maturity schedule; (5) investigation of several data issues, including size composition anomalies noted in model fit residual patterns; and (6) improvements to SS3 base-case model configuration and parameterization including weighting of different information sources, a stock-recruitment relationship, explicit spatial structure, accounting for environmental covariates.



### **APPENDIX 3. ABORIGINAL FISHING PLAN**

The Department is committed to improving its relationship with Aboriginal people. Aboriginal fisheries play an important role in this relationship and, therefore, are an integral part of fisheries resource management in the Pacific Region. Through consultation, cooperative management and stewardship activities, DFO and Aboriginal groups are working together to build strong, healthy relationships and a sustainable fishery.

Through the Aboriginal Fisheries Strategy, the Department seeks to negotiate with Aboriginal organizations access for Food, Social, and Ceremonial (FSC) purposes. Subject to conservation, this access has priority over access for commercial and recreational harvest. FSC fisheries are managed through communal licences that are issued to First Nations organizations. The Department will consult with First Nations organizations to determine appropriate levels of access. In some cases, a portion of a PFMA may be closed to fishing except for fishing by a First Nation organization. These closures may be for the season or for specified times. Whenever possible, the appropriate annual fishing plan will identify such closures. It is possible that situations may arise in the implementation of the plan where in-season closure adjustments will be required to ensure access to the fishery by First Nations organizations for FSC purposes.

For additional information on DFO's Treaty and Aboriginal Fisheries programs, please visit:

<http://www.pac.dfo-mpo.gc.ca/abor-autoc/index-eng.htm>

#### **APPENDIX 4. RECREATIONAL FISHING PLAN**

The recreational harvest of various fish and invertebrate species in BC is regulated via the *British Columbia Sport Fishing Regulations, 1996* made under the *Fisheries Act*. A Fisheries and Oceans Canada Tidal Waters Sport Fishing licence is required for the recreational harvest of all species of fish.

The regulations for recreational fishing of finfish are summarized in the British Columbia Tidal Waters Sport Fishing Guide which lists closed times, bag limits, size limits (where applicable) and closed areas. Recreational harvest for Pacific Albacore tuna is permitted coast wide. The daily limit is 20 pieces and the possession limit is 40 pieces.

When required, Fishery Notices are issued to advise of changes to this guide. For more information on the recreational fishery refer to the following web link:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/>

The primary consultative body for the recreational fishing community is the Sport Fishing Advisory Board (SFAB). The SFAB has representatives from all parts of the community including the British Columbia Wildlife Federation and the Sport Fishing Institute of British Columbia. If you have any questions or need further information, please contact a recreational fisheries co-coordinator or a local Fisheries and Oceans Canada office (see Appendix 7).

## APPENDIX 5. COMMERCIAL FISHING PLAN (CANADIAN EEZ AND HIGH SEAS)

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## **1. COMMERCIAL FISHING PLAN (CANADIAN EEZ AND HIGH SEAS)**

### **1.1. Area Times**

The hook and line tuna fishery for Canadian fisheries waters and waters of the Pacific Ocean high seas (not including USA waters) is open from April 1, 2013 to March 31, 2014, with the exception of those permanent closures noted below.

### **1.2. Close Times**

There are no expected close times for the 2013/2014 tuna fishing season in Canadian waters or waters of the Pacific Ocean high seas.

### **1.3. Area Closures**

#### **1.3.1. Area 2**

Queen Charlottes closed year-round in Subareas 2-1, 2-63 to 2-68 and that portion of Subarea 2-69 between Hunter Point to Fame Point inside the 50-fathom contour line. (CHS Chart 3869). The intent of the closure is to reduce harvesting pressure on localized stocks of fish and to provide improved access to First Nations for Food, Social and Ceremonial purposes.

#### **1.3.2. Areas 12 to 20, 28 and 29**

Strait of Georgia/Johnstone/Juan de Fuca and Fraser River.

#### **1.3.3. Area 121**

Portions of Subareas 121-1 and 121-2 inside a line connecting the following latitude and longitude co-ordinates: 48°34'N, 125°06'W thence to 48°34'N, 124°54.20'W thence to 48°29.62'N, 124°43.40'W thence following the International Boundary between Canada and the USA to 48°29.30'N, 124°58'W then to the beginning point.

#### **1.3.4. Rockfish Conservation Areas**

Effective February 1, 2007, a suite of Rockfish Conservation Areas (RCAs) came into effect. There are 164 RCAs in the current suite, and the majority of the new closed areas are located within the Strait of Georgia. Designation of the final closed areas is a result of over three years of consultation with many stakeholders.

The descriptions associated with the RCA's can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-acis/index-eng.htm>

#### **1.3.5. Gwaii Haanas National Marine Conservation Area**

To learn more about the Gwaii Haanas NMCA:

[http://www.pc.gc.ca/progs/amnc-nmca/cnamnc-cnmca/gwaiihaanas/index\\_e.asp](http://www.pc.gc.ca/progs/amnc-nmca/cnamnc-cnmca/gwaiihaanas/index_e.asp)

Please reference your Conditions of Licence for details on closures for 2013.

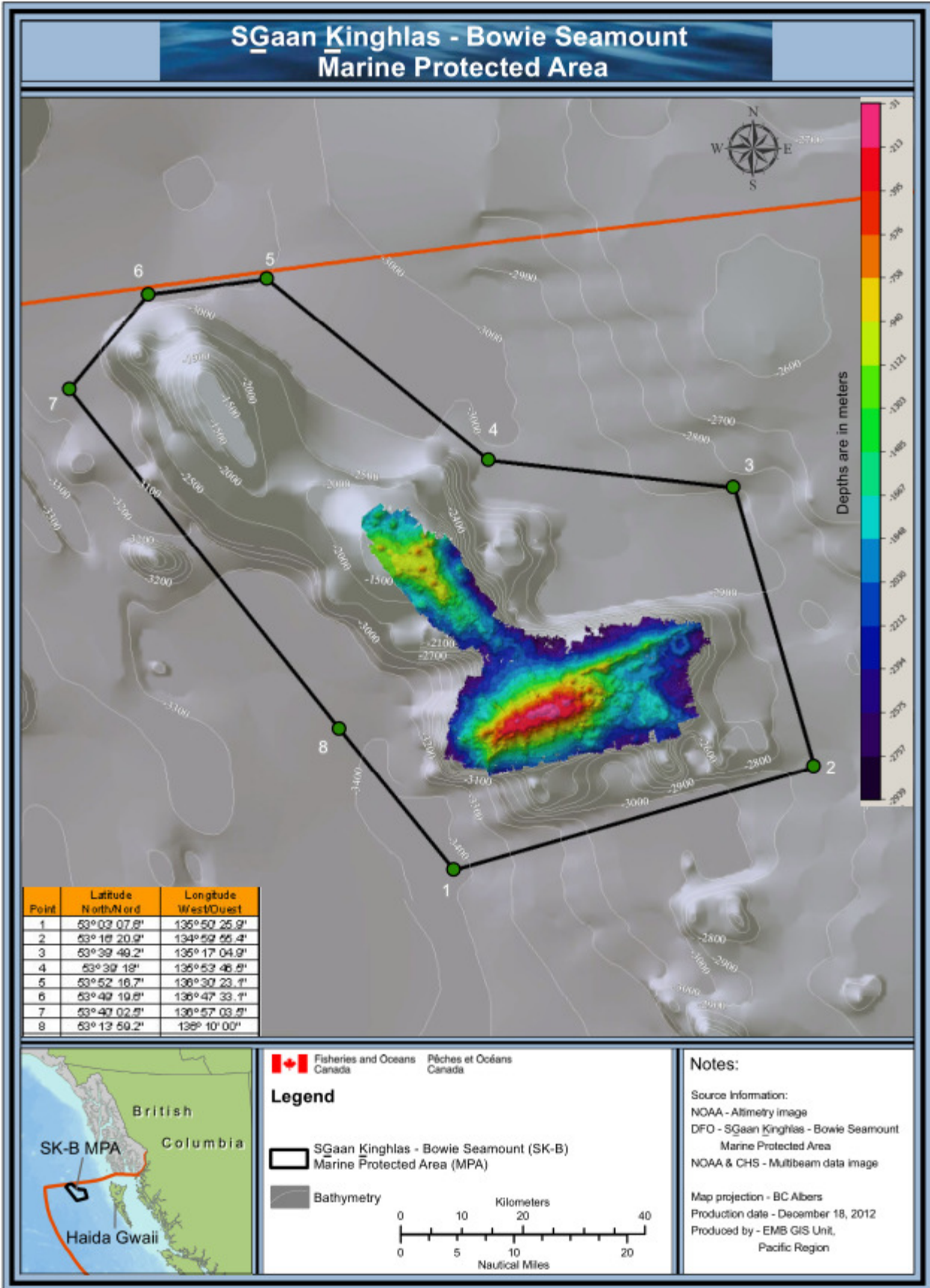
#### 1.3.6. SGaan Kinghlas-Bowie Seamount Marine Protected Area

The SGaan Kinghlas-Bowie Seamount Marine Protected Area (SK-B MPA) is located 180km offshore of Haida Gwaii on the Pacific Coast. The SK-B seamount rises from a depth of 3,000 m to within 25 m of the surface, making it one of the shallowest seamounts in the north Pacific. The MPA comprises the SK-B, Hodgkins and Davidson Seamounts of the Kodiak-Bowie seamount chain and has a total area of approximately 6,131 square kilometres.

The SK-B MPA is closed year-round. The MPA's regulations establish the outer boundary of the MPA as the area of the Pacific Ocean that includes the SK-B, Hodgkins and Davidson Seamounts — consisting of the seabed, the subsoil and the water column above the seabed — which is bounded by a series of rhumb lines drawn from a point 53°03'07.6" N, 135°50'25.9" W, to a point 53°16'20.9" N, 134°59'55.4" W, then to a point 53°39'49.2" N, 135°17'04.9" W, then to a point 53°39'18.0" N, 135°53'46.5" W, then to a point 53°52'16.7" N, 136°30'23.1" W, then to a point 53°49'19.6" N, 136°47'33.1" W, then to a point 53°40'02.5" N, 136°57'03.5" W, then to a point 53°13'59.2" N, 136°10'00.0" W, then back to the point of commencement. A map of the boundaries is attached in appendix 5 and can be accessed on the internet at the following address: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2008-124/page-4.html#h-8>

The Government of Canada and the Council of the Haida Nation signed a MOU in April 2007 which established the SK-B Management Board to facilitate the cooperative management and planning of the proposed MPA. As a result, DFO and the Council of the Haida Nation are collaboratively developing a management plan for the SK-B MPA which will consider advice from an advisory committee, stakeholders through existing processes, and the public. This management plan will elaborate on the regulations to implement the conservation and management objectives for the MPA and will address matters such as monitoring, enforcement and compliance.

Commercial fishing activities within the MPA are managed through the Integrated Fisheries Management process. Three zones are identified in this IFMP, some of which are fisheries closures. Annual harvest plans will be developed in consultation with interested parties and specific actions (openings and closures) for the SK-B MPA will be taken under the authority of the *Fisheries Act* and its regulations. Efforts will be made to align IFMPs (and annual harvest plans) with the SK-B MPA Management Plan once it is completed.



## 2. LICENSING

### 2.1. Online Licensing

Beginning in 2013, the Department's commercial licensing services will move from the counter to the internet to enable fishermen to go online to obtain and renew their commercial fishing licences – and to access other in-season services. Fishermen will be able to pay their licensing fees, vessel registrations, and reissuances online using their bank card (Interac) or credit card. They will also use the online licensing system to request and receive their licences, and to access approval of representatives and issuance of licence conditions. Fishermen who prefer to pay licence fees using cash or cheque may still do so at any national bank; however, these fishermen will still require an e-mail address and registration within the new system, so the Department can notify them when payments have been processed. Alternatively, fishermen may appoint a representative to handle their transactions via the online licensing system. Pacific Fishery Licence Units will still provide over the counter service until March 31, 2013, after which licensing services will be provided online.

The national online licensing system is supported by a client support service, which will replace the Department's traditional at the counter licensing services. However, the Department will continue to offer in-person service at DFO licensing centers to provide support during the transition over 2013 for more complex transactions and transactions that are not yet handled by the online licensing system. Check our web page for updates: <http://www.dfo-mpo.gc.ca/fm-gp/sdc-cps/index-eng.htm> or call 1-877-535-7307.

### 2.2. Licence Documents

#### 2.2.1. Tuna Licence Categories

A commercial tuna licence, category CT, is required to commercially harvest for tuna species in Canadian fisheries waters and Pacific Ocean high seas waters. A CT licence does not authorize fishing for Albacore tuna in the waters of the USA.

Licences issued pursuant to Section 68 of the *Fishery (General) Regulations* are available for fishing or trans-shipping tuna on the high seas.

There are also a number of international requirements that must be met for all vessels who plan to harvest tuna. Please see Section 2.1.3.4 for international requirements.

Please see section 4.1.2 in the tuna IFMP for further information on the changes to the tuna licensing procedure for the 2013 season.

#### 2.2.2. Licence Application Fees

Licence fees for a commercial tuna licence, category CT, are \$30.00. Licence fees for Section 68 (high seas only) licences are \$500.00.



### 2.2.3. Licence Issuance

#### 2.2.3.1. NEW FOR 2013: For Canadian and High Seas (Category CT)

In order to be eligible to apply for a CT licence, a commercial or communal commercial salmon, Schedule II species, geoduck, sablefish, halibut, crab, shrimp trawl, groundfish trawl, or prawn and shrimp by trap licence or a valid N licence is required (except where fishing privileges for Schedule II Species have been relinquished, as may be the case for some groundfish by trawl or geoduck by dive licence eligibilities).

If a vessel decides to replace or relinquish their vessel-based licence eligibility, and no longer holds another vessel-based licence eligibility, that vessel will no longer have a Schedule II privilege and the CT licence will no longer be valid.

#### **Authorization for Commercial Licence Applications**

All application forms must be signed by the applicant or authorized representative. If the applicant is a company, only an authorized signing authority may sign the application. The PFLU must have on record a copy of either a Confirmation of Signing Authorities or an Amendment to Confirmation of Signing Authorities form, listing the signing authorities for the company.

Where the applicant/vessel owner is a First Nations group, only an authorized signing authority may sign the application. The PFLU must have on record a copy of either a Confirmation of Signing Authorities or an Amendment to Confirmation of Signing Authorities form, listing the signing authorities for the First Nation.

#### 2.2.3.2. For High Seas Only (Section 68)

Vessel owners must designate a registered Canadian commercial vessel that is not eligible to harvest Schedule II species under any of the following vessel based commercial licences i.e. salmon, schedule II species, geoduck, sablefish, halibut, crab, shrimp trawl, groundfish trawl and prawn and shrimp by trap, valid communal commercial or salmon category N licence.

For vessels not currently registered as a Canadian commercial fishing vessel, a completed Application for Commercial Vessel Registration must be submitted. The registration requirements are outlined on the reverse of that application. The registration requirement for a marine survey report does not have to be met for vessels designated solely for a high seas licence.

#### 2.2.3.3. Monitoring Arrangements (All Tuna Vessels)

Prior to harvesting for tuna, applicants must make arrangements for logbook, hail program, and related keypunching/data transmission services. See Section 4 of this Appendix for further details related to catch and monitoring requirements.

#### 2.2.3.4. International Requirements (All Tuna Vessels)

Both the WCPFC and the IATTC have requirements in place that require Canadian vessels to be on “authorized vessel lists” prior to fishing within their respective Convention Areas. DFO is

required to submit annually an up-to-date list of Canadian-flagged vessels authorized to fish in the WCPFC and IATTC Convention Areas. Those vessels who harvest in either the WCPFC or IATTC Convention Area and are not on the applicable list of authorized vessels for that RFMO will be harvesting contrary to international requirements and their Conditions of Licence.

The WCPFC and the IATTC require information on vessels that wish to be placed on their authorized lists. The information requested under the WCPFC Conservation and Management Measure resolution CMM 2009-01 and IATTC Resolution C-11-06 includes information that DFO does not normally collect. Therefore, the Department is requiring that all harvesters planning to harvest within the WCPFC or IATTC Convention Areas complete and submit a short registration form to gather and authorize the release of the information to the WCPFC or IATTC. DFO has created one form to gather the information and consent required for authorization in both the WCPFC and IATTC Convention Areas.

You must complete and submit a WCPFC/IATTC vessel registration requirements form prior to entry into either Convention Area. It is the responsibility of individual vessel owners/masters to ensure they are on the authorized list, prior to harvesting within the Convention Area.

Confirmation that a vessel is authorized to harvest within the WCPFC Convention Area will be provided by the Department. Harvesters should allow approximately 10 working days to receive confirmation prior to entry into the WCPFC Convention Area. Harvesters should assume that any harvest activity within the WCPFC Convention Area is not authorized until confirmation from the Department is received. Vessels may harvest in the IATTC Convention Area once they have submitted the completed form to DFO, confirmation of a vessel's inclusion on the IATTC authorized list will not be provided.

The WCPFC/IATTC Vessel Registration Form is available at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/commercial/pelagic-pelagique/tuna-thon/index-eng.htm>

You may check that your vessel is on the applicable list by visiting the WCPFC or IATTC websites at:

<http://www.wcpfc.int> OR <http://www.iattc.org>

The WCPFC and IATTC Secretariats house all information provided by all members and uses it solely for the purposes of statistical analyses as it relates to implementing the resolutions or measures adopted by the respective Commissions. This information will be posted online on the WCPFC or IATTC websites.

Refer to Section 4 of the tuna IFMP for more information and maps of the WCPFC and IATTC Convention Areas.

NOTE: You do not have to submit a WCPFC/IATTC Vessel Registration form each year. However, a new form will be required if any information gathered on the form has changed since the original submission.

#### 2.2.3.5. Licence Documents

Commercial tuna (CT) licences are valid from April 1, 2013 to March 31, 2014.

Licences issued pursuant to Section 68 for tuna in high seas waters are valid from April 1, 2013 to March 31, 2014.

Replacements for lost or destroyed licence documents may be obtained by completing a Declaration Concerning Licence Documents form. Please contact a PFLU for further details. For further information on management requirements, contact the Tuna Resource Manager at (604) 666-2188.

### 3. FISHING ACTIVITY AND CATCH REPORTING

#### 3.1. Species

These five species are listed in Part II of Schedule II to the *Pacific Fishery Regulations, 1993*.

Albacore (*Thunnus alalunga*)

Northern Bluefin (*Thunnus thynnus*)

Pacific Bonito (*Sarda chiliensis*)

Skipjack Tuna (*Katsuwonus pelamis*)

Yellowfin Tuna (*Thunnus albacares*)

The following additional species are permitted as incidental catch under authority of a Section 68 licence for vessels fishing on the high seas. Vessels fishing under the authority of a Schedule II privilege are not permitted to retain the following species:

Bigeye Tuna (*Thunnus obesus*)

Yellowtail (*Seriola lalandi*)

Blackfin Tuna (*Thunnus atlanticus*)

Little Tuna (*Euthynnus sp.*)

Frigate Mackerel (*Auzis sp.*)

Pomfrets (Family *Bramidae*)

Marlins (*Tetrapturus sp.*; *Makaira sp.*)

Sail-fishes (*Istiophorus sp.*)

Swordfishes (*Xiphias gladius*)

Sauries (*Scomberesox sp.*; *Colobais sp.*)

Dolphin fish (Mahi Mahi) (*Coryphaena sp.*)

#### 3.2. Gear

Appendix 5

Vessels authorized to harvest tuna through their CT or Section 68 (High Seas) licence are permitted to use hook and line gear, which includes trolling and long-line gear.

Licence holders are advised to reference their Conditions of Licence for further details.

### **3.3. Bycatch**

All incidental catch must be reported in harvest logbooks and released immediately to the water in a manner that minimizes catch and release mortality. Any interactions with sea turtles, sharks or sea birds should be recorded in the tuna logbook. Please reference your Conditions of Licence for further details.

#### **3.3.1. Long-line Sea Turtle Mitigation Measures (WCPFC)**

Starting in the 2011 season, long-line vessel operators harvesting within the WCPFC Convention Area were required to carry and use line cutters and de-hookers to handle and promptly release sea turtles caught or entangled during fishing activity and where appropriate are required to carry and use dip-nets.

Vessel operators must bring aboard, if practicable, any captured hard-shell sea turtle that is comatose or inactive as soon as possible and foster its recover before returning it to the water. Please see your Conditions of Licence for details.

#### **3.3.2. Basking Shark Avoidance of Entanglement and Reporting**

Basking Sharks were listed under Schedule I of SARA as endangered in February of 2010. Starting in the 2011 season, the Department will be providing details on avoidance requirements and what to do in the event of an encounter. Please reference your 2013 Conditions of Licence for details.

Basking Sharks are gentle giants of the sea that eat zooplankton. They are the second largest fish in the world, and are rarely seen in Canadian Pacific Waters. The Department is collecting information on Basking Shark distribution, and welcomes assistance in the reporting of Basking Shark sightings. Sightings for Basking Sharks are infrequent in Canadian Pacific waters, and the collection of sightings data is very useful to scientists in determining population size and distribution. Your information will help us to determine how many exist off our coast and the potential for recovery of these impressive sharks.

If you see a Basking Shark, take pictures so that we can validate the sighting. Good quality photographs of dorsal fins can be used to identify individuals. Other helpful details:

- Date and time of sighting
- Location (geophysical coordinates, if possible)
- Number and estimated size of sharks
- Any other behaviours you observe

Report your sightings to the Basking Shark Sightings Network:

Toll free: 1-877-50-SHARK

Email: [BaskingShark@dfo-mpo.gc.ca](mailto:BaskingShark@dfo-mpo.gc.ca)

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

### 3.3.3. Seabird Avoidance – Long-line Gear

In accordance with the International Plan of Action for reducing incidental catches of seabirds in long-line fisheries (IPOA-Seabirds) and the resolution passed by the WCPFC on seabird mitigation, all Canadian tuna long-line harvesters shall implement at least two of the mitigation measures in the below table, including at least one from Column A and one from Column B. Vessels may not use the same measure from Column A and Column B.

<b>Column A</b>	<b>Column B</b>
Side setting with a bird curtain and weighted branch lines	Tori line
Night setting with minimum deck lighting	Weighted branch lines
Tori line	Blue-dyed bait
Weighted branch lines	Deep setting line shooter
	Underwater setting chute
	Management of offal discharge

Please reference your Conditions of Licence for technical specifications and further details related to seabird avoidance measures.

## 4. CATCH REPORTING AND MONITORING PROGRAM

### 4.1. Hail Requirements

Canadian vessel masters intending to fish for Albacore tuna in any of the three destination zones (Canada, USA EEZ or High Seas) during the 2013/2014 season are required to notify the industry selected tuna hail service provider (Archipelago Marine Research Ltd.) of their intentions before commencing fishing, provide notice of changing fishing zones and advising when fishing activity has ceased. Contact details for the designated tuna hail service provider are provided in the Tuna logbook and Conditions of Licence. The hail system is imperative for the collection of in-season information for monitoring effort and for proper management of the fishery in domestic, high seas and U.S. waters to meet international at Treaty requirements. For 2013, DFO will continue to coordinate with fisheries management and enforcement counterparts in the USA on fishing activity in both the USA and Canadian EEZ.

#### 4.1.1. Email Hail Program

Appendix 5

In addition to the regular telephone hail submission system, the designated tuna hail service provider provides an email option to submit hails. This system may prove more convenient for some tuna harvesters. Please see your Conditions of Licence for information regarding the email hail program.

#### 4.1.2. Enforcement

Vessel compliance with the hail program will be reviewed annually by comparing hail times, logbook activity, details from the aerial surveillance program and other confirmed sightings/information of fishing activity, as available.

Vessel masters are advised to reference their Conditions of Licence for the information reports required while fishing for tuna and contact details for the hail service provider. Vessel masters who do not make information reports may be subject to enforcement action.

Contraventions of the Fisheries Act, the Coastal Fisheries Protection Act, the regulations made thereunder or the conditions of licence may result in seizure and forfeiture of vessel and gear as well as fines up to \$100,000 or imprisonment for a term up to one year or both, for a first offence.

#### 4.1.3. Post Season Review

The hail program will be reviewed during the 2013 post-season discussions. The review will be based on compliance with the program, including accuracy and timeliness of hail data received. The program may be revised and include additional requirements for the 2014 season depending on the outcome of this review.

## 4.2. Types of Reports

There are three different types of reports:

- a) Hail-Out report to start fishing in one of the following destination zones (Canada, USA or high seas) (or transiting if permitted in USA waters under the Treaty).
- b) Change of Zone report when changing fishing zones (Canada, USA or high seas).
- c) Hail-In report to stop fishing (Canada, USA or high seas).

Upon each report to fish, change fishing zone or transit, the vessel master will receive a unique verification number.

#### 4.2.1. Hail-Out Report (Start Fishing or Transiting Report)

A Hail-out report is required not less than 24 hours prior to:

- Starting to fish; or
- Making subsequent trips after a Hail-In report

The following information must be reported for a Hail-Out report:

- a) Vessel name;
- b) Flag state;
- c) Vessel master name;
- d) Vessel registration number (VRN);
- e) Home port;
- f) Destination zone;
- g) Licence type and number; and
- h) If fishing, anticipated start date.

#### 4.2.2. Change of Zone Report

A Change of Zone report would be required if the destination zone as previously identified in a Hail-Out report changes based on the following:

- A Change of Zone report would be required within 24 hours should a vessel cross into a different zone for a period exceeding 24 hours with the intent of fishing in that zone. This applies for the following zones: (high seas, USA EEZ and Canadian EEZ).
  - E.g. A vessel transiting to Canadian ports from the USA or high seas zone is not required to hail a Change of Zone report when entering Canadian waters **unless** their intent is to fish in the Canadian zone for a period exceeding 24 hours.
  - Fishing activity is defined as having gear deployed in the water.
- It will be assumed the vessel is harvesting within the waters of the previous hail, until a Change of Zone report is issued.

The vessel is not permitted to fish in a zone unless authorized for that zone through:

- A vessel based licence with tuna privileges for the Canadian and high seas zones
- A Section 68 licence for the high seas only (applies only to vessels without a vessel based licence)

The following information is required for a Change of Fishing Zone report:

- a) Vessel name;
- b) Vessel registration number;
- c) New destination zone;
- d) Anticipated date of entry to the new zone; and
- e) Anticipated start fishing date.

#### 4.2.3. Hail-In Report (Stop Fishing Report)

The following information must be reported for a Hail-In report:

- a) Vessel name;
- b) Vessel master name;
- c) Vessel registration number;
- d) Home Port; and
- e) Date fishing ceased.

A Hail-In report should be filed no later than 24 hours after stopping fishing and is required by all tuna harvesters by November 30, 2012. A vessel that has not filed a Hail-In report will be presumed to be fishing in the destination zone last hailed until a Hail-In report is filed.

#### **4.3. Vessel Monitoring System Reporting Requirements**

Tuna harvesters are required to install and maintain a vessel monitoring system to fish for tuna in the Pacific Ocean as required by the WCPFC and the IATTC.

##### **Inter-American Tropical Tuna Commission Convention Area**

Vessels greater than 24m in length shall be equipped with a vessel monitoring system while fishing in the IATTC Convention Area (east of 150° W longitude, including the Pacific Region of the Canadian EEZ).

##### **Western and Central Pacific Fisheries Commission Convention Area**

All vessels, regardless of length, shall be equipped with a vessel monitoring system while fishing in the WCPFC Convention Area (west of 150° W longitude). Vessels in the WCPFC Convention Area will also need to complete a WCPFC Vessel Tracking Agreement Form (VTAF) in order to have their VMS data transmit to the WCPFC Secretariat. The VTAF form is in addition to the WCPFC/IATTC information and consent form which is required for vessels to be authorized to fish in the WCPFC or IATTC Convention Area(s).

##### **4.3.1. Vessel Monitoring System Requirements**

To minimize the impact on harvesters, the Department has developed general technological requirements that allow harvesters to obtain one system to satisfy both the WCPFC and IATTC resolutions. Vessel owners should reference Conditions of Licence for specific requirements. The Vessel monitoring system shall satisfy the below reporting requirements:

- a) Report the following data every hour:
  - i. Positional data (latitude and longitude);
  - ii. Vessel registration number (VRN) and ALC static unique identifier if fishing in the WCPFC Convention Area; and
  - iii. Data and time (Universal Time Constant).
- b) Positional data provided shall be accurate to at least:
  - i. Less than 500 meters with a confidence level of 99 %; and
  - ii. Less than 100 meters squared with a confidence level of 98 %.



- c) Reporting data shall be provided to:
  - i. Canada only if fishing in the IATTC Convention Area; and
  - ii. Canada and the Director of the WCPFC if fishing in the WCPFC Convention Area.
- d) Vessel monitoring equipment shall be fully automatic, tamper proof, able to transmit regardless of environmental condition, capable of manual transmission, and operational at all times during all tuna fishing trips and tuna fishing activities.
- e) At the 9<sup>th</sup> Regular session of the WCPFC, the VMS requirements were amended to include an obligation for vessel masters to ensure manual reporting of position information in the event of VMS failure during fishing activities during the period March 1, 2013 to March 1, 2014. A template for manual reporting will be issued to harvesters who apply to fish in the WCPFC Convention Area.

A list of DFO approved VMS systems, the DFO National VMS Registration Form, the WCPFC VTAF form and additional information is available on the Pacific Fishery Licence Unit website at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm>

#### **4.4. Vessel Marking Requirements**

##### 4.4.1. WCPFC Convention Area (west of 150° W longitude)

The WCPFC has passed a resolution that all vessels fishing within the western and central Pacific Ocean must mark their vessel with either their International Telecommunication Union Radio Call Sign (IRCS) or the International Telecommunication Union (ITU) characters (316).

Please reference your Conditions of Licence for specific marking requirements (e.g. size, location).

#### **4.5. Landing Locations**

All fish must be landed at a fish buying station licensed under the *Fisheries Act* (Province of B.C.), except:

- a) Fish sold directly to the public under authority of a fish harvester's vending licence issued under the *Fisheries Act* (Province of B.C.).
- b) Fish offloaded on the High Seas to another vessel.

#### **4.6. Catch and Fishery Data**

##### 4.6.1. Logbooks

Conditions of Licence require all tuna fish harvesters to record all catch information and fishing location information, and to provide that information to the Department in hard copy or electronic copy. The logbook must be made available for inspection on demand by officials of either country. It is a Condition of Licence that the hard copy of all harvest activity and fishing location information up to 23:59 October 31, 2013 must be submitted by November 11, 2013 and

information on any subsequent harvest activity within seven days of the final landing. For further information on logbook requirements, reference Conditions of Licence.

The tuna industry has coordinated and funded the logbook program through the CHMSF. The CHMSF has made arrangements to print an adequate number of logbooks and for Howard Stiff of Gabriola Island to verify, edit and keypunch logbook data from hard copies submitted and provide that data in the required format to the Department. Vessel owners are reminded that arrangements must be made to obtain the logbook and related keypunching/data transmission services prior to harvesting for tuna.

In the event that a vessel does not fish the current fishing season, the vessel owner is required to submit a nil report. One page from the harvest log identifying the vessel, licence tab number and the year with 'nil' entered in the body of the log and signed by the licence holder constitutes a nil report.

Starting from the 2009 season, an additional line in the log books has been included to gather length frequency data. Harvesters are requested to sample 10 fish at the start of each successful day.

A sample of the logbook format for the 2013/2014 season is included in Appendix 10.

Contraventions of the Fisheries Act, the Coastal Fisheries Protection Act, the regulations made thereunder or the conditions of licence may result in seizure and forfeiture of vessel and gear as well as fines up to \$100,000 or imprisonment for a term up to one year or both, for a first offence.

#### 4.6.2. In-Season Logbook Submission

DFO requests that tuna harvesters submit copies of their logbook pages within 7 days after each trip or offload on a voluntary basis. Logbooks are currently required to be submitted by November 11, 2013, but in order to gather catch and effort information from the tuna fleet on a timely basis, DFO would like to receive logbooks during the season. In addition, in-season submission of logbooks will provide:

- Timely catch and effort information which is consistent with future DFO policy, and with international RFMO and Canada/USA Albacore Treaty requirements;
- The ability to address logbook data gaps during the season; and
- Support for Marine Stewardship Council (MSC) re-certification.

An information sheet outlining the benefits of the voluntary logbook submission program will be included in each logbook for the 2013 season.

#### 4.6.3. Tuna Electronic Logbooks

In 2008 Fisheries & Oceans Canada initiated a co-management arrangement with the Tuna Advisory Board to conduct an Electronic Logbook (E-log) program for the tuna fishery.

The ultimate goal of this initiative is to improve the efficiency and compliance of reporting catch and other harvesting information to DFO in the most efficient and cost effective manner. The PC based software application has been designed following the current paper version of the logbook for the tuna fleet.

2012 was the fifth year for the tuna E-log pilot program in the Pacific Region. DFO will be contacting those vessel owners who are interested in participating in the E-log program for installation, coordination and feedback throughout the pilot. The E-log program will continue for the 2013 season and equipment will be funded by industry. Development and support for the E-log program and software has been funded by the Department throughout the pilot.

#### 4.6.4. Fish Slips

The vessel master must provide records of all fish caught and retained under authority of a licence. A report must be made even if the fish caught are used for bait, personal consumption or disposed of otherwise and shall include all fish landed at both Canadian and USA ports or transhipped at sea. It is a Condition of Licence completed fish slips must be submitted within seven days of the offloading.

Fish slips record vessel name, VRN, 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. Fish slips are submitted by vessel masters and processors to the Fisheries and Oceans Canada Regional Data Unit, Suite 200 - 401 Burrard Street, Vancouver B.C., V6C 3S4.

### **4.7. Future Requirements for Regional Observer Programs**

New international conservation measures require the implementation of independent and impartial regional observer programs (ROP) to collect verified data, other scientific data, and additional information related to the fishery, and to monitor the implementation of the conservation and management measures. A timeline for troll and poll-and-line vessels used for fishing skipjack or Albacore tuna has not been established. However, the RFMO's will be considering the development of a regional observer program for fishing tuna in international waters.

### **4.8. National Oceanic and Atmospheric Administration Fisheries Southwest Science Center Tagging Project**

The Southwest Fisheries Science Centre (SWFSC) is working with The American Fishermen's Research Foundation (AFRF) on an Albacore tagging project. The objective of the project is to better understand

the movements of North Pacific Albacore. Tags can be identified by the presence of a green dart tag behind the dorsal fin and a plastic coated stalk protruding from the rear portion of the belly. The SWFSC is offering a \$500 (U.S. dollars) reward for the return of a tagged fish with the archival tag in place along with the date, latitude and longitude of where the tagged fish was caught and the gear used to catch the fish. The reward can be obtained by returning the tagged fish and capture information to:

National Marine Fisheries Service  
Southwest Fisheries Science Centre  
8604 La Jolla Shores Dr.  
La Jolla, CA 92037

More information on the tagging program can be found at:  
<http://swfsc.noaa.gov/textblock.aspx?Division=FRD&id=1194>

## APPENDIX 6. COMMERCIAL FISHING PLAN (USA EEZ)

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# 1. CANADA/USA PACIFIC ALBACORE TUNA TREATY INFORMATION

## 1.1. History (1981 – 2012)

Fishing for Albacore tuna by Canadian fishing vessels in USA fisheries waters is governed by the “*Treaty Between the Government of Canada and the Government of the United States of America on Pacific Albacore Tuna Vessels and Port Privileges*”, 1981 (the “Treaty”). The Treaty has been in effect since 1981. After the implementation of the 200-mile Exclusive Economic Zones (EEZs) in the late 1970’s, the USA initiated the Treaty to ensure their fleet had access to Albacore tuna that had shifted their migration northward into Canadian waters.

Under the Tuna Treaty, Canadian and USA fish harvesters may fish north Pacific Albacore tuna in the other country’s 200-mile EEZ and may land Albacore tuna at designated ports in the other country for purposes of sale or transshipment. The Tuna Treaty also provides for the exchange of catch, effort and scientific information in order to inform management decisions and better understand the Albacore tuna stocks that migrate off the west coasts of the USA and Canada.

In 2002, Canada and the USA agreed to amend the Treaty by establishing a 3 year limitation regime that required a phased reduction in access in effort by vessels of each country in the other countries EEZ from the years 2004 – 2006. The amendment provided for two fishing regime options of limiting effort to either a total number of vessel fishing months or a specified number of vessels with 4 months each. In each year from 2004 – 2006, Canada maintained its effort within the number of vessel months (option 1) The Treaty amendment also had a default provision where reduced levels of effort would be allowed in the event that negotiations on a new reciprocal fishing regime were ongoing between the two countries.

In 2003, a USA Section 68 licence was implemented for Canadian vessels fishing in USA waters. In 2004, only vessels meeting specific criteria were issued licences and effort was limited to 680 vessel fishing months.

<b>YEAR</b>	<b>OPTION 1: No. OF VESSEL MONTHS</b>	<b>OPTION 2: No. OF VESSELS</b>
<b>2004</b>	680	170 vessels with 4 months
<b>2005</b>	560	140 vessels with 4 months
<b>2006</b>	500	125 vessels with 4 months

Table 1: 3 year phased reduction under of the 2002 revised Treaty

In 2005, a licence limitation regime was adopted which took into account past participation before and after the control date of April 15, 2000, and provided priority access to the most consistently active vessels fishing in USA waters.

Vessels on the 2005 eligibility list:

- Were commercially licensed as of December 31, 2004;
- Had recorded Albacore tuna catch in USA waters during the period 1995-1999; and
- Had continued participation during the period 2000-2002.

The Department then ranked the vessels using a formula that assigned 60% for years fishing during that period and 40% for catch, resulting in an eligibility list of 175 vessels.

In 2005, an independent licence appeal process was initiated as the final stage in the licence limitation program. The Albacore Tuna Review Committee reviewed 58 appeals; approving 23 and denying 35 and resulted in an eligibility list of 179 vessels. This list is used to determine which vessels are permitted access to U.S. waters depending on the applicable Treaty regime.

After the 3 year phased reduction ended in 2006, the Treaty default provision took effect and effort was limited to 75% of the last year of the latest regime, until a new fishing regime was established. This resulted in effort maintained to either 94 vessels or 376 vessel fishing months for the 2007 and 2008 fishing seasons.

On December 15, 2008, Canadian and U.S. officials met and initialled most recent amendments to the Treaty, which was renewed for a period of three years and provided three fishing seasons (2009 to 2011) for Canadian vessels to harvest Albacore tuna in the USA EEZ as well as USA vessels to harvest in the Canadian EEZ.

The terms of the 2008 revised Treaty included a departure from the previously used vessel month system (with vessel month transfers) and implemented a defined fishing season of 4.5 months with in-season licence transfers (vessel replacements) prohibited except under extraordinary circumstances. Pursuant to the 2008 revised Treaty, the tuna fishing season for harvesting Albacore in the USA EEZ started on June 15 and ended on October 31 from 2009 to 2011.

As part of the revised 2008 Treaty, vessels ranked from 1-110 on the eligibility list of 179 vessels were permitted to harvest tuna in USA waters for the duration of the revised Treaty (2009-2011). Each year, by June 1, a list of the 110 authorized vessels was forwarded to USA officials. From 2009 to 2011, an average of 108 Canadian vessels entered the USA EEZ to harvest Albacore tuna.

The revised 2008 Treaty expired on December 31, 2011 and discussions between Canada and the USA in Vancouver, BC on November 30 and December 1, 2011 determined that further work was required before agreement could be reached on a new fishing regime. At those meetings, the USA government identified some concerns raised by their industry representatives, including: the economic impact or benefit of the Treaty on USA coastal communities/harvesters, crowding on the fishing grounds in the USA EEZ, and the overall capacity of the Canadian tuna fleet. As a result, several working groups were established in order to address these concerns.

Appendix 6

The two countries met again on May 23 and 24, 2012 in Portland, Oregon for another round of Treaty discussions. Canada tabled several proposals in order to address the concerns of the U.S. industry. Unfortunately, the USA government advised that they would not be entering into an agreement for the 2012 season, which resulted in a suspension of reciprocal fishing and port access in 2012.

Formal negotiations continued on February 13 and 14, 2013 in Vancouver, BC. Discussions were informed by information and reports produced by the Data Working Group and the Economic Working Group. Canada revised and re-tabled several proposals aimed at addressing the USA industry's concerns with the Treaty.

## **1.2. Current Status of the Treaty (2013)**

On April 16 and 17, 2013, the USA and Canada met in Portland, OR, where both parties were able to come to agreement on a new fishing regime for the 2013 season. Canada was able to negotiate an agreement with the USA government, even though the US harvesting sector remains opposed to the Treaty.

As expected, a significant reduction in the level of access and a shortened season for Canadian vessels fishing in the USA EEZ was part of the one year agreement. From June 15, 2013 to September 15, 2013, 45 Canadian vessels have access to fish for Albacore tuna in the USA EEZ. USA vessels will be allowed to fish in Canadian waters from June 15, 2013, to October 31, 2013, while port access will be available from June 1, 2013 to December 31, 2013.

As agreed to with the USA government, the Department will continue to grant access to the USA EEZ based on the eligibility list that was established in 2005 under the USA68 Treaty limitation regime. Therefore, USA68 licence holders ranked from 1 – 45 will be authorized to fish albacore tuna in the USA EEZ in 2013. The eligibility list was established in consultation with all tuna harvesters and the Tuna Advisory Board, using a fair and equitable process, as a mechanism for providing reduced access to the USA EEZ which met the terms under the Treaty regime at the time, and for use in future fishing regimes such as in 2009 and now in 2013.

The two parties have agreed to meet again after the 2013 season in order to discuss the possibilities of a new Treaty fishing regime for 2014 and beyond. The Department will continue to consult with and inform all stakeholders on the status of the Treaty.

## **2. MANAGEMENT OBJECTIVES**

### **2.1. Objectives for 2013/2014**

For the 2013/2014 season, Canada aims to maintain a positive working relationship with the USA government to ensure both parties meet their obligations under the Treaty by:



- a) Holding annual bi-lateral meeting with USA officials to discuss Treaty implementation issues on both sides and co-operatively exchange information on their respective conservation and management measures for Albacore tuna to meet international obligations;
- b) In-season exchange of information on harvesting activity and possible fishing violations;
- c) Provide a list of Canadian vessels licensed to access the USA EEZ under the terms of the Treaty by June 1, 2013; and,
- d) Complete advocacy activities to demonstrate the benefits of the Treaty to each country.

Canada will continue to participate as part of the Treaty Data Working Group (DWG) which was formally convened in October 2011 as part of an on-going commitment to work cooperatively with the USA government pursuant to the Treaty. The general responsibilities of the DWG are to review data inputs and information outputs from various data sources including logbooks, sales slips (or fish slips), hails, observers, port sampling, dockside monitoring and other validation programs. The DWG shall also provide recommendations to achieve reporting consistency between both countries.

### **3. COMMERCIAL FISHING PLAN (USA EEZ)**

#### **3.1. Fishery Times**

The tuna fishery for Canadian vessels in USA waters is open from June 15, 2013 to September 15, 2013. The fishery is closed prior to June 15, 2013 and after September 15, 2013.

#### **3.2. Licensing**

##### **3.2.1. Online Licensing**

Beginning in 2013, the Department's commercial licensing services will move from the counter to the internet to enable fishermen to go online to obtain and renew their commercial fishing licences – and to access other in-season services. Fishermen will be able to pay their licensing fees, vessel registrations, and reissuances online using their bank card (Interac) or credit card. They will also use the online licensing system to request and receive their licences, and to access approval of representatives and issuance of licence conditions. Fishermen who prefer to pay licence fees using cash or cheque may still do so at any national bank; however, these fishermen will still require an e-mail address and registration within the new system, so the Department can notify them when payments have been processed. Alternatively, fishermen may appoint a representative to handle their transactions via the online licensing system. Pacific Fishery Licence Units will still provide over the counter service until March 31, 2013, after which licensing services will be provided online.

The national online licensing system is supported by a client support service, which will replace the Department's traditional at the counter licensing services. However, the Department will continue to offer in-person service at DFO licensing centers to provide support during the transition over 2013 for more complex transactions and transactions that are not yet handled by

the online licensing system. Check our web page for updates: <http://www.dfo-mpo.gc.ca/fm-gp/sdc-cps/index-eng.htm> or call 1-877-535-7307.

### 3.2.2. Tuna Licence Categories

A separate, limited entry, Albacore tuna USA Section 68 (“USA68”) licence is required for all vessels authorized to fish in USA waters.

### 3.2.3. Licence Application Fees

Licence fees for USA68 licences are \$500.00.

### 3.2.4. Licence Issuance

Given that the Treaty is subject to re-negotiation, USA68 licences will not be issued annually and are not attached to other licences held on the vessel.

As per the renewed 2013 Treaty, the limit of Canadian vessels authorized to harvest tuna in USA waters is 45. The list of the 45 eligible USA68 vessels (USA68 rankings from 1 – 45) will be available by June 1, 2013 at the following website:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm>

The authorized list of 45 Canadian USA68 vessels will be transmitted to USA officials by June 1, 2013, as per the 2013 Treaty. Vessels not on the authorized list of 45 vessels that fish in the USA EEZ will be subject to prosecution by USA authorities. It is the vessel master’s responsibility to ensure their vessel has a valid USA68 licence prior to fishing in the USA EEZ or accessing USA ports.

Completed applications for licences issued pursuant to Section 68 of the *Fishery (General) Regulations, 1993*, for fishing tuna in USA waters must be submitted to a Pacific Fisheries Licence Unit (PFLU).

All application forms must be signed by the applicant or authorized representative. If the applicant is a company, only an authorized signing authority may sign the application. The PFLU must have on record a copy of either a Confirmation of Signing Authorities or an Amendment to Confirmation of Signing Authorities form, listing the signing authorities for the company.

#### 3.2.4.1. Monitoring Arrangements (All Tuna Vessels)

Prior to harvesting for tuna, applicants must make arrangements for logbook, hail program, and related keypunching/data transmission services. See Section 4 of this Appendix for further details related to catch and monitoring requirements.

#### 3.2.4.2. Licence Renewal

USA68 licences do not have to be applied for annually in order to maintain their position on the eligibility list ranked from 1 – 179. Should changes to the Treaty occur, details of any new requirements will be communicated to all USA68 licence holders in a timely manner.

#### 3.2.4.3. Licence Documents

USA68 licences are valid from June 15, 2013 to September 15, 2013.

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Replacements for lost or destroyed licence documents may be obtained by completing a Declaration Concerning Licence Documents form. Please contact a PFLU for further details. For further information on management requirements, contact the Tuna Resource Manager at (604) 666-2188.

### 3.2.5. Vessel Replacements

#### Permanent Replacement:

As per the terms of the 2013 Treaty, vessel replacements for limited entry USA68 licences will not be allowed during the June 15 to September 15 season. Requests for vessel replacement prior to the season will be sent to a joint USA/Canada review committee where requests will be considered based on specific criteria (i.e. previous history of replacing vessel in US EEZ, enforcement history of replacing vessel). Any replacement vessel shall not exceed the length of the original vessel.

Vessel owners are reminded that all vessel replacements that are approved by the joint review committee are permanent, and there is no guarantee of the ability to conduct further vessel replacements in the future. The originating vessel will be replaced on the list of eligible vessels with the new vessel in the associated ranking order.

Completed applications for a permanent vessel replacement must be received by a PFLU by 16:00 hrs on May 24, 2013, to be considered by the joint review committee for the 2013 season.

#### Temporary Replacement:

An application to temporarily replace a vessel in-season may only be made under extenuating circumstances: if the vessel has been declared a total loss or if the vessel is out of service due to an accident or unforeseen damage. Pursuant to the 2013 Treaty, in the case of an extenuating circumstance only, a party may request replacement of a vessel within a season. The information regarding the temporary replacement will be sent to a joint USA/Canada review committee for approval. Any temporary replacement vessel shall not exceed the length of the original vessel.

Please contact a PFLU for a vessel replacement request form, or contact the Tuna Resource Manager for more information.

## **4. FISHING ACTIVITY AND CATCH REPORTING**

### **4.1. Species**

Vessels authorized under a USA68 licence are only permitted to catch Albacore tuna in USA waters.

### **4.2. Gear**

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Vessels authorized to under a USA68 licence to harvest tuna in USA waters are only permitted to use troll gear. The use of long-line gear or the use of live bait in USA waters is not authorized.

### **4.3. Bycatch**

All incidental catch must be reported in harvest logbooks and released immediately to the water in a manner that minimizes catch and release mortality. Any interactions with sea turtles, sharks or sea birds should be recorded in the tuna logbook. Please reference your Conditions of Licence for further details.

## **5. CATCH REPORTING AND MONITORING PROGRAM**

### **5.1. Hail Requirements**

*The hail requirements for USA68 licence holders are the same as for those vessels who are authorized to fish tuna in Canadian waters or on the high seas. Please see section 4.1 of Appendix 5 in the tuna IFMP or your Conditions of Licence for detailed information on hail requirements.*

### **5.2. Vessel Monitoring System Reporting Requirements**

The Pacific Ocean portion of the USA EEZ is located in the Inter-American Tropical Tuna Commission (IATTC) Convention Area. Therefore, those USA68 licensed vessels that harvest tuna in USA waters are required to meet all the requirements of the IATTC prior to fishing.

*Please see section 4.3 of Appendix 5 in the tuna IFMP or your Conditions of Licence for detailed information on Vessel Monitoring System requirements.*

### **5.3. Vessel Marking Requirements**

While in USA waters, Canadian vessels must display, in contrasting colours at least 12 inches high, both the vessel name and the VRN (including the letter “C”), so that they are clearly visible to aircraft and surface vessels. Please reference your Conditions of Licence for details.

### **5.4. Landing Locations**

All fish must be landed at a fish buying station licensed under the *Fisheries Act* (Province of B.C.), except:

- a) Fish sold directly to the public under authority of a fish harvester’s vending licence issued under the *Fisheries Act* (Province of B.C.);
- b) Fish landed in the USA, pursuant to the Treaty; and,
- c) Fish offloaded on the high seas to another vessel.

As per the renewed 2013 Treaty, Canadian fishing vessels that are licenced to fish Albacore tuna in USA waters are authorized (pursuant to Article III of the Treaty) to enter, land their catches, sell or tranship their catch, obtain fuel, supplies, repairs and equipment at the ports listed below. Further details are in your Conditions of Licence.

<b>Port</b>	<b>U.S. Customs Service Contact</b>
Bellingham, Washington	Port of Bellingham (360) 734-5463
Westport, Washington	Serviced out of Aberdeen, Washington (360) 532-2030 - Westport (360) 580-2146 - Aberdeen
Astoria, Oregon	1402 Marine Drive Astoria, Oregon 97103 (503) 325-5541 08:00 to 16:30 Weekdays
Newport, Oregon	1430 SE Bay Blvd. Newport, Oregon 97365 (541) 265-6456 08:00 to 16:00 Weekdays
Coos Bay, Oregon	3229 Broadway Street, Suite E North Bend, Oregon 97459 (541) 756-2396 08:00 to 16:00 Weekdays
Eureka, California	317 3 <sup>rd</sup> Street, Suite 6 Eureka, California 95501 (707) 442-4822 08:30 to 16:30 Weekdays

Vessels wishing to enter port are required to clear with USA Customs and Border Protection and are reminded of the requirement that sanitary facilities must be closed off prior to entry to any USA port.

For USA customs requirements or for additional information, please go to: <http://www.customs.gov> or <http://www.us-immigration.com> or phone the National Customer Service Center at (800) 375-5283.

## **5.5. Catch and Fishery Data**

### **5.5.1. Logbooks**

*The logbook requirements for USA68 licence holders are the same as for those vessels who are authorized to fish tuna in Canadian waters or on the high seas. Please see section 4.6 of Appendix 5 in the tuna IFMP or your Conditions of Licence for detailed information on logbook requirements.*

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### 5.5.2. Fish Slips

The vessel master must provide records of all fish caught and retained under authority of a licence. A report must be made even if the fish caught are used for bait, personal consumption or disposed of otherwise and shall include all fish landed at both Canadian and USA ports or transhipped at sea. It is a Condition of Licence completed fish slips must be submitted within seven days of the offloading.

Fish slips record vessel name, VRN, 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. Fish slips are submitted by vessel masters and processors to the Fisheries and Oceans Canada Regional Data Unit, Suite 200 - 401 Burrard Street, Vancouver B.C., V6C 3S4.

## 5.6. National Oceanic and Atmospheric Administration Fisheries Southwest Science Center Tagging Project

The Southwest Fisheries Science Centre (SWFSC) is working with The American Fishermen's Research Foundation (AFRF) on an Albacore tagging project. The objective of the project is to better understand the movements of North Pacific Albacore. Tags can be identified by the presence of a green dart tag behind the dorsal fin and a plastic coated stalk protruding from the rear portion of the belly. The SWFSC is offering a \$500 (U.S. dollars) reward for the return of a tagged fish with the archival tag in place along with the date, latitude and longitude of where the tagged fish was caught and the gear used to catch the fish. The reward can be obtained by returning the tagged fish and capture information to:

National Marine Fisheries Service  
Southwest Fisheries Science Centre  
8604 La Jolla Shores Dr.  
La Jolla, CA 92037

More information on the tagging program can be found at:  
<http://swfsc.noaa.gov/textblock.aspx?Division=FRD&id=1194>

## 6. USA TUNA VESSELS IN CANADIAN WATERS

Under the terms of the Treaty in 2013, USA vessels are permitted to fish for Albacore tuna in Canadian fisheries waters from June 15, 2013 to October 31, 2013 and may access Canadian ports for various activities from June 15, 2013 to December 31, 2013.

All USA vessels intending to fish in Canadian waters or access Canadian ports, as set out in the terms of the 2013 Treaty, must be on the USA authorized Treaty vessel list prior to entry. USA vessels are advised to contact the proper USA government fisheries officials for further information.

USA vessels entering Canadian fisheries waters for the purposes of transiting or fishing for Albacore tuna pursuant to the Treaty are required to report (Hail-In) to the Department 24 hours prior to entry into Canadian fisheries waters, and report (Hail-Out) within 24 hours of stopping fishing. Vessel masters will communicate with Tofino Canadian Coast Guard Radio to provide the vessel's position of entry and position of exit, their Canadian Coast Guard documentation number, their State registration number, and all other relevant information.

Communications to Canadian authorities must be made to Tofino Coast Guard Radio via:

- a) VHF channel 26 (within a 60 mile range);
- b) MF channel 2054 (within a 200 mile range);
- c) HF channel 4125 (within a 400 mile range);
- d) Using a satellite phone or cellular phone and dialling 250-726-7716.

#### **6.1. USA Vessel Hail-In Report (Start Fishing or Transiting Report)**

A Hail-In report is required not less than 24 hours prior to:

- Starting to fish;
- Making subsequent trips after a Hail-Out report; or,
- Transiting Canadian fisheries waters.

The following information must be reported for a Hail-In report:

- a) Vessel name;
- b) Flag state;
- c) Vessel master name;
- d) Vessel registration number (VRN);
- e) Home port;
- f) Destination zone;
- g) If transiting, anticipated date of entry into and exit from Canadian fisheries waters; and/or,
- h) If fishing, anticipated start date.

#### **6.2. USA Vessel Hail-Out Report (Stop Fishing Report)**

A Hail-Out report is required no later than 24 hours after stopping fishing in Canadian waters. A vessel that has filed a Hail-In report will be presumed fishing until a Hail-Out report is filed.

The following information must be reported for a Hail-Out report:

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- i) Vessel name;
- j) Verification Number;
- k) Flag state;
- l) Vessel master name;
- m) Vessel registration number (VRN);
- n) Home port; and,
- o) Date fishing ceased.

### **6.3. USA Vessels Accessing Canadian Ports**

Pursuant to the Treaty, USA fishing vessels are authorized to enter, land their catches, sell or tranship their catch, obtain fuel, supplies, repairs and equipment at the following Canadian ports:

- |                 |               |                  |
|-----------------|---------------|------------------|
| a) Coal Harbour | b) Port Hardy | c) Prince Rupert |
| d) Victoria     | e) Vancouver  | f) Ucluelet      |

USA tuna fishing vessels entering one of the approved ports will be required to clear with Canadian Customs and Border Services Agency (CBSA) prior to any person or cargo being allowed to disembark the vessel.

In addition, all USA vessels must obtain “Authorization for Port Activity and Exclusive Economic Zone (EEZ) Entry by a Foreign Vessel” (EEZ licence) from the Department of Fisheries and Oceans prior to accessing Canadian ports.



## **APPENDIX 7. CONTACTS**

Observe, Record and Report (Enforcement Line) (800) 465-4336

### **Fisheries and Oceans Canada, Fisheries Management**

Regional Pelagics Manager Lisa Mijacika (604) 666-3637  
Resource Management  
Suite 200 - 401 Burrard Street  
Vancouver, B.C. V6C 3S4

Tuna Resource Manager Jordan Mah (604) 666-2188  
Resource Management Fax (604) 666-9136  
Suite 200 - 401 Burrard Street  
Vancouver, B.C. V6C 3S4

North Coast Resource Management Sandra Davies (250) 627-3007  
Areas 1 to 10  
#202 - 417 2nd Avenue West  
Prince Rupert, B.C. V8J 1G8

South Coast Resource Management Greg Thomas (250) 756-7103  
Areas 11 to 26  
3225 Stephenson Point Road  
Nanaimo, B.C. V9T 1K3

### **Science Branch**

Lead Scientist John Holmes (250) 756-7303  
Pacific Biological Station  
Hammond Bay Road  
Nanaimo, BC V9R 3K6

### **Enforcement Officers, Conservation and Protection**

Chief, Enforcement Operations Gary Miller (604) 607-4160

### **Licensing**

Pacific Fishery Licence Unit (604) 666-0566  
200 - 401 Burrard Street  
Vancouver, B.C. V6C 3S4

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Pacific Fishery Licence Unit (250) 627-3413  
417 - 2nd Avenue West  
Prince Rupert, B.C. V8J 1G8

Pacific Fishery Licence Unit (250) 754-0400  
60 Front Street  
Nanaimo, B.C. V9R 5H7

**National On-line Licencing System (NOLS)**

E-mail [SDC-CPS@dfo-mpo.gc.ca](mailto:SDC-CPS@dfo-mpo.gc.ca)

Telephone 1-877-535-7307

Fax 613-990-1866

TTY 1-800-465-7735

**Recreational Fisheries**

Recreational Fisheries Coordinator Devona Adams (604) 666-3271

**Treaty and Aboriginal Policy Directorate**

Regional Director Sarah Murdoch (604) 666-7478

**Oceans and Habitat**

Senior MPA Program Manager Kate Ladell (604) 666-1089

OHSAR Program Manager (PNCIMA) Neil Davis (604) 666-8437

**Fisheries and Oceans Canada Internet Sites**

Fisheries and Oceans Canada-Pacific Region:

<http://www.pac.dfo-mpo.gc.ca/index-eng.htm>

Fisheries and Oceans Canada-National:

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

Fisheries and Oceans Canada - Albacore Tuna:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/commercial/pelagic-pelagique/tuna-thon/index-eng.htm>

Fisheries and Oceans Canada - Consultation:

<http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/pelag/tuna-thon/index-eng.htm>

Fisheries & Oceans Canada – Pacific Licensing Homepage:  
<http://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm>

## APPENDIX 8. FISHING VESSEL SAFETY

Vessel owners and masters have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, masters and crew of fishing vessels will help save lives, prevent vessel damage and protect the environment. All fishing vessels must be in a seaworthy condition and maintained as required by Transport Canada (TC), WorkSafeBC, and other applicable agencies. Vessels subject to inspection should ensure that the certificate of inspection is valid for the area of intended operation.

In the federal government, responsibility for shipping, navigation, and vessel safety regulations and inspections lies with Transport Canada (TC); emergency response with the Canadian Coast Guard (CCG) and DFO has responsibility for management of the fisheries resources. In B.C., WorkSafeBC also regulates health and safety issues in commercial fishing. This includes requirements to ensure the health and safety of the crew and safe operation of the vessel. DFO (Fisheries and Aquaculture Management (FAM) and CCG) and TC through an MOU have formalized cooperation to establish, maintain and promote a safety culture within the fishing industry.

Before leaving on a voyage the owner, master or operator must ensure that the fishing vessel is capable of safely making the passage. Critical factors for a safe voyage include the seaworthiness of the vessel, vessel stability, having the required safety equipment in good working order, crew training, and knowledge of current and forecasted weather conditions. As safety requirements and guidelines may change, the vessel owner, crew, and other workers must be aware of the latest legislation, policies and guidelines prior to each trip.

There are many useful tools available for ensuring a safe voyage. These include:

- Education and Training Programs
- Marine Emergency Duties
- Fish Safe – Stability Education Course
- Fish Safe – Safe on the Wheel Course
- Fish Safe – Safest Catch Program
- First Aid
- Radio Operators Course
- Fishing Masters Certificates
- Small Vessel Operators Certificate

### Publications:

Transport Canada Publication TP 10038 *Small Fishing Vessel Safety Manual* (can be obtained at Transport Canada Offices from their website at:

<http://www.tc.gc.ca/eng/marinesafety/tp-tp10038-menu-548.htm>

- Gearing Up for Safety – WorkSafeBC
- Safe at Sea DVD Series – Fish Safe

Stability Handbook – Safe at Sea and Safest Catch – DVD Series  
Safest Catch Log Book  
Safety Quik

For further information see: [www.tc.gc.ca/eng/marinesafety/menu.htm](http://www.tc.gc.ca/eng/marinesafety/menu.htm)  
[www.fishsafebc.com](http://www.fishsafebc.com)

## **1. Important Priorities for Vessel Safety**

There are three areas of fishing vessel safety that should be considered a priority. These are: vessel stability, emergency drills, and cold water immersion.

### **1.1. Fishing Vessel Stability**

Vessel stability is paramount for safety. Care must be given to the stowage and securing of all cargo, skiffs, equipment, fuel containers and supplies, and also to correct ballasting. Fish harvesters must be familiar with their vessel's centre of gravity, the effect of liquid free surfaces on stability, loose water or fish on deck, loading and unloading operations and the vessel's freeboard. Know the limitations of your vessel; if you are unsure contact a reputable naval architect, marine surveyor or the local Transport Canada Marine Safety Office.

Fishing vessel owners are required to develop detailed instructions addressing the limits of stability for each of their vessels. The instructions need to be based on a formal assessment of the vessel by a qualified naval architect and include detailed safe operation documentation kept on board the vessel. Examples of detailed documentation include engine room procedures, maintenance schedules to ensure watertight integrity, and instructions for regular practice of emergency drills.

The *Small Fishing Vessel Inspection Regulations* currently require, with certain exceptions, a full stability assessment for vessels between 15 and 150 gross tons that do not exceed 24.4 metres in length and are used in the herring or capelin fisheries. Once the proposed new *Fishing Vessel Safety Regulations* take effect, more vessels will be required to have a stability booklet.

In 2006, Transport Canada Marine Safety (TC) issued [Ship Safety Bulletin \(SSB\) 04/2006](#) ("Safety of Small Fishing Vessels: Information to Owners/Masters About Stability Booklets"), which provides a standard interpretation of the discretionary power available under Section 48 and the interim requirements prior to the implementation of the proposed *Fishing Vessel Safety Regulations*. The bulletin calls for vessels more than 15 gross tons to have a stability booklet where risk factors that negatively affect stability are present. The bulletin also suggests vessels less than 15 gross tons assess their risk factors. Every fishing vessel above 15 GRT built or converted to herring or capelin after 06 July 1977 and engaged in fishing herring or capelin must have an approved stability book. Additionally Transport Canada has published a Stability Questionnaire (SSB 04/2006), and Fishing Vessel Modifications Form which enable operators to identify the criteria which will trigger a stability assessment. A stability assessment is achieved by means of an inclining experiment, which has to be conducted by a naval

architect. Please contact the nearest Transport Canada office if you need to determine whether your vessel requires one.

In 2008, TC issued [SSB 01/2008](#), which sets out a voluntary record of modifications for the benefit of owners/masters of any fishing vessels. For vessels of more than 15 gross tons, the record of modifications was to be reviewed by TC inspectors during regular inspections and entered on the vessel's inspection record. However, information gathered during the Transportation Safety Board's (TSB) Safety Issues Investigation into the fishing industry showed minimal recording of vessel modifications prior to this date.

The TSB has investigated several fishing vessel accidents since 2002 and found that vessel modifications and loading of traps have been identified as contributing factors in vessel capsizings. Such as: [M02W0102](#) - *Fritzi-Ann*, [M05W0110](#) - *Morning Sunrise*, [M07M0088](#) - *Big Sisters*, [M08W0189](#) - *Love and Anarchy*, [M09L0074](#) – *Le Marsouin I*, [M10M0014](#) - *Craig and Justin*. In 2012, two prawn fishing vessels in BC, *Jessie G* and *Pacific Siren* both capsized with prawn traps on deck and are currently under investigation.

Vessel masters are advised to carefully consider stability when transporting gear. Care must be given to the stowage and securing of all traps, cargo, skiffs, equipment, fuel containers, and supplies, and also to correct ballasting. Know the limitations of your vessel; if you are unsure contact a reputable marine surveyor or the local Transport Canada Marine Safety office.

## **1.2. Emergency Drill Requirements**

The *Canada Shipping Act* 2001 requires that the Authorized Representative of a Canadian Vessel shall develop procedures for the safe operation of the vessel and for dealing with emergencies. The *Act* also requires that crew and passengers receive safety training. The Marine Personnel Regulations require that all personnel on board required to meet the minimum safe manning levels have received MED (Marine Emergency Duties) training to an A1 or A3 level, depending on the vessel's voyage limits, within 6 months of serving aboard. MED A3 training is 8 hours in duration and is applicable to seafarers on fishing vessels less than 150 GRT that are within 25 miles from shore (NC2). MED A1 training is 19.5 hours duration and is applicable to all other fishing vessels.

MED provides a basic understanding of the hazards associated with the marine environment; the prevention of shipboard incidents; raising and reacting to alarms; fire and abandonment situations; and the skills necessary for survival and rescue.

## **1.3. Cold Water Immersion**

Drowning is the number one cause of death in B.C.'s fishing industry. Cold water is defined as water below 25 degrees Celsius, but the greatest effects occur below 15 degrees. BC waters are usually below 15 degrees. The effects of cold water on the body occur in four stages: cold shock, swimming failure, hypothermia and post-rescue collapse. Know what to do to prevent you or your crew from falling into the water and what to do if that occurs. More information is available in the WorkSafe Bulletin "Cold Water Immersion" (available from the WorkSafeBC website at [www.worksafebc.com](http://www.worksafebc.com)).

## **1.4. Other Issues**

### **1.4.1. Weather**

Vessel owners and masters are reminded of the importance of paying close attention to current weather trends and forecasts during the voyage. Marine weather information and forecasts can be obtained on VHF channels 21B, Wx1, Wx2, Wx3, or Wx4. Weather information is also available from Environment Canada website at:

[http://www.weatheroffice.gc.ca/marine/index\\_e.html](http://www.weatheroffice.gc.ca/marine/index_e.html)

### **1.4.2. Emergency Radio Procedures**

Vessel owners and masters should ensure that all crew are able to activate the Search and Rescue (SAR) system early rather than later by contacting the Canadian Coast Guard (CCG). It is strongly recommended that all fish harvesters carry a registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB). These beacons should be registered with the National Search and Rescue secretariat. When activated, an EPIRB transmits a distress call that is picked up or relayed by satellites and transmitted via land earth stations to the Joint Rescue Co-ordination Centre (JRCC), which will task and co-ordinate rescue resources.

Fish harvesters should monitor VHF channel 16 or MF 2182 Khz and make themselves and their crews familiar with other radio frequencies. All crew should know how to make a distress call and should obtain their restricted operator certificate from Industry Canada. However, whenever possible, masters should contact the nearest Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) station (on VHF channel 16 or MF 2182 kHz) prior to a distress situation developing. Correct radio procedures are important for communications in an emergency. Incorrect or misunderstood communications may hinder a rescue response.

Since August 1, 2003 all commercial vessels greater than 20 metres in length are required to carry a Class D VHF Digital Selective Calling (DSC) radio. A registered DSC VHF radio has the capability to alert other DSC equipped vessels in your immediate area and MCTS that your vessel is in distress. Masters should be aware that they should register their DSC radios with Industry Canada to obtain a Marine Mobile Services Identity (MMSI) number or the automatic distress calling feature of the radio may not work. For further information see the Coast Guard website at: <http://www.ccg-gcc.gc.ca/e0003845>

A DSC radio that is connected to a GPS unit will also automatically include your vessel's current position in the distress message. More detailed information on MCTS and DSC can be obtained by contacting a local Coast Guard MCTS centre (located in Vancouver, Victoria, Prince Rupert, Comox and Tofino) or from the Coast Guard website: [www.pacific.ccg-gcc.gc.ca](http://www.pacific.ccg-gcc.gc.ca)

### **1.4.3. Collision Regulations**

Fish harvesters must be knowledgeable of the *Collision Regulations* and the responsibilities between vessels where risk of collision exists. Navigation lights must be kept in good working order and must be displayed from sunset to sunrise and during all times of restricted visibility. To help reduce the potential

for collision or close quarters situations which may also result in the loss of fishing gear, fish harvesters are encouraged to monitor the appropriate local Vessel Traffic Services (VTS) VHF channel, when travelling or fishing near shipping lanes or other areas frequented by large commercial vessels. Vessels required to participate in VTS include:

- a) every ship twenty metres or more in length,
- b) every ship engaged in towing or pushing any vessel or object, other than fishing gear,
- c) where the combined length of the ship and any vessel or object towed or pushed by the ship is forty five metres or more in length; or
- d) where the length of the vessel or object being towed or pushed by the ship is twenty metres or more in length.

Exceptions include:

- a) a ship towing or pushing inside a log booming ground,
- b) a pleasure yacht *less than* 30 metres in length, and
- c) a fishing vessel that is *less than* 24 metres in length and not *more than* 150 tons gross.

More detailed information on VTS can be obtained by calling (604) 775-8862 or from the Coast Guard website: <http://www.ccg-gcc.gc.ca/e0003901>

#### 1.4.4. **Buddy System**

Fish harvesters are encouraged to use the buddy system when transiting, and fishing as this allows for the ability to provide mutual aid. An important trip consideration is the use of a sail plan which includes the particulars of the vessel, crew and voyage. The sail plan should be left with a responsible person on shore or filed with the local MCTS. After leaving port the fish harvester should contact the holder of the sail plan daily or as per another schedule. The sail plan should ensure notification to JRCC when communication is not maintained which might indicate your vessel is in distress. Be sure to cancel the sail plan upon completion of the voyage.

#### 1.5. **Fish Safe BC**

Fish Safe encourages Vessel masters and crew to take ownership of fishing vessel safety. Through this industry driven and funded program Fish Safe provides fishing relevant tools and programs to assist fishermen in this goal. The Fish Safe Stability Education Course is available to all fishermen who want to improve their understanding of stability and find practical application to their vessel's operation. The Safe on the Wheel Course is designed to equip crewmen with the skills they need to safely navigate during their wheel watch. The Safest Catch Program along with fishermen trained Safety Advisors is designed to give fishermen the tools they need to create a vessel specific safety management system.

Fish Safe is managed by Gina McKay, Project Coordinator John Krgovich, Program Assistant, Dionne Riley, and fishermen Safety Advisors. All activities and program development is directed by the Fish Safe Advisory Committee (membership is open to all interested in improving safety on board). The



advisory committee meets quarterly to discuss safety issues and give direction to Fish Safe in the development of education and tools for fish harvesters.

Fish Safe also works closely with WorkSafe BC to improve the fishing injury claims process. For further information, contact:

Gina McKay	Phone: 604-261-9700
Program Manager	Cell: 604-339-3969
Fish Safe	Fax: 604-275-7140
#2, 11771 Horseshoe Way	Email: fishsafe@fishsafebc.com
Richmond, BC V7A 4V4	<a href="http://www.fishsafebc.com">www.fishsafebc.com</a>

## 2. WorkSafeBC

Commercial fishing is legislated by the requirements for diving, fishing and other marine operations found in Part 24 of the *Occupational Health and Safety Regulation (OHSR)*. Many general hazard sections of the *OHSR* also apply. For example, Part 8: Personal Protective Clothing and Equipment addresses issues related to safety headgear, safety foot wear and personal floatation devices. Part 15 addresses issues on rigging, Part 5 addresses issues of exposure to chemical and biological substances, and Part 3 addresses training of young and new workers, first aid, and accident investigation issues. Part 3 of the *Workers Compensation Act (WCA)* defines the roles and responsibilities of owners, employers, supervisors and workers. The *OHSR* and the *WCA* are available from the Provincial Crown Printers or by visiting the WorkSafeBC website: [www.worksafebc.com](http://www.worksafebc.com)

For further information, contact an Occupational Safety Officer:

Shane Neifer	Terrace	(250) 615-6640
Bruce Logan	Lower Mainland	(604) 244-6477
Wayne Tracey	Lower Mainland	(604) 232-1960
David Clarabut	Victoria	(250) 881-3469
Pat Olsen	Courtenay	(250) 334-8777
Mark Lunny	Courtenay	(250) 334-8732

or the Manager of Interest for Fishing, Mike Ross (250) 881-3419.

For information on projects related to commercial fishing contact Ellen Hanson (604) 233-4008 or Toll Free 1-888-621-7233 ext. 4008 or by email: [Ellen.Hanson@worksafebc.com](mailto:Ellen.Hanson@worksafebc.com).

## 3. Transportation Safety Board

The Transportation Safety Board (TSB) is not a regulatory board. The TSB is an independent agency that investigates marine, pipeline, railway and aviation transportation occurrences to determine the underlying

risks and contributing factors. Its sole aim is the advancement of transportation safety by reporting publicly through Accident Investigation Reports or Marine Safety Information Letters or Advisors. It is not the function of the Board to assign fault or determine civil or criminal liability. Under the *TSB Act* all information collected during an investigation is completely confidential.

In 2012, the TSB released the results of a three-year investigation into fishing safety in Canada. This report identifies 10 key factors and makes several suggestions to address the problems that persist throughout the industry.

For more information about the TSB, visit our website at [www.tsb.gc.ca](http://www.tsb.gc.ca). For information about the TSB's investigation into fishing safety, or to view a brief video, visit <http://www.tsb.gc.ca/eng/medias-media/videos/marine/m09z0001/index.asp>.

To view a brief video about some of the issues on the TSB's recent safety Watchlist, visit: <http://www.tsb.gc.ca/eng/medias-media/photos/index.asp>.

#### Reporting an Occurrence - [TSB 1808 Form](#)

After a reportable occurrence happens you can fill out the TSB 1808 Form or call the TSB at the contact information below.

Glenn Budden, Investigator, Marine - Fishing Vessels  
Transportation Safety Board of Canada  
4 - 3071 No. 5 Road  
Richmond, BC, V6X 2T4  
Telephone: 604-666-2712  
Cell: 604-619-6090  
Email: [glenn.budden@tsb.gc.ca](mailto:glenn.budden@tsb.gc.ca)

## APPENDIX 9. TUNA ADVISORY BOARD REPRESENTATIVES

Advisor Name	Representation	Contact	Term
Jordan Mah	DFO – Fisheries Management (Chair)	jordan.mah@dfo-mpo.gc.ca	
John Holmes	DFO – Science	john.holmes@dfo-mpo.gc.ca	
Gary Miller	DFO – Conservation and Protection	gary.miller@dfo-mpo.gc.ca	
Larry Teague	USA Zone Representative	bctfa@shaw.ca	2013-2016
Gregg Holm	USA Zone Representative	gaholm@shaw.ca	2013-2016
Ian Bryce	USA Zone Representative	bryceid@telus.net	2013-2016
Gord Cranton	USA Zone Representative	simcraz@shaw.ca	2011-2014
Peter DeGreef	USA Zone Representative	peterdegreef@hotmail.com	2011-2014
Bruce Wight	USA Zone Representative	brucewight@shaw.ca	2011-2014
Tom Lindberg	Canadian Zone Representative	tw.lindberg@shaw.ca	2013-2016
John Jenkins	Canadian Zone Representative	coldfish@shaw.ca	2011-2014
Korey Sundstrum	High Seas Zone Representative	sundstrum@shaw.ca	2011-2014
Bob McIntosh	High Seas Zone Representative	bobmcintoshfish@shaw.ca	2013-2016
Lorne Clayton	Canadian Highly Migratory Species Foundation (CHMSF)	chmsf@ieccorporate.com	
Gerald Kristianson	Sport Fishing Advisory Board	gerrykr@telus.net	
Ernie Cooper	Marine Conservation Council	ecooper@wwfcanada.org	
Chris Wick	Processor/Buyer Representative	chris@ndseafoods.com	
Barron Carswell	Province of BC Representative	Barron.Carswell@gov.bc.ca	
VACANT	First Nations Representative		

**APPENDIX 10. SAMPLE LOGBOOK PAGE**

2013 CANADIAN PACIFIC ALBACORE TUNA LOGBOOK										Submission Deadline <b>11-Nov-2013</b>
VESSEL NAME:					CAPTAIN:					<b>FIN:</b>  <b>VRN:</b>  <b>TRIP #:</b>  <b>Gear:</b>  <b># of Jigs:</b>  <b># of Days Fished:</b>  <b>Trip Offload Data (Required)</b>
Date (mm-dd)	Time (hh:mm)	Latitude (xx yy)	Longitude (xxx yy)		Water Temp (F)	Species (see cover)	# of Fish Caught	Avg Wt per Fish (lbs)	# of Fish Released	
	START					Albacore				
		N S	E W							
	STOP									
Length (cm)										
	START					Albacore				
		N S	E W							
	STOP									
Length (cm)										
	START					Albacore				
		N S	E W							
	STOP									
Length (cm)										
	START					Albacore				
		N S	E W							
	STOP									
Length (cm)										
	START					Albacore				
		N S	E W							
	STOP									
Length (cm)										
	START					Albacore				
		N S	E W							
	STOP									
Length (cm)										
Date:		Comment:								
Date:		Comment:								
Date:		Comment:								
<b>PAGE ____ OF ____ FOR TRIP</b>										

WHITE COPY: H. Stiff, General Delivery, Gabriola Island, BC V0R 1X0 (tel 250-247-8258 fax 888-908-1382 watercolour@shaw.ca) YELLOW COPY: Retain for your records

## **APPENDIX 11. REFERENCES**

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