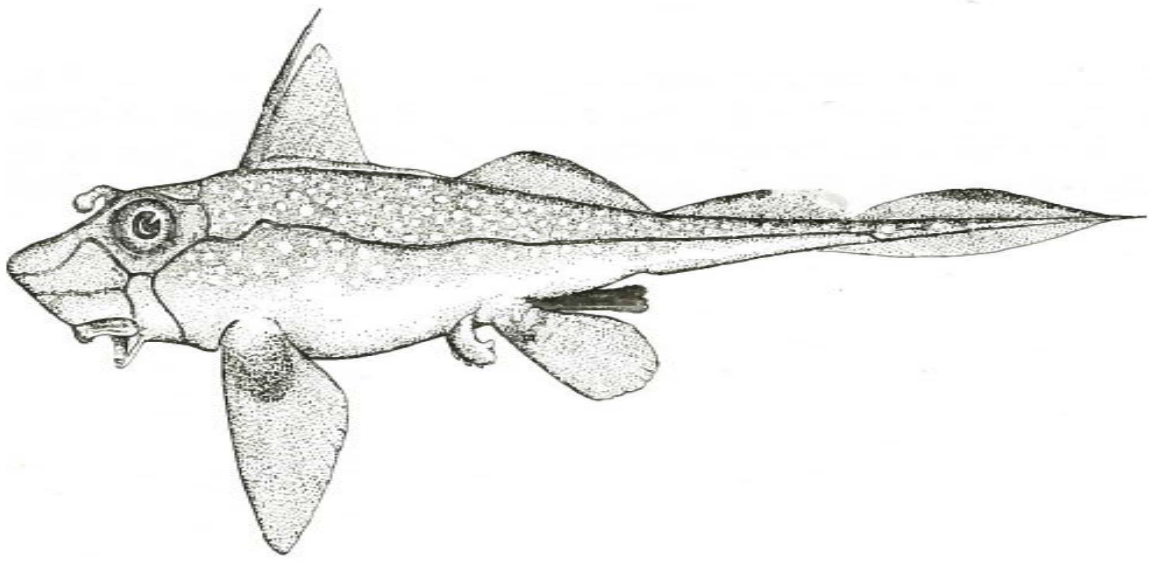
PACIFIC REGION

INTEGRATED FISHERIES MANAGEMENT PLAN

GROUNDFISH

EFFECTIVE FEBRUARY 21, 2016

SUMMARY



Spotted Ratfish (*Hydrolagus colliei)*

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

FOREWORD

The purpose of this Integrated Fisheries Management Plan (IFMP) summary is to provide a brief overview of the information found in the full IFMP. 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. The full IFMP is available on request.

This IFMP summary 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, Species At Risk Act,* and *Oceans 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, Species At Risk Act,* and *Oceans 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.

This IFMP is a living document that will be subjected to a review every two years for updates, with input from interested parties. Any changes required within a given fishing season will continue to be made as needed.

1. INTRODUCTION

1.1. History

Each year Fisheries and Oceans Canada provides opportunities to First Nations for food, social and ceremonial (FSC) purposes (or domestic purposes for First Nations with modern treaties), and the commercial and recreational fisheries to harvest groundfish. First Nations, recreational, and commercial fisheries on the West Coast have long harvested groundfish. Groundfish serve as a source of food, they provide jobs, income, and enjoyment for individuals, businesses, and coastal communities; and they play key roles in natural ecosystems.

1.2. Type of Fishery and Participants

1.2.1. First Nations

In the 1990 Sparrow decision, the Supreme Court of Canada found that where an Aboriginal group has an Aboriginal right to fish for FSC purposes, it takes priority, after conservation, over other uses of the resource. Fisheries are authorized via a Communal Licence issued by the Department under the Aboriginal Communal Fishing Licences Regulations.

In addition to fishing opportunities for FSC purposes (or domestic purposes for treaty bands), DFO acknowledges that in *Ahousaht Indian Band et al. v. Canada and British Columbia*, the courts have found that five Nuu-chah-nulth First Nations located on the West Coast of Vancouver Island - Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht - have "aboriginal rights to fish for any species of fish within their Fishing Territories and to sell that fish, with the exception of geoduck".The Department is working with the First Nations pursuant to the rights found by the courts, to find "the manner in which the plaintiffs' rights can be accommodated and exercised without jeopardizing Canada's legislative objectives and societal interests in regulating the fishery."

The Department is currently considering fishing opportunities for the Nations for the 2016-2017 season, including a Lingcod gang troll demonstration fishery. Development of a demonstration fishery is part of the broader work to implement a proposal by DFO to provide the T'aaq-wiihak Nations the opportunity to participate in both general commercial fisheries and "preferred means" fisheries. The demonstration fishery is proposed to test elements of preferred means fishing.

Location: Within the T'aaq-wiihak First Nations' Fishing Territories, as described by the courts (found on the West Coast of Vancouver Island, within Areas 24/124, 25/125, and portions of 26/126).

Gear type: Gang troll gear.

Time frame: Consistent with the season dates for the commercial Lingcod fishery. Exact

dates will be determined based on further discussion.

Allocation: It is anticipated that the allocation for the demonstration fishery would draw on commercial Lingcod quota allocated to T'aaq-wiihak Nations.

Monitoring plan: Monitoring and fishery reporting requirements will be developed in conjunction with the Nations and will be informed by the risk-based approach described in DFO's "Strategic Framework for Fishery Monitoring and Catch Reporting in the Pacific Fisheries".

It is anticipated that discussions will be ongoing. Where the Department and the T'aaq-wiihak Nations reach agreement on fisheries for 2016-2017 the Department will amend this IFMP, if necessary, such that the IFMP is consistent with the agreed-to approach for the T'aaq-wiihak fishery.

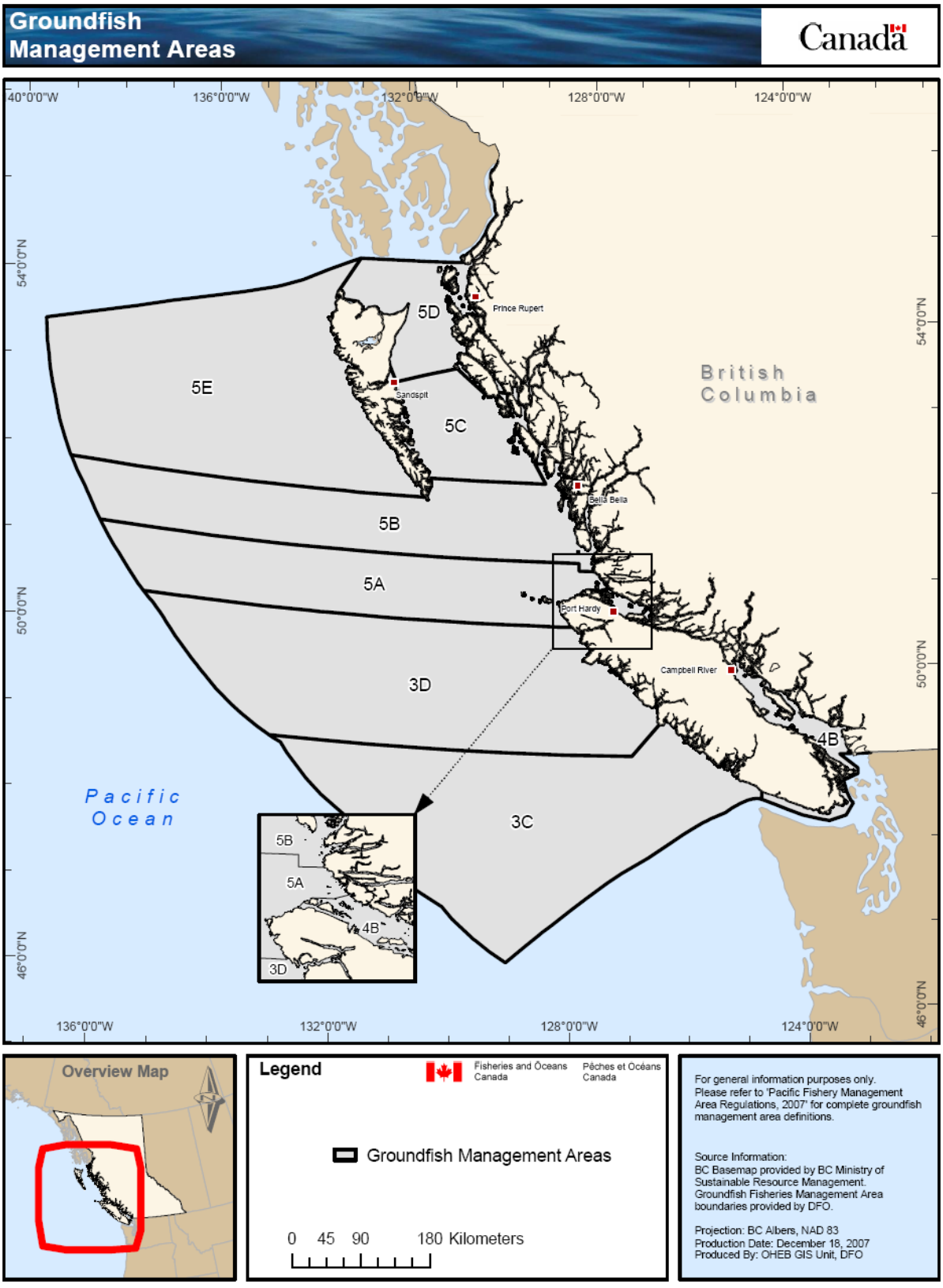
1.2.2. Recreational

A recreational fishery may occur coastwide subject to Tidal Waters Sport Fishing licence requirements, area closures, and management measures that ensure conservation of the resource. Popular groundfish species targeted in the recreational fishery include halibut, lingcod, and rockfish. Approximately 300,000 Tidal Waters Sport Fishing licences are sold each year in Pacific Region. Details on licence requirements and management measures can be found at: http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.htm.

1.2.3. Commercial

There are seven distinct commercial groundfish fisheries that occur within defined management areas (see Figure 1): Groundfish trawl, Halibut, Sablefish, Inside Rockfish, Outside Rockfish, Lingcod, and Dogfish. The management of these fisheries is integrated, with all groups subject to 100% at-sea monitoring and 100% dockside monitoring, individual vessel accountability for all catch (both retained and released), individual transferable quotas (ITQ), and reallocation of these quotas between vessels and fisheries to cover catch of non-directed species. There are approximately 300 active commercial groundfish vessels.

Figure 1: Commercial Groundfish Management Area Map



2. STOCK ASSESSMENT, SCIENCE & TRADITIONAL KNOWLEDGE

2.1. Groundfish Stock Assessment Program

Science is the basis for sound decision making and DFO Science Branch provides information on the consequences of management and policy options, and the likelihood of achieving policy objectives under alternative management strategies and tactics. Stock assessment and research programs involving groundfish are conducted by the Science Branch and through cooperative research programs carried out in conjunction with industry associations. Stock assessment advice has been provided for over 30 commercially exploited groundfish stocks.

DFO Science Branch, in consultation with Fisheries Management and the Groundfish Integrated Advisory Board, has drafted an approach for prioritizing and scheduling groundfish stock assessments and an assessment schedule for the 10-year period commencing 2012. The document includes:

- a groundfish species frame of more than 200 species that Science suggests fall within the research mandate of the Groundfish Section (GFS) of the DFO Science Branch, Pacific Region, and for which a stock assessment might be requested;
- a recommended separation of the frame into higher priority (Type A) and lower priority (Type B) species;
- a screening of the Type B species to identify a short list which should receive more assessment work for the 2012-2021 period;
- a draft assessment schedule of the Type A and selected Type B species for the 2012-2021 period;
- a consultative process for conducting the prioritizing and scheduling.

Current and historical science advice, stock assessments and research program reports are available through the Canadian Science Advisory Secretariat (CSAS).

2.2. Canadian Science Advisory Secretariat

The Canadian Science Advisory Secretariat (CSAS) oversees the provision of all scientific advice required by operational client sectors within the Department (Fisheries and Aquaculture Management, Oceans and Habitat Management, and Policy). In the Pacific Region, science advisory processes are managed by the Centre for Science Advice Pacific (CSAP).

Scientific assessments and advice respecting the assessment and management of this fishery is peer reviewed annually in Regional Peer Review meetings. Government and non-government individuals with knowledge and technical expertise pertaining to each peer review meeting are invited to contribute to the peer review and development of advice. The schedule of CSAS meetings is available online at: http://www.isdm-gdsi.gc.ca/csas-sccs/applications/events-evenements/index-eng.asp. General information about the CSAS Policies, Procedures, Schedule and Publications can be found at: http://www.dfo-mpo.gc.ca/csas-sccs/index-eng.htm.

During the 2015/16 fishing season, the Science Branch Groundfish Section scheduled stock assessments for peer review through the CSAS process for the following species: Yelloweye (Outside), Arrowtooth Flounder, and Shortspine Thornyheads and the Sablefish operating model. Reports from these peer review meetings are being finalised and will be available at the website link above. Petrale Sole, the development of a tiered approach for assessing data deficient species, and simulation testing of fishery management procedures for Sablefish are scheduled for 2016/17.

2.3. Aboriginal Traditional Knowledge/Traditional Ecological Knowledge

Aboriginal Traditional Knowledge/Traditional Ecological Knowledge in the form of observations and comments provided by First Nations is considered in management decisions when provided.

2.4. Biological Synopsis

In addition to work directed at providing stock assessments, DFO staff conduct routine data collection and compilation and specialized research on the general biology of groundfish in support of stock assessment. The routine work includes:

- collection and archiving of catch data from fisher logs, observer and electronic logs and unloading slips;
- collection of biological specimen data from dockside, at-sea and research cruise sampling;
- archiving of biological data collected from departmental and contract sources.

3. ECONOMIC, SOCIAL, CULTURAL IMPORTANCE

The purpose of this section is to provide a socio-economic overview of groundfish fisheries in British Columbia, using available information. This summary addresses groundfish in the context of the Aboriginal food, social, and ceremonial fishery, the recreational fishery, and the commercial fishery including harvesting, processing, and export activity.

The focus of this section is on the economic aspects of the fisheries rather than measures of economic value (i.e. consumer and producer surpluses). Where available, information on the social and cultural context of the fisheries has been included; these sections may be expanded in future years, as additional information is made available**.** The overview provided by this profile is intended to help build a common understanding of the socio-economic dimensions of the fisheries rather than compare the fisheries. It can also support socio-economic analyses of proposed or implemented management changes.

3.1. Aboriginal Food, Social, and Ceremonial Fishery

3.1.1. Participation

Generally, there are three categories of Aboriginal participation in fisheries – food, social, and ceremonial (FSC), commercial, and treaty. FSC and treaty fisheries are described here. Aboriginal participation in the commercial fishery, either communally or individually, is described below in section 3.3.

3.1.1.1. Participation in the Food, Social, and Ceremonial Fishery

The Aboriginal Fisheries Strategy (AFS) was implemented in 1992 to address several objectives related to First Nations and their access to the resource. These included:

- To provide a framework for the management of fishing by Aboriginal groups for food, social and ceremonial purposes.
- To provide Aboriginal groups with an opportunity to participate in the management of fisheries, thereby improving conservation, management and enhancement of the resource.
- To contribute to the economic self-sufficiency of Aboriginal communities.
- To provide a foundation for the development of self-government agreements and treaties.
- To improve the fisheries management skills and capacity of Aboriginal groups.

AFS fisheries agreements may identify the amounts that may be fished for FSC purposes, terms and conditions that will be included in the communal fishing licence, and fisheries management arrangements. In Pacific Region, 14 First Nations have AFS agreements that specify groundfish. The Minister of Fisheries and Oceans may also issue a communal fishing licence to a group to fish for FSC purposes. There are currently 53 coastal First Nations that have communal FSC licences that include groundfish species.

3.1.1.2. Participation in Modern Aboriginal Treaties

Fisheries chapters in modern First Nation treaties articulate a treaty fishing right for FSC purposes that is protected under Section 35 of the Constitution Act, 1982 (commercial access may be provided either through the general commercial fishery or a Harvest Agreement, which is negotiated at the same time as the treaty and is referenced in the treaty, but is not protected under the Constitution Act).

Four modern treaties (Nisga'a Final Agreement, Tsawwassen First Nation Final Agreement (TFA) and Maa-nulth First Nations Final Agreement (MNA) and the Tla'amin Nation Final Agreement) have been ratified in British Columbia.[1] The Maa-nulth treaty, which includes five Nuu-cha-nulth First Nations (Ka:'yu:k't'h/Che:k'tles7eth, Huu-ay-aht, Toquaht, Uchucklesaht, Ucluelet) and came into effect in April 2011, provides for commercial groundfish access in a Harvest Agreement. The Tla'amin treaty also provides commercial groundfish access.

[1] Details of the Nisga'a Final Agreement can be found at http://www.ainc-inac.gc.ca/al/ldc/ccl/fagr/nsga/nis/nis-eng.asp. Details of the TFA and MNA agreements can be found on the B.C. Treaty Commission website at www.bctreaty.net.

3.1.2. Social and Cultural Significance

There are approximately 204 First Nations in British Columbia, of which 187 qualify for AFS funding. Fisheries and the harvest and management of aquatic resources have particular importance to many Aboriginal communities. Many Aboriginal communities are located adjacent to key fishing sites, oceans and aquatic resources, and consider the management of these resources to be matters important to these communities. There are Aboriginal groups who are seeking greater access to economic opportunities from aquatic resources as a potential driver for economic development in their communities; more stability in food, social and ceremonial (FSC) fisheries; a greater role in the aquatic resource and oceans management decisions that affect them; and a greater role in stewardship, including stock assessment, oceans and habitat management, conservation and protection, and recovery strategy development and implementation.

3.2. Recreational Fishery

3.2.1. Participation

The number of tidal water licences sold for access in BC decreased from around 337,000 in 2003, to settle around 300,000 since 2008.[2] The majority of the decline has been due to a decrease in the sale of licences to non-Canadian residents. Based on the National Recreational Fishing Survey[3], in 2010 approximately 42% of responding anglers identified Halibut as one of their top three preferred species, while 14% identified Lingcod and 7% identified rockfish as in their top three (DFO internal data). Responding anglers reported spending 11.5% of their effort (total days fished) fishing for Halibut.

3.2.2. Economic Contribution

Between 2005 and 2011, the real GDP and employment for the saltwater recreational fishing sector in BC grew by 9% and 5% respectively (Figure 2). Based on the methodology used, of the GDP and employment attributed to the fisheries and aquaculture sectors in BC, saltwater recreational fishing accounted for 27% of GDP and 31% of employment.[4] The portion of GDP and employment attributable to groundfish was not determined.

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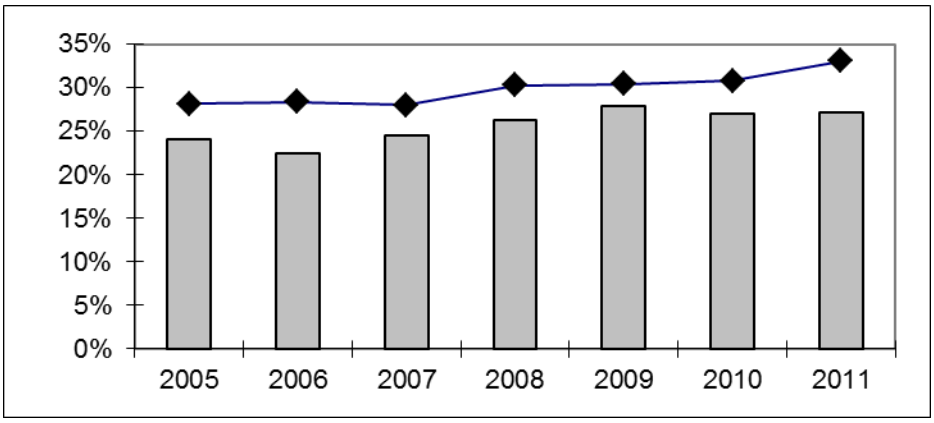
[2] DFO. Recreational Licensing Statistics. http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/licence-permis/stat-eng.htm (accessed October 31, 2012).

[3] DFO. National Recreational Fishing Survey in Canada. 2010 information online at: http://www.dfo-mpo.gc.ca/stats/rec/can/2010/index-eng.htm and 2005 information online at: http://www.dfo-mpo.gc.ca/stats/rec/can/2005/index-eng.htm (accessed November 1, 2012).

[4] BC Stats. 2013. British Columbia's Fisheries and Aquaculture Sector: 2012 edition. Available at: http://www.bcstats.gov.bc.ca/StatisticsBySubject/BusinessIndustry/FisheriesAquacultureHuntingTrapping.aspx (Accessed September 2, 2014). The report includes details on data sources and limitations, which the reader should be aware of before using the data from the report. Of special note is that methods and data used to measure variables such as GDP, employment and income vary significantly between the sectors.

Figure 1: Share of BC fisheries and aquaculture sector GDP (bars) and employment (line) accounted for by the saltwater recreational fishing sector, 2005-2011



Source: BC Stats. 2012. British Columbia's Fisheries and Aquaculture Sector.

Expenditures by tidal water anglers in BC, in constant 2010 dollars, increased from 2005 to 2010. Direct expenditures increased by 8% between 2005 to 2010 period (8%), while expenditures on packages decreased by 33% during this period. Expenditures on fishing packages by BC resident anglers has increased considerably over the past decade; in real terms, it increased by over 13% between 2005 and 2010 and BC residents are now the primary consumers of fishing trip packages in the province.

3.2.3. Social and Cultural Significance

There is a lack of data on the location of recreational fishing sector dependent employment, and thus it is not possible to comment on the social significance of the fishery. However, it is recognized that recreational fishing activities - in particular, providers of fishing packages - often occur in more remote locations, providing important direct and indirect employment opportunities in these communities. Additional information on the history and vision for recreational fisheries can be found in the document "Vision for Recreational Fisheries in BC" (http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.htm).

3.3. Commercial Fishery

3.3.1. Participation

The number of active vessels, and thus presumably crew, involved in the harvest of groundfish declined between 2007 and 2013, from 304 vessels to 265. Information is not available to determine the number of individuals involved in the harvest of groundfish. In 2011, approximately 90 unique facilities of the 248 seafood processing facilities in BC

processed some groundfish (self or custom).[5] Of the approximately 3,742 year round equivalent jobs allocated to the processing of wild caught fish and shellfish, about 28% (1,035) attributed to processing halibut and other groundfish.

Aboriginal participation in the groundfish fishery may occur through communal licences, or as individual ownership of licences and vessels. Information on individual ownership is not available. Communal licences (F) identify communal Aboriginal participation within the commercial groundfish fishery and allow Aboriginal communities to designate vessels and individual fishers to carry out the fishing. The ATP and PICFI programs have been used by DFO to acquire commercial groundfish licence eligibilities (K, L, ZN, T). The ATP and PICFI programs have also acquired and distributed slightly more than 16% of the total halibut quota, 15% of the sablefish quota as well as small amounts of quota for most trawl species. In 2014, PICFI allocated groundfish licences and quota in agreements with 19 Commercial Fishing Enterprises.

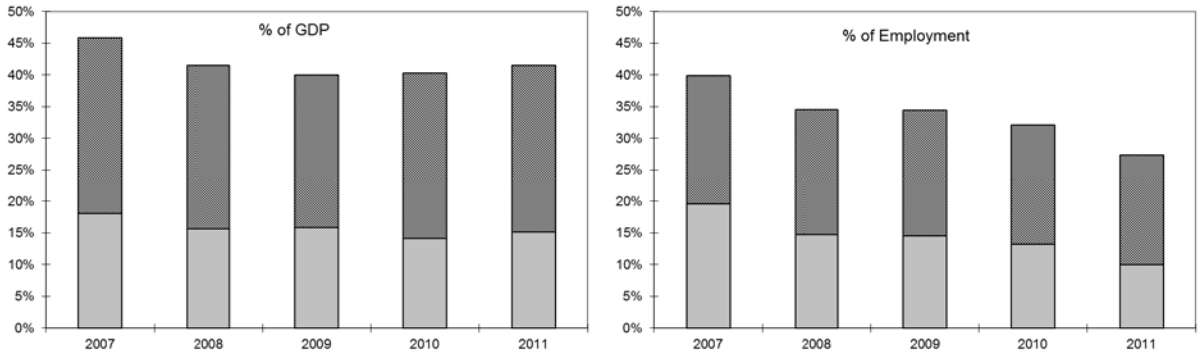
3.3.2. Economic Contribution

In 2011, the commercial capture fishery (excluding the retail and distribution sectors) accounted for 41% of the GDP (15% from fish harvesting and 26% from seafood processing) attributed to fisheries and aquaculture in BC (Figure 3). The commercial fishery also accounted for 27% of the employment (10% from fish harvesting and 17% from seafood processing) attributed to fisheries and aquaculture in BC based on the methodology used. The groundfish fishery was the largest component of the fish harvesting sector and was responsible for approximately 38% of the GDP for the fishing harvesting sector. Over the past 5 years groundfish accounted for an average of about 38% of the wholesale value for the wild fish processing.[6]

[5] BC Agriculture. 2015. 2011 Processor Employment Survey. Available at: http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/statistics/industry-and-sector-profiles. Plus additional analysis for DFO.

[6] British Columbia Seafood Industry Year in Review. Various years. BC Ministry of Environment. http://www.env.gov.bc.ca/omfd/index.html

Figure 3: Share of BC fisheries and aquaculture sector GDP and employment accounted for by capture fishing (solid bar) and fish processing (pattern bar), 2007-2011 (% of fisheries and aquaculture sector total)



Source: BC Stats. 2012. British Columbia's Fisheries and Aquaculture Sector.

The real landed value of the groundfish fishery declined from 2000. While real landed value has increased over the past few years, it has not reached past levels. This decline is primarily due to a decrease in the quantity harvested as inflation adjusted average prices increased between 2006 and 2012 (halibut, sablefish) or been stable. In 2013 there were small price declines for most groundfish species, but most notably for sablefish. In contrast to harvest values, the real wholesale value of the fishery saw increases until 2007, with an overall decline in value since then.

The export data does not allow for identification of all groundfish species (e.g. rockfish); however, for most identifiable species there has been a decline in export values (Figure 8). This appears to be primarily due to reduced volumes as inflation-adjusted prices were steady or increased for all species, except for cod, soles and dogfish which had price declines.

3.3.3. Social and Cultural Significance

There is a lack of information on communities of residence for groundfish captains and crew. In the case of processing employment, past work has suggested a strong correlation between the off-loading location of groundfish and processing employments.[7] There are smaller centres for which commercial fishing and fish processing are integral elements of the local economy[8]. In some locations, groundfish represents a significant component of processing employment[9].

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[7] Fraser and Associates. 2008. Linkages Between the Primary Fish Production and Fish Processing Sectors in British Columbia: Final phase 2 report. Prepared for the Department of Fisheries and Oceans, Pacific Region. Victoria, British Columbia.
[8] *Ibid.*
[9] BC STATS. (2010). Groundfish and Sardine Fisheries. Available online at: http://www.env.gov.bc.ca/omfd/reports/ . Last accessed December 29, 2011.

There is a long history of commercial groundfish fishing in British Columbia. The industrial halibut fishery harvested halibut back to the 1880's. From small shipments east in 1888, the fishery grew until it accounted for over 80% of Canadian halibut landings by the 1940s. The trawl fishery began with only a few nets in the early 1900s, with the otter trawl introduced in 1911. Initially most of the harvest was sold locally. The trawl fishery went through a number of periods of growth and decline, with growth during both World Wars. The groundfish fishery remains part of the BC coast[10], with expanded methods, and provides seafood for domestic and international markets.

4. SHARED STEWARDSHIP ARRANGEMENTS

4.1. Commercial Industry

Joint Project Agreement are being considered for 2016-17 between Fisheries and Oceans Canada and several partner organisations to support groundfish science activities through the allocation of fish to finance the activities.

4.2. Fisheries and Oceans Canada

The groundfish fisheries in British Columbia are managed through the Groundfish Management Unit. This includes six Fisheries Management personnel directly involved in the management of this fishery. In addition, a groundfish science unit, located at the Pacific Biological Station contributes to annual stock assessments for groundfish species. Contributions to the IFMP are provided by Fisheries Management, the Science Branch, Conservation and Protection, the Pacific Fishery Licence Unit, the Treaty and Aboriginal Policy Directorate, and numerous administrative personnel.

5. GOVERNANCE PROCESS

The Groundfish IFMP is updated in February of every year. First Nations FSC fisheries may occur year-round. Season dates for commercial and recreational fisheries vary, and can be found in the commercial harvest plan appendices to the IFMP and the recreational Tidal Waters Sport Fishing Guide.

Several advisory committees and subcommittees have been established to provide advice to the Department on management of groundfish fisheries, including the Halibut Advisory Board (HAB), Groundfish Trawl Advisory Committee (GTAC), Sablefish Advisory Committee (SAC), Groundfish Hook and Line Sub-Committee (GHLC), the Commercial Industry Caucus (CIC), and the Groundfish Integrated Advisory Board (GIAB). Information on these committees can be found on the Internet at: http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/consultations/groundfish/default_e.htm.

[10] Robson, Peter A. and Michael Skog (editors). 1996. Working the Tides: A Potrait of Canada's West Coast Fishery. Harbour Publishing, Madeira Park, BC.

DFO also engages in a variety of consultation, engagement and collaborative harvest planning processes with First Nations. These exchanges and involvement may include bilateral consultations, advisory processes, management boards, technical groups and other roundtable forums. Consulting is an important part of good governance, sound policy development and decision-making. In addition to good governance objectives, Canada has statutory, contractual and common law obligations to consult with Aboriginal groups.

In addition, the Sport Fishing Advisory Board provides advice to the Department on matters relating to the recreational fishery. More information on this advisory board can be found on the Internet at: http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/sfab-ccps-eng.htm.

6. ACCESS AND ALLOCATIONS

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

6.1. First Nations

Coastal First Nations harvest groundfish for FSC purposes under the *Aboriginal Communal Fishing Licences Regulations* or Treaty Harvest Agreements. In both cases, allocations are specified, and the fisheries are licenced and conducted under the authority of the Minister.

With respect to treaties, the Maa-nulth and Tla'amin First Nations have specified allocations of groundfish. The treaties set out the management process, and operational procedures to guide harvesting, catch monitoring and reporting considerations, and other matters.

6.1.1. Maa-nulth

The domestic (food, social, and ceremonial) allocations for groundfish under the Maa-nulth First Nations Final Agreement are as follows:

1. Halibut: The Maa-nulth Fish Allocation for halibut is 26,000 pounds (net weight, dressed, head off) plus 0.39% of the Halibut Canadian Total Allowable Catch (net weight, dressed, head off).
2. Rockfish: The Maa-nulth Fish Allocation of Rockfish is 11,250 pounds of whole fish, plus 2.46% of the Commercial Rockfish Outside Total Allowable Catch.
3. Groundfish: The Maa-nulth Fish Allocation of Groundfish is 13,000 pounds of whole fish.

4. Sablefish: The Maa-nulth Fish Allocation for Sablefish is 0.082% of the Sablefish Canadian Total Allowable Catch.

In addition to the allocation of fish for domestic purposes in the Treaty, the Maa-nulth have an allocation for commercial catch outside of the Treaty as identified in the "Maa-nulth First Nation Harvest Agreement". The allocations in the Harvest Agreement (HA) do not affirm aboriginal or Treaty rights. Fishing under the HA will be comparable to the requirements of the current commercial fishery.

Commercial groundfish allocations are expressed as limits (i.e., "up to" amounts) under the Harvest Agreement:

1. Halibut: up to 2% of the coastwide commercial halibut TAC.
2. Rockfish: up to 2.6178% of the commercial ZN-Outside rockfish TACs.
3. Sablefish: up to 0.34% of the coastwide commercial sablefish TAC.

6.1.2. Tla'amin

The domestic (food, social, and ceremonial) allocations for groundfish under the Tla'amin Nation Final Agreement are as follows:

1. In any year, the Tla'amin Fish Allocation for the aggregate of rockfish and lingcod is a maximum of 5,000 lbs.
2. In any year, the Tla'amin Fish Allocation for all groundfish other than rockfish and lingcod is a maximum of 1,000 lbs.

Groundfish are currently unallocated species under the terms of the Tsawwassen and Nisga'a treaties. As authorised by their treaties, they may harvest groundfish for domestic purposes, subject to conservation, public health, or public safety, in their respective fishing areas under the terms of annual fishing plans signed off by the treaty nations and Canada.

As described in section 1.2.1, DFO also acknowledges that in *Ahousaht Indian Band et al. v. Canada and British Columbia*, the courts have found that five Nuu-chah-nulth First Nations located on the West Coast of Vancouver Island - Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht - have "aboriginal rights to fish for any species of fish within their Fishing Territories and to sell that fish, with the exception of geoduck". The Department is working with the First Nations pursuant to the rights found by the courts, to find "the manner in which the plaintiffs' rights can be accommodated and exercised without jeopardizing Canada's legislative objectives and societal interests in regulating the fishery." DFO has been providing the First Nations with communal commercial groundfish fishing licences and quota. Discussions are on-going with the five First Nations regarding continuing this access for 2016 and potential demonstration fishery proposals.

6.2. Recreational

Daily and possession limits are in place for various groundfish species. Annual limits and size limits are also in place for several groundfish species such as lingcod and halibut. These are described in the British Columbia Tidal Waters Sport Fishing Guide available at: http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/SFG-GPS-eng.htm.

There are several instances where total recreational catch is managed to specified amounts:

- There is a commercial-recreational halibut allocation formula that allocates 15% of the commercial-recreational TAC to the recreational sector and 85% to the commercial sector. Based on this allocation formula and the 2016 commercial-recreational TAC, the recreational halibut coastwide allocation for 2016 is 1,100,950 pounds.
- As a result of the Rockfish Conservation Strategy drafted in 2001, recreational catch of rockfish and lingcod in the Strait of Georgia is also managed to stay within specified amounts, referred to as "management caps". In 2002, an annual management cap of 20,000 pieces of rockfish was implemented in Areas 12 to 13, and sub-Areas 20-5 to 20-7 and 29-5. In 2006, a lingcod management cap of 5,000 pieces was implemented and in 2009 it was increased to 7,000 pieces for the same areas. Areas 28 and the rest of Area 29 were closed to the retention of rockfish and lingcod.

Since 2011, an optional experimental program has also been in place which allows interested recreational harvesters to temporarily transfer commercial halibut quota onto an experimental licence for the purposes of recreational fishing. This pilot program allows those who choose to participate the opportunity to fish for halibut beyond the daily and possession limits or beyond the season closure date for the regular recreational halibut fishery.

6.3. Aquaculture

Fisheries and Oceans Canada continues to support the research and development of the aquaculture sector. The Department will provide the aquaculture industry with reasonable access, by scientific licence, to the wild groundfish resource to assist industry development (growth and diversification). Requests to access the wild resource will be contingent upon stakeholders providing detailed project proposals for review and approval by the Department.

Currently, there are 4 tonnes allocated from the sablefish TAC to the aquaculture industry to support broodstock collection for sablefish aquaculture.

6.4. Research

Allocations are made each year for research to account for the mortalities associated with survey catches within TACs. In some cases, allocations may also be made in excess of forecasted survey catches to support the costs of completing select science projects. These allocations are made based on the Minister of Fisheries and Oceans' 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 general, research allocations are deducted from the fish available to the commercial fishery by sector prior to the definition of commercial TACs used for the purposes of defining allocations on licences. However, the sectoral allocations based on percentage splits between commercial sectors defined in section 9.1.5 below are calculated *before* research allocations are deducted.

Species	**Trawl surveys (tonnes)**	**Longline surveys (tonnes)**	**Sablefish surveys, tagging, catch sampling (tonnes)**	**Total (tonnes)**
Bocaccio Rockfish	0.2	0.0	0.0	0.2
Canary Rockfish	3.3	6.0	0.0	9.3
Copper, China, Tiger Rockfish	0.0	2.0	0.0	2.0
Pacific Ocean Perch	57.1	0.0	0.0	57.1
Quillback Rockfish	0.1	5.0	0.0	5.1
Redbanded Rockfish	1.4	11.0	0.0	12.4
Redstripe Rockfish	11.4	0.0	0.0	11.4
Rougheye Rockfish	10.3	20.0	0.0	30.3
Shortraker Rockfish	0.8	4.0	0.0	4.8
Silvergrey Rockfish	10.7	10.0	0.0	20.7
Widow Rockfish	1.5	0.0	0.0	1.5
Yelloweye Rockfish	0.3	5.8	0.0	6.1
Yellowmouth Rockfish	5.0	3.0	0.0	8.0
Yellowtail Rockfish	6.2	0.0	0.0	6.2
Shortspine Thornyheads	4.1	1.0	0.0	5.1
Longspine Thornyheads	0.4	0.0	0.0	0.4
Lingcod	1.6	4.0	0.0	5.6
Pacific Cod	2.4	0.0	0.0	2.4
Sablefish	6.6	0.0	70.0	76.6
English/Lemon Sole	1.9	0.0	0.0	1.9
Dover Sole	4.5	0.0	0.0	4.5
Petrale Sole	1.1	0.0	0.0	1.1

Rock Sole	0.3	0.0	0.0	0.3
Spiny Dogfish	17.9	0.0	0.0	17.9
Walleye Pollock	0.3	0.0	0.0	0.3
Pacific Hake	2.5	0.0	0.0	2.5
Arrowtooth Flounder	27.5	0.0	0.0	27.5
Big Skate	0.1	0.0	0.0	0.1
Longnose Skate	1.9	0.0	0.0	1.9
*Pacific Halibut	1.6	37.2	0.0	38.8

*The halibut poundage for the groundfish trawl survey is part of the trawl fishery's halibut bycatch mortality cap. The groundfish trawl fishery has a bycatch mortality cap of 454 tonnes that is not part of the allocated commercial TAC.

6.5. Commercial

The commercial total allowable catch for various groundfish species are allocated between the different groundfish sectors. Formal discussions between the hook and line rockfish (ZN), halibut and trawl sectors were initiated in 2000 to establish individual rockfish species allocations between the sectors to modify the 1997 adopted "92/8" trawl/hook and line allocation. The agreed to allocation of groundfish species between the commercial sectors are as follows:

6.5.1. Rockfish Species

Species	Trawl %	ZN%	Halibut %
Canary	87.70%	11.77%	0.53%
Longspine Thornyhead	95.35%	2.29%	2.36%
Pacific ocean perch	99.98%	0.02%	0.00%
Quillback, Copper, China, Tiger	2.56%	87.97%	9.47%
Redbanded Rockfish	50.00%	37.50%	12.5%
Redstripe	97.23%	2.77%	0.00%
Rougheye	55.80%	41.17%	3.03%
Shortspine Thornyhead	95.40%	2.27%	2.33%
Shortraker	52.30%	43.92%	3.78%
Silvergray	88.43%	10.97%	0.60%
Widow	98.21%	1.79%	0.00%
Yelloweye	2.54%	64.34%	33.12%
Yellowmouth	96.77%	2.49%	0.74%
Yellowtail	98.91%	1.09%	0.00%

6.5.2. Non-quota Rockfish Species

Non-quota Species	Trawl %	Halibut/ZN%
Aurora Rockfish	90.00%	10.00%
Black Rockfish	14.00%	86.00%
Blue Rockfish	5.00%	95.00%
Brown Rockfish	5.00%	95.00%
Chillipepper Rockfish	65.00%	35.00%
Darkblotch Rockfish	99.00%	1.00%
Dusky Rockfish	50.00%	50.00%
Greenstripe Rockfish	96.00%	4.00%
Harlequin Rockfish	99.00%	1.00%
Bocaccio Rockfish	93.00%	7.00%
Rosethorn Rockfish	65.00%	35.00%
Sharpchin Rockfish	99.00%	1.00%
Shortbelly Rockfish	0.00%	100.00%
Splitnose Rockfish	99.00%	1.00%
Vermillion Rockfish	1.00%	99.00%

6.5.3. Other Groundfish

Species	Trawl %	Hook and Line / trap%
Lingcod	74.00%	26.00%
Dogfish	32.00%	68.00%
Hake, pollock, Pacific cod & sole	100.00%	0.00%
Sablefish	8.75%	91.25%

Skates have remained an unallocated species in past allocation discussions. To accommodate the introduction of commercial TACs for Big and Longnose skates in 2015/16, a commercial allocation formula was introduced for these species in 2015/16. Following consultation with commercial fishery representatives and other interests, an area-based formula has been defined based on 2006-2012 catch history.

Sector	Longnose Skate			Big Skate		
	Area			Area		
	3CD	5AB	5CDE	3CD	5AB	5CDE
Groundfish Trawl	62.83%	32.83%	20.28%	24.55%	91.48%	92.07%
Halibut	14.19%	48.49%	59.80%	26.72%	5.97%	6.34%
Lingcod	0.00%	0.01%	0.00%	0.00%	0.01%	0.00%
Rockfish Inside	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rockfish Outside	1.50%	8.61%	8.53%	1.93%	1.20%	0.56%
Sablefish	11.26%	9.47%	10.55%	4.16%	0.72%	0.95%
Spiny Dogfish	10.22%	0.57%	0.84%	42.63%	0.62%	0.08%

6.5.4. Annual Commercial Total Allowable Catch

As a result of rounding, the TAC allocations by management area do not sum to the coast-wide total for some species. For the exact TAC values, please contact a member of the Groundfish Management Unit. Portions of some of the TACs listed here will be allocated for research purposes. Details of research allocations are found in the harvest plans included as appendices to the full IFMP document.

Species	Area	Halibut (tonnes)	Sablefish (tonnes)	ZN Outside (tonnes)	ZN Inside (tonnes)	Trawl (tonnes)	Dogfish (tonnes)	Lingcod (tonnes)
Yellowtail rockfish	3C	0	0	14*	0	1,224	0	0
	3D, 5A/B, 5C/D/E	0	0	47*	0	4,216	0	0
	Sector total	0	0	60*	0	5,440	0	0
Widow rockfish	Coastwide	0	0	42*	0	2,316	0	0
Canary rockfish	3C, 3D	1	0	23	0	503	0	0
	5A, 5B	2	0	40	0	197	0	0
	5C, 5D	1	0	18	0	79	0	0
	5E	1	0	19	0	10	0	0
	Sector total	5	0	101	0	789	0	0
Silvergray rockfish	3C/D	2	0	41	0	332	0	0
	5A/B	4	0	80	0	646	0	0
	5C/D	4	0	73	0	587	0	0
	5E	3	0	47	0	382	0	0

Species	Area	Halibut (tonnes)	Sablefish (tonnes)	ZN Outside (tonnes)	ZN Inside (tonnes)	Trawl (tonnes)	Dogfish (tonnes)	Lingcod (tonnes)
	Sector total	13	0	241	0	1,945	0	0
Pacific ocean perch	3C/D	0	0	0	0	750	0	0
	5A/B	0	0	0	0	1,687	0	0
	5C	0	0	0	0	1,544	0	0
	5D/E	0	0	0	0	1,200	0	0
	Sector total	0	0	1	0	5,192	0	0
Yellowmouth rockfish	3C	1	0	4	0	219	0	0
	3D, 5A/B	6	0	20	0	1,135	0	0
	5C/D	4	0	13	0	685	0	0
	5E	7	0	24	0	325	0	0
	Sector total	18	0	60	0	2,364	0	0
Rougheye rockfish	Coastwide	33	0	451	0	636	0	0
Shortraker rockfish	Coastwide	9	0	102	0	126	0	0
Redstripe rockfish	3C	0	0	5*	0	173	0	0
	3D, 5A/B	0	0	22*	0	772	0	0
	5C/D	0	0	9*	0	330	0	0
	5E	0	0	7*	0	246	0	0

Species	Area	Halibut (tonnes)	Sablefish (tonnes)	ZN Outside (tonnes)	ZN Inside (tonnes)	Trawl (tonnes)	Dogfish (tonnes)	Lingcod (tonnes)
	Sector total	0	0	43*	0	1,521	0	0
Shortspine thornyheads	Coastwide	17	0	17	0	735	0	0
Longspine thornyheads	Coastwide	10	0	10	0	405	0	0
Redbanded rockfish	Coastwide	74	0	210	0	295	0	0
Yelloweye rockfish	3C, 3D, 5A	8	0	38	0	1	0	0
	5B	17	0	20	0	1	0	0
	5C, 5D	12	0	21	0	1	0	0
	5E	19	0	25	0	2	0	0
	4B	1	0	0	6	0	0	0
	Sector total	57	0	105	6	5	0	0
Quillback rockfish	3C, 3D, 5A	3	0	43	0	0	0	0
	5B	3	0	28	0	0	0	0
	5C, 5D	6	0	32	0	0	0	0
	5E	4	0	6	0	0	0	0
	4B	0	0	22	22	0	0	0
	Sector total	16	0	131	22	4	0	0

Species	Area	Halibut (tonnes)	Sablefish (tonnes)	ZN Outside (tonnes)	ZN Inside (tonnes)	Trawl (tonnes)	Dogfish (tonnes)	Lingcod (tonnes)
Copper, China and Tiger rockfish	3C, 3D, 5A	1	0	24	0	0	0	0
	5B	1	0	7	0	0	0	0
	5C, 5D	4	0	19	0	0	0	0
	5E	0.3	0	1	0	0	0	0
	4B	0	0	3	3	0	0	0
	Sector total	6.3	0	54	3	1	0	0
Bocaccio rockfish	Coastwide	0	0	0	0	80	0	0
Pacific cod	3C/D	0	0	0	0	500	0	0
	5A/B	0	0	0	0	200	0	0
	5C/D/E	0	0	0	0	700	0	0
	Sector total	0	0	0	0	1,400	0	0
Dover sole	3C/D	0	0	0	0	1,375	0	0
	5C/D/E	0	0	0	0	1,100	0	0
	5A/B	0	0	0	0	598	0	0
	Sector total	0	0	0	0	3,073	0	0
Rock sole	3C/D	0	0	0	0	102	0	0
	5A/B	0	0	0	0	650	0	0

Species	Area	Halibut (tonnes)	Sablefish (tonnes)	ZN Outside (tonnes)	ZN Inside (tonnes)	Trawl (tonnes)	Dogfish (tonnes)	Lingcod (tonnes)
	5C/D	0	0	0	0	800	0	0
	Sector total	0	0	0	0	1,552	0	0
Lemon sole	3C/D, 5A/B	0	0	0	0	186	0	0
	5C/D/E	0	0	0	0	636	0	0
	Sector total	0	0	0	0	822	0	0
Petrale sole	Coastwide	0	0	0	0	900	0	0
Lingcod	3C	0	0	0	0	800	0	150
	3D	0	0	0	0	440	0	360
	5A, 5B	0	0	0	0	862	0	200
	5C, 5D, 5E	0	0	0	0	580	0	420
	4B	0	0	0	0	0	0	38**
	Coastwide total	0	0	0	0	2,572	0	1,168
Spiny Dogfish	3C, 3D, 5A, 5B, 5C, 5D, 5E	0	0	0	0	3,840	8,160	0
	4B	0	0	0	0	640	1,360	0
	Coastwide total	0	0	0	0	4,480	9,520	0
Sablefish	Coastwide	0	1698	0	0	163	0	0
Pollock	Gulf	0	0	0	0	1,115	0	0

Species	Area	Halibut (tonnes)	Sablefish (tonnes)	ZN Outside (tonnes)	ZN Inside (tonnes)	Trawl (tonnes)	Dogfish (tonnes)	Lingcod (tonnes)
	5A/B (includes Area 12)	0	0	0	0	1,790	0	0
	5C/D/E	0	0	0	0	1,320	0	0
	Coastwide total	0	0	0	0	4,225	0	0
Hake	Gulf	0	0	0	0	7,000	0	0
	Offshore	0	0	0	0	30,000	0	0
Halibut	Coastwide	2785	0	0	0	454****	0	0
Big skate	3C/D	13	2	1	0	12	21	0
	5A/B	22	3	4	0	341	2	0
	5C/D/E	39	6	3	0	561	1	0
	Sector total	74	11	9	0	914	24	0
Longnose skate	3C/D	20	16	2	0	87	14	0
	5A/B	47	9	8	0	32	1	0
	5C/D/E	51	9	7	0	17	1	0
	Sector total	168	48	25	0	195	22	0
Arrowtooth flounder	Coastwide	0	0	0	0	17,500	0	0

* The Lingcod coastwide total includes the 38 tonne allocation to cover 4B trip limits. This tonnage is not allocated to licence holders, nor is it transferable.
**The groundfish trawl fishery has a bycatch mortality cap of 454 tonnes that is not part of the allocated commercial TAC. Halibut caught while fishing under the authority of a groundfish trawl licence cannot be retained and must be returned to the water as quickly as possible.

6.5.5. Species-Area Groups

All groundfish hook and line licence holders will be permitted to hold quota for up to 40 species-area groups of holdings. Landings of other groundfish will be managed through trip limits or landings allowances. Additional species areas groups are in place for the groundfish trawl fishery and can be found in Appendix 8 of the IFMP.

Pacific Halibut (Coastwide)	Silvergray rockfish (5E)
Sablefish (Coastwide)	Yelloweye rockfish (3C, 3D, 5A)
Lingcod (3D)	Yelloweye rockfish (5B)
Lingcod (3C)	Yelloweye rockfish (5C, 5D)
Lingcod (5A, 5B)	Yelloweye rockfish (5E)
Lingcod (5C, 5D, 5E)	Yelloweye rockfish (4B)
Dogfish (3C, 3D, 5A, 5B, 5C, 5D, 5E)	Quillback rockfish (3C, 3D, 5A)
Dogfish (4B)	Quillback rockfish (5B)
Big skate (3C, 3D)	Quillback rockfish (5C, 5D)
Big skate (5A, 5B)	Quillback rockfish (5E)
Big skate (5C, 5D, 5E)	Quillback rockfish (4B)
Longnose skate (3C, 3D)	Copper, China and Tiger rockfish (3C, 3D, 5A)
Longnose skate (5A, 5B)	Copper, China and Tiger rockfish (5B)
Longnose skate (5C, 5D, 5E)	Copper, China and Tiger rockfish (5C, 5D)
Canary rockfish (3C, 3D)	Copper, China and Tiger rockfish (5E)
Canary rockfish (5A, 5B)	Copper, China and Tiger rockfish (4B)
Canary rockfish (5C, 5D)	Rougheye rockfish (Coastwide)
Canary rockfish (5E)	Redbanded rockfish (Coastwide)
Silvergray rockfish (3C, 3D)	Shortraker rockfish (Coastwide)
Silvergray rockfish (5A, 5B)	Shortspine thornyhead (Coastwide)
Silvergray rockfish (5C, 5D)	

6.6. Outgoing and Incoming Sector Caps

There are caps on the amount of quota species, in pounds, permitted to leave and enter commercial sectors from/to other commercial sectors. The figures can change regularly. Please consult the DFO website for the most current figures: http://www.pac.dfo-mpo.gc.ca/fm-gp/commercial/ground-fond/index-eng.htm.

7. MANAGEMENT OF THE FISHERY

The Department's Groundfish Management Unit (GMU) has identified key issues facing the groundfish fisheries overall, as informed by consultations with interested parties. Groundfish management issues can be categorized under one of the following themes: science, catch monitoring, access and allocation, marine planning and governance. These

key management issues informed the fisheries management objectives, developed in consultation with interested parties, as outlined below.

Long term objectives
The management issues identified in section 2 formed the basis for the development of the following long term objectives. These longer term objectives are supported by short term objectives that are described below.

1. By 2017, identify and begin to acquire the necessary data required to provide science advice for all groundfish species identified in the DFO groundfish stock assessment strategic plan.

2. By 2017, pursue accountability for total groundfish mortality (retained and released catch) for all user groups supported by scientifically defensible (accurate and precise) catch monitoring programs.

3. By 2017, have an agreed upon process to aid in the development of allocation arrangements between user groups for groundfish species in the future.

4. By 2017, develop the infrastructure to collect and analyze data to determine economic viability and social impacts of the various groundfish fisheries.

Short-term objectives
Short term objectives were developed for the 2011 – 2013 IFMP. Following a review of those objectives with input from the Groundfish Integrated Advisory Board and the public, they have been updated. Current short-term objectives are as follows:

1. By the end of 2016, work with GIAB sectors to identify their priority groundfish science and fisheries management projects, including those proposed for funding through alternative mechanisms (e.g., joint project agreements consistent with the use-of-fish policy, user fee amendments, etc).

2. By the end of 2016, evaluate approaches used in other jurisdictions for selecting assessment tools for data-limited species. Use computer simulation to assess the applicability and performance of these approaches in the BC groundfish fishery.

3. By the end of 2015, develop an inventory of current FSC groundfish catch monitoring programs and a pilot catch monitoring risk assessment for an FSC groundfish fishery.

4. By the end of 2016, initiate development of tools for the recreational fishery to improve reporting of all catch (retained and released).

5. By the end of 2016, initiate development of tools for First Nations fisheries to improve reporting of all catch (retained and released).

6. By the end of 2017, use the GIAB to develop the appropriate consultative approach that would support achieving long term objective number 3.

7. By the end of 2016, update the Fleet Financial report.

8. By early 2016, complete a review of the sales slip program to inform a long-term plan for effectively gathering-species level price information for the region.

8. COMPLIANCE PLAN

The Conservation and Protection (C&P) program, part of the Ecosystems and Fisheries Management Sector, has a large role in facilitating compliance with the acts and regulations associated with Canada's aquatic resources. Through modern community policing practices, C&P uses education, partnering, enforcement and problem solving to assist in the conservation and protection of the fishery resources.

There are approximately 155 fishery officers stationed in the Pacific Region, which encompasses the province of British Columbia and Yukon Territory. They are designated as "fishery officers" under Section 5 of the *Fisheries Act* and have full enforcement powers and responsibilities outlined in the *Fisheries Act, Coastal Fisheries Protection Act, Oceans Act, Species at Risk Act,* the *Criminal Code* of Canada and the *Constitution Act.*

Fishery officers are tasked with the responsibility of responding coast-wide to calls from the general public, other agencies, observers and other industry users reporting all types of occurrences including commercial groundfish landings. Fishery officers inspect and investigate groundfish vessels for compliance with terms and Conditions of Licences, *Fisheries Act* and related Regulations and Variation Orders.

8.1. Current Priorities

Fishery officers will:

- investigate all incidents of Closed Area fishing such as RCAs, sponge reef protection areas, and other Closed Areas;
- continue to enforce compliance with hail-out, hail-in and other elements of the DMP and at-sea observer program;
- conduct investigations and enforcement actions in response to the retention of groundfish caught, retained or possessed without licence authority. Priority will be placed on occurrences where retention for the purpose of sale is indicated;
- investigate incidents of unauthorized dual fishing; and
- take greater concern for compliance with Electronic Monitoring (EM) Licence Conditions, especially Time Gaps that are reported.

9. PERFORMANCE REVIEW & PLAN ENHANCEMENT

The groundfish IFMP is a living document that will be subjected to a review every two years for updates, with input from interested parties through consultations and established advisory processes. A review of progress against objectives in the IFMP will be conducted at that time. Annual updates (e.g., to total allowable catch changes based on updated science information) and in-season amendments to the harvest appendices will continue to be made as required and revised versions will be posted on the website, consistent with practices to date.

9.1. Fisheries and Oceans Canada Contact

For additional information on this IFMP Summary or to request an electronic version of the full IFMP, please contact:

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