Integrated Fisheries Management Plan (IFMP)

NAFO Division 2+3KL Groundfish

Effective 2013

Forward

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for groundfish stocks in NAFO Divisions 2+3KL, 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 Fisheries and its management to Fisheries and Oceans Canada (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.

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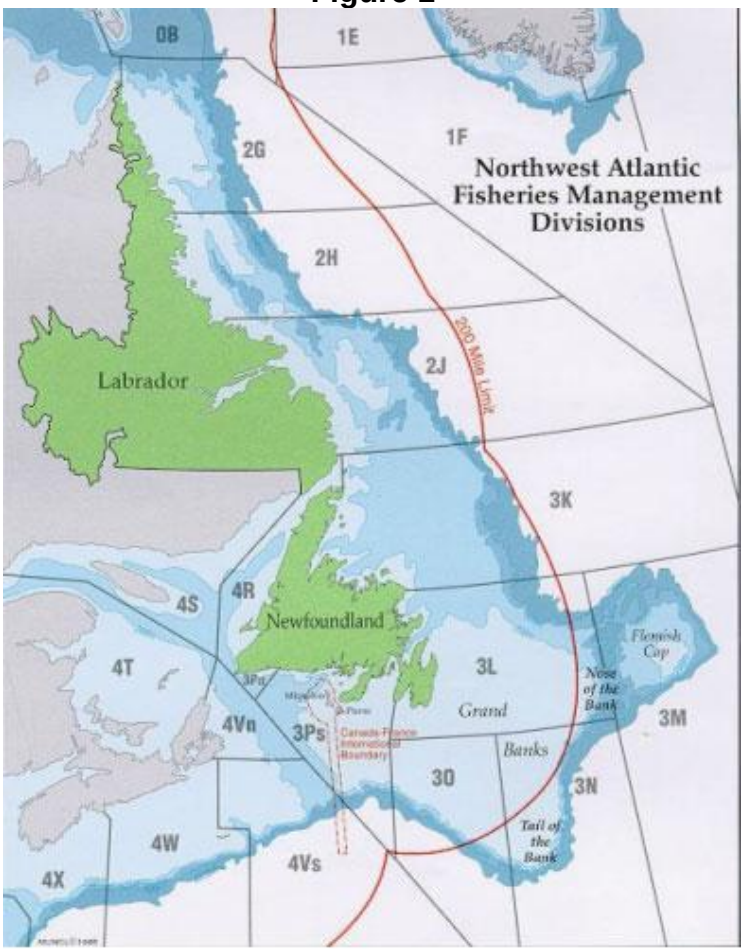
1.0 Overview of the Fisheries

1.1 Location and History of the Fisheries:

The Northwest Atlantic Fisheries Organization's (NAFO) Subarea 2 and Divisions 3KL (2+3KL) is an area off Labrador and Eastern Newfoundland, extending over the Nain Bank and Hamilton Bank in the north to the Grand Banks in the south (Figure 1).

Figure 1



Various groundfish species have been fished commercially in these waters since the post-World War II era, and the catch statistics of the Northwest Atlantic Fisheries Organization date back to 1960. Cod has traditionally dominated groundfish catches in Newfoundland and Labrador waters. Most inshore fleets in the Newfoundland and Labrador (NL) Region of DFO were primarily dependent on the cod fishery prior to 1992. As a result, the closure of the commercial fisheries for 2+3KL, 3Ps and 4R3Pn cod over the 1992 to 1994 period resulted in a severe decline in revenue for these enterprises. With the decline of this resource in the late 1980s and early 1990s, other species have become more significant proportions of the catch.

Groundfish species in 2+3KL are partly managed by the Northwest Atlantic Fisheries Organization (NAFO). NAFO is an international fisheries science and management body, founded in 1979 as a successor to the International Commission of the Northwest Atlantic Fisheries (ICNAF 1949-1978). NAFO's overall objective is to contribute through consultation and cooperation to the optimum utilization, rational management and conservation of the fishery resources of the Convention Area.

Groundfish species/stocks in 2+3KL are considered straddling stocks as they are inside both the Canadian Exclusive Economic Zone (EEZ), and the NAFO Regulatory Area (NRA) beyond Canada's 200 mile limit. NAFO manages the establishment of the TAC primarily for species and stocks in NAFO Divisions 3LMNO An exception to this is Greenland halibut where NAFO sets the overall TAC for NAFO Divisions 2+3KLMNO. For this species the entire allocation in Divisions 2+3K is allocated to Canada to manage, while the allocation in 3LMNO is shared between Canada and other NAFO Contracting Parties. Conversely, for 2+3KL cod, Canada sets the TAC and allocates a small share to NAFO to be fished only in Division 3L.

Over the five-year period 2008 to 2012 there was over 51,000 t of groundfish (Table 1), mostly Greenland Halibut (turbot) valued at over $126M (Table 2) caught in 2+3KL. Fishing activity is conducted predominantly in the southerly 3L NAFO Division, declining as one moves into the more northerly NAFO divisions 3K and 2J, with very little activity in the most northern areas adjacent to northern Labrador.

Table 1

Landings (Metric Tonnes) - 2+3KL Groundfish - 2008 to 2012 - by Species and NAFO Division Caught

	NAFO Division Caught					
Species Name	**2G**	**2H**	**2J**	**3K**	**3L**	**Total**
Turbot	121.4	540.6	11,713.4	11,028.0	5,886.1	29,289.6
Cod, Atlantic			290.0	6,426.7	8,125.4	14,842.1
Redfish			70.8	215.7	2,988.7	3,275.1
Yellowtail flounder					1,700.1	1,700.1
Winter flounder				134.8	835.5	970.3
Greysole/witch			164.8	178.5	111.2	454.4
American plaice			29.1	44.7	327.5	401.3
Grenadier, rough-head		0.03	15.3	107.1	76.7	199.1
Other			1.5	75.6	113.3	190.4
Total Groundfish	**121.4**	**540.7**	**12,284.8**	**18,211.0**	**20,164.4**	**51,322.3**
% of Total	**0.2%**	**1.1%**	**23.9%**	**35.5%**	**39.3%**	**100.0%**

Table 2

Landed Value ($s) - 2+3KL Groundfish - 2008 to 2012 - by Species and NAFO Division Caught						
	NAFO Division					
Species Name	**2G**	**2H**	**2J**	**3K**	**3L**	**Total**
Turbot	$288,454	$1,392,180	$48,644,312	$35,833,037	$17,723,414	$103,881,397
Cod, Atlantic			$342,499	$7,689,587	$9,682,259	$17,714,345
Redfish			$48,760	$147,930	$1,737,235	$1,933,925
Yellowtail flounder					$1,090,063	$1,090,063
Winter flounder				$65,719	$415,194	$480,914
Greysole/witch			$140,835	$144,419	$92,753	$378,008
American plaice			$17,375	$29,889	$216,924	$264,188
Halibut			$11,475	$8,832	$143,338	$163,644
Other		$8	$6,338	$67,595	$52,082	$126,022
Total Groundfish	**$288,454**	**$1,392,188**	**$49,211,593**	**$43,987,008**	**$31,153,263**	**$126,032,505**
% of Total	**0.2%**	**1.1%**	**39.0%**	**34.9%**	**24.7%**	**100.0%**

In comparison to these numbers, the Atlantic Groundfish Management Plan for 1989, prior to the moratorium, showed a total allocation for 2J3KL cod that year of 266,000 t. There was approximately another 185,000 t allocated in other groundfish species such as redfish, turbot and American plaice. Against these allocations there was a recorded catch of 238,000t of cod and another 14,000t of other groundfish species.

1.2 Types of Fisheries and Participants:

There are currently various directed and by-catch groundfish fisheries in 2+3KL. Groundfish species in 2+3KL include: American plaice, Atlantic halibut, cod, Greenland halibut (turbot), grenadier, haddock, lumpfish, monkfish, pollock, redfish, skate, white hake, winter flounder (blackback), witch flounder (greysole), and yellowtail. Several of these species are under moratorium.

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.

1.2.2. Recreational

A recreational fishery has been in place for all waters surrounding Newfoundland and Labrador, including 2+3KL, since 2006. Such fisheries are authorized by Variation Orders, setting the season and bag limit, which is then communicated via public notice. A licence is not required for the recreational harvest of groundfish.

1.2.3. Commercial

There are seven distinct fleets sectors involved in the commercial groundfish fishery in Div. 2+3KL. They include: Offshore (>100' in length overall), Midshore (65-100') fixed gear, Midshore (65-100') mobile gear, Nearshore (<65') mobile gear, Nearshore (40-89') fixed gear, Inshore (<40') fixed gear and commercial communal.

The management of these sector groups is integrated, with all groups subject to at-sea and dockside monitoring. Most fleets and fisheries are subject to Enterprise Allocation (EA) or Individual Quota (IQ) management regimes. Where such regimes are not in place similar management tools such as trip limits, trip permits or harvest caps are often used. DFO is committed to working with industry to identify opportunities for moving towards IQ's as a means of increasing economic viability for harvesters.

First Nations have communal access to commercial opportunities through communal commercial licenses acquired through the Allocation Transfer Program (ATP). These licenses are fished in a manner that is comparable to the general commercial fishery.

1.2.4. 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.

1.3 Fisheries Characteristics:

There is a mixture of both fixed and mobile gear types used for 2+3KL Groundfish landings, with fixed gear accounting for approximately 60% of the activity from 2008-2012 (Table 3). In the <89' fixed gear fleets gillnets predominate, while in the offshore fleet bottom otter trawls are the predominant gear type.

Table 3

2+3KL Groundfish Landings (Metric Tonnes) - by Gear Type and Year								
Gear Category	**Gear Type**	**2008.0**	**2009.0**	**2010.0**	**2011.0**	**2012.0**	**Total 2008-12**	**% of Total**
Fixed	Gill Net (Set or Fixed)	5,305.2	5,707.8	5,655.9	6,404.3	6,141.5	29,214.6	56.9%
	Hand Line (Baited)	576.1	711.5	620.1	460.0	353.8	2,721.5	5.3%
	Longline	51.0	80.3	40.1	43.1	35.2	249.6	0.5%
	Trap	5.7		13.8	0.0	0.7	20.2	0.0%
	Cod Pots (Experimental Gear)		3.8	12.1	0.0	1.5	17.4	0.0%
	Pot			0.1		0.4	0.4	0.0%
	Mechanized Squid Jigger			0.2			0.2	0.0%
Fixed Total		**5,938.1**	**6,503.3**	**6,342.1**	**6,907.5**	**6,533.0**	**32,223.9**	**62.8%**
Mobile	Bottom Otter Trawl (stern)	3,421.5	2,767.8	3,745.1	4,847.0	4,317.0	19,098.4	37.2%
Mobile Total		**3,421.5**	**2,767.8**	**3,745.1**	**4,847.0**	**4,317.0**	**19,098.4**	**37.2%**
Total All Gear Types		**9,359.6**	**9,271.1**	**10,087.2**	**11,754.4**	**10,850.0**	**51,322.3**	**100.0%**

1.4 Governance:

This fishery is governed by the following legislation and regulations:

- The Fisheries Act and the regulations made thereunder;
  - Atlantic Fishery Regulations (1985),
  - Fishery (General) Regulations (1993),
  - The Aboriginal Communal Fishing Licences Regulations (1993),
- The Oceans Act; and
- The Species at Risk Act.

These documents are available on the Internet at: http://www.dfo-mpo.gc.ca/resources-ressources-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. Allocations of fish for financing scientific and management activities are identified in the appropriate Conservation Harvest Plans appended to this plan.

The objective of the new policy and/or regulatory framework is to create a standardized, rigorous, and transparent process of joint project evaluation and approval for all projects under this new authority beginning April 1st, 2014. 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 Fisheries 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/overviewcadre-eng.htm

An advisory committee has been established to provide advice to the Department on management of groundfish fisheries in these waters.

Fisheries and Oceans engages in a variety of consultation, engagement and collaborative harvest planning processes with five Aboriginal groups throughout Newfoundland and Labrador. They are the Miawpukek First Nation, the Qalipu Mi'kmaq First Nation Band, the NunatuKavut Community Council, the Nunatsiavut Government, and the Innu Nation. 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.

1.5 Approval Process:

Groundfish management is conducted through advisory processes. The advisory committees solicit the opinions of stakeholders on past management practices and focuses on management measure recommendations for future groundfish fisheries. This includes recommendations on the TAC.

Ministerial approval of TACs is required while approval of the Evergreen IFMP is through the Regional Director, Fisheries Management, Newfoundland and Labrador Region. Recommendations from all stakeholder groups on TACs and all management measures are considered in the development of the IFMP. Decision making for opening and closing dates in specific areas and gear types is done in consultation with industry as well as DFO Area Staff. Other issues that arise during the lifetime of this plan will be addressed through similar consultative processes.

2.0 Stocks Assessment, Science and Traditional Knowledge

2.1 Biological Synopsis, Ecosystem Interactions, Stocks Assessment & Scenarios

Science is the basis for sound decision making and DFO Science Sector provides information on the consequences of management and policy options, and the likelihood of achieving policy objectives under alternative management strategies and tactics. 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).

Scientific assessments and advice respecting the assessment and management of the groundfish fisheries is peer reviewed regularly 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.

DFO staff conduct routine data collection and compilation and specialized research on the general biology of groundfish in support of stocks 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 vessel cruise sampling; and
- Archiving of biological data collected from departmental and contract sources.

Science advice, proceedings and stocks assessments/scientific evaluations resulting from CSAS meetings are available online at: http://www.meds-sdmm.dfo-mpo.gc.ca/csassccs/applications/Publications/index-eng.asp.

The following provides a brief description of the various documents published by CSAS:

- Science Advisory Reports - Science Advisory Reports (SAR) summarize the technical considerations and document the conclusions and advice developed during a CSAS science peer review process. SAR include traditional Stocks Status Reports, Ecosystem Status Reports, and Habitat Status Reports, as well as advice pertaining to management strategies, frameworks and guidelines on the assessment or evaluation on specific issues, impacts of human activities on ecosystem components. Recovery assessments for species or populations are also included in this series.
- Research Documents - Research Documents are peer-reviewed, technical publications that document the scientific evidence and evaluation taken into consideration in the development of science conclusions and advice presented in Science Advisory Reports.
- Proceedings - Proceedings record the activities at CSAS peer review meetings or workshops. The Proceedings generally record decisions, recommendations, and major points of discussion at these meetings and workshops. Proceedings capture the diversity of opinion present at the meeting or workshop.
- Science Responses - The Science Responses document information and advice provided by DFO Science for issues handled via the Science Special Response Processes (SSRPs). SSRP is a streamlined peer review process that deals with urgent and unforeseen requests for advice, for situations where the timelines for providing the advice do not allow for a full peer review process, in cases where there is a clear and valid framework to provide advice or for cases where DFO is not the final decision-making body.

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.

2.2 Aboriginal Traditional Knowledge/Traditional Ecological Knowledge:

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

2.3 Precautionary Approach (PA):

The Department has recently begun implementation of the Sustainable Fisheries Framework (SFF), which is a toolbox of existing and new policies for DFO and other interests to sustainably manage Canadian fisheries in order to conserve fish stocks and support prosperous fisheries (http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-renpeche/sff-cpd/overview-cadre-eng.htm).

Fisheries worldwide are under increasing pressure, creating challenges for policy makers, resource managers, and interested parties to make informed decisions

regarding the conservation, recovery, and wise management of these 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 framework to promote sustainable fisheries.

The new Fisheries decision-making framework incorporating the precautionary approach policy (available at the weblink listed above) applies to key harvested fish stocks managed by DFO, including commercial, recreational, or food, social, and ceremonial fisheries.

The framework requires that a harvest strategy be incorporated into respective fisheries management plans to keep the removal rate moderate when the stocks' status is healthy, to promote rebuilding when stocks status is low, and to ensure a low risk of serious or irreversible harm to the stocks. It also requires a rebuilding plan when stocks reach 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 three stocks status zones – healthy, cautious, and critical – according to upper stocks reference points and limit reference points;
- Sets the removal rate at which fish may be harvested within each stocks status zone; and
- Adjusts the removal rate according to fish stocks status variations (i.e., spawning stocks biomass or another index/metric relevant to population productivity), based on pre-agreed decision rules.

All new groundfish stocks assessments will be written in a manner consistent with the Department's Precautionary Approach.

2.4 Research:

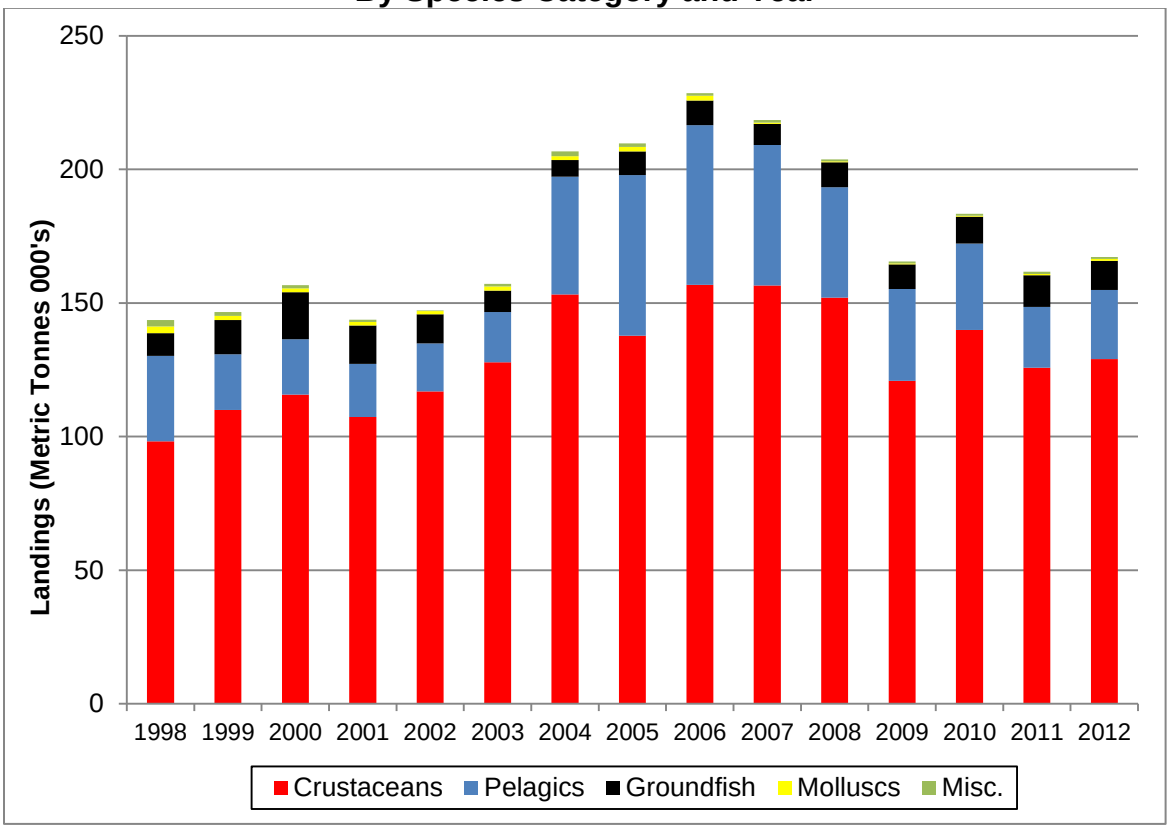
A goal of the Fisheries and Oceans Canada Science Branch is to provide high quality knowledge, products and scientific advice on Canadian aquatic ecosystems and living resources, with a vision of safe, healthy, productive waters and aquatic ecosystems. Groundfish research and stocks assessments are conducted in the Groundfish Section of the Science Branch.

3.0 Economic, Social and Cultural Importance of the Fisheries

3.1 Landings and Landed Value by Species Group

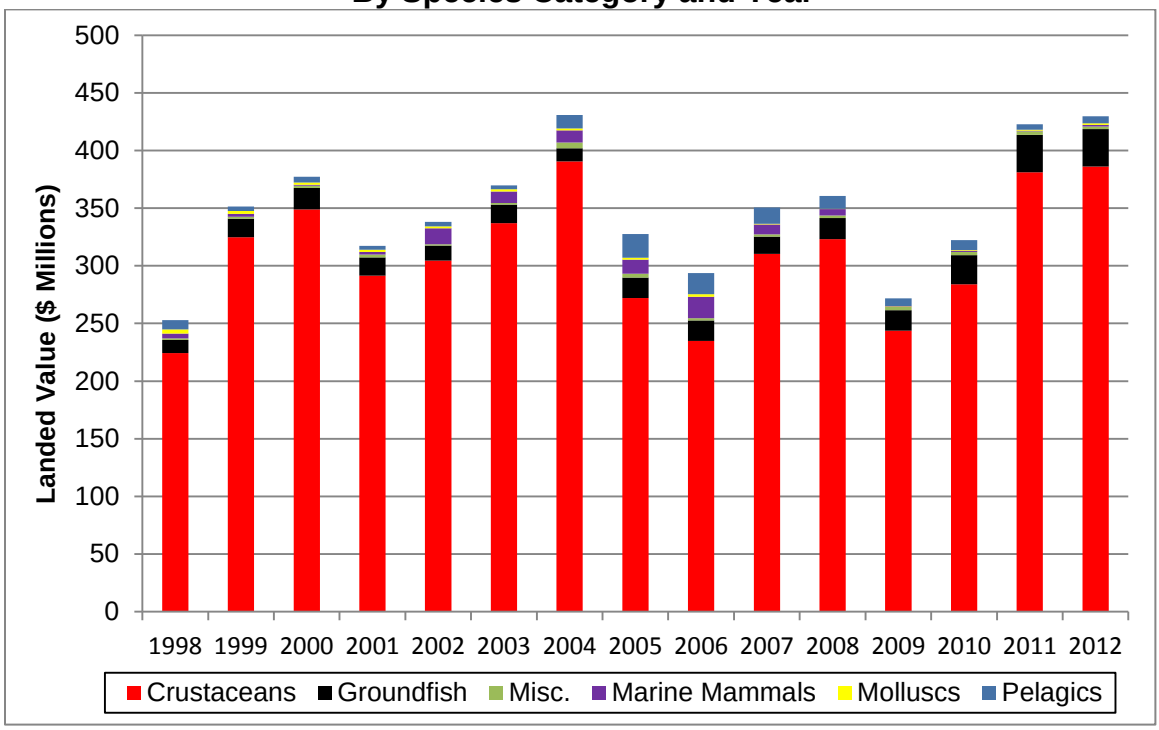
In 2012 there was approximately 11,000 mt of groundfish caught in 2+3KL (Figure 2). The average groundfish catch over the 1998-2012 period was approximately 10,000 mt. Groundfish catches represented approximately 6.5% of catch by weight in 2012. Crustaceans were the highest volume of catch at 77% followed by pelagic species at 15%.

Figure 2
Landings (Tonnes) - NAFO 2+3KL
By Species Category and Year



Crustaceans had the highest catch value in 2012 of approximately $386M followed by groundfish at $32M (Figure 3). The average groundfish value over the 1998-2012 period was approximately $18.6M.

Figure 3
Landed Value ($ Millions) - NAFO 2+3KL
By Species Category and Year



3.2 Landings and Landed Value by Groundfish Species

Turbot and cod catches are the largest by volume in the most recent period (Figure 4) followed by redfish. In 2012 turbot represented 48% of the catch followed by cod at 27% and redfish at 8%. These 3 species represented 83% of the total catch in 2012. In earlier periods yellowtail flounder held a higher relative share.

Of the species noted in Figure 4, there is a directed commercial fishery for turbot and redfish, and a Stewardship/By-catch fishery for cod. The yellowtail catch is part of a larger 3LNO yellowtail fishery where the vast majority of the harvest is located in NAO Divisions 3NO. This fishery is subject to a separate IFMP. The witch and plaice catches are by-catch only in other fisheries as these two species are under moratorium in this area.

Turbot had the highest economic value in 2012 with a catch value of approximately $28M followed by cod with $3.6M and redfish with approximately $800k (Figure 5). These 3 species accounted for almost all of the catch value in 2012.

Figure 4
Landings (Metric Tonnes) - 2+3KL Groundfish
By Species and Year

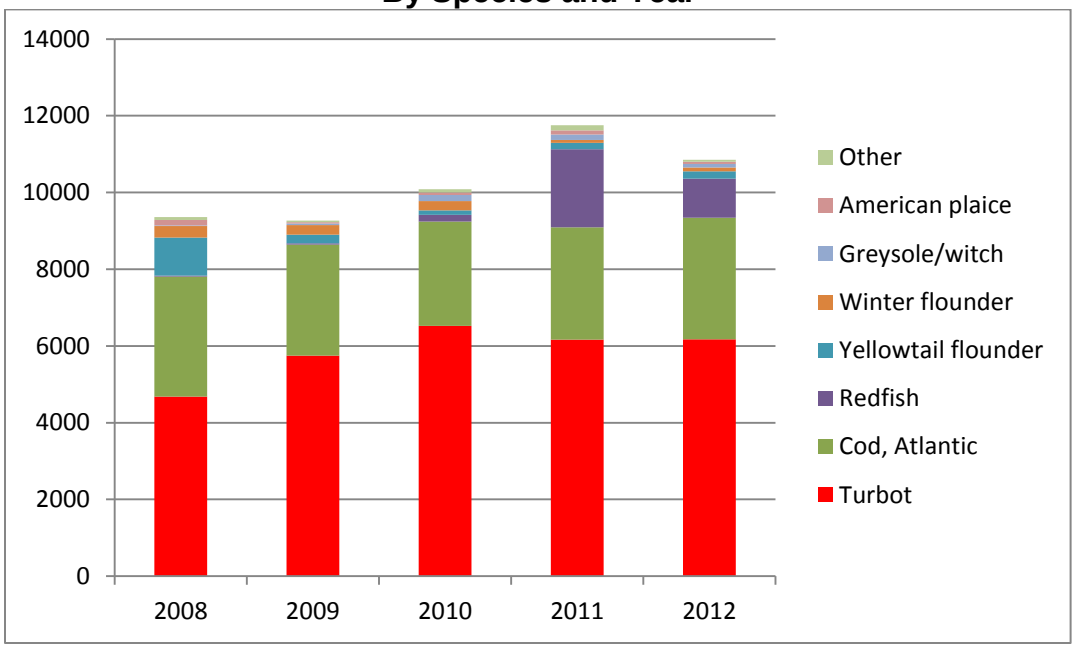
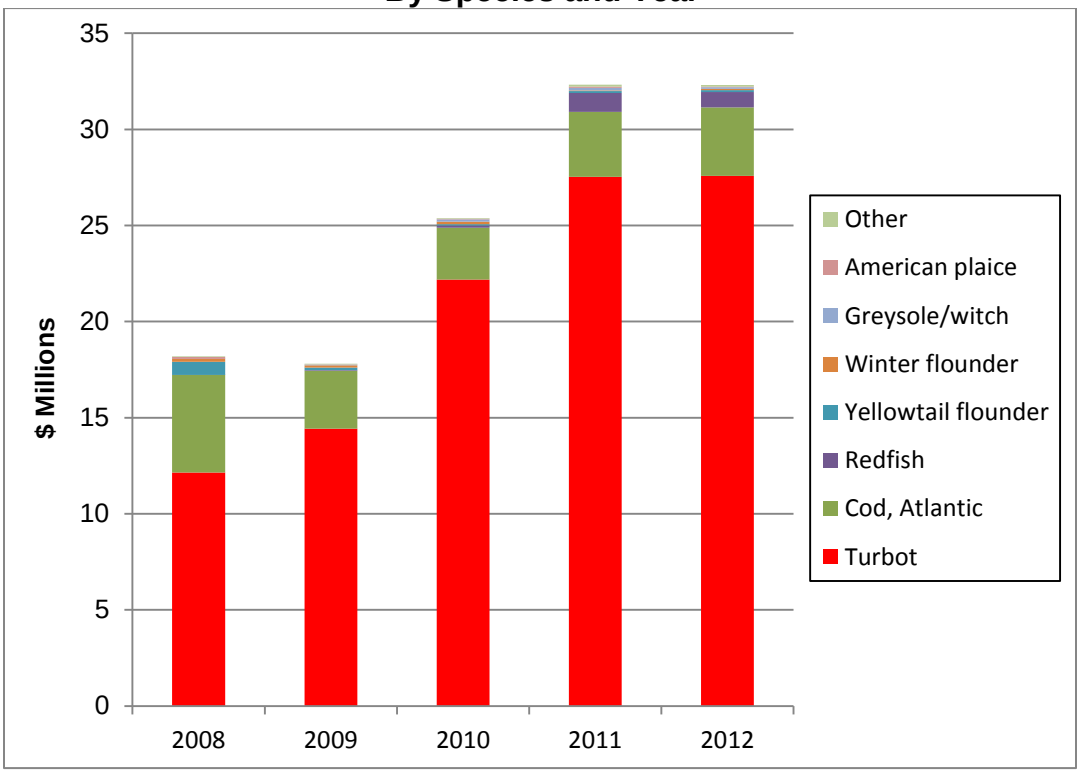


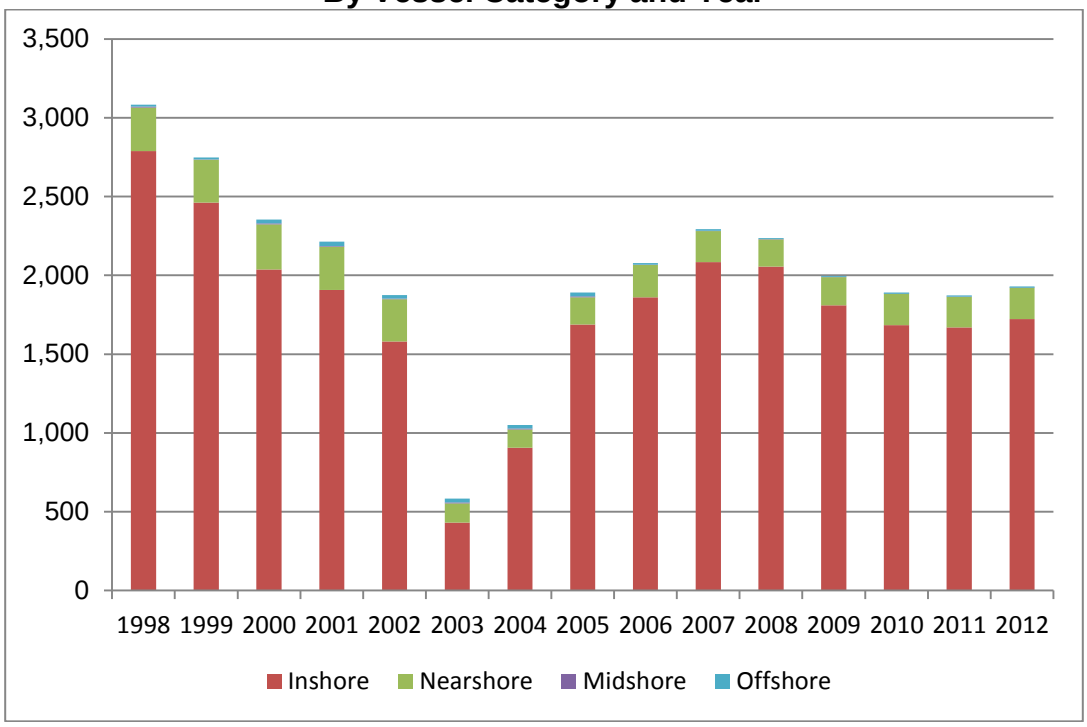
Figure 5
Landed Value ($Millions) - 2+3KL Groundfish
By Species and Year



3.3 Number of Participating Licence Holders

In 2012, there were 2,299 groundfish licences issued for 2+3KL harvesters (fixed and mobile gear combined). Of this group 1,848 harvesters were active in the fishery (Figure 6). Close to 75% of the licenses were issued to harvesters in the inshore fixed gear fleet. This group caught approximately 28% of the total catch with a further 33% going to the nearshore fixed gear fleet. The remaining 39% of the NL landed catch was landed by vessels in midshore and offshore category.

Figure 6
Number of Active Vessels - 2+3KL Groundfish
By Vessel Category and Year



The number of active harvesters has declined by 38% from since 1998. In 2003 the number of active harvesters was at its lowest level in the recent period (535) primarily as a result of the closure of the commercial cod fishery.

3.4 Dependence on Groundfish

Of the 1,848 active harvesters in 2012 approximately 66% derived less than 10% of their fishing earnings from groundfish (Table 4). There were however 284 harvesters (15.4% of active) who derived 100% of their fishing earnings from groundfish. This group of highly groundfish dependent harvesters had average earnings for less than

$5K. The opposite was true for harvesters with low groundfish dependency. This group had average annual earnings of approximately $260K.

Table 4
2+3KL Groundfish Dependency (2012)

Income Dependency Range	Number of Harvesters	Percent of Active Harvesters
< 5%	649	35.1%
5% - 10%	579	31.3%
10% - 20%	167	9.0%
20% - 35%	63	3.4%
35% - 50%	34	1.8%
50% - 75%	45	2.4%
75% - 99%	27	1.5%
100%	284	15.4%

4.0 Management Issues

There are a number of issues that Fisheries and Oceans Canada (DFO) will continue to address with fish harvesters. These include issues raised by fish harvesters or issues identified by DFO.

4.1 Fisheries Issues:

- **Return of Logbooks** - It is mandatory for fish harvesters to return their completed logbooks to DFO. The return rate, particularly in the inshore groundfish sector, is lower than desired. DFO encourages all fish harvesters to return their completed logbooks as this information is important to the science advisory process and in the management of the Fisheries.
- **Incidental Catch of Atlantic Cod** – Considerable effort is expended on avoiding cod during closed times and this will continue to be an area of focus for both DFO and the industry. Bycatch restrictions for cod are outlined in the species-specific Conservation Harvesting Plans (CHP's) in the Appendices.
- **Incidental Catch of Non-Targeted Species** – In addition to cod, several other species of groundfish, including haddock, redfish, American plaice, witch and grenadier in 2+3KL are under moratorium. Considerable effort is placed on avoiding these bycatch species. Bycatch restrictions are outlined in the species-specific Conservation Harvesting Plans (CHP's) in the Appendices.

4.2 Depleted Species Concerns:

- **Reporting Incidental Catch of Wolffish** - Since northern and spotted wolffish are listed under the Species At Risk Act (SARA), it is mandatory for fish

harvesters to report any incidental catch. It is important to the monitoring of the recovery of these species that they be reported in logbooks.

4.3 Oceans and Habitat Considerations:

- **Conservation Closures** - DFO will work with local fish harvesters where they identify areas that should be closed as a result of spawning. Fish harvesters continue to be proactive in identifying such areas to protect groundfish stocks.
- **Ecologically and Biologically Significant Areas -** DFO Science has identified 14 Ecologically and Biologically Significant Areas (EBSAs) within NAFO sub-division 2+3KL, five of which are within NAFO sub-division 3L and nine are within 2J3K. (See http://www.dfo-mpo.gc.ca/csas-sccs/publications/resdocs-docrech/2007/2007_052-eng.htm and http://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2013/2013_048-eng.pdf)

5.0 Objectives

Fisheries and Oceans Canada strives to manage groundfish stocks on the following principles:

- Conservation and Ecosystem Considerations;
- Stewardship;
- Social, Cultural and Economic Benefits to Stakeholders; and
- Fisheries Compliance.

Using these principles as long-term objectives, a series of short-term objectives are articulated in the form of various strategies and management measures that are put into practice, or are in the process of being developed, to maximize the benefit of this resource for all Canadians.

At regular advisory meetings, a review of groundfish fisheries takes place which includes an assessment of whether these objectives are being met and key management issues are being addressed. As part of this process, the information gathered through other evaluation processes like the Department's Fisheries Checklist is used to help identify areas for improvement in the management of these fisheries and through consultation with stakeholders, potential improvements are explored and priorities established.

5.1 Stock Conservation and Ecosystem – Sustainability

- To promote the sustainable utilization of groundfish resources;
- To promote cost-effective harvesting strategies that ensures compliance with management and conservation measures.
- To mitigate adverse impacts on other species, habitat, and the ecosystem where groundfish fishing occurs, protecting biodiversity and ecosystem structure and function.

Strategies	Management Approach
• Utilize a precautionary approach framework when setting exploitation rates for the directed Fisheries	• Provide biomass and abundance estimates through timely science surveys where possible and appropriate • Utilize indicators of stocks and Fisheries change where available • Control fishing mortality by setting annual TAC, or other limitations, taking into account the impact of the fisheries in the ecosystem where appropriate • Utilize appropriate exploitation rates and reference points where available • Develop species re-building plans, including Harvest Control Rules, where appropriate
• Promote the development of sustainable fishing practices.	• Establish and enforce restrictions against discarding • Establish gear size and/or amounts as specified in CHPs • Establish a minimum fish size and employ a small fish protocol where appropriate • Establish appropriate seasons for each fishery (eg mitigating potential for by-catch or spawning disruption) • Establish and enforce appropriate requirements and restrictions in CHP's around Marine Protected Areas, coral closures and reporting of lost fishing gear as appropriate
• Manage by-catch or mortality for all non-targeted species	• Limit allowable by-catch to a specified percentage as outlined in CHP's and/or licence conditions. • Require live release of species listed under SARA as endangered or threatened

5.2 Stewardship - Co-management of Resources

• To promote a co-management approach, providing harvesters with an effective sharing of responsibility, accountability and decision making, within the constraints of the ***Fisheries Act***, the precautionary approach and any harvest

control rules. • To promote at NAFO, where applicable to the stock, a Total Allowable Catch (TAC) to achieve a sustainable groundfish Fisheries.	
Strategies	**Management Approach**
• Establish an effective consultative process for resource users to participate in decision-making process • Establish Multi-stakeholder Working Groups (WG) designed to examine domestic and international issues, e.g. 2+3K and 3LMNO Turbot Working Groups and others as required. • Contribute and participate in NAFO meetings • Provide experts to NAFO Scientific Council	• Organize regular Newfoundland & Labrador Groundfish Advisory Committee meetings, including Aboriginal groups. • Consult with recreational users as necessary on recreational groundfish fisheries. • Convene Working Groups as appropriate • Engage industry in appropriate NAFO consultative processes and on the Canadian Delegation to NAFO

5.3 Social, Cultural and Economic Benefits to Stakeholders

• To promote the continued development of a commercially viable and self-sustaining fishery, a vibrant recreational harvesting sector (where recreational access has been approved) and ensure respect for the constitutional protection afforded Aboriginal treaty rights. • To provide fair access to and equitable sharing of groundfish resources.	
Strategies	**Management Approach**
• No new access to the commercial fishery. • Use key departmental criteria of adjacency, historical dependence, ~~and~~ economic dependency and land claims obligations ~~-~~when considering new allocations	• Maintain limited entry licensing • Maintain historical allocations key

5.4 Fisheries Compliance

• Ensure compliance with management measures intended to foster an orderly fishery. (See Appendix 3 as well)	
Strategies	**Management Approach**
• Employ effective monitoring and surveillance tools and mechanisms that ensure compliance with conservation measures	• Vessel Monitoring Systems for vessels larger than 35' LOA • Dockside Monitoring Programs for 100% of landings • Aerial and dockside surveillance in addition to periodic audits of landings and catch information outside regular operations. • Observer coverage at targeted levels

6.0 Access and Allocation

6.1 Sharing Arrangements:

2013 Groundfish Shares			
Species	**French Quota***	**NAFO Members (Excluding Canada)**	**Canadian Quota**
2GH and 2+3KL Cod	Moratorium		
3LNO Haddock	Moratorium		
2+3K Redfish	Moratorium		
2+3K and 3NLO American Plaice	Moratorium		
3LNO Yellowtail	N/A	2.5%	97.5%
2+3KL Witch	Moratorium		
2+3K Greenland Halibut (Turbot)	3.0%	N/A	97.0%
3LMNO Greenland Halibut (Turbot)	N/A	85.0%	15.0%
2+3KL Grenadier	Moratorium		
3LNO Skates	N/A	83.3%	16.6%
2+3KL Winter Flounder	No Total Allowable Catch		
2GHL & 3KL Lumpfish	No Total Allowable Catch		

* As per a bilateral fisheries treaty between Canada and France in respect of the French Islands of St. Pierre et Miquelon.

6.2 Quotas and Allocations:

2013 Canadian Groundfish Allocations									
			Fixed Gear					Mobile Gear	
Species	**Vessels Over 100'**	**Communal**	**fg/ef < 35'**	**fg/ef 35-64'**	**fg/ef < 65'**	**fg/ef > 65'**	**fg/ef 65'-100'**	**mg/em < 65'**	**mg/em 65'-100'**
2GH and 2+3KL Cod	Moratorium								
3LNO Haddock	Moratorium								
2+3K Redfish	Moratorium								
2+3K and 3NLO American Plaice	Moratorium								
3NLO Yellowtail	100%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2+3KL Witch	Moratorium								
2+3K Greenland Halibut (Turbot)	37.04%	3.38%	N/A	N/A	51.12%	N/A	6.48%	1.81%	0.17%
3LMNO Greenland Halibut (Turbot)	32.84%	3.38%	N/A	N/A	59.42%	N/A	2.61%	1.55%	0.19%
2+3KL Grenadier	Moratorium								
3LNO Skates	N/A	N/A	11.69%	32.49%	N/A	10.00%	N/A	45.82%	
2+3KL Winter Flounder	No Total Allowable Catch								
2GHL & 3KL Lumpfish	No Total Allowable Catch								

Scientific advice and assessments in conjunction with input from industry and Aboriginal groups are the basis for the determination of TACs. Groundfish resources within Div. 2+3KL are monitored and assessed regularly and new advice is provided if a significant change is detected. Groundfish TACs will be modified as required during the term of this multi-year management plan.

As the IFMP is a multi-year plan, quotas may change due to harvest control years. Please see the DFO Fisheries Management Decisions website for updated information.

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.

7.0 Shared Stewardship Arrangements

7.1 Oceans Management Initiatives Promoting Shared Stewardship

Recognizing the need to manage Canada's fisheries and oceans using an ecosystem approach, DFO is leading the development of integrated oceans management plans. Similarly, this ecosystem approach has also predicated the development of integrated fisheries management plans. Linking the two will allow for integration of fisheries and non-fisheries related uses of Canada's oceans. Embedding fisheries management, as far as feasible within the broader ecosystem approach will help to minimize resource conflicts and achieve sustainable management.

The *Oceans Act* and Canada's Ocean Strategy provides the legislative framework for integrated oceans management planning in Canada. As well, the National Framework for Canada's Network of Marine Protected Areas (MPAs) provides the strategic direction for establishing a national network of MPAs to help achieve broader conservation and sustainable development objectives identified through integrated oceans management planning.

Integrated oceans management and national MPA network planning within the Newfoundland-Labrador shelves bioregion provides a collaborative governance model, founded on principles of shared responsibility. As a result, stewardship is promoted by providing a forum for consultation with the stakeholders who want to be engaged in marine resource or activity management decisions that affect them.

While DFO is just beginning to explore the opportunities for better connecting fisheries management plans and integrated oceans management plans, aligning the two will support evidence based resource use and fisheries management decisions, made with input from multiple interests, including commercial fisheries and other stakeholder groups.

7.2 Working Arrangements/Existing Agreements

- The DFO-World Wildlife Fund (WWF) Canada Collaborative Agreement brings together both parties to work toward a common goal: the conservation, protection, and sustainable development of Canada's oceans as mandated by the *Oceans Act*. It is agreed that DFO and WWF – Canada will work jointly to promote long-term and sustainable use of the oceans resources.

8.0 Performance Review

The IFMP was developed through an extensive consultative process including harvesters, processors, aboriginal interests, and foreign governments. Fisheries and Oceans will continue to consult and liaise with these groups on a regular basis throughout the life of this IFMP, both through formal advisory processes, working

groups as well as on a more informal ad hoc or issue-related basis between advisory processes.

Long-term growth of the stocks will be assessed through regular Science Advisory Reports (SAR's) where appropriate.

Monitoring control and surveillance of the Fisheries will be accomplished using several tools including quota reports, IQ and EA status reports, and end-of-year quota reports that provide resource managers with hindsight into efficiency of management tools for a given year.

Post season analysis sessions will be conducted with C&P and Resource Management staff to review issues encountered during the previous season and to make recommendations on improving management measures. These sessions will be conducted at the Area level and the regional level and include all sectors of DFO.

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 stocks or a population.

Age Composition: Proportion of individuals of different ages in a stock or in the catches.

Anadromous: An anadromous species, such as salmon, spends most of its life at sea but returns to fresh water grounds to spawn in the river it comes from.

Area/Subarea:

Biomass: total weight of all individuals in a stocks or a population.

By-catch: The unintentional catch of one species when the target is another.

Catch per Unit Effort (CPUE): The amount caught for a given fishing effort. Ex: tonnes of shrimp per tow, kilograms of fish per hundred longline hooks.

CGIAC: Commercial Groundfish Integrated Advisory Committee

CIC: Commercial Industry Caucus: A sub-committee of the CGIAC consisting of commercial groundfish vessel representatives and processors.

Communal Commercial Licence: Licence issued to Aboriginal organizations pursuant to the *Aboriginal Communal Fishing Licences Regulations* for participation in the general commercial Fisheries.

Conservation Harvesting Plan (CHP): Fishing plans submitted by all gear sectors which identify harvesting methods aimed at minimizing the harvest of small fish and by-catch of groundfish.

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.

Discards: Portion of a catch thrown back into the water after they are caught in fishing gear.

Dockside Monitoring Program (DMP): A monitoring program that is conducted by a company that has been designated by the Department, which verifies the species composition and landed weight of all fish landed from a commercial fishing vessel.

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 species interactions and the interdependencies between species and their habitats when making resource management decisions.

Escapement: Reference to salmon - the number of fish escaping the Fisheries and reaching the spawning grounds.

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.

Fixed Gear: A type of fishing gear that is set in a stationary position. These include traps, weirs, gillnets, longlines and handlines.

Food, Social and Ceremonial (FSC): A Fisheries conducted by Aboriginal groups for food, social and ceremonial purposes.

Gillnet: Fishing gear: netting with weights on the bottom and floats at the top used to catch fish. Gillnets can be set at different depths and are anchored to the seabed.

Groundfish: Species of fish living near the bottom such as cod, haddock, halibut and flatfish.

Handlining: Fishing using a line with usually one baited hook and moving it up and down in a series of short movements. Also called "jigging".

Landings: Quantity of a species caught and landed.

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.

Longlining: Using long lines with a series of baited hooks to catch fish.

Maximum Sustainable Yield (MSY): Largest average catch that can continuously be taken from a stocks.

Mesh Size: Size of the mesh of a net. Different fisheries have different minimum mesh size regulation.

Mobile Gear: A type of fishing gear that is drawn through the water by a vessel to entrap fish. These include otter trawls and Danish/Scottish Seines.

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 recognized 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.

Otolith: Structure of the inner ear of fish, made of calcium carbonate. Also called "ear bone" or "ear stone". Otoliths are used to determine the age of fish: annual rings can be observed and counted. Daily increments are visible as well on larval otoliths.

Pelagic: A pelagic species, such as herring, lives in midwater or close to the surface.

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.

Purse Seine: Large net used to encircle fish from a boat called a "seiner" and equipped with a wire rope on the bottom to draw the net together. A small boat, called "skiff", participates in manoeuvring the net.

Quota: Portion of the total allowable catch that a unit such as vessel class, country, etc. is permitted to take from a stock in a given period of time.

RCA: Rockfish Conservation Area, which is an area that is closed for the protection of various inshore rockfish species to fishing activities that negatively impact rockfish.

Recruitment: Amount of individuals becoming part of the exploitable stocks e.g. that can be caught in a fishery.

Research Survey: Survey at sea, on a research vessel, allowing scientists to obtain information on the abundance and distribution of various species and/or collect oceanographic data. Ex: bottom trawl survey, plankton survey, hydroacoustic survey, etc.

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.

Spawner: Sexually mature individual.

Spawning Stocks: Sexually mature individuals in a stock.

Stocks: Describes a population of individuals of one species found in a particular area, and is used as a unit for fisheries management. Ex: NAFO area 4R herring.

Stocks Assessment: Scientific evaluation of the status of a species belonging to a same stocks within a particular area in a given time period.

Total Allowable Catch (TAC): The amount of catch that may be taken from a stocks.

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.

Tonne: Metric tonne, which is 1000kg or 2204.6lbs.

Trawl: Fishing gear: cone-shaped net towed in the water by a boat called a "trawler". Bottom trawls are towed along the ocean floor to catch species such as groundfish. Mid-water trawls are towed within the water column.

Validation: The verification, by an observer, of the weight of fish landed.

Vessel Size: Length overall.

Year-class: Individuals of a same stocks born in a particular year. Also called "cohort".

Appendices

Appendix 1: Stocks Assessment Results
Science advice, proceedings and stocks assessments/scientific evaluations resulting from of CSAS meetings are available online at: http://www.meds-sdmm.dfo-mpo.gc.ca/csassccs/applications/Publications/index-eng.asp.

Appendix 2: Management Measures for the Duration of the Plan
The following 2013 CHP's are contained in this Appendix:

a. 2+3KL Stewardship Cod
b. 2+3K Greenland Halibut (Turbot)
c. 3LMNO Greenland Halibut (Turbot)
d. Nunasiavut Government Greenland Halibut (Turbot)
e. Groundfish Enterprise Allocation Council
f. Fixed Gear Scandinavian Longline
g. Mobile Gear 65-100
h. Fixed Gear 65-100
i. Mobile Gear Less Than 65
j. Newfoundland Lumpfish
k. 3KL Winter Flounder (Blackback)

These CHP's are relatively stable from year to year. Any significant update in any CHP will result in it being updated in this IFMP and posted. Copies of the latest CHP's, which include detailed and specific measures for each species of groundfish, are available from DFO offices upon request. These measures, combined with responsible fishing practices, should ensure that the conservation goals are met. However, if the fishery is not conducted in an orderly manner, the Department may implement additional management measures or controls in these fisheries.

Appendix 3: Enforcement Measures for the Duration of the Plan
The deployment of Conversation and Protection (C&P) resources in the 2+3KL groundfish fishery is conducted in conjunction with the management plan objectives as well as in response to emerging issues. The mix of enforcement options available and overriding conservation objectives determine the level and type of enforcement activity. The enforcement work-planning process is designed to establish priorities based on management objectives and conservation concerns. The monitoring and evaluation elements of enforcement work-plans facilitate in-season adjustments should conservation concerns and/or significant non-compliance emerge.

Regional Compliance Program Delivery

The Conservation and Protection 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, identified under the following three pillars:

- 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.

Pillar 1: Education and Shared Stewardship

Conservation and Protection Supervisors and Area Chief will actively participate in annual consultations with the fishing industry and aboriginal organizations. Compliance issues will be presented and recommendations requested for resolution. As well, informal meetings will continue on an ad hoc basis to resolve in-season matters.

The consultative process will also include Area Chief Membership on the Placentia Bay Integrated Management Planning Committee. This committee is comprised of fishers, other organizations and all levels of government.

Part of the education pillar will have Fishery Officers present and discuss fisheries conservation during visits to local schools, plus they will interact with fishers on a regular basis. The resulting information will be used as part of the planning process within C&P.

Pillar 2: Monitoring Control & Surveillance

Compliance Monitoring

The C&P will promote compliance with the management measures governing the 2+3KL commercial groundfish fishery by the following means: C&P Patrols, Dockside Inspections, At-Sea Inspections, Aerial Surveillance, Vessel Monitoring System (VMS), and through At-Sea Observer Deployments.

The C&P Detachments will conduct groundfish fishery patrols by vehicle, vessel, and fixed wing aircraft. Middle distance patrols will be conducted using Canadian Coast Guard and Department of National Defence vessels.

Each detachment will ensure that monitoring and inspections of fish landing activity are to be carried out on a routine basis. Where a vessel is selected for comprehensive

inspection, officers will ensure that catch composition, weight verification and size variation sampling is conducted.

Conservation and Protection Supervisors responsible for 2+3KL will ensure that surveillance flights are conducted on a routine basis. Flights will be tasked to both offshore and inshore groundfish fisheries.

The VMS system will be relied upon to provide real-time data on the location of vessels within this fleet. Utilization of this resource will assist officers in determining where the enterprise is fishing, the port of destination and the estimated time of arrival to port. The VMS data will also be relied upon to conduct future analysis and comparisons of fishing activity.

At-Sea Observers will be randomly deployed to observe, record and report aspects of the fishing activity. The resulting data will be utilized to compare catch composition of vessels (observed trips vs. non observed trips).

Fishery Officers will review quota monitoring reports to ensure individual quotas are not exceeded.

Compliance Performance

Post season analysis sessions will be conducted with C&P and Resources Management staff to review issues encountered during the previous season and to make recommendations on improving management measures. The initial sessions will be conducted at the Area level, followed by a regional session that will be held with other sectors.

Pillar 3: Major Case

Current Compliance Issues

Compliance issues in the fishery include: fishing gear requirements; quota overruns; high grading; unmonitored landings; and fishing during closure. The primary focus of C&P efforts for the duration of this Integrated Fisheries Management Plan will be on verifying compliance to the requirement to report accurately all fishing activities related to this species. A secondary focus will be on the detection of unmonitored landings.

Compliance Strategy

The C&P program develops yearly operational plans that outline monitoring and compliance activities that will be carried out by C&P personnel adjacent to the 2+3KL areas. The plan provides guidance; promotes effective monitoring; and, enables personnel to effectively maintain compliance with management measures governing the 2+3KL commercial groundfish fisheries.

The objectives of the operational plans are to provide a body of information that will provide guidance to C&P personnel, while engaged in monitoring and reviewing this

fishery, to ensure compliance and conduct investigations. Sources of information to be used include vessel positioning data, officer inspection data, fishing logs, DMP records, At Sea Observer records and purchase transactions.

Appendix 4: Post-Season Review
Self-diagnostic tools like the Fishery Checklist (a tool for internal use) can help the Department monitor improvements that support sustainable fisheries. A fishery checklist is completed annually, and helps to identify areas of weakness that require further work.

Appendix 5: Departmental Contact(s)
Fisheries Management Branch / Gestion des Pêche
Fisheries and Oceans Canada / Pêche et Océans Canada
Newfoundland and Labrador Region / Région de Terre-Neuve et de Labrador
P. O. Box 5667 / C.P. 5667
St. John's, NL A1C 5X1

(Ph) 709-772-4418 (Fax) 709-772-3628

Appendix 6: Safety at Sea
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, protect the vessel from damage and protect the environment. All fishing vessels must be in a seaworthy condition and maintained as required by Transport Canada (TC), 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 Newfoundland and Labrador, the Workplace Health, Safety and Compensation Commission (WHSCC) has jurisdiction over health and safety issues in the workplace.

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.

Useful publications include Transport Canada Publication TP 10038 '*Small Fishing Vessel Safety Manual*' which can be obtained from TC or printed from their website: www.tc.gc.ca/MarineSafety/Tp/Tp10038/tp10038e.htm.

There are several issues that are important for fishing vessel safety, including three priority areas: vessel stability, emergency drills, and cold water immersion.

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. Fishers 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.

Emergency Drill Requirements
The master must establish procedures and assign responsibilities to each crew member for emergencies such as crew member overboard, fire, flooding, abandoning ship and calling for help.

Since July 30, 2003 all crew with more than 6 months at sea are required to have taken minimum Marine Emergency Duties (MED) training or be registered for such training. MED provides a basic understanding of the hazards associated with the marine environment; the prevention of shipboard incidents (including fires); raising and reacting to alarms; fire and abandonment situations; and the skills necessary for survival and rescue.

Cold Water Immersion
Drowning is the number one cause of death in the fishing industry. Cold water is defined as water below 25 degrees Celsius, but the greatest effects occur below 15 degrees. Newfoundland and Labrador 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.

Other Issues
Weather
Vessel owners and masters are reminded of the importance of paying close attention to current weather treads and forecasts during the voyage. Marine weather information and forecasts can be obtained from Environment Canada website at: www.weatheroffice.ec.gc.ca

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 fishers 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.

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 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.

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 or from the Coast Guard website:
www.ccg-gcc.gc.ca

Collison Regulations

Fishers 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, fishers 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.

Buddy System

Fishers 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 fisher 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.

Appendix 7: Map of Fishing Area

See Section 1.0