# Greenland Halibut (*Reinhardtius* hippoglossoides) - Northwest Atlantic Fisheries Organization Subarea 0 - Effective 2014



### Greenland Halibut

(Reinhardtius hippoglossoides)

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*. 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.

S. Gilbert, A/Regional Director Fisheries Management, Central and Arctic Region, Fisheries and Oceans Canada

# 1. Overview of the Fishery

The Greenland Halibut fishery addressed by this Integrated Fisheries Management Plan (IFMP) occurs in the Northwest Atlantic Fisheries Organization (NAFO) Subarea 0 (Figure 1). Subarea 0 is divided into a northern region, Division 0A (Baffin Bay) which extends from 78°10'N to 66°15'N, and a southern region, Division 0B (Davis Strait) which extends from 66°15'N to 60°12'N.

The Division 0A fishery is an enterprise allocation type fishery with quota reserved exclusively for Nunavut interests, as approved by the Minister. The Division 0B quota is currently shared between Special Allocations, Enterprise Allocations and a competitive allocation. Participants include interests from Nunavut, Nunavik, Labrador, Newfoundland and Nova Scotia.

The Division 0A fishery operates on the calendar year. The fishing season is dictated by the presence of sea ice but typically begins in June and ends in November. Both mobile (single and twin bottom otter trawl configurations) and fixed (longline or gillnet) gear vessels are used and vessels are typically greater than 28m (92') in length due to the harsh environment and location of this fishery. All vessels used in the offshore are outfitted with factory freezer capabilities. The average number of vessels operating in Division 0A between 2005 and 2011 was 10. In 2011 approximately half of the Division 0A quota was taken by mobile gear and half by fixed gear. Lack of infrastructure (i.e. port facilities and processing plants) in the North presents landing constraints. As a result, catches are offloaded predominately in Greenland ports. In some years a limited amount of fishing has occurred under the 100t exploratory inshore quota.

The Division 0B fishery operates on the calendar year. In the offshore, both mobile (single and twin bottom otter trawl configurations) and fixed (longline or gillnet) gear vessels are used and all have factory freezer capabilities. The fishing season is dependent on ice conditions and usually starts in May and finishes at the end of November. The exception is the Fixed Gear Competitive fishery (quota = 900t) which historically has opened within the first or second week of June and ends when the quota is reached. On average between 2005 and 2011, there were 16 vessels fishing in Division 0B each year. In 2011 ~60% of the Division 0B quota was taken by mobile gear and ~40% by fixed gear. Interest exists in further development of an inshore summer fishery in the Division 0B portion of Cumberland Sound.

#### Governance

Canada and Denmark (on behalf of Greenland) request the NAFO Scientific Council to conduct the stock assessment for the Subarea 0 and Division 1A (offshore) and Divisions 1B-F stock area, including recommendations on Total Allowable Catch (TACs) for Division 0A and 1A (offshore) and 1B in the north and Divisions 0B and 1C-F in the south. Canada retains management authority for stocks in Subarea 0, while Greenland retains management authority in Subarea 1.

Canada's Fisheries Act, and the Fishery (General) Regulations and the Atlantic Fishery Regulations, as well as the Oceans Act and the Species at Risk Act (SARA) are the main pieces of federal legislation under which the Subarea 0 Greenland Halibut fishery is managed. The powers granted pursuant to these Acts and Regulations permit the Minister to specify licence conditions

related to vessel type, gear, species and catch limits, incidental catch, fishing restrictions, information reporting, vessel monitoring system, *SARA* listed species etc.

The Subarea 0 Greenland Halibut fishery is managed consistent with the *Nunavut Land Claims Agreement (NLCA)* and the *Nunavik Inuit Land Claims Agreement*. While Government retains ultimate responsibility for wildlife management within and outside respective settlement areas, the Agreements, among other things, set out the harvesting rights of the beneficiaries to the respective Agreements, provide for the establishment of wildlife management structures, set out the role of those structures and cooperative management processes, and contain provisions related to defined waters outside of the settlement areas.

DFO has developed a National Sustainable Fisheries Framework to promote an ecosystem-based approach to fisheries management. This policy framework applies to the Subarea 0 Greenland Halibut fishery.

This IFMP applies to the Subarea 0 Greenland Halibut fishery in waters both inside and outside the Nunavut Settlement Area (NSA). In addition to working with co-management organizations, the management of the Subarea 0 Greenland Halibut fishery is done in collaboration with fishery participants and other stakeholders. Fishery review meetings with co-management organizations and stakeholders are held to review current management measures, discuss management issues, and provide management recommendations. In accordance with the terms of the *NLCA*, applicable management recommendations are provided for NWMB decision and/or advice. Stakeholder and NWMB decision/recommendations, as approved by the Minister, are incorporated into the IFMP for final approval by the Minister (or designate).

# 2. Stock Assessment, Science, and Traditional Knowledge

Greenland Halibut of the Northwest Atlantic are highly migratory. The Northwest Atlantic population extends south from Baffin Bay to the waters off the continental slope of Labrador and outer Grand Banks east of Newfoundland, east into Greenland waters and Denmark Strait.

The Baffin Bay-Davis Strait Greenland Halibut stock is thought to originate primarily in the deep-water (800-2000m) spawning grounds in Davis Strait near the submarine ridge between Baffin Island and Greenland. Once spawning occurs, eggs and then larvae drift for up to four months before they metamorphose into the bottom-dwelling life stage. Eggs and larvae originating in the Davis Strait spawning grounds are thought to drift with the currents along the coast of West Greenland and then westwards, until larvae settle on the Greenland and Baffin Island shelves. These relatively shallow waters (<400m) in Baffin Bay and Davis Strait are considered nursery areas where fish are thought to spend the first few years of their lives. Larger fish are found at greater depths and it is believed that the fish migrate off the banks into deeper waters, i.e. eastward into the fjords of Northwest Greenland and south and westward into Baffin Bay and Davis Strait.

Inuit and fisher Traditional Ecological Knowledge (TEK) is an important component of fisheries management and is used with scientific knowledge for effective fisheries decision-making.

While Inuit did not traditionally fish Greenland Halibut, Inuit fishers as well as other users have knowledge of the resource. For example, Inuit have experience in the Cumberland Sound inshore fishery which can contribute to understanding in areas such as climate change, sea ice patterns, and fish movements. TEK can contribute to an understanding of long-term changes in environments that ultimately affect the management of Greenland Halibut in Subarea 0.

Biomass and abundance indices, length frequency distribution and catch-per-unit-effort are currently the key metrics used in stock assessments and subsequent recommendations from the NAFO Scientific Council on TACs.

NAFO Scientific Council recommended TACs are set on the basis of available stock biomass and abundance indices and catch size structure. In general, the lack of an appropriate assessment model and precise estimates of Greenland Halibut age and growth makes predicting the impact of fishing effort on future stock recruitment difficult.

## **Precautionary Approach**

A precautionary approach to the management of the fishery, consistent with the basic tenants set out in DFO's *Fishery Decision-Making Framework Incorporating the Precautionary Approach* is applied. Priority is given to monitoring the stock and establishing a data time series to support management decisions. Monitoring stock indices and quantifying scientific uncertainty is done following specific criteria, and peer reviewed through the NAFO Scientific Council process.

# 3. Economic, Social and Cultural Importance of the Fishery

In Division 0A, during 2005–2011, average Greenland Halibut landings were 5,864t generating an average landed value of \$26 million. In Division 0B, during 2005–2011, average Greenland Halibut landings were 5,951t generating an average landed value of \$25 million.

Several useful economic indicators are tracked to focus on the trends in recent years. Trends in these variables explain in part the current economic viability of the Greenland Halibut fishery. Exchange rates and ever increasing costs of production have significantly squeezed the profit margin in recent years.

Eco-certification of a fishery from one of the international certification bodies, which is being driven by retailers and the food service sector, has gained significant momentum and become much more main stream. Meeting these increasing buyer preferences imposes additional costs on harvesters.

# 4. Management Issues

#### 4.1 Fisheries Issues

*Scientific Knowledge* - The multi-species surveys are the main basis for Greenland Halibut stock assessment and TAC recommendations. These surveys also provide data on species, benthic habitats and oceanographic conditions. Surveys and research need to continue to support management decisions and resource conservation.

Implementation of a precautionary approach – There are a number of scientific data limitations which preclude the use of standard biomass and harvest metrics to determine reference points and stock status for the Subarea 0 Greenland Halibut stock. Work is planned to explore the use of proxies for calculating reference points and defining harvest decision rules.

Size distribution of catch – Fish size composition of catches varies depending on the gear type and Division. Currently there is a mix of both fixed gear and mobile gear used to prosecute the fishery, with trawls catching primarily small, immature fish, whereas gillnets are catching larger fish with a mix of immature and mature status. Scientific assessments continue to show the stock is healthy with stable or increasing trends in biological indices, suggesting the level of exploitation and harvesting approach have been effective to date. DFO will continue to closely monitor biological indices and the size distribution of the catch, and will take action as needed to ensure sustainability of the resource.

Bycatch management – Improvements are needed in bycatch management, including reporting on both retained and released bycatch species as well as clear and consistent information in all Subarea 0 Greenland Halibut fishery management documents. Effective solutions to specific bycatch issues need to be developed in collaboration with harvesters.

Reporting – Issues exist with the accuracy of information reported to DFO including discard amounts, bycatch amounts, landings, etc. Timeliness of reporting is also an issue in some cases. This information is used to monitor quotas and effectiveness of management measures. It is also essential for demonstrating sustainable harvesting and fish harvested are legal, reported and regulated. Concerted efforts are required by all licence holders to provide timely, accurate and complete information as outlined in licence conditions. DFO will continue to work with industry and, where applicable, international counterparts to improve reporting in the Greenland Halibut fishery.

Fishery monitoring - Monitoring is carried out by harvesters, third party At-sea Observers designated by DFO, and DFO staff. A variety of tools and best practices are used to meet fishery monitoring requirements. New approaches and technologies need to be considered and tested. In collaboration with fishery participants, DFO will assess the risks and management requirements of the fishery, review the efficiency of the current fishery monitoring and reporting program, and make changes as required to support sustainable harvesting practices.

Fishery modernization – DFO is implementing a number of changes aimed at modernizing fisheries management to ensure Canada's fisheries are more sustainable, prosperous and competitive for years to come. These changes will be phased in over time in this fishery,

beginning in 2013, and will make better use of common modern technology, ensure services are consistent nationally, and bring greater stability to the fishing industry. These transitions will require cooperation by all parties.

Compliance – There are a number of ongoing compliance issues in this fishery as outlined in Chapter 9 of the IFMP. Conservation & Protection will continue to work with industry representatives as well as vessel captains to address compliance issues. Enforcement action is taken when warranted.

*Performance review* –Frequency, timing and format of future meetings need to be discussed with stakeholders and alternatives to in person meetings explored. As well, indicators and targets to measure progress on achieving objectives need to be developed.

#### 4.2. Depleted Species Concerns

Subarea 0 contains several depleted species which have either been listed under *SARA*, assessed by Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and awaiting *SARA* listing, or are under a DFO moratorium. These species are of conservation concern for a number of reasons. Also to be noted is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) of which Canada is a member.

There are also species which do not fall under any of the above formal listing processes but for which concerns exist. For example, sharks and skates typically grow slowly, mature late, and produce few offspring making them susceptible to overexploitation, thus a precautionary approach to management and conservation of these species is warranted.

#### 4.3. Oceans and Habitat Considerations

Sensitive cold-water corals have been identified in the deep waters (>500 m) of the southeastern portion of Subarea 0. The current fishing closure in Division 0A helps protect these corals. Sponges are also important habitat-forming species that have been found in Subarea 0. A *Coral and Sponge Conservation Strategy for Eastern Canada* is currently under development, which includes the eastern arctic.

#### 4.4. Gear Impacts

Size and age composition of Greenland Halibut catches in Subareas 0 and 1 can vary depending on gear type. As well different gear types can have different bycatch rates. In the Division 0A fishery, 81 species or families were recorded as bycatch during 11 trips in the trawl fishery and 61 species were recorded during 17 trips in the gillnet fishery. Greenland Shark, Thorny Skate, Arctic Skate and Roughhead Grenadier were the most commonly caught bycatch species by both gear types. In the Division 0B trawl fishery, 120 species or families were recorded over 13 trips. The most commonly caught species were Greenland Shark, Thorny Skate, several grenadiers, redfish, Northern Wolffish and sponge. Thirty eight species were recorded during two observed

trips in the Division 0B gillnet fishery and the most common bycatch recorded was Roughhead Grenadier.

Longline gear is the only gear authorized for use in Cumberland Sound and it is the gear recommended for use in other inshore areas of Baffin Island. Impacts and risks associated with Greenland Halibut gillnet fisheries in inshore areas of Baffin Island include: entanglement of marine mammals and Greenland Shark in nets that are actively fishing; entanglement of marine mammals, Greenland Shark, Greenland Halibut and other fish species in nets that become lost; and selective removal of large Greenland Halibut females that could affect future spawners and recruitment.

Timely, accurate and complete information from both harvesters and At-sea Observers is important to monitor and address gear impact related issues.

#### 4.5. International Issues

Canada has various international commitments, agreements and obligations regarding commercial marine fisheries and has developed domestic policies and tools (e.g. Sustainable Fisheries Framework) to support them. These will be implemented in the Subarea 0 Greenland Halibut fishery in a phased and progressive manner over a number of years based on priorities established by DFO in consultation with fishery groups and other fishery interests.

Also to be noted, a substantial portion of Greenland Halibut caught in this fishery is offloaded in foreign ports (e.g. Greenland, Iceland).

# 5. Objectives

Objectives for the Greenland Halibut fishery are a key component of the IFMP. Long term objectives guide the management of the fishery and are categorized as stock conservation, ecosystem, shared stewardship, compliance, and social, cultural and economic objectives. Each long term objective is supported by one or more short term objectives and address existing management issues in the fishery. The objectives listed in Table 1 were developed in consultation with industry, co-management and Inuit organizations, and other stakeholders

Table 1. Long and short term objectives for the Subarea 0 Greenland Halibut fishery.

Long-term Objective	Short-term Objective
Stock Conservation	
Conserve the Greenland Halibut stock through sustainable use and effective fishery management.	<ul> <li>Improve knowledge of Greenland Halibut biology through the continuation of ageing, maturity, genetics and migration studies.</li> <li>Secure funding for annual multi-species surveys to monitor Greenland Halibut abundance and biomass.</li> <li>Improve the timeliness and accuracy of reporting in the fishery.</li> <li>Promote fishing practices that maximize quality of the catch thereby minimizing discards.</li> <li>Review the current fishery monitoring program once a national catch monitoring and reporting framework is in place.</li> <li>Explore the use of proxies for determining reference points.</li> </ul>
Take a precautionary approach to fishery decisions for the Subarea 0 Greenland Halibut stock.	<ul> <li>Given uncertainties related to the Subarea 0 Greenland Halibut stock, take a precautionary approach to setting TACs.</li> </ul>
Ecosystem	
Conserve sensitive benthic areas through effective fishery management.	<ul> <li>Promote fishing practices that avoid or mitigate impacts on sensitive benthic habitats.</li> </ul>
Conserve bycatch species through effective fishery management.	<ul> <li>Promote fishing practices that avoid or mitigate impact on bycatch species.</li> <li>Improve bycatch reporting in order to account for total catch.</li> <li>Improve reporting of marine mammal encounters.</li> </ul>

Table 1. Long and short term objectives for the Subarea 0 Greenland Halibut fishery.		
Long-term Objective	Short-term Objective	
Shared Stewardship		
Promote collaboration, participatory decision making, and shared responsibility with resource users, co-management organizations and other interested parties.	<ul> <li>Conduct Greenland Halibut fishery meetings with stakeholders on a more frequent basis.</li> </ul>	
Promote collaborative science and management initiatives with Greenland.	<ul> <li>Transition shared responsibility, accountability and decision making to licence holders within the constraints of the Fisheries Act and land claims agreements.</li> </ul>	
Social, Cultural and Economic		
Promote a competitive and prosperous fishing industry that is able to maximize value from fisheries resources and generate economic growth, while ensuring stocks remain healthy and abundant for future generations.	<ul> <li>Establish shares for the Division OB competitive fixed gear fishery for stability in allocation and effective management.</li> <li>Support increased market access initiatives such as eco-certification.</li> <li>Continue to take into account relevant land claim agreements and Government of Canada strategies and policies when making access and allocation decisions.</li> </ul>	
Compliance		
Support effective fisheries management through a comprehensive compliance program.	<ul> <li>Conduct a risk assessment of compliance issues.</li> <li>Implement a variety of compliance activities and risks.</li> </ul>	

#### 6. Access and Allocation

There are two elements that frame the sharing of adjacent marine resources: access (i.e. licences for participating in the fishery) and allocation (i.e. distribution of quota). 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*.

When making decisions regarding access to fisheries resources, primary consideration is given to conservation. Other important considerations taken into account include relevant land claims agreements, the principle of adjacency, historical dependence and economic viability. In a similar vein, the allocation of any increase in TAC is determined based on relevant land claims agreements, adjacency, historical participation, economic viability and other considerations.

Access to Nunavut's share of the resource in Divisions 0A and 0B is determined in cooperation with the NWMB who provides decisions and recommendations to the Minister for decision with respect to allocations to Nunavut interests. To make these decisions and recommendations, the NWMB follows its *Allocation Policy for Commercial Marine Fisheries*.

# 7. Management Measures

Management measures outline the controls or rules adopted for the fishery, including stock conservation and ecosystem management measures. These measures are based on the *Fisheries Act* and *SARA* and the regulations made under these acts. In addition, non-quota limitations may be established under the *NLCA* on harvesting activities in the Nunavut Settlement Area. For the Subarea 0 Greenland Halibut fishery, Canadian TACs are updated annually on the DFO Fisheries Management Decision website. Annual Variation Orders outline fishing season and areas. In addition to the provisions set out in the *Fishery (General) Regulations* and *Atlantic Fishery Regulations*, specific management measures are outlined in annual licences. Conservation Harvest Plans reiterate key management measures found in licences and the IFMP, as well as any industry proposed Codes of Conduct for responsible fishing. *SARA* requirements are included in licences, and licence conditions list species and specific mitigation measures. Habitat protection measures (including closures or partial closures) are also listed in licences. Appendix 1 provides an overview of management measures currently in place in the NAFO Subarea 0 Greenland Halibut fishery and is appended to this summary.

A Narwhal Overwintering and Coldwater Coral Closure zone was established in Division 0A and implemented in the 2006-2008 Fishery Management Plan to protect important narwhal overwintering and coldwater coral areas (Figure 1). The area is closed to Greenland Halibut fishing.

Quota reconciliation is applied to the Subarea 0 Greenland Halibut fishery. Quota reconciliation provides that any overharvest of a quota in one year will be accounted for in advance of the following fishing season.

## 8. Shared Stewardship Arrangements

The Greenland Halibut fishery has a long history of shared stewardship arrangements. Internationally, Canada and Denmark (on behalf of Greenland) ask the NAFO Scientific Council to conduct the Greenland Halibut stock assessment and provide TAC recommendations. As well DFO and the Greenland Department of Fisheries, Hunting and Agriculture are signatories to a Memorandum of Understanding on Issues Related to Satellite Based Vessel Monitoring System (VMS). Regionally, co-management organizations, industry, and the Government of Nunavut have provided financial support to the multi-species survey program. Research undertaken in collaboration with the Government of Nunavut and its research vessel supports the development of inshore fisheries. In addition, DFOand the NWMB are continuing to develop verification reporting to support the NWMB's stewardship requirements under its *Allocation Policy for Commercial Marine Fisheries*. Conservation & Protection will continue to provide all pertinent information to the NWMB to assist in its evaluation process and understanding of the various compliance issues in the fishery, subject to privacy legislation.

Through a Memorandum of Understanding with Transport Canada, there is a commitment ensuring safety considerations are outlined in every fisheries management plan.

# 9. Compliance Plan

The Conservation & Protection program promotes 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. Fishery Officers are responsible for compliance activities related to the Greenland Halibut fishery.

Certified At-sea Observers are deployed to perform duties best described as "Observe, Record and Report." Duties are related to monitoring of fishing activities, examination and measurement of fishing gear, collection of biological samples, recording of scientific data, monitoring the landing of fish, and verification of the weight and species of fish caught and retained.

All vessels engaged in the NAFO Subarea 0 Greenland Halibut fishery are required to carry a DFO approved satellite tracking device. This Vessel Monitoring System is used to monitor fleet activity particularly in and around closed areas and international boundaries as well as deploy surveillance resources.

Both air surveillance and at-sea patrols are increasing with frequency in the NAFO Subarea 0 Greenland Halibut fishery. Patrol coverage using government or chartered aircraft with a Fishery Officer onboard is used to identify concentrations and distribution of fishing vessels. In particular, air patrols are necessary to monitor closed and/or conservation areas and the Canadian Greenland equidistant boundary for illegal foreign fishing.

Compliance issues in this fishery include the following:

- failing to comply with reporting requirements;
- fishing in unlicensed areas;
- late submission of logbooks, daily hails and offload reports;

- lack of proper weighing of species and product type at offload; and
- unattended gear.

Fishery Officers conduct investigations in response to reported violations of fishing in the Narwhal Overwintering and Coldwater Coral fishing closure, other closed areas, licence conditions (e.g. logbook recording, Vessel Monitoring System reporting), regulations (e.g. soak times), international boundary complaints and other elements of the fishery. Where warranted appropriate enforcement action is taken.

#### 10. Performance Review

This IFMP was developed through a consultative process including resource users, comanagement organizations, and other interested parties. DFO will continue to consult and liaise with these groups on an annual basis and as circumstances require, both through formal advisory processes as well as informal ad hoc or issue-related basis between advisory processes.

The stock will continue to be assessed annually through the NAFO Scientific Council and monitoring of the fishery will be accomplished using several tools including quota reports, daily hails, logbooks, Vessel Monitoring Systems, Dockside Monitoring Programs, At-sea Observers, air surveillance and at-sea patrols.

#### 11. Fisheries and Oceans Canada Contact

For additional information on this IFMP Summary or to request an electronic version of the full IFMP, please email Resource Management at XCAEAAInfo@dfo-mpo.gc.ca

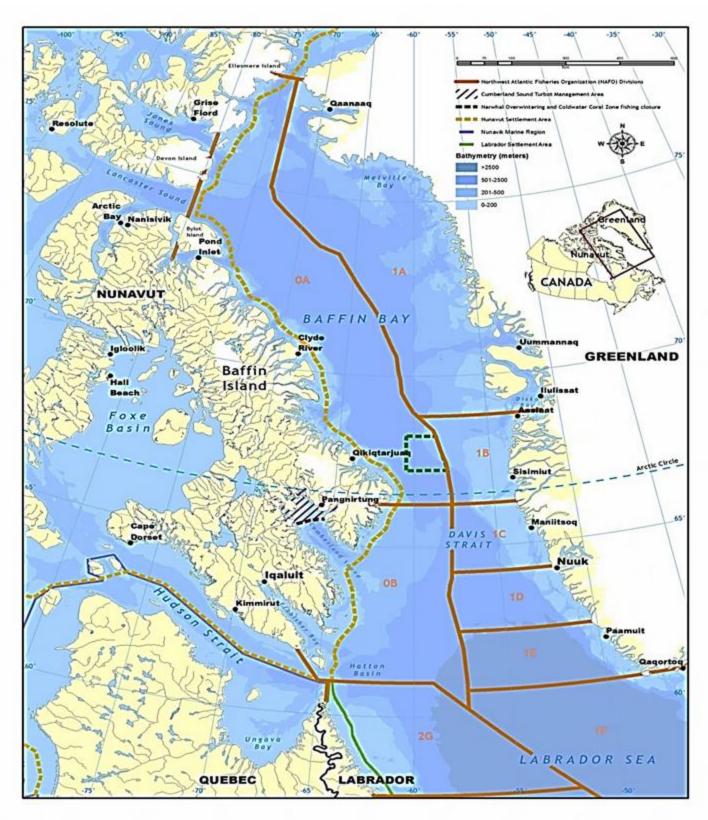


Figure 1. Northwest Atlantic Fisheries Organization Subareas and Divisions relevant to the Greenland Halibut fishery.

Appendix 1: Overview of current management measures in the Subarea 0 Greenland Halibut fishery.

Management Measure	Description
Total Allowable Catch (TAC)	The Minister determines the Canadian TAC for the Greenland Halibut stock.
Licences	Required when fishing Greenland Halibut.
Vessels	<ul> <li>Specific vessels which may be used to fish are specified.</li> <li>Vessels operating in Cumberland Sound are to be &lt; 25.57m (83.89') in length.</li> </ul>
Species, area and catch limitations	<ul> <li>Species, quantity and area permitted to fish are specified.</li> <li>Conversion factors for various product forms are specified.</li> <li>Quota reconciliation is applied to all overruns.</li> </ul>
Fishing Season	<ul> <li>For Enterprise Allocation and Special Allocation holders, Jan. 1-Dec. 30 (subject to identified closure provisions).</li> <li>For Division OB fixed gear competitive participants, to be determined annually.</li> </ul>
Notification of closure	Via broadcasting, electronic means, or Fishery Officer.
Fishing gear	<ul> <li>Type, construction, deployment and retrieval characteristics are specified.</li> <li>Minimum gape opening of 15.4mm for longline hooks.</li> <li>No obstruction of mesh in either otter trawls or gillnets.</li> <li>Otter trawl with minimum mesh size in the cod-end of 145mm diamond or 155mm square. Only meshes &gt;90mm to be used in the wings, body and belly.</li> <li>Minimum gillnet mesh size is 153mm in waters &lt;400 fathoms (730m) and 190mm in waters &gt;400 fathoms (730m).</li> <li>Individual gillnet is to be &lt;91.5m and the maximum number of nets permitted to be used at any one time is 500.</li> <li>Gillnets require a valid tag securely attached to the headrope of each net.</li> <li>Every reasonable effort made to retrieve lost nets.</li> <li>Fishing gear is not to be left unattended in water for more than 72 consecutive hours.</li> <li>Within the Nunavut Settlement Area (NSA), longline hooks are to be within the approved range of hook sizes.</li> </ul>

#### No fishing in the NSA or Nunavik Inuit Settlement Area unless granted permission by Fishing restrictions respective wildlife board. No fishing with gillnets in Cumberland Sound. No fishing with otter trawls >19.8m in waters <12 nautical miles from Atlantic seacoast. 100% At-sea Observer required in Division 0A for both mobile and fixed gears. 100% At-sea Observer required for mobile gear in Division 0B throughout the year and for fixed gear between Jan.1 and Apr. 30. For fixed gear between May 1 and Dec.31, 20% At-sea Observer coverage is required. No fishing in Division OB with gillnets south of 63°10'N from Oct. 1 to Dec. 31. No fishing with longline in Division OB south of 63°10'N from Oct. 1 to Dec. 31 except where water depth is >1372m. Division OA Narwhal Overwintering and Coldwater Coral Zone closed to all Greenland Halibut fishing. Division 0A closed to fixed gear as of Nov. 10 of each year. Close date may be extended depending on ice conditions. Bycatch/incidental All groundfish are to be retained and are subject to catch limits assigned to the sector. catch and discards Exceptions include Atlantic Halibut <81cm, American Plaice <20cm, dogfish, lumpfish, sculpin and skate which are to be released and, where alive, in a manner causing the least harm. Any other fish other than groundfish are to be released and, where alive, in a manner causing the least harm. Catch of each bycatch species for each trip is not to exceed a specified percentage of the weight of Greenland Halibut caught. Procedures for Monitoring and Control of Small Fish Catches and Incidental Catches may be applied in this fishery. Treatment of Northern Wolffish and Spotted Wolffish are to be released and, where alive, in a manner causing the least harm. species listed under the *Species* Information on interactions with these species is to be recorded in logbook. At Risk Act Pre-departure report (hail out) from an At-sea Observer company. Reporting Daily At-sea Reports (daily hails) required, which include catch and bycatch amounts. requirements Accurately and completely record fishing activity and catch after each set and at least once a day in a logbook. Logbook is to be provided to DFO immediately at the end of each trip. All product is to be labeled such that species, product form and date of capture is identifiable. Required to provide a Trip Summary to a Dockside Monitoring Company at least 3 hours prior to landing. Lost gillnets and their associated tag number to be recorded in logbook and reported in daily hail. Reporting of all coral and sponge encounters in logbook.

	Marine mammal encounters reported in daily hail.
Vessel monitoring system (VMS)	<ul> <li>Required to have an approved and operational VMS.</li> <li>VMS info collected by DFO on vessels sailing or fishing into Greenlandic waters will be provided to the Greenlandic Fisheries Authorities.</li> <li>DFO may provide and/or use VMS data for search and rescue and maritime safety purposes.</li> <li>Within the NSA, vessels are to have two VMS transponders onboard that operate on the iridium satellite system.</li> </ul>
At-sea Observers	Where required, the operator is not to depart for fishing until At-sea Observer is onboard.
Fish landing procedures	<ul> <li>Offloading may only occur in presence of a dockside At-sea Observer who will verify the weight, species and product form of all fish offloaded.</li> <li>Operator must ensure the dockside At-sea Observer is able to maintain visual continuity of the fish being removed from the vessel.</li> <li>All fish on board the vessel must be weighed. An accurate weight of fish offloaded must be supplied to the dockside At-sea Observer immediately after offloading.</li> <li>When offloading in Greenland either an At-sea Observer or Lloyds of London agent can act as the dockside At-sea Observer.</li> </ul>

#### Note:

For complete information refer to the *Fisheries Act*, *Species at Risk Act*, *Fishery (General) Regulations* and *Atlantic Fishery Regulations*, 1985, as well as specific licences, Notices to Fishers, and Conservation Harvest Plans. Measures may vary based on fleet. In the event of discrepancies between the above Table and licence conditions, licence conditions prevail.

 $\underline{\text{http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/groundfish-poisson-fond/halibut-fletaneng.htm}$